# Table of Contents

About This Bulletin ................................................................. 4
  Bulletin Policies .................................................................. 4
  Course Numbering .............................................................. 5
  Curriculum Designators .................................................... 5
  Catalog Editions .................................................................. 8
  Prior Bulletins .................................................................... 9

About Washington University in St. Louis ........................................... 13
  Trustees & Administration ................................................ 13
  Academic Calendar ............................................................ 13
  Campus Resources ................................................................ 14
  University Policies ............................................................. 17
  University Affiliations ....................................................... 22
  University PhD Policies & Requirements ............................. 24

University College - Graduate ...................................................... 28
  Master's Degrees .................................................................. 29
    Biology ............................................................................. 29
    Biology for Science Teachers ........................................... 35
    Clinical Research Management ........................................ 36
    Education .......................................................................... 38
    Human Resources Management ........................................ 50
    International Affairs ........................................................ 53
    Liberal Arts ....................................................................... 62
    Nonprofit Management .................................................... 72
    Statistics ........................................................................... 75
    Teaching and Learning ..................................................... 78

Certificate Programs .................................................................. 83
  Clinical Research Management .......................................... 83
  Human Resources Management ........................................... 84
  International Affairs ............................................................ 84
  Nonprofit Management ........................................................ 84
  Post-Baccalaureate Teacher Certification ............................... 85
  SHRM Courses and Certification .......................................... 86
  Statistics .............................................................................. 86
  STEM+C, Math, and Science Education ................................. 86

Additional Programs ................................................................ 87
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined Bachelor's/Master's Program</td>
<td>87</td>
</tr>
<tr>
<td>Graduate Student-at-Large</td>
<td>88</td>
</tr>
<tr>
<td>University College - Undergraduate</td>
<td>90</td>
</tr>
<tr>
<td>Bachelor's Degrees</td>
<td>90</td>
</tr>
<tr>
<td>Anthropology</td>
<td>91</td>
</tr>
<tr>
<td>Clinical Research Management</td>
<td>99</td>
</tr>
<tr>
<td>Communications</td>
<td>100</td>
</tr>
<tr>
<td>Economics</td>
<td>105</td>
</tr>
<tr>
<td>Global Leadership and Management</td>
<td>108</td>
</tr>
<tr>
<td>Health Care</td>
<td>109</td>
</tr>
<tr>
<td>History</td>
<td>116</td>
</tr>
<tr>
<td>Industrial and Organizational Psychology</td>
<td>126</td>
</tr>
<tr>
<td>Integrated Studies</td>
<td>133</td>
</tr>
<tr>
<td>Political Science</td>
<td>135</td>
</tr>
<tr>
<td>Psychological &amp; Brain Sciences</td>
<td>140</td>
</tr>
<tr>
<td>Sustainability</td>
<td>148</td>
</tr>
<tr>
<td>Associate in Arts Degree</td>
<td>155</td>
</tr>
<tr>
<td>Pre-Nursing Program</td>
<td>156</td>
</tr>
<tr>
<td>Certificate Programs</td>
<td>157</td>
</tr>
<tr>
<td>Business</td>
<td>157</td>
</tr>
<tr>
<td>Clinical Research Management</td>
<td>157</td>
</tr>
<tr>
<td>Creative Writing</td>
<td>158</td>
</tr>
<tr>
<td>Forensic Psychology</td>
<td>162</td>
</tr>
<tr>
<td>Geographic Information Systems</td>
<td>162</td>
</tr>
<tr>
<td>Marketing</td>
<td>164</td>
</tr>
<tr>
<td>Somatic Studies</td>
<td>165</td>
</tr>
<tr>
<td>Strategic Communication</td>
<td>166</td>
</tr>
<tr>
<td>Sustainability</td>
<td>166</td>
</tr>
<tr>
<td>Additional Programs</td>
<td>167</td>
</tr>
<tr>
<td>Accelerated Programs</td>
<td>167</td>
</tr>
<tr>
<td>Combined Bachelor's/Master's Program</td>
<td>168</td>
</tr>
<tr>
<td>Minors</td>
<td>168</td>
</tr>
<tr>
<td>Special Audit and Day Audit Programs</td>
<td>169</td>
</tr>
<tr>
<td>Undergraduate Honors Program</td>
<td>169</td>
</tr>
<tr>
<td>Summer Programs</td>
<td>170</td>
</tr>
<tr>
<td>Online Learning</td>
<td>171</td>
</tr>
<tr>
<td>Noncredit Programs</td>
<td>172</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Academic Policies</td>
<td>173</td>
</tr>
<tr>
<td>Tuition and Financial Information</td>
<td>179</td>
</tr>
<tr>
<td>Administration</td>
<td>181</td>
</tr>
<tr>
<td>Index</td>
<td>182</td>
</tr>
</tbody>
</table>
About This Bulletin

The graduate and professional Bulletins are the catalogs of programs, degree requirements, courses that may be offered and course descriptions, pertinent university policies and faculty of the following schools of Washington University in St. Louis: Architecture & Urban Design; Art; Arts & Sciences; Business; Engineering; Law; Medicine; and Social Work & Public Health.

The University College Bulletin is the catalog of University College, the professional and continuing education division of Arts & Sciences at Washington University in St. Louis. The catalog includes programs, degree requirements, course descriptions and pertinent university policies for students earning a degree through University College.

The 2022-23 Bulletin is entirely online but may be downloaded in PDF format for printing. Individual pages as well as information from individual tabs may be downloaded in PDF format using the PDF icon in the top right corner of each page. To download the full PDF, please choose from the following:

- Architecture & Urban Design Bulletin (PDF) — Coming soon
- Art Bulletin (PDF) — Coming soon
- Arts & Sciences Bulletin (PDF) — Coming soon
- Business Bulletin (PDF) — Coming soon
- Engineering Bulletin (PDF) — Coming soon
- Law Bulletin (PDF) — Coming soon
- Medicine Bulletin (PDF) — Coming soon
- Social Work & Public Health Bulletin (PDF) — Coming soon
- University College Bulletin (undergraduate & graduate) (PDF) — Coming soon

The degree requirements and policies listed in the 2022-23 Bulletin apply to students entering Washington University during the 2022-23 academic year. For more information, please visit the Catalog Editions page (p. 8).

Every effort is made to ensure that the information, applicable key policies and other materials presented in the Bulletin are accurate and correct as of the date of publication. For more information about the content review process for the Bulletin, please visit the Program & Policy Updates page (http://bulletin.wustl.edu/about/updates/).

The Bulletin for the upcoming academic year is published annually on July 1, and certain post-publication changes may be made until October 1. To view a list of changes that have taken place after the July 1 publication date, please visit the Program & Policy Updates page (http://bulletin.wustl.edu/about/updates/).

Washington University reserves the right to make changes at any time without prior notice. The governing document at any given time is the then-current version of the Bulletin, as published online, and then-currently applicable policies and information are those contained in that Bulletin.

Discontinued Programs

Periodically, Washington University schools will change their program offerings. If a program is no longer accepting applicants, we will note this in the Bulletin, and soon after the program will be removed from the Bulletin. Students who are actively enrolled in these programs will be held to the requirements and policies published in the Bulletin from their year of matriculation. If a student has not been continuously
enrolled in such a program and now wishes to inquire whether a discontinued program can still be completed, they should contact the relevant department or school to determine whether this opportunity is available.

Year of Matriculation

Students who attend Washington University are held to the policies in place as published in the Bulletin during their year of matriculation. For more information, please visit the Catalog Editions page (p. 8).

Course Numbering

Courses at Washington University are coded by department and include a three- or four-digit number that generally means the following, although students should check with the school or department offering the courses to be certain:

- 100 to 199 are primarily for first-year students;
- 200 to 299 are primarily for sophomores;
- 300 to 399 are primarily for juniors;
- 400 to 499 are primarily for juniors and seniors, although certain courses may carry graduate credit; and
- 500 and above are offered to graduate students and to juniors and seniors who have met all stated requirements. (If there are no stated requirements, juniors and seniors should obtain permission of the instructor.)

For example: Course L07 105 is an introductory course offered by the Department of Chemistry (L07).

The presence of a course in this Bulletin signifies that it is part of the curriculum currently offered and may be scheduled for registration. Enrollment requirements are determined by term.

Curriculum Designators

The designators shown below are used in Washington University’s course descriptions and listed here alphabetically by code. The primary fields covered in each section are also listed.

A (Architecture)

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>A46</td>
<td>ARCH Architecture</td>
</tr>
<tr>
<td>A48</td>
<td>LAND Landscape Architecture</td>
</tr>
<tr>
<td>A49</td>
<td>MUD Urban Design</td>
</tr>
<tr>
<td>AS1</td>
<td>MedSoc Medicine and Society</td>
</tr>
<tr>
<td>AS2</td>
<td>PCS Process Control Systems</td>
</tr>
<tr>
<td>AS3</td>
<td>UMSL Joint Engineering Program</td>
</tr>
</tbody>
</table>

B (Business)

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>B50</td>
<td>ACCT Accounting</td>
</tr>
<tr>
<td>B51</td>
<td>ADMN Administration</td>
</tr>
<tr>
<td>B52</td>
<td>FIN Finance</td>
</tr>
<tr>
<td>B53</td>
<td>MGT Management</td>
</tr>
<tr>
<td>B54</td>
<td>MEC Managerial Economics</td>
</tr>
<tr>
<td>B55</td>
<td>MKT Marketing</td>
</tr>
<tr>
<td>B56</td>
<td>OB Organizational Behavior</td>
</tr>
<tr>
<td>B57</td>
<td>SCOT Supply Chain, Operations, and Technology</td>
</tr>
<tr>
<td>B60</td>
<td>ACCT Graduate Accounting</td>
</tr>
<tr>
<td>B62</td>
<td>FIN Graduate Finance</td>
</tr>
<tr>
<td>B63</td>
<td>MGT Graduate Management</td>
</tr>
<tr>
<td>B64</td>
<td>MEC Graduate Managerial Economics</td>
</tr>
<tr>
<td>B65</td>
<td>MKT Graduate Marketing</td>
</tr>
<tr>
<td>B66</td>
<td>OB Graduate Organizational Behavior</td>
</tr>
<tr>
<td>B67</td>
<td>SCOT Graduate Supply Chain, Operations, and Technology</td>
</tr>
<tr>
<td>B69</td>
<td>DAT Graduate Data Analytics</td>
</tr>
<tr>
<td>B90</td>
<td>BEE Brookings Executive Education</td>
</tr>
<tr>
<td>B99</td>
<td>INTL International Studies</td>
</tr>
</tbody>
</table>

E (Engineering)

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>E35</td>
<td>ESE Electrical &amp; Systems Engineering</td>
</tr>
<tr>
<td>E37</td>
<td>MEMS Mechanical Engineering &amp; Materials Science</td>
</tr>
<tr>
<td>E44</td>
<td>EECE Energy, Environmental &amp; Chemical Engineering</td>
</tr>
<tr>
<td>E60</td>
<td>Engr General Engineering</td>
</tr>
<tr>
<td>E62</td>
<td>BME Biomedical Engineering</td>
</tr>
<tr>
<td>E81</td>
<td>CSE Computer Science &amp; Engineering</td>
</tr>
</tbody>
</table>

F (Art)

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>F00</td>
<td>Art</td>
</tr>
<tr>
<td>F10</td>
<td>ART Art (Core and Major Studio Courses)</td>
</tr>
<tr>
<td>F20</td>
<td>ART (Elective Studio Courses)</td>
</tr>
</tbody>
</table>
### I (Interdisciplinary Programs)

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>I02</td>
<td>MAIR  Military Aerospace Science</td>
</tr>
<tr>
<td>I25</td>
<td>MILS  Military Science</td>
</tr>
<tr>
<td>I50</td>
<td>INTER  Interdisciplinary Studies</td>
</tr>
<tr>
<td>I52</td>
<td>IMSE  Institute of Materials Science &amp; Engineering</td>
</tr>
<tr>
<td>I53</td>
<td>DCDS  Division of Computational and Data Sciences</td>
</tr>
<tr>
<td>I60</td>
<td>BEYOND  Beyond Boundaries</td>
</tr>
</tbody>
</table>

### L (Arts & Sciences)

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>L01</td>
<td>Art-Arch  Art History and Archaeology</td>
</tr>
<tr>
<td>L03</td>
<td>East Asia  East Asian Studies</td>
</tr>
<tr>
<td>L04</td>
<td>Chinese  Chinese</td>
</tr>
<tr>
<td>L05</td>
<td>Japan  Japanese</td>
</tr>
<tr>
<td>L07</td>
<td>Chem  Chemistry</td>
</tr>
<tr>
<td>L08</td>
<td>Classics  Classics</td>
</tr>
<tr>
<td>L09</td>
<td>Greek  Greek</td>
</tr>
<tr>
<td>L10</td>
<td>Latin  Latin</td>
</tr>
<tr>
<td>L11</td>
<td>Econ  Economics</td>
</tr>
<tr>
<td>L12</td>
<td>Educ  Education</td>
</tr>
<tr>
<td>L13</td>
<td>Writing  Writing</td>
</tr>
<tr>
<td>L14</td>
<td>E Lit  English Literature</td>
</tr>
<tr>
<td>L15</td>
<td>Drama  Drama</td>
</tr>
<tr>
<td>L16</td>
<td>Comp Lit  Comparative Literature</td>
</tr>
<tr>
<td>L18</td>
<td>URST  Urban Studies</td>
</tr>
<tr>
<td>L19</td>
<td>EPSc  Earth and Planetary Sciences</td>
</tr>
<tr>
<td>L21</td>
<td>German  Germanic Languages and Literatures</td>
</tr>
<tr>
<td>L22</td>
<td>History  History</td>
</tr>
<tr>
<td>L23</td>
<td>Re St  Religious Studies</td>
</tr>
<tr>
<td>L24</td>
<td>Math  Mathematics and Statistics</td>
</tr>
<tr>
<td>L27</td>
<td>Music  Music</td>
</tr>
<tr>
<td>L28</td>
<td>P.E.  Physical Education</td>
</tr>
<tr>
<td>L29</td>
<td>Dance  Dance</td>
</tr>
<tr>
<td>L30</td>
<td>Phil  Philosophy</td>
</tr>
<tr>
<td>L31</td>
<td>Physics  Physics</td>
</tr>
<tr>
<td>L32</td>
<td>Pol Sci  Political Science</td>
</tr>
<tr>
<td>L33</td>
<td>Psych  Psychological &amp; Brain Sciences</td>
</tr>
<tr>
<td>L34</td>
<td>French  French</td>
</tr>
<tr>
<td>L36</td>
<td>Ital  Italian</td>
</tr>
<tr>
<td>L37</td>
<td>Portug  Portuguese</td>
</tr>
<tr>
<td>L38</td>
<td>Span  Spanish</td>
</tr>
<tr>
<td>L39</td>
<td>Russ  Russian</td>
</tr>
<tr>
<td>L40</td>
<td>SOC  Sociology</td>
</tr>
<tr>
<td>L41</td>
<td>Biol  Biology and Biomedical Sciences</td>
</tr>
<tr>
<td>L43</td>
<td>GeSt  General Studies</td>
</tr>
<tr>
<td>L44</td>
<td>Ling  Linguistics</td>
</tr>
<tr>
<td>L45</td>
<td>LatAm  Latin American Studies</td>
</tr>
<tr>
<td>L46</td>
<td>AAS  Asian American Studies</td>
</tr>
<tr>
<td>L48</td>
<td>Anthro  Anthropology</td>
</tr>
<tr>
<td>L49</td>
<td>Arab  Arabic</td>
</tr>
<tr>
<td>L50</td>
<td>Pol Econ  Political Economics</td>
</tr>
<tr>
<td>L51</td>
<td>Korean  Korean</td>
</tr>
<tr>
<td>L52</td>
<td>ARC  Archaeology</td>
</tr>
<tr>
<td>L53</td>
<td>Film  Film and Media Studies</td>
</tr>
<tr>
<td>L56</td>
<td>CFH  Center for the Humanities</td>
</tr>
<tr>
<td>L57</td>
<td>ReLPol  Center on Religion and Politics</td>
</tr>
<tr>
<td>L59</td>
<td>CWP  College Writing Program</td>
</tr>
<tr>
<td>L61</td>
<td>FYP  First-Year Programs</td>
</tr>
<tr>
<td>L62</td>
<td>Praxis  Praxis</td>
</tr>
<tr>
<td>L63</td>
<td>IPMS  Movement Science</td>
</tr>
<tr>
<td>L64</td>
<td>PNP  Philosophy-Neuroscience-Psychology</td>
</tr>
<tr>
<td>L66</td>
<td>ChSt  Children's Studies</td>
</tr>
<tr>
<td>L73</td>
<td>Hindi  Hindi</td>
</tr>
<tr>
<td>L74</td>
<td>HBRW  Hebrew</td>
</tr>
<tr>
<td>L75</td>
<td>JIMES  Jewish, Islamic, and Middle Eastern Studies</td>
</tr>
<tr>
<td>L77</td>
<td>WGSS  Women, Gender, and Sexuality Studies</td>
</tr>
<tr>
<td>L78</td>
<td>RoLit  Romance Languages and Literatures</td>
</tr>
<tr>
<td>L79</td>
<td>EuSt  European Studies</td>
</tr>
<tr>
<td>L81</td>
<td>EALC  East Asian Languages &amp; Cultures</td>
</tr>
<tr>
<td>L82</td>
<td>EnSt  Environmental Studies</td>
</tr>
<tr>
<td>L83</td>
<td>Russ St  Russian Studies</td>
</tr>
<tr>
<td>L84</td>
<td>Lw St  Legal Studies</td>
</tr>
<tr>
<td>L85</td>
<td>MedH  Medical Humanities</td>
</tr>
<tr>
<td>L86</td>
<td>PBPM Study  Biological &amp; Physical Sciences for PBPM</td>
</tr>
<tr>
<td>L88</td>
<td>NrsSci  Nursing Science</td>
</tr>
<tr>
<td>L89</td>
<td>Sphr  Speech and Hearing</td>
</tr>
<tr>
<td>L90</td>
<td>AFAS  African and African-American Studies</td>
</tr>
<tr>
<td>L92</td>
<td>APL  Applied Linguistics</td>
</tr>
<tr>
<td>L93</td>
<td>IPh  Interdisciplinary Project in the Humanities</td>
</tr>
<tr>
<td>L97</td>
<td>GS  Global Studies</td>
</tr>
<tr>
<td>L98</td>
<td>AMCS  American Culture Studies</td>
</tr>
<tr>
<td>L99</td>
<td>OSP  Overseas Programs</td>
</tr>
<tr>
<td>LGS</td>
<td>GSAS  The Graduate School</td>
</tr>
</tbody>
</table>
### M (Medicine)

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>M01</td>
<td>OT</td>
</tr>
<tr>
<td>M02</td>
<td>PhysTher</td>
</tr>
<tr>
<td>M04</td>
<td>FYSelect</td>
</tr>
<tr>
<td>M05</td>
<td>Neuroscience</td>
</tr>
<tr>
<td>M10</td>
<td>Anesth</td>
</tr>
<tr>
<td>M15</td>
<td>Biochem</td>
</tr>
<tr>
<td>M17</td>
<td>CLNV</td>
</tr>
<tr>
<td>M18</td>
<td>BMI</td>
</tr>
<tr>
<td>M19</td>
<td>PHS</td>
</tr>
<tr>
<td>M20</td>
<td>Genetics</td>
</tr>
<tr>
<td>M21</td>
<td>MSB</td>
</tr>
<tr>
<td>M25</td>
<td>Medicine</td>
</tr>
<tr>
<td>M26</td>
<td>FamMed</td>
</tr>
<tr>
<td>M27</td>
<td>EMED</td>
</tr>
<tr>
<td>M30</td>
<td>MolMB</td>
</tr>
<tr>
<td>M35</td>
<td>Neurol</td>
</tr>
<tr>
<td>M40</td>
<td>NeurSurg</td>
</tr>
<tr>
<td>M45</td>
<td>ObGyn</td>
</tr>
<tr>
<td>M50</td>
<td>Ophth</td>
</tr>
<tr>
<td>M55</td>
<td>Oto</td>
</tr>
<tr>
<td>M60</td>
<td>Path</td>
</tr>
<tr>
<td>M65</td>
<td>Peds</td>
</tr>
<tr>
<td>M70</td>
<td>MoBio/Pha</td>
</tr>
<tr>
<td>M75</td>
<td>CellBio</td>
</tr>
<tr>
<td>M79</td>
<td>HealthAdm</td>
</tr>
<tr>
<td>M80</td>
<td>Interdis</td>
</tr>
<tr>
<td>M81</td>
<td>Gateway</td>
</tr>
<tr>
<td>M85</td>
<td>Psychiat</td>
</tr>
<tr>
<td>M88</td>
<td>AHBR</td>
</tr>
<tr>
<td>M89</td>
<td>PACS</td>
</tr>
<tr>
<td>M90</td>
<td>Radiol</td>
</tr>
<tr>
<td>M91</td>
<td>MedPhys</td>
</tr>
</tbody>
</table>

### S (Social Work and Public Health)

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>S15</td>
<td>SWCR</td>
</tr>
<tr>
<td>S20</td>
<td>SWHS</td>
</tr>
<tr>
<td>S30</td>
<td>SWDP</td>
</tr>
<tr>
<td>S31</td>
<td>SWDP</td>
</tr>
<tr>
<td>S40</td>
<td>SWSP</td>
</tr>
<tr>
<td>S48</td>
<td>SWSP</td>
</tr>
<tr>
<td>S49</td>
<td>SCWK</td>
</tr>
<tr>
<td>S50</td>
<td>SWSA</td>
</tr>
<tr>
<td>S55</td>
<td>MPH</td>
</tr>
<tr>
<td>S60</td>
<td>SWCD</td>
</tr>
<tr>
<td>S65</td>
<td>SWCD</td>
</tr>
<tr>
<td>S70</td>
<td>SWPR</td>
</tr>
<tr>
<td>S80</td>
<td>SCWK</td>
</tr>
<tr>
<td>S81</td>
<td>SKILL</td>
</tr>
<tr>
<td>S90</td>
<td>SWDT</td>
</tr>
<tr>
<td>S91</td>
<td>PSTM</td>
</tr>
</tbody>
</table>

### T (Engineering - Joint Program & Sever Institute)

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>T11</td>
<td>JCS</td>
</tr>
<tr>
<td>T40</td>
<td>SYSIN</td>
</tr>
<tr>
<td>T54</td>
<td>PRJM</td>
</tr>
<tr>
<td>T55</td>
<td>ETEM</td>
</tr>
<tr>
<td>T60</td>
<td>GSever</td>
</tr>
<tr>
<td>T64</td>
<td>CNST</td>
</tr>
<tr>
<td>T71</td>
<td>HLTHCARE</td>
</tr>
<tr>
<td>T81</td>
<td>INFO</td>
</tr>
<tr>
<td>T83</td>
<td>CYBER</td>
</tr>
<tr>
<td>T93</td>
<td>CSM</td>
</tr>
</tbody>
</table>
### U (University College)

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>U02</td>
<td>Classics</td>
</tr>
<tr>
<td>U03</td>
<td>General Studies</td>
</tr>
<tr>
<td>U05</td>
<td>Chemistry</td>
</tr>
<tr>
<td>U07</td>
<td>Economics</td>
</tr>
<tr>
<td>U08</td>
<td>Education</td>
</tr>
<tr>
<td>U09</td>
<td>Psychological &amp; Brain Sciences (Psychology)</td>
</tr>
<tr>
<td>U10</td>
<td>Art History and Archaeology</td>
</tr>
<tr>
<td>U11</td>
<td>English History and Archaeology</td>
</tr>
<tr>
<td>U12</td>
<td>French</td>
</tr>
<tr>
<td>U13</td>
<td>Earth and Planetary Sciences</td>
</tr>
<tr>
<td>U14</td>
<td>Germanic Languages and Literatures German</td>
</tr>
<tr>
<td>U15</td>
<td>English Language Programs</td>
</tr>
<tr>
<td>U16</td>
<td>History</td>
</tr>
<tr>
<td>U18</td>
<td>Film</td>
</tr>
<tr>
<td>U19</td>
<td>Sustainability</td>
</tr>
<tr>
<td>U20</td>
<td>Mathematics and Statistics</td>
</tr>
<tr>
<td>U21</td>
<td>Drama</td>
</tr>
<tr>
<td>U22</td>
<td>Philosophy</td>
</tr>
<tr>
<td>U23</td>
<td>Physics</td>
</tr>
<tr>
<td>U24</td>
<td>Music</td>
</tr>
<tr>
<td>U25</td>
<td>Political Science</td>
</tr>
<tr>
<td>U26</td>
<td>Portuguese</td>
</tr>
<tr>
<td>U27</td>
<td>Spanish</td>
</tr>
<tr>
<td>U29</td>
<td>Biology</td>
</tr>
<tr>
<td>U30</td>
<td>Speech</td>
</tr>
<tr>
<td>U31</td>
<td>Dance and Somatic Movement Studies</td>
</tr>
<tr>
<td>U32</td>
<td>Comparative Literature</td>
</tr>
<tr>
<td>U33</td>
<td>CompLit</td>
</tr>
<tr>
<td>U35</td>
<td>Arabic</td>
</tr>
<tr>
<td>U36</td>
<td>Japanese</td>
</tr>
<tr>
<td>U37</td>
<td>Hebrew</td>
</tr>
<tr>
<td>U38</td>
<td>Chinese</td>
</tr>
<tr>
<td>U39</td>
<td>Russian</td>
</tr>
<tr>
<td>U40</td>
<td>Italian</td>
</tr>
<tr>
<td>U43</td>
<td>International Studies</td>
</tr>
<tr>
<td>U44</td>
<td>Business</td>
</tr>
<tr>
<td>U47</td>
<td>Irish Studies</td>
</tr>
<tr>
<td>U48</td>
<td>Communications</td>
</tr>
<tr>
<td>U49</td>
<td>Journalism</td>
</tr>
<tr>
<td>U51</td>
<td>Korean</td>
</tr>
<tr>
<td>U56</td>
<td>Integrated Studies in Liberal Arts</td>
</tr>
<tr>
<td>U65</td>
<td>English and American Literature</td>
</tr>
<tr>
<td>U66</td>
<td>Religious Studies</td>
</tr>
<tr>
<td>U67</td>
<td>Latin American Studies</td>
</tr>
<tr>
<td>U68</td>
<td>Sociology</td>
</tr>
<tr>
<td>U69</td>
<td>Anthropology</td>
</tr>
<tr>
<td>U73</td>
<td>Hindi</td>
</tr>
<tr>
<td>U74</td>
<td>Science</td>
</tr>
<tr>
<td>U76</td>
<td>Nonprofit Management</td>
</tr>
<tr>
<td>U78</td>
<td>East Asian Studies</td>
</tr>
<tr>
<td>U79</td>
<td>Art</td>
</tr>
<tr>
<td>U80</td>
<td>Clinical Research Management</td>
</tr>
<tr>
<td>U82</td>
<td>Computers and Information Management</td>
</tr>
<tr>
<td>U84</td>
<td>African and African-American Studies</td>
</tr>
<tr>
<td>U85</td>
<td>International Affairs</td>
</tr>
<tr>
<td>U86</td>
<td>Health Care</td>
</tr>
<tr>
<td>U87</td>
<td>Human Resources Management</td>
</tr>
<tr>
<td>U89</td>
<td>American Culture Studies</td>
</tr>
<tr>
<td>U90</td>
<td>Geographic Information Systems</td>
</tr>
<tr>
<td>U91</td>
<td>Linguistics</td>
</tr>
<tr>
<td>U92</td>
<td>Women, Gender, and Sexuality Studies</td>
</tr>
<tr>
<td>U93</td>
<td>Scandinavian</td>
</tr>
<tr>
<td>U94</td>
<td>Jewish, Islamic, and Middle Eastern Studies</td>
</tr>
<tr>
<td>U96</td>
<td>DLA Seminars</td>
</tr>
<tr>
<td>U98</td>
<td>MLA Seminars</td>
</tr>
</tbody>
</table>

### W (Law)

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>W74</td>
<td>LAW Law</td>
</tr>
</tbody>
</table>

### X (Design & Visual Arts)

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>X10</td>
<td>Design &amp; Visual Arts - Core</td>
</tr>
<tr>
<td>XCORE</td>
<td>Design &amp; Visual Arts - Elective</td>
</tr>
</tbody>
</table>

### Catalog Editions

The courses and policies listed in this Bulletin are subject to change at any time through normal approval channels within Washington University. New courses, changes to existing course work and new policies are initiated by the appropriate institutional departments, committees or administrators. Academic policy revisions are generally implemented in the next academic year following notification thereof. Washington University publishes a new edition of the Bulletin each July, and its contents apply to the subsequent fall, spring, and summer terms. Occasionally a policy or requirement must be
changed and implemented during the same academic year (e.g., in the case of relevant external requirements such as state regulations). All changes must be approved by college or school personnel who oversee academic curriculum and policies.

Washington University students must complete the graduation requirements in effect during the term that they matriculated into their program of study as published in the edition of the Bulletin from that academic year. Undergraduates who initially enroll in a summer term to pursue a special program follow requirements for the subsequent fall term. Students will need to check their school's processes to potentially change applicable catalog years or alter their degree requirements.

Students should review specific Washington University and individual school policies related to transfer credit, changing programs, leaves of absence, and military service.

Prior Bulletins

To find program details, course descriptions, and relevant policies, choose the year of enrollment below to find the available Bulletins. If the required year is not shown or the school's Bulletin is not available, please email the Office of the University Registrar (registrar@wustl.edu) with specifics of the needed information.

2021-2022

The 2021-22 HTML archive links are coming soon.


2020-2021


2019-2020


2017-2018


• Graduate Art Bulletin (HTML (https://bulletin.wustl.edu/prior/2017-18/grad/art/)) (PDF (http://bulletin.wustl.edu/about/prior/Bulletin_2017-18_grad_art.pdf))

• Graduate Arts & Sciences Bulletin (HTML (https://bulletin.wustl.edu/prior/2017-18/grad/gsas/)) (PDF (http://bulletin.wustl.edu/about/prior/Bulletin_2017-18_graduate_school.pdf))

• Graduate Engineering Bulletin (HTML (https://bulletin.wustl.edu/prior/2017-18/grad/engineering/)) (PDF (http://bulletin.wustl.edu/about/prior/Bulletin_2017-18_grad_engineering.pdf))


• Medicine Bulletin (HTML (https://bulletin.wustl.edu/prior/2017-18/medicine/)) (PDF (http://bulletin.wustl.edu/about/prior/Bulletin_2017-18_medicine.pdf))


• Undergraduate Bulletin (HTML (https://bulletin.wustl.edu/prior/2017-18/undergrad/)) (PDF (http://bulletin.wustl.edu/about/prior/Bulletin_2017-18_undergraduate.pdf))

2018-2019


2016-2017

- Graduate Art Bulletin (HTML (https://bulletin.wustl.edu/prior/2016-17/grad/art/)) (PDF (http://bulletin.wustl.edu/about/prior/Bulletin_2016-17_grad_art.pdf))
- Graduate Arts & Sciences Bulletin (HTML (https://bulletin.wustl.edu/prior/2016-17/grad/gsas/)) (PDF (http://bulletin.wustl.edu/about/prior/Bulletin_2016-17_graduate_school.pdf))
- Medicine Bulletin (PDF (http://bulletin.wustl.edu/about/prior/bulletin17.pdf))
- Undergraduate Bulletin (HTML (https://bulletin.wustl.edu/prior/2016-17/undergrad/)) (PDF (http://bulletin.wustl.edu/about/prior/Bulletin_2016-17_undergraduate.pdf))
- University College Bulletin (undergraduate & graduate) (PDF (http://bulletin.wustl.edu/about/prior/Bulletin_2016-17_UCollege.pdf))

2015-2016

- Medicine Bulletin (PDF (http://bulletin.wustl.edu/about/prior/2015-16_Medicine.pdf))
- University College Bulletin (undergraduate & graduate) (PDF (http://bulletin.wustl.edu/about/prior/Bulletin_2015-16_UCollege.pdf))

2014-2016

- University College Bulletin (undergraduate & graduate) (PDF (http://bulletin.wustl.edu/about/prior/Bulletin_2014-2016_UCollege.pdf))

2014-2015


2013-2014

- Medicine Bulletin (PDF (http://bulletin.wustl.edu/about/prior/2013-2014_Bulletin_FINAL.pdf))

2012-2015

- Graduate Arts & Sciences Bulletin (PDF (http://bulletin.wustl.edu/about/prior/GSAS_Bulletin_2012-2015.pdf))

2012-2014

- University College Bulletin (undergraduate & graduate) (PDF (http://bulletin.wustl.edu/about/prior/Bulletin_2012-2014_UCollege.pdf))

2012-2013

- Medicine Bulletin (PDF (http://bulletin.wustl.edu/about/prior/2012-2013_Bulletin_FINAL.pdf))

2011-2012


2010-2011

- Medicine Bulletin (PDF (http://bulletin.wustl.edu/about/prior/2010-2011_Bulletin_FINAL.pdf))
- Undergraduate Bulletin (PDF (http://bulletin.wustl.edu/about/prior/Bulletin_10-11.pdf))

2009-2012

- Graduate Arts & Sciences Bulletin (PDF (http://bulletin.wustl.edu/about/prior/GSAS_Bulletin_2009-2012.pdf))


2009-2010

- Medicine Bulletin (PDF (http://bulletin.wustl.edu/about/prior/2009-2010_bulletin.pdf))

2008-2010

- Undergraduate Bulletin (PDF (http://bulletin.wustl.edu/about/prior/Bulletin 08-10.pdf))

2008-2009

- Medicine Bulletin (PDF (http://bulletin.wustl.edu/about/prior/2008-2009_bulletin.pdf))

2006-2009

  and accompanying 2008 Update (PDF (http://bulletin.wustl.edu/about/prior/GSAS_Bulletin_2008_insert.pdf))

2006-2008

- Undergraduate Bulletin (PDF (http://bulletin.wustl.edu/about/prior/Bulletin 06-08.pdf))
About Washington University in St. Louis

Who We Are Today

Washington University in St. Louis — a medium-sized, independent university — is dedicated to challenging its faculty and students alike to seek new knowledge and greater understanding of an ever-changing, multicultural world. The university is counted among the world’s leaders in teaching and research, and it draws students from all 50 states, the District of Columbia, Guam, Puerto Rico and the Virgin Islands. Students and faculty come from more than 100 countries around the world.

The university offers more than 250 programs and 5,500 courses leading to associate, bachelor’s, master’s, and doctoral degrees in a broad spectrum of traditional and interdisciplinary fields, with additional opportunities for minor concentrations and individualized programs. For more information about the university, please visit the University Facts (http://wustl.edu/about/facts/) page of our website.

Enrollment by School

For enrollment information (https://wustl.edu/about/university-facts/#students), please visit the University Facts page of our website.

Our Mission Statement

The mission of Washington University in St. Louis is to act in service of truth through the formation of leaders, the discovery of knowledge and the treatment of patients for the betterment of our region, our nation and our world.

At WashU, we generate, disseminate, and apply knowledge. We foster freedom of inquiry and expression of ideas in our research, teaching and learning.

We aim to create an environment that encourages and supports wide-ranging exploration at the frontier of discovery by embracing diverse perspectives from individuals of all identities and backgrounds. We promote higher education and rigorous research as a fundamental component of an open, vibrant society. We strive to enhance the lives and livelihoods not only of our students, patients, and employees but also of the people of the greater St. Louis community and beyond. We do so by addressing scientific, social, economic, medical, and other challenges in the local, national, and international realms.

Our goals are:

- to foster excellence and creativity in our teaching, research, scholarship, patient care and service
- to welcome students, faculty and staff from all backgrounds to create an inclusive, equitable community that is nurturing and intellectually rigorous
- to cultivate in students habits of lifelong learning and critical and ethical thinking, thereby enabling them to be productive members and leaders of a global society
- to contribute positively to our home community of St. Louis, and to effect meaningful, constructive change in our world

To this end we intend:

- to hold ourselves to the highest standards of excellence
- to educate aspiring leaders of great ability from diverse backgrounds
- to encourage faculty and students to be innovative, bold, independent, critical thinkers
- to build an inclusive, equitable, respectful, ethically-principled environment for living, teaching, learning and working for the present and future generations
- to focus on meaningful and measurable outcomes for all of our endeavors

Mission statement approved by the Faculty Senate Council in April 2021 and approved by the Board of Trustees on October 1, 2021.

Trustees & Administration

Board of Trustees

Washington University’s Board of Trustees is the chief governing body of Washington University in St. Louis. Please visit the Board of Trustees website (http://boardoftrustees.wustl.edu) for more information.

University Administration

In 1871, Washington University co-founder and then-Chancellor William Greenleaf Eliot sought a gift from Hudson E. Bridge, a charter member of the university’s Board of Directors, to endow the chancellorship. Soon after this endowment was received, the position was renamed the “Hudson E. Bridge Chancellorship.”

The officers of the university administration are currently led by Chancellor Andrew D. Martin. University leadership (https://wustl.edu/about/leadership/) is detailed on the Washington University website.

Academic Calendar

The academic calendar of Washington University in St. Louis is designed to provide an optimal amount of classroom instruction and examination within a manageable time frame, facilitating our educational mission to promote learning among both students
and faculty. Individual schools — particularly our graduate and professional schools — may have varying calendars due to the nature of particular fields of study. Please refer to each school’s website for more information.

Fall Semester 2022

College of Arts & Sciences, McKelvey School of Engineering, Olin Business School, Sam Fox School of Design & Visual Arts, and University College

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 29</td>
<td>Monday</td>
<td>First day of classes</td>
</tr>
<tr>
<td>September 5</td>
<td>Monday</td>
<td>Labor Day (no classes)</td>
</tr>
<tr>
<td>October 8-11</td>
<td>Saturday-Tuesday</td>
<td>Fall Break (no classes)</td>
</tr>
<tr>
<td>November 23-27</td>
<td>Wednesday-Sunday</td>
<td>Thanksgiving Break (no classes)</td>
</tr>
<tr>
<td>December 9</td>
<td>Friday</td>
<td>Last day of classes</td>
</tr>
<tr>
<td>December 12-21</td>
<td>Monday-Wednesday</td>
<td>Reading and finals</td>
</tr>
</tbody>
</table>

Spring Semester 2023

College of Arts & Sciences, McKelvey School of Engineering, Olin Business School, Sam Fox School of Design & Visual Arts, and University College

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 17</td>
<td>Tuesday</td>
<td>First day of classes</td>
</tr>
<tr>
<td>March 12-18</td>
<td>Sunday-Saturday</td>
<td>Spring Break (no classes)</td>
</tr>
<tr>
<td>April 28</td>
<td>Friday</td>
<td>Last day of classes</td>
</tr>
<tr>
<td>May 1-10</td>
<td>Monday-Wednesday</td>
<td>Reading and finals</td>
</tr>
</tbody>
</table>

Commencement Ceremonies

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 15</td>
<td>Monday</td>
<td>Class of 2023 Commencement</td>
</tr>
</tbody>
</table>

Summer Semester 2023

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 22</td>
<td>Monday</td>
<td>First Summer Session begins</td>
</tr>
<tr>
<td>May 29</td>
<td>Monday</td>
<td>Memorial Day (no classes)</td>
</tr>
<tr>
<td>July 4</td>
<td>Tuesday</td>
<td>Independence Day (no classes)</td>
</tr>
<tr>
<td>August 17</td>
<td>Thursday</td>
<td>Last Summer Session ends</td>
</tr>
</tbody>
</table>

Washington University recognizes the individual student’s choice in observing religious holidays that occur during periods when classes are scheduled. Students are encouraged to arrange with their instructors to make up work missed as a result of religious observance, and instructors are asked to make every reasonable effort to accommodate such requests.

Campus Resources

Student Support Services

The Learning Center. The Learning Center is located on the lower level of the Mallinckrodt Center, and it is the hub of academic support at Washington University in St. Louis. We provide undergraduate students with assistance in a variety of forms. Most services are free, and each year more than 2,000 students participate in one or more of our programs. For more information, visit the Learning Center website (https://ctl.wustl.edu/learningcenter/) or call 314-935-5970. There are three types of services housed within the Learning Center:

- **Academic Mentoring Programs** offer academic support in partnership with the academic departments in a variety of forms. Academic mentoring programs are designed to support students in their course work by helping them develop the lifelong skill of “learning how to learn” and by stimulating their independent thinking. Programs include course-specific weekly structured study groups facilitated by highly trained peer leaders as well as course-specific weekly walk-in sessions facilitated by academic mentors in locations, at times and in formats convenient for the students. The Learning Center also offers individual consulting/coaching for academic skills such as time management, study skills, note taking, accessing resources and so on. Other services include fee-based graduate and professional school entrance preparation courses.

- **Disability Resources** supports students with disabilities by fostering and facilitating an equal access environment for the Washington University community of learners. Disability Resources partners with faculty and staff to facilitate academic and housing accommodations for students with disabilities on the Danforth Campus. Students enrolled in the School of Medicine should contact their program’s director. Please visit the Disability Resources website (https://students.wustl.edu/disability-resources/) or contact the Learning Center at 314-935-5970 for more information.

- **TRIO: Student Support Services** is a federally funded program that provides customized services for undergraduate students who are low income, who are the first in their family to go to college, and/or who have a documented disability. Services include academic coaching, academic peer mentoring, cultural and leadership programs, summer internship assistance and post-graduation advising. First-year and transfer students are considered for selection during the summer before they enter their first semester.
Eligible students are encouraged to apply when they are notified, because space in this program is limited. For more information, visit the TRIO Program website (https://students.wustl.edu/trio-program/).

**Medical Student Support Services.** For information about Medical Student Support Services, please visit the School of Medicine website (https://medicine.wustl.edu).

**Office for International Students and Scholars.** If a student is joining the university from a country other than the United States, this office can assist that individual through their orientation programs, issue certificates of eligibility (visa documents), and provide visa and immigration information. In addition, the office provides personal and cross-cultural counseling and arranges social, cultural and recreational activities that foster international understanding on campus.

The Office for International Students and Scholars is located on the Danforth Campus in the Danforth University Center at 6475 Forsyth Boulevard, Room 330. The office can be found on the Medical Campus in the Mid Campus Center (MCC Building) at 4590 Children's Place, Room 2043. For more information, visit the Office for International Students and Scholars website (https://students.wustl.edu/international-students-scholars/) or call 314-935-5910.

**Office of Military and Veteran Services.** This office serves as the university’s focal point for military and veteran matters, including transitioning military-connected students into higher education, providing and connecting students with programs and services, and partnering across campus and in the community. Services include advising current and prospective students on how to navigate the university and maximize Department of Defense and Veterans Affairs (VA) educational benefits, transition support, Veteran Ally training for faculty and staff, veteran-unique programming, and connecting students to campus and community resources. Military-connected students include veterans, military service members, spouses, dependent children, caregivers, survivors and Reserve Officer Training Corp cadets. There are two university policies that apply to students who still serve in the Armed Forces and students who use VA educational benefits:

- The Policy on Military Absences, Refunds and Readmissions (https://veterans.wustl.edu/policies/policy-for-military-students/) applies to students serving in the U.S. Armed Forces and their family members when military service forces them to be absent or withdraw from a course of study.
- The Policy on Protections for VA Educational Benefit Users (https://veterans.wustl.edu/policies/policy-for-va-students/) applies to students using VA education benefits when payments to the institution and the individual are delayed through no fault of the student.

The Office of Military and Veteran Services is located in Umrath Hall on the Danforth Campus. Please visit the Military and Veteran Services website (https://veterans.wustl.edu/) or send an email to veterans@wustl.edu for more information.

**Relationship and Sexual Violence Prevention (RSVP) Center.** The RSVP Center offers free and confidential services including 24/7 crisis intervention, counseling services, resources, support and prevention education for all students on the Danforth Campus. The RSVP Center operates from a public health model and uses trauma-informed practices to address the prevalent issues of relationship and sexual violence. By providing support for affected students, it is our goal to foster post-traumatic growth and resilience and to help ensure academic retention and success. Our prevention efforts call for community engagement to engender an intolerance of violence and an active stance toward challenging cultural injustices that perpetuate such issues. Learn more at the RSVP Center website (https://students.wustl.edu/relationship-sexual-violence-prevention-center/).

**WashU Cares.** WashU Cares assists the university with handling situations involving the safety and well-being of Danforth Campus students. WashU Cares is committed to fostering student success and campus safety through a proactive, collaborative and systematic approach to the identification of, intervention with and support of students of concern while empowering all university community members to create a culture of caring. If there is a concern about the physical or mental well-being of a student, please visit the WashU Cares website (https://students.wustl.edu/washu-cares/) to file a report.

**The Writing Center.** The Writing Center — a free service — offers writing advice to all Washington University undergraduate and graduate students. Tutors will read and discuss any kind of work in progress, including student papers, senior theses, application materials, dissertations and oral presentations. The Writing Center staff is trained to work with students at any stage of the writing process, including brainstorming, developing and clarifying an argument, organizing evidence, and improving style. Rather than editing or proofreading, tutors will emphasize the process of revision and teach students how to edit their own work.

The Writing Center is located in Mallinckrodt Center on the lower level. Appointments (http://writingcenter.wustl.edu) are preferred and can be made online, but walk-ins will be accepted if tutors are available.

**Student Health Services, Danforth Campus**

The Habif Health and Wellness Center provides medical and mental health care and health promotion for undergraduate and graduate students on the Danforth Campus. Habif staff members include licensed professionals in Medical Services, Mental Health Services and Health Promotion Services. Please
visit Habif in the lower level of Dardick House on the South 40 or the Habif Health and Wellness Center website (https://students.wustl.edu/habif-health-wellness-center/) for more information about Habif's services and staff members.

**Hours:**
- Monday, Tuesday, Thursday, and Friday: 8 a.m.-5 p.m.
- Wednesday: 10 a.m.-5 p.m.
- Saturday, Sunday, and university holidays: Closed

For after-hours care, students should access TimelyCare (https://students.wustl.edu/timelycare/).

**Medical Services** staff members provide care for the evaluation and treatment of an illness or injury, preventive health care and health education, immunizations, nutrition counseling, and travel medicine and sexual health services. Habif Health and Wellness Center providers are participating members of the Washington University in St. Louis Physician's Network. Any condition requiring specialized medical services will be referred to an appropriate specialist. Habif accepts most health insurance plans and will be able to bill the plan according to plan benefits. The student health insurance plan requires a referral for medical care any time care is not provided at Habif (except in an emergency). Call 314-935-6666 or visit the Habif website to schedule an appointment (https://students.wustl.edu/habif-health-wellness-center/).

Appointments are also available for the assessment, treatment, and referral of students who are struggling with substance abuse.

Quadrangle Pharmacy, located in the Habif Health and Wellness Center, is available to all Washington University students and their dependents. The pharmacy accepts most prescription insurance plans; students should check with the pharmacist to see if their prescription plan is accepted at the pharmacy.

The Habif Health and Wellness Center lab provides full laboratory services. Approximately 20 tests can be performed in the lab. The remainder of all testing that is ordered by Habif is completed by LabCorp. LabCorp serves as Habif's reference lab, and it is a preferred provider on the student health insurance plan. This lab can perform any test ordered by Habif providers or outside providers.

All incoming students must provide proof of immunization for measles, mumps, and rubella (i.e., two vaccinations after the age of one year old; a titer may be provided in lieu of the immunizations). Proof of receiving a meningococcal vaccine is required for all incoming undergraduate students. A PPD skin test in the past six months is required for students entering the university from certain countries; this list of countries may be found on the Habif website. It is also recommended that, during the five years before beginning their studies at Washington University, all students will have received the tetanus diphtheria immunization, the hepatitis A vaccine series, the hepatitis B vaccine series, and the varicella vaccine. Medical history forms (https://students.wustl.edu/habif-health-wellness-center/) are available online. Failure to complete the required forms will delay a student's registration and prevent their entrance into housing assignments. Please visit the Habif website for complete information about requirements and deadlines (https://students.wustl.edu/habif-health-wellness-center/).

**Mental Health Services** staff members work with students to resolve personal and interpersonal difficulties, including conflicts with or worry about friends or family, concerns about eating or drinking patterns, and feelings of anxiety and depression. Staff members help each person figure out their own situation. Services include individual, group and couples counseling; crisis counseling; psychiatric consultation; and referral for off-campus counseling. Visit the Habif website to schedule an appointment (https://students.wustl.edu/habif-health-wellness-center/), or call 314-935-6666 during business hours.

**Health Promotion Services** staff and Peer Health Educators provide free programs and risk reduction information related to stress, sleep, sexual health, alcohol/other drugs, and community care. For more information, visit the Zenker Wellness Suite in Sumers Recreation Center to learn about the programs on campus led by student peer health educators. For information, visit the Health and Wellness Digital Library (https://students.wustl.edu/health-wellness-digital-library/), follow Habif on Instagram (https://www.instagram.com/) (@washu_habif), or email wellness@wustl.edu.

In 2018, this department launched the **WashU Recovery Group** to provide an opportunity for students in recovery from substance use to connect with other students with similar experiences. The group provides local resources, support, meetings and activities. Members have 24/7 access to a private facility to study, meet and socialize (in-person services will resume as COVID-19 pandemic restrictions allow). The group is not a recovery program; it is a confidential resource that students can add to their support system. For more information, send an email to recovery@wustl.edu.

**Important Information About Health Insurance, Danforth Campus**

Washington University has a student health fee that was designed to improve the health and wellness of the entire Washington University community. This fee supports health and wellness services and programs on campus. In addition, all full-time, degree-seeking Washington University students are automatically enrolled in the Student Health Insurance Plan upon completion of registration, with an additional health insurance fee applied to their student account. Students may opt out of this coverage and receive a refund of the health insurance fee if they provide proof of existing comprehensive insurance coverage that meets all university requirements. Information concerning opting out of the student health insurance plan (https://students.wustl.edu/habif-health-wellness-center/) can be found online after June 1 of each year. All students must request
to opt out by September 5 of every year in which they wish to be removed from the Student Health Insurance Plan. Habif provides billing services to many of the major insurance companies in the United States. Specific fees and copays apply to students using Medical Services and Mental Health Services; these fees may be billable to the students' insurance plans. More information is available on the Habif Health and Wellness Center website (https://students.wustl.edu/habif-health-wellness-center/).

**Student Health Services, Medical Campus**

For information about student health services on the Medical Campus, please visit the Student & Occupational Health Services page (https://wusmhealth.wustl.edu/students/) of the School of Medicine website.

**Campus Security**

The Washington University campus is among the most attractive in the nation, and it enjoys a safe and relaxed atmosphere. Personal safety and the security of personal property while on campus is a shared responsibility. Washington University has made safety and security a priority through our commitment to a full-time professional police department, the use of closed-circuit television, card access, good lighting, shuttle services, emergency telephones, and ongoing educational safety awareness programs. The vast majority of crimes that occur on college campuses are crimes of opportunity, which can be prevented.

The best protection against crime is an informed and alert campus community. Washington University has developed several programs to help make everyone’s experiences here safe and secure. An extensive network of emergency telephones — including more than 200 "blue light" telephones — is connected directly to the University Police Department and can alert the police to a person's exact location. In addition to the regular shuttle service, an evening walking escort service and a mobile Campus Circulator shuttle are available on the Danforth Campus.

The Campus2Home shuttle will provide a safe ride home for those living in four designated areas off campus — Skinker-DeBaliviere, Loop South, north of the Loop, and just south of the campus — from 7:00 p.m. to 4:00 a.m. seven days a week. The shuttle leaves from the Mallinckrodt Bus Plaza and Forsyth/Goldfarb Hall Center every 15 minutes from 7:00 p.m. to 1:00 a.m. and at the top (:00) and bottom (:30) of the hour from 1:00 a.m. to 4:00 a.m. The shuttle takes passengers directly to the front doors of their buildings. Shuttle drivers will then wait and watch to make sure passengers get into their buildings safely. Community members can track the shuttle in real time using the WUSTL Mobile App. The app can be downloaded free of charge from the Apple iTunes Store or the Google Play Store.

The University Police Department is a full-service organization staffed by certified police officers who patrol the campus 24 hours a day throughout the entire year. The department offers a variety of crime prevention programs, including a high-security bicycle lock program, free personal-safety whistles, computer security tags, personal safety classes for women and men, and security surveys. Community members are encouraged to download and install the WashU Safe personal safety app on their phones; this app allows users to call for help during emergencies, to use Friend Walk to track their walks on and off campus, and to access many additional safety features. For more information about these programs, visit the Washington University Police Department website (https://police.wustl.edu/).

In compliance with the Campus Crime Awareness and Security Act of 1990, Washington University publishes an annual report (http://police.wustl.edu/clery-reports-logs/) entitled Safety & Security: Guide for Students, Faculty, and Staff — Annual Campus Security and Fire Safety Reports and Drug & Alcohol Abuse Prevention Program. This report is available to all current and prospective students on the Danforth Campus and to university employees on the Danforth, North and West campuses. To request a hard copy, contact the Washington University Police Department, CB 1038, One Brookings Drive, St. Louis, MO 63130-4899, 314-935-9011.

For information regarding protective services at the School of Medicine, please visit the Campus Safety page (https://facilities.med.wustl.edu/security-new/) of the Washington University Operations & Facilities Management Department.

**University Policies**

Washington University has various policies and procedures that govern our faculty, staff and students. Highlighted below are several key policies of the university. Web links to key policies and procedures are available on the Office of the University Registrar website (http://registrar.wustl.edu) and on the university’s Compliance and Policies page (http://wustl.edu/policies/). Please note that the policies identified on these websites and in this Bulletin do not represent an entire repository of university policies, as schools, offices and departments may implement policies that are not listed. In addition, policies may be amended throughout the year.

**Nondiscrimination Statement**

Washington University encourages and gives full consideration to all applicants for admission, financial aid and employment. The university does not discriminate in access to, treatment during, or employment in its programs and activities on the basis of race, color, age, religion, sex, sexual orientation, gender identity or expression, national origin, veteran status, disability or genetic information.
Policy on Discrimination and Harassment

Washington University is committed to having a positive learning and working environment for its students, faculty and staff. University policy prohibits discrimination on the basis of race, color, age, religion, sex, sexual orientation, gender identity or expression, national origin, veteran status, disability or genetic information. Harassment based on any of these classifications is a form of discrimination; it violates university policy and will not be tolerated. In some circumstances, such discriminatory harassment may also violate federal, state or local law. A copy of the Policy on Discrimination and Harassment (http://hr.wustl.edu/policies/Pages/DiscriminationAndHarassment.aspx) is available on the Human Resources website.

Sexual Harassment

Sexual harassment is a form of discrimination that violates university policy and will not be tolerated. It is also illegal under state and federal law. Title IX of the Education Amendments of 1972 prohibits discrimination based on sex (including sexual harassment and sexual violence) in the university's educational programs and activities. Title IX also prohibits retaliation for asserting claims of sex discrimination. The university has designated the Title IX Coordinator identified below to coordinate its compliance with and response to inquiries concerning Title IX.

For more information or to report a violation under the Policy on Discrimination and Harassment, please contact the following individuals:

Discrimination and Harassment Response Coordinator
Apryle Cotton, Assistant Vice Chancellor for Human Resources
Section 504 Coordinator
Phone: 314-362-6774
apryle.cotton@wustl.edu

Title IX Coordinator
Jessica Kennedy, Director of Title IX Office
Title IX Coordinator
Phone: 314-935-3118
jwkennedy@wustl.edu

You may also submit inquiries or a complaint regarding civil rights to the United States Department of Education's Office of Civil Rights at 400 Maryland Avenue, SW, Washington, DC 20202-1100; by visiting the U.S. Department of Education website (https://www.ed.gov/); or by calling 800-421-3481.

Student Health

Drug and Alcohol Policy

Washington University is committed to maintaining a safe and healthy environment for members of the university community by promoting a drug-free environment as well as one free of the abuse of alcohol. Violations of the Washington University Drug and Alcohol Policy (https://hr.wustl.edu/items/drug-and-alcohol-policy/) or the Alcohol Policy for Graduate Student Organizations (https://sites.wustl.edu/prograds/university-wide-graduate-student-group-handbook/alcohol-policy-for-graduate-student-organizations/) will be handled according to existing policies and procedures concerning the conduct of faculty, staff and students. This policy is adopted in accordance with the Drug-Free Workplace Act and the Drug-Free Schools and Communities Act.

Tobacco-Free Policy

Washington University is committed to providing a healthy, comfortable and productive work and learning environment for all students, faculty and staff. Research shows that tobacco use in general, including smoking and breathing secondhand smoke, constitutes a significant health hazard. The university strictly prohibits all smoking and other uses of tobacco products within all university buildings and on university property, at all times. A copy of our complete Tobacco-Free Policy (https://hr.wustl.edu/items/tobacco-free-policy/) is available on the Human Resources website.

Medical Examinations

Entering students must provide medical information to the Habif Health and Wellness Center. This will include the completion of a health history and a record of all current immunizations. If students fail to comply with these requirements prior to registration, they will be required to obtain vaccinations for measles, mumps and rubella at the Habif Health and Wellness Center, if there is no evidence of immunity. In addition, undergraduate students will be required to obtain meningitis vaccinations. Students will be assessed the cost of the vaccinations. Students will be unable to complete registration for classes until all health requirements have been satisfied.

Noncompliant students may be barred from classes and from all university facilities, including housing units, if in the judgment of the university their continued presence would pose a health risk to themselves or to the university community.

Medical and immunization information is to be given via the Habif Health and Wellness Center (https://students.wustl.edu/habif-health-wellness-center/) website. All students who have completed the registration process should access the website and create a student profile by using their WUSTL Key. Creating a student profile enables a student to securely access the...
medical history form. Students should fill out the form and follow the instructions for transmitting it to the Habif Health and Wellness Center. Student information is treated securely and confidentially.

**Student Conduct**

The Student Conduct Code sets forth community standards and expectations for Washington University students. These community standards and expectations are intended to foster an environment conducive to learning and inquiry. Freedom of thought and expression is essential to the university's academic mission.

Disciplinary proceedings are meant to be informal, fair and expeditious. Charges of non-serious misconduct are generally heard by the student conduct officer. With limited exceptions, serious or repeated allegations are heard by the campuswide Student Conduct Board or the University Sexual Assault Investigation Board where applicable.

Complaints against students that include allegations of sexual assault or certain complaints that include allegations of sexual harassment in violation of the Student Conduct Code are governed by the procedures found in the University Sexual Assault Investigation Board Policy (https://wustl.edu/about/compliance-policies/governance/usaib-procedures-complaints-sexual-assault-filed-students/), which is available online or in hard copy from the Title IX coordinator or the director of Student Conduct and Community Standards.

Students may be accountable to both governmental authorities and to the university for acts that constitute violations of law and the Student Conduct Code.

For a complete copy of the Student Conduct Code (https://wustl.edu/about/compliance-policies/academic-policies/university-student-judicial-code/), visit the university website.

**Undergraduate Student Academic Integrity Policy**

Effective learning, teaching and research all depend upon the ability of members of the academic community to trust one another and to trust the integrity of work that is submitted for academic credit or conducted in the wider arena of scholarly research. Such an atmosphere of mutual trust fosters the free exchange of ideas and enables all members of the community to achieve their highest potential.

In all academic work, the ideas and contributions of others must be appropriately acknowledged, and work that is presented as original must be, in fact, original. Faculty, students and administrative staff all share the responsibility of ensuring the honesty and fairness of the intellectual environment at Washington University.

**Scope and Purpose**

This statement on academic integrity applies to all undergraduate students at Washington University. Graduate students are governed by policies in each graduate school or division. All students are expected to adhere to the highest standards of behavior. The purpose of the statement is twofold:

1. To clarify the university's expectations with regard to undergraduate students' academic behavior; and
2. To provide specific examples of dishonest conduct. The examples are only illustrative, not exhaustive.

**Violations of This Policy Include but Are Not Limited to the Following:**

1. **Plagiarism**
   - Plagiarism consists of taking someone else's ideas, words or other types of work product and presenting them as one's own. To avoid plagiarism, students are expected to be attentive to proper methods of documentation and acknowledgment. To avoid even the suspicion of plagiarism, a student must always do the following:
     - Enclose every quotation in quotation marks and acknowledge its source.
     - Cite the source of every summary, paraphrase, abstraction or adaptation of material originally prepared by another person and any factual data that is not considered common knowledge. Include the name of the author, title of work, publication information and page reference.
     - Acknowledge material obtained from lectures, interviews or other oral communication by citing the source (i.e., the name of the speaker, the occasion, the place and the date).
     - Cite material from the internet as if it were from a traditionally published source. Follow the citation style or requirements of the instructor for whom the work is produced.

2. **Cheating on an Examination**
   - A student must not receive or provide any unauthorized assistance on an examination. During an examination, a student may use only materials authorized by the faculty.

3. **Copying or Collaborating on Assignments Without Permission**
   - When a student submits work with their name on it, this is a written statement that credit for the work belongs to that student alone. If the work was a product of collaboration, each student is expected to clearly acknowledge in writing all persons who contributed to its completion.
Unless the instructor explicitly states otherwise, it is dishonest to collaborate with others when completing any assignment or test, performing laboratory experiments, writing and/or documenting computer programs, writing papers or reports, or completing problem sets.

If the instructor allows group work in some circumstances but not others, it is the student's responsibility to understand the degree of acceptable collaboration for each assignment and to ask for clarification, if necessary.

To avoid cheating or unauthorized collaboration, a student should never do any of the following:

- Use, copy or paraphrase the results of another person's work and represent that work as one's own, regardless of the circumstances.
- Refer to, study from or copy archival files (e.g., old tests, homework, solutions manuals, backfiles) that were not approved by the instructor.
- Copy another's work or permit another student to copy one's work.
- Submit work as a collaborative effort if they did not contribute a fair share of the effort.

4. Fabrication or Falsification of Data or Records
   It is dishonest to fabricate or falsify data in laboratory experiments, research papers or reports or in any other circumstances; to fabricate source material in a bibliography or "works cited" list; or to provide false information on a résumé or other document in connection with academic efforts. It is also dishonest to take data developed by someone else and present them as one's own. Examples of falsification include the following:
   - Altering information on any exam, problem set or class assignment being submitted for a re-grade.
   - Altering, omitting or inventing laboratory data to submit as one's own findings. This includes copying laboratory data from another student to present as one's own; modifying data in a write-up; and providing data to another student to submit as one's own.

5. Other Forms of Deceit, Dishonesty or Inappropriate Conduct
   Under no circumstances is it acceptable for a student to do any of the following:
   - Submit the same work, or essentially the same work, for more than one course without explicitly obtaining permission from all instructors. A student must disclose when a paper or project builds on work completed earlier in their academic career.
   - Request an academic benefit based on false information or deception. This includes requesting an extension of time, a better grade or a recommendation from an instructor.
   - Make any changes (including adding material or erasing material) on any test paper, problem set or class assignment being submitted for a re-grade.
   - Willfully damage the efforts or work of other students.
   - Steal, deface or damage academic facilities or materials.
   - Collaborate with other students planning or engaging in any form of academic misconduct.
   - Submit any academic work under someone else's name other than one's own. This includes but is not limited to sitting for another person's exam; both parties will be held responsible.
   - Engage in any other form of academic misconduct not covered here.

This list is not intended to be exhaustive. To seek clarification, students should ask the professor or the assistant in instruction for guidance.

Reporting Misconduct

Faculty Responsibility

Faculty and instructors are strongly encouraged to report incidents of student academic misconduct to the academic integrity officer in their school or college in a timely manner so that the incident may be handled fairly and consistently across schools and departments. Assistants in instruction are expected to report instances of student misconduct to their supervising instructors. Faculty members are expected to respond to student concerns about academic dishonesty in their courses.

Student Responsibility

If a student observes others violating this policy, the student is strongly encouraged to report the misconduct to the instructor, to seek advice from the academic integrity officer of the school or college that offers the course in question, or to address the student(s) directly.

Exam Proctor Responsibility

Exam proctors are expected to report incidents of suspected student misconduct to the course instructor and/or the Disability Resource Center, if applicable.

Procedure

Jurisdiction

This policy covers all undergraduate students, regardless of their college of enrollment. Cases will be heard by school-specific committees according to the school in which the class is listed rather than the school in which the student is enrolled. All violations and sanctions will be reported to the student's college of enrollment.
Administrative Procedures

Individual undergraduate colleges and schools may design specific procedures to resolve allegations of academic misconduct by students in courses offered by that school, so long as the procedures are consistent with this policy and with the Student Conduct Code.

Student Rights and Responsibilities in a Hearing

A student accused of an academic integrity violation — whether by a professor, an assistant in instruction, an academic integrity officer or another student — is entitled to do the following:

• Review the written evidence in support of the charge
• Ask any questions
• Offer an explanation as to what occurred
• Present any material that would cast doubt on the correctness of the charge
• Receive a determination of the validity of the charge without reference to any past record of misconduct

When responding to a charge of academic misconduct, a student may do the following:

• Deny the charges and request a hearing in front of the appropriate academic integrity officer or committee
• Admit the charges and request a hearing to determine sanction(s)
• Admit the charges and request a hearing to determine sanction(s) without a hearing
• Request a leave of absence from the university (however, the academic integrity matter must be resolved prior to re-enrollment)
• Request to withdraw permanently from the university with a transcript notation that there is an unresolved academic integrity matter pending

A student has the following responsibilities with regard to resolving the charge of academic misconduct:

• Admit or deny the charge. This will determine the course of action to be pursued.
• Provide truthful information regarding the charges. It is a Student Conduct Code violation to provide false information to the university or anyone acting on its behalf.

Sanctions

If Found Not in Violation of the Academic Integrity Policy

If the charges of academic misconduct are not proven, no record of the allegation will appear on the student's transcript.

If Found in Violation of the Academic Integrity Policy

If, after a hearing, a student is found to have acted dishonestly or if a student has admitted to the charges prior to a hearing, the school's academic integrity officer or committee may impose sanctions, including but not limited to the following:

• Issue a formal written reprimand
• Impose educational sanctions, such as completing a workshop on plagiarism or academic ethics
• Recommend to the instructor that the student fail the assignment (a given grade is ultimately the prerogative of the instructor)
• Recommend to the instructor that the student fail the course
• Recommend to the instructor that the student receive a course grade penalty less severe than failure of the course
• Place the student on disciplinary probation for a specified period of time or until defined conditions are met. The probation will be noted on the student's transcript and internal record while it is in force.
• In cases serious enough to warrant suspension or expulsion from the university, refer the matter to the Student Conduct Board for consideration.

Additional educational sanctions may be imposed. This list is not intended to be exhaustive.

Withdrawal from the course will not prevent the academic integrity officer or hearing panel from adjudicating the case, imposing sanctions or recommending grade penalties, including a failing grade in the course.

A copy of the sanction letter will be placed in the student's academic file.

Appeals

If a student believes the academic integrity officer or the committee did not conduct a fair hearing or if a student believes the sanction imposed for misconduct is excessive, they may appeal to the Student Conduct Board within 14 days of the original decision. Appeals are governed by Section VII C of the Student Conduct Code.

Records

Administrative Record-Keeping Responsibilities

It is the responsibility of the academic integrity officer in each school to keep accurate, confidential records concerning academic integrity violations. When a student has been found to have acted dishonestly, a letter summarizing the allegation, the outcome and the sanction shall be placed in the student's official file in the office of the school or college in which the student is enrolled.
In addition, each school’s academic integrity officer shall make a report of the outcome of every formal accusation of student academic misconduct to the director of Student Conduct and Community Standards, who shall maintain a record of each incident.

Multiple Offenses

When a student is formally accused of academic misconduct and a hearing is to be held by an academic integrity officer, a committee, or the Office of Student Conduct and Community Standards, the person in charge of administering the hearing shall query the Office of Student Conduct and Community Standards about the student(s) accused of misconduct. The director shall provide any information in the records concerning that student to the integrity officer. Such information will be used in determining sanctions only if the student is found to have acted dishonestly in the present case. Evidence of past misconduct may not be used to resolve the issue of whether a student has acted dishonestly in a subsequent case.

Reports to Faculty and Student Body

School and college academic integrity officers are encouraged to make periodic (at least annual) reports to the students and faculty of their school concerning accusations of academic misconduct and the outcomes, without disclosing specific information that would allow identification of the student(s) involved.

Graduate Student Academic Integrity Policies

For graduate student academic integrity policies, please refer to each individual graduate school.

Statement of Intent to Graduate

Students are required to file an Intent to Graduate via WebSTAC (https://acadinfo.wustl.edu/) prior to the semester in which they intend to graduate. Additional information is available from school dean’s offices and the Office of the University Registrar (http://registrar.wustl.edu).

Student Academic Records and Transcripts

Under the Family Educational Rights and Privacy Act of 1974 (FERPA) — Title 20 of the United States Code, Section 1232g, as amended — current and former students of the university have certain rights with regard to their educational records. Washington University’s FERPA policy is available via the Office of the University Registrar’s website (http://registrar.wustl.edu).

All current and former students may request official Washington University transcripts from the Office of the University Registrar via either WebSTAC (if they remember their WUSTL Key) or Parchment (if they do not have or cannot remember their WUSTL Key). Students may print unofficial transcripts for their personal use from WebSTAC. Instructions and additional information are available on the Office of the University Registrar’s website (http://registrar.wustl.edu).

Washington University does not release nor certify copies of transcripts or other academic documents received from other schools or institutions. This includes test score reports and transcripts submitted to Washington University for purposes of admission or evaluation of transfer credit.

University Affiliations

Please click the arrows below for listings of the accrediting organizations and memberships of the different areas of the university.

Additional information about professional and specialized accreditation can be found on the Office of the Provost website (https://provost.wustl.edu/assessment/accreditors/).

Washington University in St. Louis

Accreditation

- Higher Learning Commission (https://www.hlcommission.org/)

Memberships

- American Academy of Arts & Sciences (https://www.amacad.org/)
- American Association of Colleges & Universities (https://www.aacu.org/)
- American Council of Learned Societies (https://www.acls.org/)
- American Council on Education (https://www.acenet.edu/)
- Association of American Universities (https://www.aau.edu/)
- College Board (https://www.collegeboard.org/)
- Hispanic Association of Colleges and Universities (https://www.hacu.net/)
- Independent Colleges and Universities of Missouri (https://www.independentcollegesanduniversitiesofmo.com/)
- National Association of Independent Colleges and Universities (https://www.naicu.edu/)
- National Council for State Authorization Reciprocity Agreements (https://nc-sara.org/)
- Oak Ridge Associated Universities (https://www.orau.org/)
- Universities Research Association (https://www.ura-hq.org/)
College of Arts & Sciences

Memberships
- Association of University Summer Sessions (https://www.theauss.org/)
- International Center for Academic Integrity (https://www.academicintegrity.org/)
- Midwest Association of Pre-Law Advisors (https://mapla.org/)
- National Association of Advisors for the Health Professions (https://www.naahp.org/)
- National Association of Fellowships Advisors (https://nafadvisors.org/)
- North American Association of Summer Sessions (https://naass.org/)

Office of Graduate Studies, Arts & Sciences

Memberships
- Association of Graduate Schools (https://www.aau.edu/taxonomy/term/446/)
  (Founding member)
- Council of Graduate Schools (https://cgsnet.org/)
  (Founding member)

Sam Fox School of Design & Visual Arts

Accreditation — College of Art
- National Association of Schools of Art & Design (https://nasad.arts-accredit.org/)
  (Founding member)

Accreditation — College of Architecture
- Master of Architecture: National Architectural Accrediting Board (https://www.naab.org/)
- Master of Landscape Architecture: Landscape Architectural Accreditation Board (https://www.asla.org/accreditationlaab.aspx)

Membership — College of Architecture
- Association of Collegiate Schools of Architecture (https://www.acsa-arch.org/)

Accreditation — Mildred Lane Kemper Art Museum
- American Alliance of Museums (https://www.aam-us.org/)

Membership — Mildred Lane Kemper Art Museum
- Association of Art Museum Directors (https://aamd.org/)

Olin Business School

Accreditation
- Association of MBAs (https://www.associationofmbas.com/)
- Association to Advance Collegiate Schools of Business International (https://www.aacsb.edu/)
  (Charter member since 1921)
- EQUIS (https://www.efmdglobal.org/accreditations/business-schools/equis/)

McKelvey School of Engineering

Accreditation
- In the McKelvey School of Engineering, many of the undergraduate degree programs are accredited by the Engineering Accreditation Commission of ABET (http://abet.org/).

Membership
- American Society for Engineering Education (https://www.asee.org/)

School of Law

Accreditation
- American Bar Association (https://www.americanbar.org/)

Memberships
- American Association of Law Libraries (https://www.aallnet.org/)
- American Society of Comparative Law (https://ascl.org/)
- American Society of International Law (https://www.asil.org/)
- Association of Academic Support Educators (https://associationofacademicsupporteducators.org/)
- Association of American Law Schools (https://www.aals.org/)
- Central States Law Schools Association (http://cslsa.us/)
- Clinical Legal Education Association (https://www.cleaweb.org/)
- Equal Justice Works (https://www.equaljusticeworks.org/)
- Mid-America Association of Law Libraries (https://maall.wildapricot.org/)
- Mid-America Law Library Consortium (https://mallco.libguides.com/)
- National Association for Law Placement (https://www.nalp.org/)
- Southeastern Association of Law Schools (https://sealslawschools.org/)
School of Medicine

Accreditation

• Liaison Committee on Medical Education (https://www.aamc.org/services/first-for-financial-aid-officers/lcme-accreditation/)

Membership

• Association of American Medical Colleges (https://www.aamc.org/)

Brown School

Accreditation

• Council on Education for Public Health (https://ceph.org/)
• Council on Social Work Education (https://www.cswe.org/)

University College

Memberships

• American Association of Collegiate Registrars and Admissions Officers (https://www.aacrao.org/)
• International Center for Academic Integrity (https://www.academicintegrity.org/)
• National Academic Advising Association (https://nacada.ksu.edu/)
• National Association of Advisors for the Health Professions (https://www.naahp.org/)
• National Association of Student Personnel Administrators (https://www.naspa.org/)
• University Professional and Continuing Education Association (https://upcea.edu/)

Note: Business-related programs in University College are not accredited by the Association to Advance Collegiate Schools of Business International (https://www.aacsb.edu/).

University Libraries

Membership

• Association of Research Libraries (https://www.arl.org/)

University PhD Policies & Requirements

Academic PhD Programs

The following policies and practices apply to all PhD students regardless of school affiliation. They are specific to PhD program administration and experience. Schools may set stricter standards but must not relax these. This list does not include those policies and practices that apply to the student community as a whole (e.g., the University Student Conduct Code).

In 2022, all former Graduate School policies were revised to reflect the dean of the student’s respective school or the Vice Provost of Graduate Education in lieu of the “Dean of the Graduate School.” References to the former entity known as the “Graduate School” were adjusted to reflect the student’s home school.

Academic and Professional Integrity for PhD Students

The Academic and Professional Integrity Policy of the former Graduate School (https://wustl.app.box.com/s/7p84v07y47rz2gf02xy0vrqof4pikts) continues to apply to all PhD students on the Danforth and Medical campuses, including dual-degree students when one of the degree programs is a PhD program.

Involuntary Leave of Absence

The Involuntary Leave of Absence Policy (https://wustl.edu/about/compliance-policies/governance/involuntary-leave-policy-undergraduate-students/) that applies to undergraduates was adopted to apply to all PhD students in 2014.

Financial Policies & Practices

Child Day Care Subsidy

The purpose of the Child Day Care Subsidy is to help financially stressed graduate student families meet the costs of child day care tuition at licensed facilities while they pursue PhD degrees.

The amount of Child Day Care Subsidy awarded to eligible applicants is based on their financial need, the number of children they have enrolled in licensed child day care facilities, their child day care expenses, and available funding. Eligible students can expect the following:

• For one child, the maximum award is $1,750 per semester.
• For two children, the maximum award is $2,650 per semester.
• For three or more children, the maximum award is $3,550 per semester.

The subsidy amount cannot exceed the cost of the licensed child day care facility.

Students should contact their home schools for more information and for application instructions.

Interdisciplinary Courses

PhD students can speak with their advisors with regard to enrolling in individual courses available outside of their school that may advance their research or professional goals. A university tuition agreement signed by all of the deans of the university’s graduate and professional schools fosters
interdisciplinary study across the schools and allows enrollment in classes outside of the student’s home school. Many undergraduate and graduate courses are available for graduate student enrollment, subject to the following eligibility guidelines:

- The student must be enrolled full-time in a graduate degree program and have the approval of their faculty advisor or administrative officer to take a course outside of their home school.
- Courses will be open to students outside of the discipline only if those students have met the required prerequisites and have the approval of both their department/advisor and the course instructor.
- Finally, courses in the evening divisions, including University College and its Summer School, are not part of this agreement. Courses that require individualized instruction and/or additional fees (e.g., independent studies, individual music lessons) are also excluded.

**Minimum Stipend Award**

The amounts and vehicles of financial support for graduate students are usually decided by the individual schools. Washington University is committed to funding most PhD students for five to six years, depending on the time needed to complete a particular program. Funding typically consists of full tuition remission and a stipend to defray living expenses. Monetary support may come from the university or from outside sources, and it is usually administered by an administrative staff member of the program or the school acting in accordance with instructions received from the program/school administration or from a faculty member.

**New Child Leave**

Full-time PhD students may request a New Child Leave to assume care for a new child. They should maintain their full-time student status. Students on New Child Leave are not expected to participate in mentored teaching or research experience for up to 60 calendar days while they receive their current stipend support. Additional time off without receiving a stipend for up to a full semester will ordinarily be granted by the student's home school if approved by the student's department.

New Child Leave does not affect the student's full-time status and will not appear on the student’s official transcript. New child leave must be taken within the first year after the child’s birth or adoption. Students should contact their department to request a New Child Leave.

Students who receive support from external agencies should consult the policies and guidelines of the sponsor.

**PhD General Requirements**

To earn a PhD at Washington University, a student must complete all courses required by their department/program; maintain satisfactory academic progress; pass certain examinations; fulfill residence and mentored experience requirements; write, defend, and submit a dissertation; and file an Intent to Graduate form via WebSTAC (https://acadinfo.wustl.edu).

**Residence Requirement**

Each PhD student must spend at least one academic year enrolled full-time at Washington University. Any exceptions must be approved by the dean of the student’s respective school and the Vice Provost for Graduate Education.

**Program Length Limit**

The maximum number of semesters of continuous enrollment is 18 (9 years). Students in PhD programs who have not completed their terminal degrees and who have not withdrawn will be dismissed at the end of 18 semesters. An exception may be granted by the dean of the student’s respective school on request by the designated faculty graduate program director (in most departments, this position is called the Director of Graduate Studies) if the student is expected to complete their degree during a tenth year of enrollment. Enrollment for an eleventh continuous year will not be allowed. Semesters during which the student is on an approved leave of absence are not included on the enrollment clock.

**Qualifying Examinations**

Progress toward the PhD is contingent upon the student passing examinations that are variously called preliminary, qualifying, general, comprehensive or major field exams. The qualifying process varies according to the program. In some programs, it consists of a series of incremental, sequential and cumulative exams over a considerable time. In others, the exams are held during a relatively short period of time. Exams may be replaced by one or more papers. The program, which determines the structure and schedule of the required examinations, is responsible for notifying the school registrar or the appropriate record custodian of the student’s outcome, whether successful or unsuccessful.

**Mentored Experience Requirement**

PhD students at Washington University must complete a department-defined Mentored Experience. The Mentored Experience Requirement is a doctoral degree milestone that is noted on the student's transcript when complete. Each department has an established Mentored Experience Implementation Plan in which the number of semesters that a student must engage in a Mentored Teaching Experience or a Mentored Professional Experience is defined. The Mentored Experience Implementation Plans outline how doctoral students within the discipline will be mentored to achieve competencies...
in teaching at basic and advanced levels. Some departments may elect to include the Mentored Professional Experiences as an avenue for completing one or more semesters of the Mentored Experience Requirement. Doctoral students will enroll in Mentored Teaching Experiences or Mentored Professional Experiences to signify their progression toward completing the overall Mentored Experience Requirement for their degree.

**Dissertation**

As evidence of the mastery of a specific field of knowledge and of the capacity for original scholarly work, each candidate must complete a dissertation. Each PhD candidate will form a Research Advisory Committee (RAC) approved by their department or program and by their school’s graduate program oversight body. The RAC will approve the subject and approach of the dissertation, which will be evidenced by the student’s completion of the Title, Scope, and Procedure requirement.

The RAC should consist of at least three full-time Washington University faculty members who are authorized to supervise PhD students and who have appropriate expertise in the proposed field of study. One of these faculty members must be the student’s primary research advisor/mentor. Additional members, including external members with active research programs at outside institutions, may serve on the RAC subject to approval by the school’s graduate program oversight body.

- For cross-school/interdisciplinary PhD programs, the approvals referenced above should be obtained from the graduate program oversight body of the school of the primary research advisor/mentor.
- For a PhD program offered in partnership with an external academic institution, one full-time faculty member of the partner institution who is authorized to supervise PhD students and who has appropriate expertise in the proposed field of study may serve on the RAC as part of the three-member minimum requirement.

A Title, Scope, and Procedure form for the dissertation must be signed by the RAC members and by the program chair. It must be submitted to the school registrar or the appropriate record custodian at least six months before the degree is expected to be conferred or before the beginning the fifth year of full-time enrollment, whichever is earlier.

A Doctoral Dissertation Guide and a template that provides instructions regarding the format of the dissertation are available through the website of the Office of the Provost (https://provost.wustl.edu/vpge/phd-education-and-governance/); both of these should be read carefully at every stage of dissertation preparation.

Each student is required to make the full text of the dissertation available to the committee members for their review at least one week before the dissertation defense. Most degree programs require two or more weeks for the review period; students should check their program’s policies.

**Dissertation Defense**

Approval of the written dissertation by the RAC is strongly recommended before the student can orally defend the dissertation. The dissertation committee that examines the student during the defense consists of at least five members. Normally, the members of the RAC also serve on the dissertation committee. The dissertation committee is then additionally augmented to ensure that the two independent criteria below are met:

1. Four of the five members (or a similar proportion of a larger committee) must be full-time Washington University faculty who are authorized to supervise PhD students and who have appropriate expertise in the proposed field of study; one of these four may be a member of the emeritus faculty. The fifth member must have a doctoral degree and an active research program, whether at Washington University, at another university, in government or in industry.

2. Three of the five members (or a similar proportion of a larger committee) normally come from the student’s degree program(s); however, at least one of the five members must be external to the student’s degree program(s).

The approval processes outlined under RAC formation also apply to the dissertation committee.

All committees must be approved by the dean of the student’s school of record or by their designee, regardless of whether they meet the normal criteria. The committee is appointed by the dean of the student’s school of record upon the request of the degree program. The student is responsible for making the full text of the dissertation accessible to their committee members for their review in advance of the defense according to program rules. Faculty and graduate students who are interested in the subject of the dissertation are normally welcome to attend all or part of the defense but may ask questions only at the discretion of the committee members. Although there is some variation among degree programs, the defense ordinarily focuses on the dissertation itself and its relation to the student’s field of expertise.

**Dissertation Submission**

After the defense, the student must submit an electronic copy of the dissertation online to the university. The submission website requires students to choose among publishing and copyrighting services offered by ProQuest ETD Administrator (https://www. etdadmin.com/main/home/), but the university permits students to make whichever choices they prefer. Students are asked to submit the Survey of Earned Doctorates (https:// graduateschool.wustl.edu/forms/) separately. The degree program is responsible for delivering the final approval form, signed by the committee members at the defense and then by the program chair or director, to the school registrar or the appropriate record custodian. Students who defend
their dissertations successfully have not completed their PhD requirements; they finish earning their degree only when their dissertation submission has been accepted by their school of record.
University College - Graduate

University College is the professional and continuing education division at Washington University in St. Louis. The division offers a wide range of courses in both online and face-to-face formats in a variety of academic departments and interdisciplinary and professional areas of study. Part-time and full-time study options in undergraduate degree programs, master's degree programs, and certificate programs are available. University College is also home to the Osher Lifelong Learning Institute (https://ucollege.wustl.edu/programs/non-degree/lifelong-learning-institute/) for adults 50 years old and older. In addition, University College sponsors special lectures and programs such as the Master of Liberal Arts (MLA) Saturday Lecture Series and the Summer Writers Institute. For more information, visit the University College website (http://ucollege.wustl.edu).

Graduate Study

University College administers the Master of Liberal Arts, Master of Arts and Master of Science in coordination with the Office of Graduate Studies, Arts & Sciences. University College administers the Master of Science in Clinical Research Management in coordination with Washington University School of Medicine. University College also offers a range of graduate-level certificate programs (p. 83).

Master's degree programs (p. 29) in University College consist of 30 to 36 units of graduate-level course work, including, in some cases, a 6-unit master's thesis or a 3-unit directed research project.

Normally, up to 6 units of related graduate-level study with a grade of B or higher may be transferred to a graduate program. All other course work must be taken at Washington University. Only courses taken for a letter grade may be applied to a graduate program of study. Courses taken as pass/fail or audit will not count toward a graduate program of study.* Grades below C- will not count toward a graduate degree program of study. Students must maintain a cumulative grade-point average of 3.0 to be eligible to receive a graduate degree.

Please visit the University College website (http://ucollege.wustl.edu) or call 314-935-6700 for more detailed information, requirements and policies concerning specific graduate degree programs.

* University College students may apply a maximum of 6 units of pass/fail credit from graduate-level course work in the Olin Business School to a master's degree program in University College. The course work must be authorized by University College, and the student must have received a grade of Pass or High Pass in the Olin School course. Courses with grades of Low Pass are not eligible. This policy applies only to courses completed on a pass/fail basis in the Olin Business School prior to a student's admission to a University College graduate program of study administered and conferred by University College. Once admitted to a University College program of study, students who are authorized to take courses in the Olin School and apply them toward their program of study are required to convert pass/fail grades to letter grades at the time of registration.

Admission

Admission to the master's degree programs is competitive and open on a selective basis to qualified individuals who have earned a baccalaureate degree. University College reviews completed applications and makes admissions decisions on a rolling basis for master's degree programs. The process typically takes four to six weeks. Most master's degree applicants should submit materials according to the following schedule to ensure a timely decision: December 15 for spring; April 15 for summer; and July 15 for fall (with some variance, depending on the program). Please visit the University College website (http://ucollege.wustl.edu) for additional program-specific admission requirements.

Graduate Degrees in University College

- Master of Arts (AM) in Biology (p. 29)
- Master of Arts in Education (MAEd) (p. 38)
- Master of Arts (AM) in Human Resources Management (p. 50)
- Master of Arts (AM) in International Affairs (p. 53)
- Master of Arts (AM) in Nonprofit Management (p. 72)
- Master of Arts (AM) in Statistics (p. 75)
- Master of Arts in Teaching and Learning (MATL) (p. 78)
- Master of Liberal Arts (MLA) (p. 82)
- Master of Science (MS) in Biology for Science Teachers (p. 35)
  (Note: As of Fall 2022, this program is no longer accepting new students.)
- Master of Science (MS) in Clinical Research Management (p. 36)

Contact Information

University College
Washington University in St. Louis
MSC 1054-134-100
One Brookings Drive, January Hall, Suite 100
St. Louis, Missouri 63130
Phone: 314-935-6700
Toll-Free: 866-340-0723
Fax: 314-935-6744
University College website (https://ucollege.wustl.edu/)
Master's Degrees

Master's degree programs in University College consist of 30 to 36 units of graduate-level course work, including, in some cases, a 6-unit master's thesis or a 3-unit directed research project.

Normally, up to 6 units of comparable graduate-level course work may be transferred from another university or from a related graduate program at Washington University, with the approval of the program director. These must be graduate-level units not used to fulfill undergraduate degree requirements. Transfer credit may be granted only for authorized courses for which the student received a grade of B or higher. Courses taken as pass/fail or audit will not count toward a graduate program of study.*

Grades below C- will not count toward a graduate degree program of study. Students must maintain a cumulative grade-point average of 3.0 to be eligible to receive a graduate degree.

University College offers the following master's degrees. All degree programs are eligible for financial aid.

**Master of Arts**
- Biology (p. 29)
- Education (p. 38)
- Human Resources Management (p. 50)
- International Affairs (p. 53)
- Master of Liberal Arts (p. 62)
- Nonprofit Management (p. 72)
- Statistics (p. 75)
- Teaching and Learning (p. 78)

**Master of Science**
- Biology for Science Teachers (p. 35)
  (Note: As of Fall 2022, this program is no longer accepting new students.)
- Clinical Research Management (p. 36)
- Clinical Research Management (p. 36)

* University College students may apply a maximum of 6 units of pass/fail credit from graduate-level course work in the Olin Business School to a master's degree program in University College. The course work must be authorized by University College, and the student must have received a grade of Pass or High Pass in the Olin School course. Courses with grades of Low Pass are not eligible. This policy applies only to courses completed on a pass/fail basis in the Olin School prior to a student's admission to a University College graduate program of study administered and conferred by University College.

**Degree Requirements**

**Master of Arts in Biology**

Students seeking the Master of Arts in Biology must satisfactorily complete 30 units of graduate courses in the biological sciences, including a required capstone experience (http://ucollege.wustl.edu/programs/graduate/masters-biology/final-project/), which occurs after they have completed 21 units in the program and is chosen from the following options:

1. Complete U29 Bio 401 Problem Based Learning in the Biomedical Sciences
2. Complete a 3-unit independent study
3. Complete a 6-unit master's thesis: Students with appropriate backgrounds, interests and academic qualifications may, with authorization, write a master's thesis based on original library or laboratory research.

*Note:* The above options cannot count as the capstone experience if they occur before a student has completed 21 units toward the Master of Arts in Biology.

**Optional Concentration in Neurobiology**

University College students who are admitted to the Master of Arts in Biology program may select an optional concentration in neurobiology. Neurobiology is the study of the structure and function of the nervous system. This concentration helps prepare study, students who are authorized to take courses in the Olin School and apply them toward their program of study are required to convert pass/fail grades to letter grades at the time of registration.
students for careers in biomedical fields, including research and clinical practice in medicine, neuroscience and cognitive science. The optional concentration requires 12 units of courses, selected from the list below:

Choose four of the following courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bio 435</td>
<td>Neurobiology</td>
<td>3</td>
</tr>
<tr>
<td>Bio 436</td>
<td>The Neural Basis of Behavior</td>
<td>3</td>
</tr>
<tr>
<td>Bio 4721</td>
<td>The Biology of Membranes</td>
<td>3</td>
</tr>
<tr>
<td>Bio 478</td>
<td>Neuroscience: Sensory Systems</td>
<td>3</td>
</tr>
<tr>
<td>Bio 485</td>
<td>Synaptic Change in the Nervous System</td>
<td>3</td>
</tr>
</tbody>
</table>

Credit Transfer
A maximum of 6 credits of related and comparable graduate-level courses may be transferred from another university or from a related graduate program at Washington University with the approval of the program director. These must be graduate-level units not used to fulfill undergraduate degree requirements. Transfer credit may be granted only for authorized courses for which the student received a grade of B or higher.

Please note that the Master of Arts in Biology degree is a terminal graduate degree awarded on the basis of the completion of courses rather than research. Except in rare cases, it is not intended as preparation for a PhD degree. More than 6 of the 30 credits required for this program may be earned in research courses. Those students interested in graduate research or in earning a PhD should apply to the PhD programs offered by Washington University's Division of Biology and Biomedical Sciences (http://dbbs.wustl.edu).

Courses

U29 Bio 400 Independent Study
Requires written proposal, instructor, coordinator and deans approval in University College
Credit variable, maximum 3 units.

U29 Bio 401 Problem Based Learning in the Biomedical Sciences
Have you ever wondered how doctors and scientists diagnose and discover cures to modern human afflictions? In this course, small groups of students take responsibility for their own active, inquiry-based learning on biological problems that puzzle modern scientists. Instructors from the Washington University School of Medicine guide students on how to conduct in-depth research on issues of current biological importance. Learning how to read and interpret current research articles from the scientific literature is emphasized. Weekly topics from previous years have included cancer therapy, infectious diseases, CRISPR, microbiome, stem cells, gene therapy, and Zika viruses. Students should have broad interests and background in general biology and chemistry and should be curious, exploratory, interactive, and willing to try an active, non-traditional educational experience. Bio 401 satisfies the capstone requirement for the MA program in biology, provided that at least 21 units of graduate-level coursework has been completed toward this program prior to enrollment in Bio 401. Prerequisites: General Biology I and II Credit 3 units. UColl: OLI

U29 Bio 4022 Viruses and the Diseases They Cause
The goal of this course is to understand different families of viruses. We will discuss the diseases that they cause, mechanisms they use to evade host defense mechanisms, and current therapies used to treat these viruses. Prerequisites: General Biology I and II or permission of the instructor. Credit 3 units.

U29 Bio 4024 Biology of Human Disease: Research, Diagnosis, Prevention, Treatment
The aim of this course is to develop an appreciation of the complex nature of human diseases. We examine inherited and acquired human diseases, including cystic fibrosis, AIDS, Alzheimer's, Parkinson's, and diabetes to help us better understand how genetic mutations, environmental stress, and infections affect various cellular processes, disturb normal functioning of tissues and organs, and lead to the development of a disease. We will learn how the latest advances in basic, translational, and clinical research change our understanding of the underlying causes of human diseases and how they drive the development of new and effective methods of diagnosis, prevention, and treatment. Prerequisites: General Biology I and II or permission of instructor. Priority given to students enrolled in the Post-Baccalaureate Premedical program. Same as L86 PBPM Study 4024 Credit 3 units. A&S IQ: NSM BU: SCI

U29 Bio 4029 Introduction to Medical Histology
This course is for master's students, as well as premedical and other pre-professional students who want to become proficient in the examination and interpretation of microscopic anatomy. The course uses a lecture format combined with in-class and on-line tissue slide studies. Knowledge of microscopy and basic tissue types gained in the first part of the course is applied in the investigation of complex organs in the second half of the semester. Medical correlates are stressed. Exams are written, on-line, and in-class utilizing microscopes. Prerequisites: College-level Biology and Chemistry. Credit 3 units. UColl: OLI

U29 Bio 4041 Evolutionary Nutrition
This course explores the interrelationships between human nutritional requirements/adaptations and evolution. We will examine ideas and evidence concerning such concepts as biochemical individuality, nutritional genetics and genomics, evolutionary medicine and the microbiome, among others. Lecture-discussions will focus on material from the texts recommended for this course. Drawing upon the latest research into the original human diet (from peer-reviewed scientific journals), students will create literature review case studies related to lecture topics. The overall objective of this course is to understand how each individual's unique body chemistry
gives rise to their specific "metabolic type" with its own specific nutritional requirements. Prerequisites: Introductory Biology course; familiarity with molecular biology and evolutionary concepts.
Credit 3 units. UColl: OLI

U29 Bio 405 Introduction to Molecular Biology
This course will examine the fundamental principles of cellular processes at the molecular level. Among the major topics covered are nucleic acid chemistry, gene structure and organization in prokaryotes and eukaryotes, gene expression, and recombinant DNA and transgenic/knockout (including conditional knockout) mouse technology. The topic of the CRISPR/Cas system used for gene editing will also be included. In addition, the idea of genes and genomes will be discussed with an introduction to functional and comparative genomics. In particular, emphasis will be placed on the regulation of gene expression and protein synthesis in the various methodologies utilized to address these topics. In addition, the concepts of siRNA, miRNA, and the phenomenon of RNA-interference will be covered with the topic of micro RNA and disease, and the importance of these small non-coding RNA molecules, highlighted by presentation of current scientific literature. Also included will be a major publication showing how RNA interference can be used as a tool to unlock the secrets of human embryonic stem cells. A number of commonly used molecular biology and biochemical lab techniques will also be covered, in addition to more current tools such as microarray and proteomics that can be used to address global changes in transcriptional profiles. Prerequisites: General Biology I and II and Organic Chemistry I.
Credit 3 units. UColl: OLI

U29 Bio 406 Introduction to Biochemistry
This course provides a basic understanding of the molecular structure of biomolecules, the metabolic processes by which these molecules are synthesized and degraded, and the energy produced to support cellular processes. It includes a study of enzyme kinetics and metabolic control mechanisms. Prerequisite: Chem 261 (either with lab or lecture only is acceptable) or permission of instructor. Priority given to students enrolled in the Post-Baccalaureate Premedical program. Same as L68 PBPM Study 406
Credit 3 units. A&S IQ: NSM BU: SCI

U29 Bio 4080 Tropical Marine Biology
This course examines the biological and ecological processes that influence ecosystem dynamics and biodiversity within coral reef, seagrass, shoreline, and mangrove communities. We discuss the threats to coastal and marine ecosystems worldwide. Prerequisite: General Biology I. Online. For MS in Bio students.
Credit 3 units. UColl: OLI

U29 Bio 4111 Tropical Ecology
This course examines the terrestrial and marine ecosystems of the tropics, focusing predominantly on the Neotropics. We examine the biological and ecological processes that influence ecosystem dynamics and biodiversity within representative communities. We discuss issues of conservation, sustainable development and resource use, and the human impact on these fragile ecosystems. Prerequisite: General Biology I or permission of instructor.
Credit 3 units. UColl: OLH, OLI

U29 Bio 413 Environmental Science: Regional and Global Perspectives
This course examines the interrelationships between humans and their environment, moving from local and regional views up to a global perspective. Taking an ecosystem approach, the course starts with basic ecological principles necessary for understanding our environment. We will then explore how environmental science incorporates concepts from politics, social sciences, economics, ethics, and philosophy; physical and biological resources; conservation, management, sustainability, and restoration; population principles; environmental economics; human impacts (especially pollution and disturbance); environmental health and toxicology; and environmental policy. Lectures and discussions will focus on the major issues involved in environmental challenges, drawing on current, carefully selected articles from some of the most respected magazines, newspapers, and journals published today. Prerequisite: General Biology I or permission of the instructor.
Credit 3 units. UColl: OLI

U29 Bio 4140 Environmental Medicine
Environmental Medicine explores the interactions between the environment and human health, focusing on the role of the environment in causing or mediating disease. Environmental hazards are examined in terms of toxicology, epidemiology, exposure assessment, risk assessment, individual susceptibility, adaptation/maladaptation, and the total load concept. Prerequisite: General Biology I or permission of the instructor.
Credit 3 units. UColl: OLI

U29 Bio 4170 Endocrine Physiology
Biochemical, physiological, and regulatory properties of the mammalian endocrine system at the molecular, cellular, and systemic level with a focus on human physiology and development. Topics will explore endocrine cell signaling, molecular mechanisms of hormone action, homeostasis and feedback systems including neurendocrine integration of physiological processes, endocrine control of cardiovascular and calcium homeostasis, and select discussion of endocrine pathologies. In addition to class and textbook material there will be exposure to the primary research literature.
Credit 3 units.

U29 Bio 419 Ecology
Community ecology is an interdisciplinary field that bridges concepts in biodiversity science, biogeography, evolution and conservation. This course provides an introduction to the study of pattern and process in ecological communities with an emphasis on theoretical, statistical and experimental approaches. Topics include: ecological and evolutionary processes that create and maintain patterns of biodiversity; biodiversity and ecosystem function; island biogeography, metacommunity dynamics, niche and neutral theory; species interactions (competition, predation, food webs), species coexistence and environmental change. The class format includes lectures, discussions, and computer labs focused on analysis, modeling and presentation of ecological data using the statistical program R. Prereq: Bio 2970 required, Bio 361 recommended, or permission of instructor.
Credit 3 units. Arch: NSM Art: NSM

U29 Bio 410 Environment Science: Regional and Global Perspectives
U29 Bio 4241 Immunology
This course covers basic molecular and cellular aspects of the vertebrate immune system emphasizing specific and nonspecific host defense against disease, the nature of immunological specificity, and its underlying molecular genetics. We also cover immunochemistry and its use in immunoassay systems, the nature of cell activation, cytokines, tolerance and autoimmune, allergic reactions, blood groups, transplantation reactions, immunodeficiency, and complement systems. Prerequisites: two or more of the following courses are recommended: Biochemistry, Cell Biology, Molecular Biology/Nucleic Acids, Microbiology/Virology, Pathology/Pathobiology. Does not apply to day undergraduate biology major or College of Arts and Sciences distribution requirement.
Credit 3 units. UColl: OLI

U29 Bio 431 Biology of Aging
This course provides concepts and examples of the biology of aging. We discuss current literature with emphasis on theoretical causes of aging and the practical implications of these theories. Major topics include the biochemical processes of aging, cell cycle senescence, age-related organ dysfunction, interventions to alter the aging process, and medical illnesses associated with aging (e.g., Alzheimer's disease, the dementias). We also study animal and human models for extending longevity, and current approaches for dealing with the aging process are included. Prerequisites: Biol 2960 and Biol 2970 or equivalent; Chem 105 and Chem 106 or equivalent are recommended.
Same as L41 Biol 4310
Credit 3 units. A&S IQ: NSM BU: SCI

U29 Bio 432 Conservation Biology and Biodiversity
This overview of the fields of conservation biology and biodiversity covers topics such as species preservation, habitat restoration, refuge design and management, and human population growth. Does not count for day, undergraduate Biology major. Prerequisite: General Biology I or permission of the instructor.
Credit 3 units. UColl: OLI

U29 Bio 435 Neurobiology
An extensive introduction to neurobiology. Starting with the elementary building blocks of the nervous system, neurons, the course covers development and regeneration of the nervous system, properties of neurons and glia, ionic basis of signaling and neurotransmitters, neural circuits and the generation of behavior, and brain function in health and disease. Introduction to the latest techniques available to the modern neuroscientist. Guest speakers and discussion sessions. (Not applicable for undergraduate biology major.) Prerequisite: General Biology I or equivalent.
Credit 3 units. UColl: OLI

U29 Bio 436 The Neural Basis of Behavior
This course provides an overview of how the nervous system works from a biological perspective. We will begin by studying how nerve cells function, focusing on how they transmit signals and communicate with one another through specialized connections called synapses. We will further examine the anatomy of the nervous system to discover how nerve cells are organized into circuits and how these circuits develop. Finally, we will investigate how the specialized properties of our nerve cells allow us to interact with our environment through an in-depth study of our motor and sensory systems. Prerequisites: General Biology I and II or permission from the instructor.
Credit 3 units. UColl: OLI

U29 Bio 438 Virology
Same as L86 PBPM Study 438
Credit 3 units. A&S IQ: NSM BU: SCI

U29 Bio 4391 Modern Genetics
This course will introduce students to concepts in genetics from classical Mendelian inheritance to modern theories of gene regulation and epigenetics. It will also focus on the use of bioinformatics to analyze genes and genomes, and the mapping of quantitative trait loci. The course will include discussion of current research literature, with an emphasis on experimental design and techniques. Modern genetics is particularly well suited for students who wish to pursue a career in the health sciences or who are interested in continuing their graduate studies in genetics or molecular biology. Prerequisite: General Biology I.
Same as L86 PBPM Study 4391
Credit 3 units. A&S IQ: NSM BU: SCI

U29 Bio 4501 Evolution
Evolution, in its broadest senses, is the fundamental unifying theory in biology; as such, its scope is arguably the greatest in all the biological sciences. This course is intended to provide a framework for understanding advanced concepts of evolutionary biology. Particular emphasis will be placed on how knowledge of evolutionary theory can be applied to the problems of today? world and to providing a general understanding of the diversity of life on earth and its origins. The course will cover both micro and macro-evolution and include topics such as natural, kin, and sexual selection; the ecological context of adaptation, speciation, coevolution, as well as misconceptions described by opponents of evolutionary biology. Prerequisite: General Biology I.
Credit 3 units. BU: SCI

U29 Bio 458 Readings and Research in Biomedical Sciences
Each day, more than 5000 new biomedical research articles are published. As a future physician and scientist, you will need to be able to identify and stay current on medical advancements. Medicine is interdisciplinary, and a successful scientific career means being able to make connections between diverse research fields. The goal of this journal club is help students develop skills for locating, analyzing, and understanding scientific research articles. Students will learn how to locate primary journal articles using a variety of search engines such as PubMed and Ovid, and practice reading articles outside of their comfort zone without being intimidated by scientific jargon and formal writing styles. Students will be expected to discuss current research articles and develop effective scientific writing skills by analyzing the main sections of a scientific manuscript (Abstract, Background, Methods, Results, Discussion, Conclusion, Implications).
Credit 2 units.
U29 Bio 4582 The Essentials of Biomedical Scientific Reviewing, Writing, and Presenting
This course will provide the most fundamental techniques for effectively reviewing, writing and presenting scientific information. The goal of this course is to help students understand scientific communication better. They will become familiar with the structure of scientific papers, grants and presentations and will learn to critically evaluate each form of communication. Students will learn the characteristics of outstanding scientific writing and presenting, including academic style, coherence, clear data presentation, and word choice through classroom exercises and mock presentations. Classes will consist of a lecture (1 hour) followed by a classroom exercise (1.5 hours). Students will be graded on classroom exercises and writing assignments. Prerequisites: General Biology I and General Biology II. Credit 3 units. UColl: OLI

U29 Bio 4590 Advanced Physiology
In this course, students will examine physiology in a cohesive evolutionary context. For each system, we will first review the general anatomy and physiology, turning then to the molecular basis of function and dysfunction. An understanding of the various physiological systems will be synthesized in the context of evolutionary history. Each class will begin with an overview of the basic physiology of one of the major organ systems, including neural, respiratory, cardiovascular, endocrine, digestive, urogenital and immune. In the remainder of each class, we will apply this understanding to recent discoveries presented in the primary scientific literature. Students will each present a synthesis of the literature on a particular system and lead two class discussions during the semester. Priority given to students enrolled in the Post-Baccalaureate Premedical program. Same as L86 PBPM Study 4590
Credit 3 units. A&S IQ: NSM BU: SCI

U29 Bio 463 Global Health Issues
This course is designed to inform and challenge participants to observe and solve problems relating to world health issues while teaching basic biology concepts. Participants will investigate barriers to solving problems of Nutrition, Infectious disease and Environmental factors that prevent progress of global communities. They will also research new technologies being developed that could potentially provide solutions as well as create an ideal lesson using global health issues the focus. Open to Post-Bacc Students. Prerequisite: General Biology I or permission from the instructor.
Credit 3 units. UColl: OLI

U29 Bio 4631 Urban Agriculture and Sustainable Food Systems
In this course we take a systems (holistic) approach to sustainable agriculture. We review the basic principles of food systems geography, food and nutritional security and insecurity, work with cross cultural perspectives, and examine the inter-related issues of poverty, hunger, equity, access and distribution throughout the global, regional and local food systems. We will critically review large, medium, and small scale agricultural systems, comparing industrial, organic, natural and ecological systems. Students will develop a food systems framework through examination of the social, ecological, economic, and institutional dimensions of the many sustainability challenges associated with food system activities (production, processing, distribution, consumption, waste).
Credit 3 units. UColl: OLI

U29 Bio 471 Topics in Cancer Biology
Cancer has a significant impact on society in the United States and across the world. This course aims at providing students with a more extensive understanding of what cancer is and how it affects the human body. This course will teach you to be conversant on issues related to cancer, including its etiology, development, genetics, treatments, and prevention. We will be using a combination of lectures and discussions, so each student is expected and encouraged to participate in class discussions and contribute relevant thoughts and ideas. The material will cover the basics of cancer biology using a traditional lecture including a review of relevant primary literature. The online portion of the course will include discussions of current topics and research articles and videos that will be assigned. The major topics covered in the course include causes of cancer, Oncogenes, p53 its role in cell cycle and cell death, Mutagens and carcinogenesis, Cancer Genetics, Cancer metastasis, Hypoxia, Angiogenesis, Epithelial-Mesenchymal Transition (EMT), Cancer screening, diagnosis, Cancer therapy including immunotherapy, Cancer biomarkers, Cancer staging, Cancer Imaging and Personalized medicine. Prerequisite: General Biology I.
Credit 3 units. UColl: OLH, OLI

U29 Bio 4715 Basic Cancer Biology
More than two thirds of all people know someone who has cancer. This course provides students with a more extensive understanding of what cancer is and how it affects the human body. We will discuss the history of cancer research, the many different types of human cancers, and basic chemotherapeutics. The topics will be presented in a basic scientific nature, with an emphasis on gaining a broad understanding of the subjects. Prerequisite: Biol 2960 or equivalent. Not available to students who have credit for Biol 144 or Biol 1440.
Same as L41 Biol 4715
Credit 3 units. A&S IQ: NSM BU: SCI

U29 Bio 4716 Advanced Cancer Biology
This advanced course provides students with a more in-depth understanding of the molecular mechanisms of cancer. We will discuss tumor suppressors, oncogenes, signaling pathways, animal models in cancer, and novel targeted cancer therapies being developed by biotechnology and pharmaceutical companies. Prerequisite: Biol 144, Biol 1440 or Biol 4715.
Same as L41 Biol 4716
Credit 3 units. A&S IQ: NSM BU: SCI

U29 Bio 472 Cell Biology and Its Molecular Foundation
This course addresses cellular events in eukaryotes and their molecular foundation. Its focuses include how DNA is decoded into messages for various cellular activities, how structures and functions of cells are maintained, how cells communicate with their environment, and how interactions between cells lead to the construction of an organism. Current technologies for cell biology study will be also discussed. Prerequisite: An undergraduate biology course. Priority is given to students enrolled in the Post-Baccalaureate Premedical program.
Same as L86 PBPM Study 472
U29 Bio 4721 The Biology of Membranes
Biological membranes not only define cell and organelle boundaries but also control the substances that are allowed to enter or exit the cell or organelle. Membrane structures, including composition, determine functions. The goal of this class is to examine cell membrane structure, membrane components and their organization into domains, and functions. Cholesterol is an important membrane lipid that is linked to biomembranes structurally and functionally. Misregulation of synthesis or trafficking of lipids, including cholesterol, contributes to many human diseases. Students will learn historical background and recent advances in membrane biology, following the path taken by cholesterol and others. Prerequisite: General Biology I or permission of the instructor. Credit 3 units. UColl: OLI

U29 Bio 477 Fundamentals of Parasitology
This course covers a variety of clinically relevant parasitic organisms and their importance to human disease. We will discuss in detail the interactions of parasites with the host immune response both in terms of mechanisms whereby the host resists infections by these organisms and also how these parasites circumvent the host's ability to eliminate them. Because so much of the clinical importance of parasites has to do with this interaction, we will also cover general aspects of the workings of the immune system. There will be an emphasis on the nature of the host-parasite interaction on a molecular level. Lectures include discussions of recent literature concerning parasites and their interactions with the host. Credit 3 units. UColl: OLI

U29 Bio 478 Neuroscience: Sensory Systems
This course examines transduction and neural processing of various sensory inputs, including vision, audition, somatosensation, and special senses. Topics ranging from anatomy and physiology of the human sensory systems to the sensory plasticity will be discussed. Topics also include organization of sensory map, sensory reorganization, sensory integration, sensory-motor interactions and higher cognitive functions. We also discuss clinical aspects of sensory dysfunctions. We will explore landmark works and recent studies on sensory neurosciences. Prerequisite: General Biology I Credit 3 units. UColl: OLI

U29 Bio 480 Mechanisms of Microbial Pathogenesis
This class is designed to specifically address mechanisms whereby microbes of three basic types: Bacteria, Viruses, and eukaryotic parasites, subvert the host immune response and cause disease. The class will therefore be subdivided into three sections studying each of these three types of organisms. This class will primarily focus on recent publications with a short lecture preceding each discussion. Prerequisites: General Biology I and II or permission from the instructor. Credit 3 units.

U29 Bio 481 Evolutionary Medicine
Evolutionary Medicine examines how human evolution relates to a broad range of contemporary health problems including infectious, chronic, nutritional, and mental diseases and disorders. The primary goal of the course is to compare modern human environments and behaviors with the conditions under which humans evolved to determine the extent to which medical conditions of the present may be a consequence of adaptation to different conditions of the past. Hybrid online, meeting on the following Thursdays 1/29, 2/12, 2/26, 3/12, 4/9, 4/23. Credit 3 units.

U29 Bio 4811 Advanced Wilderness Medicine
This course will explore the physiology underlying diagnosis and treatment protocols for wilderness and remote first aid. In each section we will first review evidence-based, best practices and then discuss the underlying mechanisms and physiology. In addition to learning the theory of emergency medical care, we will gain experience practicing life saving techniques including: CPR, wound cleaning and care, splinting of fractures and dislocations, spinal stabilization, and treatment of heat stroke and hypothermia. Prerequisite: Completion of Introductory Biology and one additional biology course. Same as L96 PBPM Study 4811 Credit 3 units. A&S IQ: NSM BU: SCI

U29 Bio 483 Cardiovascular Function, Diseases, and Therapeutics
In this course, students will receive an in-depth study of cardiovascular function from a cellular and molecular perspective. In addition, students will learn the etiology of cardiovascular diseases and therapeutics at the cellular and molecular levels. Finally, students will gain insight into the biomedical process through engagement of the scientific literature in a problem-based learning, presentation and discussion format to complement in-class material. By the end of the course, students should be knowledgeable in the following: (1) the basic anatomy and histology of the heart and vascular tree; (2) the cellular and molecular basis of cardiac and vascular functions; (3) mechanisms of cardiovascular-related dysfunctions and related therapeutics; and (4) introductory interpretation of the scientific literature. Prerequisites: Courses in human systems, cell biology, and/or physiology are strongly recommended. Credit 3 units.

U29 Bio 485 Synaptic Change in the Nervous System
In this course, we study synapses and how they are modified by experience in development, learning, and memory. Topics include the impact of different types of synapses on neural function; activity-dependent synaptic organization during nervous system development; the link between synaptic plasticity and learning and memory; circuitry and mechanisms of explicit and implicit memory formation; and synaptic organization and function in aging. We also learn how learning and memory are altered in mood disorders and addiction, as well as how they are affected by sleep and exercise. Prerequisites: Introduction to Psychology and previous course work in biology. Credit 3 units. UColl: OLI

U29 Bio 4866 Communicating Science: Writing for Multiple Audiences
This course introduces strategies for writing effectively and communicating scientific research to a variety of audiences. Students will learn to reduce jargon, explain scientific concepts in common language, write clearly and concisely, and use sentence structure to maximum efficiency. Written assignments emphasize the significance and innovation in scientific research that appeal to broad audiences, including: the general public,
students, policy makers, grant reviewers, and journal editors. This course meets biweekly and consists of lectures and small group sessions. You must enroll in both the lecture session (section 1) and a small group (section A, B, C, or D). Same as L41 Biol 5866
Credit 1 unit.

U29 Bio 487 Undergraduate Teaching Assistant
Exceptional undergraduates serve as teaching assistants for laboratory and/or discussion sections in departmental courses. Normally 2 or 3 units are given per semester, subject to the approval of the instructor and the department. Credit may not be counted toward fulfilling a major in University College; Independent Study application form required. Prerequisite: permission of instructor. Credit /No Credit only. Credit variable, maximum 3 units.

U29 Bio 492 Entering Mentoring
This course is a series of facilitated discussions aimed at developing and improving mentoring skills for those involved in supervising undergraduate research experiences. It is designed for postdocs and graduate students who are or will be "bench mentors" for undergraduates doing Bio 500 and/or Summer Research. Participants will receive "Entering Mentoring" materials, including articles and worksheets to facilitate mentoring interactions with their mentee, plus several resource books relevant to mentoring. They will develop a mentoring philosophy statement, work on specific assignments designed to improve their relationship with their mentee and share their present and past experiences as mentors and mentees. Bench mentors will be eligible for a travel award to help defray expenses for attending a meeting with their mentee, if that student wins one of the HHMI SURF travel awards (4-5 awarded annually) or is otherwise being supported to present at a scientific meeting. Prerequisite: open to graduate students and postdocs, with priority for those who plan to mentor undergraduates in summer research experiences. Graduate students and postdocs do NOT need to be mentoring a student at the time of the course; it is open to all with an interest in mentoring now or in the future. Note: The sessions will be held either at the beginning of the day or the end of the day at the Danforth campus. Once registration closes, an email will be sent to those registered to poll for the best days & times. Same as L41 Biol 5922
Credit 1 unit.

U29 Bio 500 Independent Study
An independent research project under the supervision of a member of the Biology faculty. Open only to students admitted to the graduate program in Biology. Approved proposal must be presented at the time of registration. For more information, contact the assistant dean for Graduate Programs at 314-935-6700.
Credit variable, maximum 3 units.

U29 Bio 521 Program Capstone I
Graduate students will teach a secondary biology unit integrating major concepts from the first summer institute and conduct action research on its implementation. Teachers will analyze its successes and failures, discuss solutions, and document measures of student learning. Each capstone project will culminate in a final report. As part of the process of developing and reporting on the project, graduate students will work together in small groups based on school and unit topic. Prerequisite: for participants in MS in Biology degree program or by permission of instructor.
Credit 1.5 units. UColl: OLI

U29 Bio 5432 Conservation Biology and Biodiversity
We will explore real-world examples of issues involving threats to biodiversity, ecological economics and nature conservation, habitat degradation and loss, habitat fragmentation, overexploitation, species invasions, biological impacts of climate change, conservation genetics, species and landscape approaches to conservation, ecosystem approaches to conservation, restoration of damaged ecosystems, and sustainable development. This course is fully online. Students enrolled in day classes at Washington University should review the policies of their home division on credit earned for online courses. Prerequisite: for MS in Biology students only.
Credit 3 units. UColl: OLI

U29 Bio 552 Human Genetics and Cytogenetics
Human or medical genetics is one of the most rapidly advancing fields of science and is now integral to all aspects of biomedical science. This course provides a genetic perspective on the function of the human body in health and disease. Beginning with a study of chromosomes and the disorders that result from their aberrations, the course presents the theoretical background necessary for a deeper understanding of the emerging impact of human genetics on biology. Topics include chromosomal basis of heredity, autosomal and sex chromosomal abnormalities, and cancer genetics. Students will be introduced to the specific molecular and cytogenetic techniques that have revolutionized the study of human genetics.
Credit 3 units. UColl: OLI

U29 Bio 5771 Program Capstone II
Graduate students will teach a secondary biology unit integrating major concepts from the second summer institute and conduct action research on its implementation. Teachers will analyze its successes and failures, discuss solutions, and document measures of student learning. Each capstone project will culminate in a final report. As part of the process of developing and reporting on the project, graduate students will work together in small groups based on school and unit topic. Prerequisite: for participants in MS in Biology degree program or by permission of instructor.
Credit 1.5 units. UColl: OLI

Biology for Science Teachers
Note: As of Fall 2022, this program is no longer accepting new students.

The Master of Science (MS) in Biology is designed to fit the schedules of working teachers. It consists of two three-week summer institutes in residence at Washington University. The remaining course work, which is performed during the academic years, is completed online. Summer housing is available for out-of-town students and is included in the cost of the program.
The MS in Biology program is offered through University College and resides at the Institute for School Partnership, Washington University’s signature effort to strategically improve teaching and learning within the K-12 education community. Grounded in this manner, the program receives the added benefit that comes from being tied to an organization that truly focuses on teacher and student success while providing the best professional development from top biology faculty. The faculty who teach in this program use their own and related current research in their courses to demonstrate the importance of scientific issues to the global community.

Contact: Elizabeth Fogt
Phone: 314-935-6778
Website: http://ucollege.wustl.edu/node/1278

Degree Requirements

Master of Science in Biology

Students seeking the MS in Biology must satisfactorily complete 30 units of graduate course work in the life sciences, including two capstone courses designed to be completed over the two years of the program. In Capstone I, students will work with the program director to conduct an action research project on a topic relevant to life science learning in their classrooms. Capstone II provides an opportunity for the students to conduct research on the implementation of a leadership project they have chosen to fulfill over their final academic year prior to graduation.

Clinical Research Management

The Master of Science (MS) in Clinical Research Management is designed for experienced professionals working in academic research centers or private industry who seek greater depth and breadth of study in the science and business of clinical research.

The curriculum encompasses in-depth coverage of essential skills and processes required for the management of studies that develop drugs, devices, and treatment protocols for patient care. Major topics include regulatory requirements, ethical issues, product development, the business of clinical research, grant funding and manuscripts, epidemiologic principles and tools, research design and data analysis, all in the context of human subjects in clinical trials.

Note: This program is not currently accepting applications from international students using an F-1 or J-1 visa.

Contact: Sally Anderson
Phone: 314-935-6700
Email: sallyanderson@wustl.edu
Website: https://ucollege.wustl.edu/programs/graduate/masters-clinical-research-management

Degree Requirements

Master of Science in Clinical Research Management

The Master of Science in Clinical Research Management is a 30-unit program that includes 24 units of required course work and 6 units of authorized electives.

Required Courses: 24 units

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRM 500</td>
<td>Fundamentals of Clinical Research Management</td>
<td>3</td>
</tr>
<tr>
<td>CRM 512</td>
<td>Advanced Data &amp; Information Management in Health Sciences</td>
<td>3</td>
</tr>
<tr>
<td>CRM 515</td>
<td>Medical Writing for Clinical Research</td>
<td>3</td>
</tr>
<tr>
<td>CRM 518</td>
<td>Drug and Device Development</td>
<td>3</td>
</tr>
<tr>
<td>CRM 522</td>
<td>Compliance, Legal, and Regulatory Issues</td>
<td>3</td>
</tr>
<tr>
<td>CRM 555</td>
<td>Health Care Policy</td>
<td>3</td>
</tr>
<tr>
<td>CRM 562</td>
<td>Leadership and Change in Health Care Services</td>
<td>3</td>
</tr>
<tr>
<td>CRM 588</td>
<td>Epidemiology for Clinical Research</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units 24

University College also offers an Advanced Certificate in Clinical Research Management (p. 83).

Courses

Visit online course listings to view semester offerings for U80 CRM (https://courses.wustl.edu/CourseInfo.aspx?sch=U&dept=U80&crslvl=5:8).

U80 CRM 500 Fundamentals of Clinical Research Management

This course provides the basic foundation for the application, concepts, and theories of clinical research. We explore the historical evolution of research, linking it to current regulations and guidelines for good clinical practice. Additional course topics include research roles and responsibilities, institutional review boards, phases of drug development, the informed consent process, human subject protections, and an overview of study conduct. Students will complete institutional review board paperwork, including writing an informed consent and developing source documents. Undergraduate students register for U80 250.

Credit 3 units. UColl: OLH, OLI

U80 CRM 509 Health and Society

This course examines topics of how public and personal health are affected by societal and institutional forces. We will use a historical perspective to explore the complex interplay between individual genetic susceptibilities and an evolving environment, where traditional metabolic signals are not always operative, often replaced by synthetic materials that the receptors have not encountered before through evolution. We will explore...
how sleep, food, and leisure have been changed by industrial, economic, political, and cultural developments (globalization). We will take a close look at the roles of urban planning, industrial farming, industrial food production / processing, animal husbandry, and the attendant evolving role of the family as well as the education of the individual. We will scrutinize global climate change, as it influences infectious disease vectors, pandemics, pollution, and related political and economic forces that do not promote societal health and well-being. Finally, we will focus on the role of the mind-brain in communication with the environment and needed in health and healing. Through critical reading of medical journal articles and newspapers we will discuss related ethical and policy questions relevant to disease prevention and public health.

Credit 3 units. UColl: OLI

U80 CRM 512 Advanced Data & Information Management in Health Sciences
This course will cover the education and training in data and information management as it applies to Health Sciences, pulling from aspects of different fields: domain specific (clinical or public health) and analytic (biostatistics and database management) using different software tools. We will examine data types and data repositories to include best practices in data acquisition and management. This course will scrutinize tools for data storage and data manipulation and delve into relational and non-relational databases. Concepts in epidemiology and biostatistics will be presented along with discussion on health informatics.

Credit 3 units. UColl: OLI

U80 CRM 515 Medical Writing for Clinical Research
This is a graduate-level intensive writing course that will guide students in developing a competitive research grant proposal. Written work, guided by each student’s needs and interests, will cover all sections of a research grant application, manuscript, progress reports, and other forms of reporting scientific findings to the public. We also will compose mock NIH grant applications. By the end of the course, each student will produce a comprehensive portfolio that includes a grant proposal, manuscript, and press release to the public.

Credit 3 units. UColl: OLI

U80 CRM 518 Drug and Device Development
This course will provide an overview of the commercial development pathways for both pharmaceuticals and medical devices, from inception to market. Through lectures and discussions, students will gain an appreciation for the role clinical study programs play in the broader scope of product development. Class topics will include preclinical, clinical, regulatory, and marketing factors which influence discovery and development of new medical products.

Credit 3 units. UColl: OLI

U80 CRM 522 Compliance, Legal, and Regulatory Issues
This course will examine the legal framework governing clinical research with human subjects in the United States. An overview of the legal system including U.S. sources of law, the interplay between the federal and state systems and the role of case law, legislatures and regulatory agencies in shaping current law and policy will be provided. Federal and state law governing clinical research from proposal to completion will be examined. At the conclusion of this course, students will be able to identify the current sources of law, policy and persuasive authority in clinical research compliance. Students will also be able to identify areas of concern and potential new or amended regulation in clinical research.

Credit 3 units. UColl: OLI

U80 CRM 525 Research Ethics and Regulatory Affairs
This course will provide an understanding of the ethical guidelines, issues, and challenges of conducting research on human subjects. We will explore issues such as conflicts of interest, genetic testing, limits of confidentiality, risk, and the distinction between compliance and ethics. As we learn about protecting research groups and interests and explaining rights and liabilities, we will study health care legislation and regulations, guidelines, contractual matters, and the complex regulatory framework that governs human subject research. Finally, we will learn to use an ethical problem-solving model in clinical research.

Credit 3 units. UColl: ML, OLI

U80 CRM 526 Drug-Induced Diseases: Detection, Prevention, and Management
A drug-induced disease (DID) is the unintended effect of a drug that results in mortality or morbidity with symptoms sufficient to prompt a patient to seek medical attention and/or require hospitalization. There have been great advances in drug therapy that have had tremendous beneficial impact on patient outcomes. However, the effects of drugs are not always beneficial; drugs are also capable of causing new diseases or exacerbating those that already exist. Some of these diseases are well known and transient (e.g., diarrhea, weight gain). Others, like liver disease and diabetes, are neither. This course will explore these issues in a novel, disease-specific way that will be accessible to a wide range of students: clinical research managers, medical students, nurses, pharmacists and other allied health professionals. The course will include weekly readings from the textbook or other sources. Regular group discussions will be important, addressing how this new knowledge can be applied to students’ professional or personal practices.

Credit 3 units. UColl: OLI

U80 CRM 529 Industry Partnering: Collaborations in Translational Research
Innovative new products are the life blood of the biopharmaceutical industry. In the U.S., most discovery research originates at the university level and is transferred via licensing agreements to industry partners or to start-up biotech companies for final development and commercialization. The process of moving this innovation from the lab to industry and then to the patient is the focus of this course. The course examines the market for intellectual property that exists between academic institutions and the private sector and explores commercialization of translational research through collaboration with industry partners. In addition to studying the complex relationship between science and business, the course employs a case study methodology to illustrate specific examples of the translational process from lab to marketed product.

Credit 3 units.
U80 CRM 5430 The Business of Clinical Research
An overview of the business elements of clinical research, this course covers drug and device development, the regulatory environment, finance, corporate structures, and the clinical trials office. We will consider stakeholders including pharmaceutical and device industries, academic and private research centers, government agencies such as the National Institutes of Health, nonprofit agencies and a variety of other organizations such as American Diabetes Association and the National Cancer Institute. We also will study local, state, and federal regulations, as well as international and global issues that impact the business of clinical research.
Same as U80 CRM 330
Credit 3 units. UColl: OLI

U80 CRM 555 Health Care Policy
This course examines important and complex developments in contemporary health care policy. We begin with an historical overview, then look at the structure of current health care delivery, and identify political and economic challenges moving forward. In particular, we will critically examine methods and principles for evaluating health care costs and measuring policy effectiveness. The course also addresses unintended consequences of health care policies, special interests and political agendas, and the influence of major institutional forces on clinical and translational research. Case studies and guest speakers will help illustrate current ethical dilemmas and other real challenges to contemporary health care and reform.
Credit 3 units. UColl: OLI

U80 CRM 562 Leadership and Change in Health Care Services
Students engage in the advanced study of leadership, integrating theory, research, and application in a diagnostic approach. Leadership skills for managing planned organizational change are developed through group discussions, class exercises, case studies, and the application of organizational approaches to change and innovation. Topics include personal effectiveness, team building, and creating learning environments in organizations.
Credit 3 units.

U80 CRM 588 Epidemiology for Clinical Research
The purpose of this course is to provide an understanding of the use of epidemiologic concepts and methods in clinical research. Two primary foci are included: 1) common applications of epidemiologic principles and analytic tools in evaluating clinical research questions; and 2) student development of skills to review and interpret the medical literature and utilize publicly available datasets to address clinical research questions.
Same as M88 AHBR 588
Credit 3 units.

Education
Note: As of Summer 2022, this program is not currently accepting new students. Please email education@wustl.edu for more information about the MAEd–IP program.

Washington University's Department of Education offers a part-time Master of Arts degree focused on an analysis of practice for educators who are currently employed as the teacher of record in a variety of public and private school settings. This analysis of practice allows educators to consider multiple and enhanced approaches for data collection, analysis, and reflection on educational issues involving educational assessment data, video microanalysis, qualitative inquiry, learning sciences research and educational foundation concepts. We offer three strands of study — Professional Development, Elementary/Middle School Science Education, and Innovative Teacher Certification — that work to enhance the educator's professional development in a particular area of focus.

Contact: Michele Augustin
Phone: 314-935-3571
Email: maugusti@wustl.edu
Website: http://ucollege.wustl.edu/areas/education/masters

Degree Requirements
Master of Arts in Education—Instructional Process
Every MAEd–IP student must complete 13 credit units of core courses in addition to a minimum of 17 credits within one of the three strands described. Requirements may differ for those students pursuing the Innovative Certification strand, depending on the current specifications of Missouri’s Department of Elementary and Secondary Education.

The core course work focuses on an analysis of practice to enhance an educator’s reflective practice by involving a variety of approaches, such as educational assessment data, video microanalysis, qualitative inquiry, learning sciences research, and educational foundation concepts. The program considers the teaching practice from the individual level to the broader foundations in a variety of disciplines.

For more information about core courses for this program, please visit the MAEd–IP program page of the University College website (https://ucollege.wustl.edu/programs/graduate/masters-education-maed/).

Strands of Study
Each student must complete the designated credit-unit requirement within the chosen strand of study, with a minimum of 30 total credits required to graduate.

Strand 1: Professional Development
(17 credits minimum)
Students who select this strand of study will design a course of study in conjunction with their advisor that is driven by their interests and needs identified via reflection and analysis in the core course work. Students in this strand may elect to do graduate-level course work in their content field, in education, or in other appropriate areas. University College offers strong graduate courses in biology, English, history and international studies.

Examples of courses include the following:

- Additional Foundations of Education electives
- Other elective courses from relevant areas

**Strand 2: Elementary/Middle Science Education**

(18 credits)

This list of U08 Educ 6000 courses is not all-inclusive; other U08 Educ 6000 courses may be substituted for those listed here. Possible courses include the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educ 6001</td>
<td>Topics in Education: Hands-On Science K-8: Electricity and Magnetism</td>
<td>3</td>
</tr>
<tr>
<td>Educ 6002</td>
<td>Topics in Education: Hands-on Science K-8: Life Cycles and Heredity</td>
<td>3</td>
</tr>
<tr>
<td>Educ 6005</td>
<td>Scientific Inquiry for the Classroom Teacher</td>
<td>3</td>
</tr>
<tr>
<td>Educ 6008</td>
<td>Teaching the Process of Scientific Investigation</td>
<td>-3</td>
</tr>
<tr>
<td>Educ 6009</td>
<td>Hands-On Science K-8: Matter and Energy</td>
<td>3</td>
</tr>
<tr>
<td>Educ 6010</td>
<td>Hands-On Science K-8: Mathematics Concepts</td>
<td>3</td>
</tr>
<tr>
<td>Educ 6013</td>
<td>Scientific Inquiry: Advanced Pedagogy for Educators</td>
<td>1.5</td>
</tr>
<tr>
<td>Educ 6019</td>
<td>Researched Practices in Math Instruction</td>
<td>3</td>
</tr>
<tr>
<td>Educ 6022</td>
<td>Improving Content and Instruction: Algebra</td>
<td>3</td>
</tr>
<tr>
<td>Educ 6031</td>
<td>Introduction to Computer Science Teaching</td>
<td>3</td>
</tr>
</tbody>
</table>

**Strand 3: Innovative Teacher Certification**

(36 to 54 credits)

This strand is designed for practicing classroom teachers seeking initial Missouri certification in middle or high school content areas. Candidates must hold an undergraduate degree and a current teaching position in a middle or high school as an uncertified teacher.

The course sequence will vary based on the level of certification sought and the required subject area course work, which will be determined by an advisor in teacher education after a review of transcripts.

**Courses**


<table>
<thead>
<tr>
<th>U08 Educ 400 Independent Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit variable, maximum 3 units.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>U08 Educ 4000 Topics in Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic varies from semester to semester.</td>
</tr>
<tr>
<td>Credit 3 units.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>U08 Educ 4024 Higher Education Administration for Social Justice &amp; Equity: Achievable or Only Dreamable?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher education has long been the subject of much general public interest and discourse. Understanding the complexity of the system, its history, practices, and expertise will help define whether and how campuses can work toward social justice and equity. In this course, students will study the history, policies, and organizational decisions that underly the current state of higher education in America. These perspectives and theories will be studied with an eye toward social justice and understanding possible changes that may lead toward equity on American college campuses. Through engaged discussions around readings and case studies, students will tackle complex social questions, including: how our college campuses became so complex? Why pervasive social issues, such as system racism, sexism, and classism, continue to exist on our campuses? How and when technology and the SAT/ACT began to rule our lives in college? Perhaps even deeper, students will grapple with finding alternate, more socially just, and equitable alternatives to create more equity on our campuses. Same as L12 Educ 4022 Credit 3 units. A&amp;S IQ: SSC Arch: SSC Art: SSC BU: HUM EN: S</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>U08 Educ 4035 Applying Principles of Equity in K-12 Teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>This course explores the current theories shaping the way we think, teach and learn in K-12 settings. Teachers examine the social constructions of race, ethnicity, gender, social class and abilities along with the impacts these have on the educational and social experiences of students from historically marginalized backgrounds. We will consider how curriculum, instruction, and assessment might be redesigned with an applied equity lens.</td>
</tr>
</tbody>
</table>

39
Projects will include the redesign of a curriculum unit in a current classroom with an applied equity lens, the presentation of the unit for group feedback, and a final paper illustrating continued equity-centered curriculum design.
Credit 3 units. UColl: OLH, OLI

U08 Educ 4044 Video Microanalysis: Methods and Tools
The purpose of this course is to explore video microanalysis as a methodological tool for studying and valuing unconscious aspects of culturally diverse settings. Utilizing social cultural theoretical lens, this type of analysis will reveal fleeting actions, subtle movements, peripheral events, and non-verbal communication that are not easily identified in real time viewing. Specifically we may look at facial expressions, direction of gaze, hand movements, body position, and use of material resources as micro techniques to expand our capacity to explore minute aspects and alternative interpretations of social interactions.
Prerequisite: Junior standing or permission of the instructor.
Same as L12 Educ 4033
Credit 3 units. A&S IQ: SSC, SD Arch: SSC Art: SSC

U08 Educ 4052 Educational Psychology: A Focus on Teaching and Learning in School Settings
This course examines psychological concepts and theories such as development, human motivation, and intelligence as applied in the process and practices of teaching and learning. In addition to readings and discussions, students spend three to five hours per week in either a preschool, elementary, or secondary school classroom. This course offers students an informed look at schooling in America, and it is designed for current and prospective teachers and for those simply interested in furthering their understanding of classroom interaction and the fundamental principles of teaching and learning. Students should be able to plan lessons and activities that address their students' prior experiences, multiple intelligences, strengths, and needs to positively impact learning. Educational psychology topics include classroom management as well as understanding the importance of differentiated learning to address individual differences in ability, cultural background, and language. Students should enroll in the lab section. Labs do not meet until after the first class. Prerequisite: Sophomore standing.
Same as L12 Educ 4052
Credit 3 units. A&S IQ: SSC Arch: SSC Art: SSC BU: BA EN: S

U08 Educ 4053 Educational Psychology Lab: A Focus on Teaching and Learning in School Settings
For students interested in Teacher Education, this lab provides direct and indirect experiences with contemporary K-12 educational practice in schools through 30 clock hours of field observation to be completed during the semester. For all other students, this lab provides direct and indirect experiences with contemporary K-12 educational practice through 30 clock hours of field observation to be completed during the semester. Enrollment Note: For students interested in Teacher Education, they must be concurrently enrolled in L12 EDUC 4052 (3 credits); all other students must be concurrently enrolled in or have completed L12 EDUC 4052 (3.0 credits).
Same as L12 Educ 4053
Credit 1 unit. A&S IQ: SSC EN: S

U08 Educ 4055 Central Topics in Psychological Research on Teaching and Learning
This course will focus on how theory and research in psychological science and other related disciplines can inform teaching and learning in a variety of educative contexts. Each week, we will delve into research on a new set of issues that all revolve around a particular theme, such as pedagogical methods, motivation, student characteristics, assessment of learning, evaluation of teaching effectiveness, and educational technology. In addition to analyzing theory and research, we will discuss implications for educational practice and policy with an emphasis on designing interventions and fostering innovation.
Same as L12 Educ 4055
Credit 3 units. A&S IQ: SSC Art: SSC BU: BA EN: S

U08 Educ 407 Curriculum and Instruction in World Languages
This course will address world language curriculum in secondary schools, including French, German, Japanese, Latin, Mandarin Chinese, Russian, and/or Spanish, with emphasis on the selection, organization, and appraisal of materials. We will analyze methods of instruction and evaluation in the teaching of modern foreign languages. Prerequisite: Admission to the teacher education program. Secondary teacher education majors are required to take 3 credit units during the fall semester.
Same as L12 Educ 407
Credit 3 units. A&S IQ: HUM Art: HUM EN: H

U08 Educ 408 Education and Psychology of Exceptional Children
Learning, psychological, cognitive and social characteristics of exceptional children and youth from gifted to those with disabilities. Study child and adolescent developmental stages and the application to educational settings through data-based decision making using assessment and student data in a critical thinking, problem solving team approach. Current practices of educational strategies, interventions, and modifications to differentiate instruction for individual learning needs are emphasized. Plan lessons and activities that address student's prior experiences, multiple intelligences, strengths, and needs to positively impact learning. Learn specific strategies for classroom management, consultation and collaboration with families, colleagues, and administrators to meet individual needs within a culturally and demographically diverse classroom. Influences of legislation, criteria used to identify children, and awareness of supportive services are explored. Prerequisite: Sophomore standing.
Same as L12 Educ 408
Credit 3 units. A&S IQ: SSC Arch: SSC Art: SSC BU: BA EN: S

U08 Educ 413 Curriculum and Instruction in Art K-12
This course addresses art curriculum in the public schools, with emphasis on examination of methods and materials for teaching art. Prerequisite: Admission to the teacher education program or approval by the director of teacher education. Offered fall semester.
Same as L12 Educ 413
Credit 3 units. A&S IQ: HUM Art: HUM EN: H
U08 Educ 414 Curriculum and Instruction in English
This course addresses English curriculum in the secondary school, with emphasis on the selection and organization of materials. An analysis of methods of instruction and evaluation in teaching literature and language is also presented. Prerequisite: Admission to the teacher education program. Secondary teacher education majors are required to take 3 credit units during the year in which student teaching is completed. Offered fall semester.
Same as L12 Educ 414
Credit 3 units. A&S IQ: HUM Art: HUM EN: H

U08 Educ 415 Curriculum and Instruction in Science
This course presents a variety of investigative approaches to teaching secondary school science curriculum and instructional methods, including the evaluation of curricular materials and the assessment of student performance based on specific teaching objectives. The course assists with the development of criteria to guide the selection of science activities to achieve specific learning goals in a curriculum. Explicit connections will be made between various science lessons, curricular goals, and both Missouri state and national standards. In addition, the course is designed to develop effective teaching strategies and approaches to curriculum development in science. It addresses components of effective curriculum that are aligned with learning experiences and outcomes using the academic language of the sciences. It incorporates strategies for individual student needs based on diverse backgrounds, prior experiences, and language to deliver differentiated instruction, and it teaches students to set learning goals. Students will develop strategies to engage their students in the methods of inquiry and research, with interdisciplinary approaches where appropriate. They will learn researched-based models of critical thinking and problem solving, including various instructional strategies and technologies that support student engagement in higher-level thinking skills. Students will use formal and informal assessments to design instruction and to improve learning activities, and this will be followed by assessment analysis to determine the effects of class instruction on individual and whole-class learning. They will understand strategies to communicate confidential student data and progress in accordance with ethical and legal protocols. Prerequisite: Admission to the teacher education program or permission of instructor.
Same as L12 Educ 415
Credit 3 units. A&S IQ: NSM Art: NSM

U08 Educ 417 Curriculum and Instruction in Mathematics
This course presents mathematics curriculum in the secondary school, with emphasis on modern developments in the organization of mathematics. An analysis of methods of instruction and evaluation in teaching mathematics is also discussed. Prerequisite: Admission to the teacher education program or permission of instructor. Offered fall semester.
Same as L12 Educ 417
Credit 3 units. A&S IQ: NSM Art: NSM

U08 Educ 418 Curriculum and Instruction in Social Studies
This course discusses the goals of general education in social studies and their relationship to the nature of knowledge in the social sciences. It introduces the nature of thinking and its relationship to pedagogy and teaching materials. Secondary teacher education majors are required to take 3 credit units during the year in which student teaching is completed. Prerequisite: Admission to the teacher education program or permission of instructor. Offered fall semester.
Same as L12 Educ 418
Credit 3 units. A&S IQ: SSC EN: S

U08 Educ 4210 Creating Video Documentaries
This course explores the tools and techniques of creating video documentaries. We begin by learning production skills, including camerawork, story development, and digital editing. Working individually or in teams, students will then develop, shoot, and edit a short documentary on a topic of their choice. We also explore concepts of media literacy to help students better understand and navigate the media worlds around them. No previous experience is required. The course is designed to provide students with all of the skills necessary to produce a finished video. The semester culminates with a public screening of student work.
Credit 3 units.

U08 Educ 4301 The American School
This course presents an analysis of the development of American schooling within the context of American social history. Focus is on three general themes: the differing conceptions of schooling held by leading American educational thinkers; the changing relationships among schools and such other educational institutions as the church and the family; and the policy issues and arguments that have shaped the development of schooling in America.
Credit 3 units. Arch: HUM Art: HUM BU: BA, ETH, HUM EN: H UColl: OLI

U08 Educ 4302 Cognitive Psychology Applied to Education
This course is intended to cover topics in the cognitive psychology of human memory, conceptual learning, and comprehension with special focus on areas, theory, and research that have potential application to education. Thus, the course will provide selective coverage of theoretical and empirical work in cognitive psychology that provides potential to inform and improve educational practice. The applicability of these themes will be explicitly developed and evaluated through the primary research literature using educationally oriented experimental paradigms. The course is expected to be of interest and benefit to education majors and to psychology majors interested in cognitive psychology and its applications.
Prerequisites: junior/senior status, 9 units in Psychology and Psych 100B or junior/senior status, 9 units in Education and Psych 100B.
Same as L33 Psych 4302
Credit 3 units. A&S IQ: SSC

U08 Educ 4441 Applied Behavior Analysis I: Basic Principles of Behavior
This course focuses on behavioral principles and procedures as related to the acquisition of new behavior and the modification of existing behavior. Topics to be covered include: reinforcement, punishment, extinction, discrimination training, generalization, shaping, classical conditioning, conditioned reinforcement, and schedules of reinforcement. Although the focus is on basic principles derived from laboratory research, applications of these principles to areas such as developmental disabilities (e.g., autism), academic skills, and oppositional behaviors are discussed. Philosophical and historical antecedents of
behaviorism also are explored. This class is part of a sequence of courses that the Behavior Analyst Certification Board, Inc. has approved for eligibility to take the Board Certified Associate Behavior Analyst Examination. Same as U09 Psych 444. Credit 3 units.

U08 Educ 4451 Teaching Writing in School Contexts
Writing teachers often know how to write well but less about the teaching of writing. To provide effective instruction in writing, teachers need, first of all, experiences with writing instruction and theoretical knowledge to guide classroom practices. The goals of this course are as follows: to provide opportunities for all teachers of English and language arts, to develop theoretical knowledge and skill as teachers of writing, to connect the practices of research and teaching, to encourage teachers to give their students multiple and varied experiences with writing, to assist teachers in learning to respond to students’ writing and assess their progress as writers. Offered Fall semester. Same as L12 Educ 4451. Credit 3 units. A&S IQ: SSC.

U08 Educ 4452 Applied Behavior Analysis II: Procedures for Behavior Change
This course focuses on the complex behavioral principles and on issues surrounding their application in the analysis and modification of behavior. In addition, students learn to identify behavior and environment relations that constitute behavioral deficits or excesses. Behavioral change procedures to be explored include: functional analysis, reinforcement, shaping, chaining, discrete trials, contingency contracting, reinforcement, and maintenance of behavior change. Ethical considerations are also addressed. This class is part of a sequence of courses that the Behavior Analyst Certification Board, Inc. has approved for eligibility to take the Board Certified Associate Behavior Analyst Examination. Prerequisite: U09-444. Same as U09 Psych 445. Credit 3 units.

U08 Educ 446 Applied Behavior Analysis: Research Methods and Evaluation
This course focuses on research design and methodology in behavior analytic research, with a focus on single-subject experimental designs. Various behavior-assessment and behavior-intervention evaluation strategies will be examined. In addition, the course explores techniques for direct observation, and measurement of behavior, as well as methods of summarizing data, data analyses, and the ethics of research. Prerequisite: ABA I: Basic Principles of Behavior. Same as U09 Psych 446. Credit 3 units.

U08 Educ 4491 Applied Behavior Analysis Practicum
This practicum provides experience in applied behavior analysis and is designed for individuals who intend to pursue certification through the Behavior Analysis Certification Board (BCBA) examination at the Associate level (Board Certified Associate Behavior Analyst: BCABA). Students will work in community-based agencies and be supervised by the community agency and the Practicum faculty. Prerequisites: admission to the Washington University Applied Behavior Analysis Certificate Program; and ABA I: Basic Principles of Behavior; and ABA II: Procedures for Behavior Change; and permission of instructor. Email (aba4kids@yahoo.com).

Same as U09 Psych 449. Credit 2 units.

U08 Educ 4511 Race, Ethnicity, and Culture: Critical Qualitative Understandings of Urban Education
This course examines educational institutions as spaces where children are asked to comply to the norms, expectations, and values of the culture of power. We will study how forces -- such as de facto segregation, the disproportionate hyper-disciplining of students, punitive school climates, and the devaluing of certain forms of cultural and social capital -- can contribute to cycles of social reproduction among the marginalized. To address such challenges, this course introduces sociocultural theories and critical qualitative inquiry methods as mechanisms by which urban educational institutions can be positively transformed. Specifically, restorative practices, cogenerative dialogues, and participatory/co-researcher models are explored as methods that honor the voices of marginalized stakeholders and lead to catalytic, transformational impact. Leaving this course, students will have an understanding of the inequitable terrain of urban education institutions as well as a repertoire of theories and methods to assist with the conducting of critically grounded, culturally responsive, humane, and transformative research. In addition to lectures, readings, discussions, films, and actual classroom footage, students will conduct a school experience project to practice using the theories and methods introduced in this course. Junior standing or permission of the instructor. Same as L12 Educ 4511. Credit 3 units. A&S IQ: SSC, SD Arch: SSC Art: SSC BU: BA EN: S.

U08 Educ 453B Sociology of Education
This course provides an overview of sociological theory and research on education in contemporary U.S. society. Drawing from sociological perspectives, it covers the implications of schools and schooling for social inequality, mobility, and group relations. It examines major theoretical perspectives on the purpose and social organization of mass education in the United States, and topics related to the organization and function of schools, access to educational resources, and group disparities in school experiences and outcomes.

Same as L12 Educ 453B. Credit 3 units. A&S IQ: SSC, SC, SD Arch: SSC Art: SSC BU: BA, ETH EN: S.

U08 Educ 4550 American Sign Language (ASL)
This course introduces American Sign Language (ASL) through direct instruction utilizing ASL and English, ultimately leading to learning the language and understanding the culture of Deaf and hard of hearing people. Students in this course learn vocabulary, syntax, and grammatical structures of ASL as well as accompanying cultural information with an emphasis on expressive and receptive ASL development through activities related to everyday communication. The use of ASL with children in the classroom is commonplace, and those working in the field of education will benefit from this course as they create a more inclusive environment by communicating with children in their language modality, thereby contributing to classroom equity and diversity.

Credit 3 units.
U08 Educ 4580 Media Literacy for In-Service Teachers
This course allows in-service teachers to develop a technological foundation in video production (videography), post-production (digital editing), and challenge them to produce a short documentary as a final project. At the end of the semester, students screen their work in a public forum and participate in a peer evaluation workshop. The course also explores strategies to integrate media education into the K-12 curriculum. Credit 3 units.

U08 Educ 459 Philosophies of Education
An analysis of perennial themes in the philosophy of education, with particular attention to implications arising from the uneven distribution of power in an inequitable society. Significant questions to be examined include: What constitutes a truly democratic form of education? How might our answers change when we approach this question in light of the history of race in the American experience? How should teachers dedicated to a liberatory practice approach both their content and their students? Which theories of knowledge might help us envision new possibilities for teaching and learning? Readings will address both K-12 and higher education spaces while drawing on a diverse range of historical and contemporary thinkers. Seminar format. Same as L12 Educ 459F
Credit 3 units. A&S IQ: HUM Arch: HUM Art: HUM BU: ETH EN: H

U08 Educ 4610 Introduction to Educational Tests and Measurements
Basic concepts of tests and measurements for teachers (and other school personnel) are discussed. Topics include test reliability and validity; fundamentals of test construction and standardization; analysis of major types of group tests used in schools, including achievement and aptitude tests; meaning and interpretation of test scores; and development of school testing programs. Teacher-made tests are a central concern. Prerequisite: Educ 4052 or equivalent, or permission of instructor.
Credit 3 units. A&S IQ: LCD, SSC Arch: SSC Art: SSC EN: S

U08 Educ 4621 The Political Economy of Urban Education
Defining a political economy of urban education involves the examination of power and wealth and the manner in which they operate in urban settings. It requires analysis of the larger urban social and economic context and consideration of historical forces that have brought the schools to their present state. In this course, we consider various political and economic factors that have influenced and shaped urban education in the United States, drawing upon the extant literature on urban education students, except with approval of the Director of Teacher Education. Prerequisite: two years of high-school mathematics and admission to the Teacher Education program or permission of instructor. Offered Fall semester.
Same as L12 Educ 466
Credit 3 units. A&S IQ: NSM

U08 Educ 466 Mathematics for Elementary School Teachers
A review of mathematics for grades K-8, at a level beyond its usual presentation in the schools. The purpose of this course is to ensure that teachers have the necessary foundation to teach mathematical concepts and problem solving at the elementary level. Applications of all essential mathematical concepts are presented in abundance, along with methods and strategies for instruction at the elementary level. Restricted to elementary education students, except with approval of the Director of Teacher Education. Prerequisite: two years of high-school mathematics and admission to the Teacher Education program or permission of instructor. Offered Fall semester.
Same as L12 Educ 466
Credit 3 units. A&S IQ: LCD, SSC Arch: SSC Art: SSC EN: S

U08 Educ 4661 Second Language Acquisition
There are many ways in which a second language can be learned: from infancy as the child of bilingual parents, or later through formal instruction, immersion in a new culture, or in a particular work or social situation. This class is an inquiry into the processes by which acquisition occurs. Topics include the nature of language learning within the scope of other types of human learning; the relationship between first and second language acquisition; the role of linguistic, cognitive, and sociocultural factors; insights gained from analyzing learners' errors; key concepts such as interlanguage and communicative competence; bilingualism; the optimal age for second language acquisition; and a critical appraisal of different theories of second language acquisition. Both theoretical and instructional implications of second language acquisition research are considered. This course can be used toward certification in TESOL and is a required course for the Graduate Certificate in Language Instruction. Prerequisite: Ling 170D or equivalent is recommended, especially for undergraduates, but is not required.
Same as L44 Ling 466
Credit 3 units. A&S IQ: HUM

U08 Educ 4681 Teaching Reading in the Elementary School
This course emphasizes emergent literacy and children's literature, is the first in a sequence of three courses on teaching reading and writing. The purposes of this course are to survey children's acquisition of oral and written language from an emergent literacy perspective, to focus on methods of teaching beginning reading, to develop uses of children's literature in a reading program. Offered fall semester.
Same as L12 Educ 4681
Credit 3 units. A&S IQ: HUM

U08 Educ 4691 Second Language Reading and Writing: Theory, Research, and Practice
This course, taught in English, extends issues in second language literacy beyond pedagogy by examining the wide range of theoretical and research issues, both historical and current. Literacy acquisition among second language learners involves a number of variables including both cognitive and social factors. Topics to be discussed in class include literacy and social power, universal cognitive operations, individual learner differences, text types and literary forms, and the extent to which reading and writing are interrelated. Students will discuss how to bridge research and practice, and they will create reading and writing activities driven by theory and empirical investigations. This course is a required course for the undergraduate minor in applied linguistics and an elective for the Graduate Certificate in Language Instruction. This course carries the Social and Behavioral Sciences attribute.
Same as L38 Span 4691
Credit 3 units. A&S IQ: SSC EN: S
U08 Educ 470 Language, Learning, and Instruction
This course, which emphasizes children's writing and literacy issues, is the second of three courses in a sequence on teaching reading and writing. The course reviews and elaborates on work from previous courses on children's acquisition of written language; examines approaches to teaching writing; and focuses on work from sociological, feminist, and philosophical perspectives to affirm and criticize aspects of these approaches. Prerequisite: Educ 4681. Credit 3 units. A&S IQ: HUM Arch: HUM Art: HUM EN: H

U08 Educ 4701 History of the English Language

U08 Educ 4731 Elementary School Mathematics
This course introduces fundamental concepts, properties, operations, and applications of mathematics related to the systems of whole numbers, integers, rational numbers, and real numbers. Also included are measurement, simple geometry, probability, and logical reasoning. The course is designed to help students develop effective teaching strategies and approaches to curriculum development in mathematics. It addresses components of effective curriculum that are aligned with learning experiences and outcomes using the academic language of mathematics. It incorporates strategies for individual student needs based on diverse backgrounds, prior experiences, and language to deliver differentiated instruction, and it teaches students to set learning goals. Students will develop strategies to engage their students in methods of inquiry and research, with interdisciplinary approaches where appropriate. They will learn research-based models of critical thinking and problem-solving, including various instructional strategies and technologies to support student engagement in higher-level thinking skills. Students will use formal and informal assessments to design instruction and improve learning activities, and these will be followed by assessment analysis to determine the effect of class instruction on individual and whole-class learning. They will understand strategies to communicate confidential student data and progress in accordance with ethical and legal protocols. Prerequisite: Admission to the teacher education program or permission of instructor. Credit 3 units. A&S IQ: NSM Arch: NSM Art: NSM

U08 Educ 4741 Elementary Science: Content, Curriculum, and Instruction
This course focuses on key concepts appropriate for elementary school science and health instruction. A repertoire of effective teaching strategies and approaches to curriculum development are presented. Prerequisite: Admission to the teacher education program or permission of instructor. Offered spring semester. Credit 2 units. A&S IQ: NSM Arch: NSM Art: NSM

U08 Educ 4751 Elementary Social Studies: Content, Curriculum, and Instruction
Introduction to key concepts in social studies, including economics and geography. Repertoire of effective teaching strategies and approaches to curriculum development in all areas of social studies. Prerequisite: admission to teacher education program or permission of instructor. Offered spring semester. Credit 2 units. A&S IQ: SSC Arch: SSC Art: SSC EN: S

U08 Educ 4771 Arts and Aesthetics: A Means of Communication
Methods and materials for integrating the arts and aesthetics into the elementary classroom are discussed. Emphasis is on art, music, and oral communication as well as curricula in movement. Prerequisite: Admission to teacher education program or permission of instructor. Offered spring semester. Credit 3 units. A&S IQ: HUM Arch: HUM Art: CPSC, HUM EN: H

U08 Educ 4821 The Teaching-Learning Process in the Secondary School
Secondary teacher education majors are required to take this teacher-learning course during the spring semester in which student teaching is completed. The course focuses on the study, practice, and analysis of generic teaching strategies and skills needed to meet the needs of all students. Topics include classroom management, lesson planning, instructional and ethical decision making, and strategies for presenting clear explanations, asking effective questions, conducting productive discussions, reaching students with different learning styles/abilities/cultural backgrounds, and using cooperative learning groups. Prerequisite: Admission to the teacher education program. Corequisites: Educ 492 or Educ 494; and Educ 5681. Credit 3 units. A&S IQ: SSC, WI Arch: SSC Art: SSC EN: S

U08 Educ 4831 The Teaching-Learning Process in the Elementary School
This course focuses on four broad areas: (1) self-awareness and human relations; (2) instructional and behavioral management strategies; (3) the development of curriculum and the analysis of instruction; and (4) social, political, and legal issues affecting the classroom. Topics include teacher-pupil relationships, assessment of pupil progress, curriculum development, instructional technology, and school organization. Course discussion and study further develop knowledge in a variety of areas that are experienced during student teaching, such as the refinement of pedagogy strategies and skills; the Missouri Educator Evaluation System (MEES) for certification; understanding diverse cultural perspectives of English language learners and how to select appropriate strategies for addressing individual needs in meeting curriculum objectives; incorporating strategies for individual student needs based on diverse backgrounds and prior experiences to deliver differentiated instruction; creating a positive learning environment through effective classroom management using strategies based on research and pedagogically sound techniques; developing reflective practices to improve teaching while understanding the importance of utilizing professional learning opportunities in school districts and professional organizations; understanding the importance of communication, professional relationships, and collaboration with teachers, administrators, families, and the
community; and understanding the nature of professional, ethical behavior and the need to adhere to district policies and school procedures. Prerequisite: Admission to the teacher education program. Corequisites: Educ 470 and Educ 4911. Same as L12 Educ 4831
Credit 3 units. A&S IQ: SSC, WI EN: S

U08 Educ 4841 Elementary Methods Field Experience
This course involves the application and analysis of specific content area methods and strategies in an elementary school classroom. Prerequisite: Admission to the teacher education program. Elementary teacher education majors are required to take this course during the spring semester before the year in which student teaching is completed. Offered spring semester. Same as L12 Educ 4841
Credit 2 units. A&S IQ: SSC Art: SSC

U08 Educ 4843 Field Experience Seminar
This course guides students through a field experience in a middle or secondary public school. Fifty hours of observation are required for each student; these hours involve observing and documenting classroom environment characteristics, professional teacher behaviors, and student behaviors; working with students individually and/or in small groups; preparing and teaching a lesson; and learning classroom technologies such as SMART Board and digital video recording and editing. Course topics, observation, and discussion include understanding diverse cultural perspectives of English language learners and how to select appropriate strategies for addressing individual needs in meeting curriculum objectives; incorporating strategies for individual student needs based on diverse backgrounds and prior experiences to deliver differentiated instruction; creating a positive learning environment through effective classroom management using strategies based on research and pedagogically sound techniques; developing reflective practices to improve teaching while understanding the importance of utilizing professional learning opportunities in school districts and professional organizations; and understanding the importance of communication, professional relationships, and collaboration with teachers, administrators, families, and the community as well as the nature of professional, ethical, and legal behavior and the need to adhere to district policies and school procedures. Prerequisite: Admission to the teacher education program. Corequisites: Educ 413, Educ 414, Educ 415, Educ 417, or Educ 418.
Same as L12 Educ 4843
Credit 3 units. A&S IQ: SSC

U08 Educ 4891 Education and Public Policy in the United States
This course takes a triangulated approach to the field of public policy as it relates to education and social problems. First, the course emphasizes theories of public policy that frame the field of policy studies. Second, the course emphasizes the skills related to the exercise of policy analysis. Third, this course simulates the policymaking context through students' participation in mock congressional testimonies. Educational opportunity, achievement inequality, and social change will be the primary interests that link these course features. Same as L12 Educ 489
Credit 3 units. A&S IQ: SSC Art: SSC EN: S UColl: ACS

U08 Educ 4911 Student Teaching in the Elementary School
This course encompasses a supervised teaching experience as well as group meetings and individual conferences. Emphasis is on the integration of theory/practice and reflections on teaching. Prerequisite: Admission to the teacher education program. Graduate students must register for satisfactory/unsatisfactory grading; undergraduates must register for pass/fail grading. Offered fall semester. Same as L12 Educ 4911
Credit variable, maximum 8 units. A&S IQ: SSC EN: S

U08 Educ 492 Student Teaching in the Secondary School
Supervised teaching experience. Group meetings and individual conferences. Emphasis on integration of theory/practice and reflection on teaching through videotape analysis. Prerequisite: admission to teacher education program. Graduate students must register for Satisfactory/Unsatisfactory and undergraduates must register for Pass/Fail. Secondary teacher education students enroll for 8 credits during the spring semester. Same as L12 Educ 492
Credit variable, maximum 8 units. A&S IQ: SSC Arch: SSC Art: SSC EN: S

U08 Educ 494 Student Teaching in K-12
This course encompasses a supervised teaching experience as well as group meetings and individual conferences. Prerequisite: Admission to the teacher education program. Credit/no credit only. Offered spring semester. Same as L12 Educ 494
Credit variable, maximum 8 units. A&S IQ: SSC Arch: SSC Art: SSC EN: S

U08 Educ 4951 Middle School Philosophy and Organization
This course examines the history, goals, organization and philosophy of middle schools as institutions. Students will explore how the characteristics and needs of early adolescents guide the mission, structure and operation of middle schools. Prerequisite: admission to teacher education program. Same as L12 Educ 4951
Credit 2 units. A&S IQ: SSC EN: S

U08 Educ 4952 Middle School Curriculum and Instruction
By building on knowledge of the middle-level child and the ways in which middle schools are organized to meet the needs of middle-level children (covered in Educ 4951), this course explores the learning styles and attributes of middle-school students and examines instructional theory, methods, and materials appropriate to grades 5 through 9. In addition, portions of this course will be devoted to specific content field methodology and subdivided into English/language arts and social studies or science and math. The English/social studies and science/math sessions will be held concurrently, and students will attend the session appropriate to their content majors or minors. Interdisciplinary team teaching will be modeled and featured in these sessions. This course features a required practicum experience. Prerequisite: Admission to the teacher education program. Same as L12 Educ 4952
Credit 3 units. A&S IQ: SSC Art: SSC EN: S
U08 Educ 500 Independent Study
Prerequisite: Permission of instructor. Permission to enroll is given in McMillan 215. The amount of credit will be determined in each case, with a maximum of 6 credit units.
Credit variable, maximum 6 units.

U08 Educ 503 Foundations of Educational Research
An introduction to the basic concepts, philosophies, and techniques of research. The first portion of the course introduces the various kinds of methodologies used in education, including an analysis of the strengths, weaknesses, and limitations of each. The last portion of the course is devoted to the techniques used in investigating a topic of relevance to the students. Prerequisite: graduate standing or permission of instructor.
Same as L12 Educ 503
Credit 1.5 units.

U08 Educ 511 Child Development
This course serves as an introduction to developmental theory and research methods by highlighting the various processes (including biological and sociocultural forces) that influence human psychological change. Emphasis is given to normative social-emotional and cognitive development in childhood, using current empirical studies as the basis for student exploration, discussion, and debate.
Same as L12 Educ 512
Credit 3 units.

U08 Educ 5125 Advanced Teaching Methods: Elementary - Fall
In this course, students will continue to refine their vision for high quality instruction in an elementary Language Arts and Mathematics classroom. Language Arts: students will build upon their understanding of best practices in elementary literacy by designing the structure for a Balanced Literacy block in their classrooms. These literacy blocks include instructional time devoted to explicit phonics instruction, shared reading, guided reading, read-aloud instruction, and vocabulary instruction. Students will also focus on writing instruction and will implement writing mini-lessons and student conferences in their classrooms. Mathematics: This course will also build on students’ understanding of effective mathematics instruction and their knowledge of both direct instruction and inquiry-based approaches to learning. Students will explore effective instructional strategies through the lens of content, with a core focus in Basic Operations (addition, subtraction, multiplication, division); Geometry, Fractions and Measurement; & Problem-Solving, Algebra, and Graphing. By analyzing instruction through the lens of specific mathematical concepts, students will have the opportunity to design lessons that focus on the connections between mathematical content as well as the standards for mathematical practice. Students must have instructor approval to register.
Credit 1.5 units. UColl: OLH

U08 Educ 5127 Advanced Teaching Methods: Secondary Mathematics - Fall
In this course, students will continue to refine their vision for high-quality mathematics instruction in a secondary classroom. Students will revisit the fundamental design elements present in inquiry-based lessons, focusing on the development of their students’ conceptual understandings. The course will also focus on the importance of computational and procedural fluency, and students will create a backwards plan that allows for daily fluency practice within their classrooms. Moving beyond fundamental lesson planning and assessment structures, students in this course will learn specific strategies to develop and assess their students’ problem-solving skills and abilities and to implement effective discourse in their mathematics classrooms. Students will design instructional activities that allow their students to explore and discuss challenging problems and tasks through structures such as problem-solving seminars and performance-based assessments. Students must have instructor approval to register.
Credit 1.5 units. UColl: OLH

U08 Educ 5128 Advanced Teaching Methods: Secondary Science - Fall
In this course, students will continue to refine their vision for high-quality science instruction in a secondary classroom. Moving beyond fundamental lesson planning and assessment structures, students in this course will learn specific strategies to develop and assess their students’ problem-solving skills and abilities and to implement effective discourse in their science classrooms. Students will design instructional activities that allow their students to explore and discuss challenging problems and tasks through structures such as problem-solving seminars and performance-based assessments. Students must have instructor approval to register.
Credit 1.5 units. UColl: OLH, OLI

U08 Educ 5130 Advanced Teaching Methods: Elementary - Spring
In this course, students will continue to refine their vision for high quality instruction in an elementary Language Arts and Mathematics classroom. Language Arts: students will build upon their understanding of best practices in elementary literacy by designing the structure for a Balanced Literacy block in their classrooms. These literacy blocks include instructional time devoted to explicit phonics instruction, shared reading, guided reading, read-aloud instruction, and vocabulary instruction. Students will also focus on writing instruction and will implement writing mini-lessons and student conferences in their classrooms. Mathematics: This course will also build on students’ understanding of effective mathematics instruction and their knowledge of both direct instruction and inquiry-
based approaches to learning. Students will explore effective instructional strategies through the lens of content, with a core focus in Basic Operations (addition, subtraction, multiplication, and division); Geometry, Fractions and Measurement; & Problem-Solving, Algebra, and Graphing. By analyzing instruction through the lens of specific mathematical concepts, students will have the opportunity to design lessons that focus on the connections between mathematical content as well as the standards for mathematical practice. Students must have instructor approval to register.

Credit 1.5 units. UColl: OLI

U08 Educ 5131 Advanced Teaching Methods: Secondary English/Language Arts -- Spring

In this course, students will continue to refine their vision for high-quality English/language arts instruction in a secondary classroom. This course will build upon students’ understanding of effective novel studies and writing units by focusing on the fundamentals of close reading, word study, embedded non-fiction, and “writing for reading” strategies. Sophisticated discussions are also one of the hallmarks of advanced practice in ELA classrooms. Middle and high school students must be able to fluently use academic language and internalize habits of discussion. This course will also focus on the role of discussion in an ELA classroom, and students will implement multiple discussion formats, including Socratic Seminars and Literature Circles. Students in this course will also revisit the concept of rigor in a secondary ELA classroom by discussing the importance of text selection, studying text attributes and leveling systems, and analyzing the text selections embedded in their school's curriculum. Prerequisite: Permission of instructor.

Credit 1.5 units. UColl: OLI

U08 Educ 5132 Advanced Teaching Methods: Secondary Mathematics -- Spring

In this course, students will continue to refine their vision for high-quality mathematics instruction in a secondary classroom. Students will revisit the fundamental design elements present in inquiry-based lessons, focusing on the development of their students’ conceptual understandings. The course will also focus on the importance of computational and procedural fluency, and students will create a backwards plan that allows for daily fluency practice within their classrooms. Moving beyond fundamental lesson planning and assessment structures, students in this course will learn specific strategies to develop and assess students’ problem-solving skills and abilities and to implement effective discourse in their mathematics classrooms. Students will design instructional activities that allow their students to explore and discuss challenging problems and tasks through structures such as problem-solving seminars and performance-based assessments. Prerequisite: Permission of instructor.

Credit 1.5 units. UColl: OLI

U08 Educ 5133 Advanced Teaching Methods: Secondary Science -- Spring

In this course, students will continue to refine their vision for high-quality science instruction in a secondary classroom. Moving beyond fundamental lesson planning and assessment structures, students in this course will learn specific strategies to develop and assess students’ problem-solving skills and abilities and implement effective discourse in their science classrooms. Students will design instructional activities that allow their students to explore and discuss challenging problems and tasks through structures such as problem-solving seminars and performance-based assessments. Prerequisite: Permission of instructor.

Credit 1.5 units. UColl: OLI

U08 Educ 5140 MATL Capstone Seminar I

The first semester of the year-long Capstone course will focus on the foundations of building a goal-driven classroom. When the school year begins, students will embark upon the important work of getting to know their students and their school setting. Building on their knowledge of data-driven instruction, students will use the information gained about their teaching placement and their students in order to set ambitious goals both for their classroom as a whole and for individual students. Students will also use investment and engagement strategies to launch their vision and goals with their students. Throughout the semester, students will acquire new skills related to data analysis and remediation. Students will be asked to develop a classroom vision, academic and social-emotional goals, systems to track and share progress, and a classroom management and investment plan. An important component of the Capstone course will be one-on-one instructional coaching. The Capstone coach will support each student as they work to apply the content of the course to their individual schools and classrooms. The coaching cycle will consist of a classroom observation, a coaching conversation, and follow-up action steps, and this will occur on a biweekly basis. Prerequisite: instructor approval.

Credit 3 units. UColl: OLI

U08 Educ 5141 MATL Capstone Seminar II

During semester two of the Capstone Seminar, students will begin drafting their Master's Capstone. Students will curate a Capstone portfolio, displaying their best work from the past two years of teaching. Students will also report on their students’ final achievement and socio-emotional growth results. In sum, the final Capstone will consist of the Capstone portfolio, a film of an outstanding lesson, the presentation of a data narrative, and the delivery of an oral defense. For the oral defense, students will present and defend their K-12 students’ growth and achievement data, as well as key learnings from their residency and master’s course work, to faculty members and guests. Prerequisite: Instructor approval.

Credit 3 units. UColl: OLI

U08 Educ 515 Continuing the Portfolio Process

This course involves a seminar format that is used to facilitate continuing portfolio development. There is emphasis on making connections between university course work and individual teaching practice, and there is ongoing professional dialogue with peers and mentors to provide direction and collegial support as students use the portfolio process to construct meaning out of their teaching experience and provide a clearer vision of their growth and development as teachers.

Credit 1 unit.

U08 Educ 525 Diagnosis and Correction of Reading Disabilities

This course is the second of three courses on teaching reading and writing, with an emphasis on readers, texts, and assessment. The purposes of this course are to address issues of the differences and disabilities that may occur in reading...
U08 Educ 5253 Instructional Interventions in Reading for Adolescents and English Language Learners
Education 5253 is the first of two courses designed to increase the ability of secondary school teacher candidates to support literacy development for middle and high school students. Strategies of instructional intervention will be taught, modeled, and observed. The theoretical base of educational research for literacy intervention is at the core of understanding purpose, validity, and implementation of instructional intervention strategies. Additional purposes are to address differences among readers and texts and to understand methods of reading assessment for adolescents and the English Language Learner (ELL). The reading process, difficulties in reading and English language learning, instruction in reading beyond elementary education, and the role of the teacher in reading instruction and assessment will be important topics in this course. Prerequisite: admission to the Teacher Education program. 
Same as L12 Educ 5253 
Credit 3 units.

U08 Educ 5681 Reading in the Content Areas
This course will focus on reading comprehension, reading and writing in content areas, reading assessment, and reading curriculum evaluation. Prerequisite: admission to Teacher Education program or permission of Director of Teacher Education. 
Same as L12 Educ 5681 
Credit 3 units.

U08 Educ 590 Graduate Independent Study
Prerequisite: permission of instructor. 
Credit variable, maximum 6 units.

U08 Educ 6001 Topics in Education: Hands-On Science K-8: Electricity and Magnetism
This course includes laboratory experiences, discussions, and lectures designed to prepare teachers to implement or strengthen hands-on science teaching in grades K-8. Inquiry activities illustrating electrical and magnetic principles will be selected in congruence with the National Science Education Standards and the Missouri Show-Me Standards. Prerequisite: Permission of instructor; intended for in-service teachers. 
Credit 3 units.

U08 Educ 6002 Topics in Education: Hands-On Science K-8: Life Cycles and Heredity
This course includes laboratory experiences, discussions, and lectures designed to prepare teachers to implement or strengthen hands-on science teaching in grades K-8. Inquiry activities illustrating the sexual and asexual life cycles of plants, animals, fungi, and microbes will be selected in congruence with the National Science Education Standards and Missouri Show-Me Standards. Prerequisite: Permission of instructor; intended for in-service teachers. 
Credit 3 units.

U08 Educ 6005 Scientific Inquiry for the Classroom Teacher
An inquiry-based course for practicing teachers in the elementary and middle school, grades K-8. Teachers will strengthen their conception of inquiry-based teaching as they learn to create a culture of inquiry in their classroom to nourish 21st-century learners through STEM. Teachers will learn how to incorporate thinking routines as they encourage students to explain phenomena and design solutions to real-world problems. Teachers will learn strategies for encouraging collaboration and active learning. The continuum of inquiry will be explored as teachers learn how to move to student-centered learning that encourages lifelong learning through inquiry. A school-based implementation project will be required. Topics to vary by semester. Prerequisite: permission of instructor. For STEM Teacher Quality Institute students only. 
Credit 3 units. UColl: OLH, OLI

U08 Educ 6006 Science Inquiry for Educators
Laboratory experiences and discussions designed to help teachers use inquiry methods in the K-8 classroom. Science themes, structured in accordance with national and state educational standards, will be variable by semester. Classroom project required. Course is intended for in-service teachers. Permission of instructor required. 
Credit 3 units.

U08 Educ 6007 Advanced Scientific Inquiry for Educators
This course is designed to prepare teachers to strengthen skills associated with the delivery of a successful inquiry-based science curriculum in the K-8 classroom. Through laboratory experiences and discussions, teachers will work on developing questioning strategies, sequencing activities to support the various experiential levels of students, and developing relevant lessons and activities from student questions. Classroom project required. Course is intended for in-service teachers. Prerequisite: permission of instructor. 
Credit 3 units.

U08 Educ 6008 Teaching the Process of Scientific Investigation
This course is intended for in-service teachers. Participants will engage in the process of scientific investigation while developing hands-on lessons for their students that support their ability to understand the nature of the scientific process of problem solving. The focus will be on pedagogical strategies that help foster independent investigation among students. Classroom project is required. Prerequisite: Permission of instructor. For STEM Teacher Quality Institute students only. 
Credit variable, maximum 3 units. UColl: OLI

U08 Educ 6009 Hands-On Science K-8: Matter and Energy
This course includes laboratory experiences, discussions, and lectures designed to prepare teachers to implement or strengthen hands-on science teaching in grades K-8. Inquiry activities illustrating basic matter as well as energy and chemistry concepts will be selected in congruence with the National Science Education Standards and the Missouri Show-Me Standards. Prerequisites: Permission of instructor; for STEM Teacher Quality Institute students only. 
Credit 3 units. UColl: OLI
U08 Educ 6010 Hands-On Science K-8: Mathematics Concepts
Discussion intensive and lecture course designed to prepare teachers to implement or strengthen hands-on mathematics teaching in grades K-8. Inquiry activities illustrating numeration, rational numbers, and ratios will be selected in congruence with the NCTM Principles and Standards for School Mathematics, the National Science Education Standards, and the Missouri Show-Me Standards. Prerequisite: permission of instructor; intended for in-service teachers. Credit 3 units.

Laboratory experiences, discussion and lectures designed to prepare teachers to implement or strengthen hands-on science teaching in grades K-8. Inquiry activities illustrating planetary motion, tides, lunar phases, constellations, comets, terrestrial planets, gas giants, plate tectonics, volcanoes, and earthquakes will be selected in congruence with the National Science Education Standards and Missouri Show-Me Standards. Registration fee collected first night of class. Prerequisite: permission of instructor; intended for in-service teachers. Credit 3 units.

U08 Educ 6013 Scientific Inquiry: Advanced Pedagogy for Educators
This course is designed to prepare teachers to strengthen skills associated with the delivery of a successful inquiry-based science curriculum in the K-8 classroom. Through laboratory experiences and discussions, teachers will work on a variety of pedagogical skills including developing questioning strategies and sequencing activities to support the various experiential levels of students. Participants will conduct an implementation project at their school or learning site. Scientific themes, structured in accordance with national and state standards, vary by semester. Credit 1.5 units. UColl: OLH, OLI

U08 Educ 6015 Hands-On Science K-8: Earth Systems
Laboratory experiences, discussion, and lectures designed to prepare teachers to implement or strengthen hands-on science teaching in grades K-8. Inquiry activities involving the water cycle, erosion, the earth's composition, weather patterns, geology, and natural resources will be selected in congruence with the National Science Education Standards and the Missouri Show-Me Standards. Registration fee collected the first night of class. Prerequisite: permission of instructor; intended for in-service teachers. Credit variable, maximum 3 units. UColl: OLH

U08 Educ 6016 Hands-On Science K-8: Biology and Chemistry
This course includes laboratory experiences, discussion, exploration of different teaching strategies, and lectures designed to prepare teachers to implement or strengthen hands-on science teaching in grades K-8. The course topics include the taxonomy and characteristics of the various major groups of protists, plants, and animals as well as issues affecting biodiversity (genetic, species, and ecosystem diversity). Inquiry activities that illustrate the content are selected in congruence with the National Science Education Standards and Missouri Show-Me Standards. A registration fee is collected the first night of class. Prerequisite: permission of instructor; intended for in-service teachers, grades K-8. Credit 3 units.

U08 Educ 6019 Researched Practices in Math Instruction
A pedagogy course for practicing teachers in the elementary and middle school, grades K-8. The course is an introduction to research-proven practices in mathematics, supported by math content. These pedagogical practices include the use of student-work to inform conceptual development, the use of small-group instruction as situated in a diverse set of classroom organizational patterns, approaches to conceptual change and conceptual development, uses of formative assessment, direct instruction, etc. For any particular workshop, a set of approaches and the research associated with it are presented in relation to standards-based content topics. Participants are engaged in developing their math content and pedagogical skills with a primary emphasis on the learning of high quality classroom practices. Participants conduct an implementation project at their school or learning site to ensure that what they learn is effectively applied within their own classroom setting. Credit 3 units. UColl: OLH

U08 Educ 6022 Improving Content and Instruction: Algebra
This course will focus on topics in algebra, including topics covered in the national framework standards document for grades 4 through 9. Prerequisites: Must be a practicing teacher and have approval of the instructor to enroll. Credit 3 units. UColl: OLH

U08 Educ 6023 Scientific Inquiry: Advanced Pedagogy for Educators, Part II
This course is designed to prepare teachers to strengthen skills associated with the delivery of a successful inquiry-based science curriculum in the K-8 classroom. Through laboratory experiences and discussions, teachers will work on a variety of pedagogical skills including developing questioning strategies and sequencing activities to support the various experiential levels of students. Participants will conduct an implementation project at their school or learning site. Scientific themes, structured in accordance with national and state standards, vary by semester. This is Part II of a two-part series. Credit 1.5 units.

U08 Educ 6024 Leadership In Scientific Inquiry
In this course, students review literature related to science teacher leadership. Students conduct an implementation project in which they direct a test of change, a defined professional development program, or another leadership experience targeting a specific audience. Students read and discuss different models for inquiry-driven change, implement an innovation, collect and analyze data, and determine impact. Credit 3 units.

U08 Educ 6025 Reading and Writing in the Science Content Area
This course will study the theoretical frameworks underlying literacy (reading and writing) instruction in the science classroom. Teachers in this course will learn research-based instructional methodologies to support disciplinary literacy and content literacy practices. Teachers will gain an understanding
of how explicit literacy instruction connects with and supports three-dimensional curriculum and instruction. Teachers will use trade books, implement strategies to teach the comprehension of scientific text, and explore ways to support student writing in the science classroom, including using graphic organizers, note-taking strategies, and constructing written explanations and lab reports. Teachers will apply their learning to develop unit plans and lesson plans that strategically incorporate literacy strategies to support student learning in the science classroom. A classroom project is required. Credit 3 units. UColl: OLI

U08 Educ 6026 Improving Content and Instruction: Probability and Statistics (K-8)
Students will learn how to analyze the progression of learning that students encounter in middle and high school and how to engage students in probability and statistical thinking using authentic learning opportunities. The course will give teachers the opportunity to learn and practice research-based strategies for teaching these concepts and skills to students. Credit 3 units.

U08 Educ 6027 Equity in the Math Classroom
Students will consider ways to embed equitable practices in the math classroom by studying practices that support access to math knowledge and thinking for all students. They will discuss the historical context that has led to inequality in the American classroom and practice embedding inclusive practices into math teaching in service of closing the achievement gap in our schools, especially for girls and students of color. For STEM Teacher Quality Institute students only. Credit 3 units. UColl: OLH, OLI

U08 Educ 6028 Computational Thinking Across the Curriculum
This course focuses on applying computational thinking across disciplines in grades K-8. Teachers will develop their understanding of the main concepts and skills involved in computational thinking and learn how to incorporate these into their curriculum across domains. A classroom implementation project is required. Credit 3 units.

U08 Educ 6029 Educational Technology
The course will emphasize how to use technology in meaningful ways. Teachers in this course will critically evaluate the purpose, potential privacy concerns, and cognitive barriers of ed-tech hardware and software. They will learn how to use educational technology to create opportunities for deeper learning. A classroom project is required. Credit 3 units.

U08 Educ 6030 Engineering Across the Curriculum
This course is designed to introduce teachers to how engineering concepts can be used to engage students in learning via interdisciplinary lessons. Teachers will engage in and develop learning experiences that utilize different resources to engineer solutions. Resources may include devices, robots, software, and materials easily found in classrooms. A classroom implementation project is required. Credit 3 units.

U08 Educ 6031 Introduction to Computer Science Teaching
This course is designed to introduce teachers to the fundamental concepts and practices of computer science (CS). Teachers will be engaged in experiences designed to provide authentic, meaningful experiences with both CS topics and pedagogy. Current Missouri CS Standards and the K-12 CS Framework will be used as a framework for discussion. A classroom project is required. For STEM Teacher Quality Institute students only. Credit 3 units. UColl: OLH, OLI

U08 Educ 6100 Practical Strategies for Teachers to Effect Personal Change
This course features six 1-credit-unit sections that cover diverse topics. The course is designed for teachers who want to develop skills and knowledge that they can apply in their classrooms. The sections do not overlap; each is independent of the others. Teachers may choose to enroll in as few (one) or as many (up to six) topic sections as they desire, and they will receive 1 credit unit for each topic section they successfully complete. Students can enroll in more than one section at a time up to a maximum of six. For STEM Teacher Quality Institute participants only. Credit 1 unit.

Human Resources Management
Human resources managers are an integral part of the leadership team charged with directing complex organizations and a diverse workforce. Managing people and organizations requires both functional skills in human resources as well as expertise in strategic planning and organizational development. The Master of Arts in Human Resources Management prepares individuals in a variety of employment settings to join other organizational leaders at the table of decision makers. The Master of Arts in Human Resources Management provides students with skills and information in key operational areas such as human relations and communications, compensation and benefits, training and development, employee and labor relations, and staffing and retention. In addition, the program teaches professionals how to contribute to organizational development, change, risk management and strategic planning.

Contact: Jennifer Fickeler
Email: jfickeler@wustl.edu
Website: http://ucollege.wustl.edu/programs/graduate/masters-human-resources-management

Degree Requirements
Master of Arts in Human Resources Management
The Master of Arts in Human Resources Management consists of 36 units of graduate course work.

Required courses (21 units):
### Bulletin 2022-23
**University College - Graduate (08/12/22)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM 520</td>
<td>Organizational Behavior and Management</td>
<td>3</td>
</tr>
<tr>
<td>HRM 531</td>
<td>Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>HRM 543</td>
<td>Compensation Management</td>
<td>3</td>
</tr>
<tr>
<td>HRM 558</td>
<td>HR Metrics</td>
<td>3</td>
</tr>
<tr>
<td>HRM 559</td>
<td>Strategy Formation and Organizational Effectiveness</td>
<td>3</td>
</tr>
<tr>
<td>HRM 571</td>
<td>Legal Aspects of Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>HRM 514</td>
<td>Integrative Capstone Project for Human Resources</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units: 21**

In addition, students are required to take a minimum of 15 units of elective courses from the following list:

### Elective courses (15 units):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM 402</td>
<td>SHRM Learning System</td>
<td>3</td>
</tr>
<tr>
<td>HRM 435</td>
<td>Individual and Organizational Introspection</td>
<td>3</td>
</tr>
<tr>
<td>HRM 504</td>
<td>Consulting Skills for Human Resources and Organizational Development Professionals</td>
<td>3</td>
</tr>
<tr>
<td>HRM 513</td>
<td>Executive Coaching</td>
<td>3</td>
</tr>
<tr>
<td>HRM 523</td>
<td>Organizational Communication</td>
<td>3</td>
</tr>
<tr>
<td>HRM 530</td>
<td>Organizational Development</td>
<td>3</td>
</tr>
<tr>
<td>HRM 544</td>
<td>Diversity and Inclusion in the Workplace</td>
<td>3</td>
</tr>
<tr>
<td>HRM 565</td>
<td>Building High-Performance, Team-Based Organizations</td>
<td>3</td>
</tr>
<tr>
<td>HRM 582</td>
<td>Principles of Finance</td>
<td>3</td>
</tr>
</tbody>
</table>

**Courses**

Visit online course listings to view semester offerings for U87 HRM (https://courses.wustl.edu/CourseInfo.aspx?sch=U&dept=U87&crslvl=5:8).

**U87 HRM 500 Independent Study**
Credit variable, maximum 3 units.

**U87 HRM 504 Consulting Skills for Human Resources and Organizational Development Professionals**
In this course, we will learn essential internal and external consulting skills. Topics include phases in the consulting process, differences in consulting models, creating a business plan, estimating costs, consulting ethics, and cultivating relationships. Students will acquire the skills needed to build strong partnerships within organizations. This course is designed for people who consult within an organization or who are pursuing consulting as a profession.

Credit 3 units. UColl: HRO, HRP, OLH, OLI

**U87 HRM 506 21st-Century Perspectives on Organization and Human Resources**
This course explores the attraction, retention, and development of human resources from several broad perspectives, including psychology, sociology, political science, law, philosophy, history, economics, and business. The objective is to expand the student's understanding of the relationship between the organization and the individuals employed in it. Prerequisites: U87-520 and/or permission of the program coordinator.

Credit 3 units.

**U87 HRM 513 Executive Coaching**
Executive coaching is an effective leadership development tool often focused on high potential middle- to upper-level managers. It is also used by managers at all levels to develop individuals and teams. Coaching is a collaborative partnership designed to facilitate and hasten the individual's learning and achieve identified business results. This course will compare and contrast executive coaching to other types of remedial approaches; personal coaching; and mentoring relationships. It will review the grounding principles that form the foundation of a coaching partnership; outline the steps in the coaching process; and review the expectations and guidelines for each member of the coaching team-which can include the individual, the coach or manager-coach, organizational sponsors and human resources. Credit 3 units. UColl: HRO, OLH

**U87 HRM 514 Integrative Capstone Project for Human Resources**
The overall objective of this capstone course is for master's students in Human Resources Management to integrate the program course work through a substantial, independent applied project conducted in a host organization. Students will demonstrate their professionalism through a written and oral presentation of their materials. Students should be in their final semester of study or have permission of the program coordinator.

Credit 3 units. UColl: OLH, OLI

**U87 HRM 519 Project Management Mastery in HR**
In business today, managing small projects to large, multimillion dollar projects is a critical component of every organization. Projects evolve organizations so that they are able to compete and meet their future business goals. Project management skills are imperative in the business world, and they are skills that can be developed. This course will combine theory and application to grow and enhance skills as it relates to project and change management. Valuable frameworks, tools, and methodologies will be covered in detail so that students can utilize these approaches immediately.

Credit 3 units. UColl: OLH, OLI

**U87 HRM 520 Organizational Behavior and Management**
This is a survey course focusing on the individual, group, organizational and environmental factors relevant to understanding and managing behavior in complex organizations. It considers behavior from structural, human resources, political, and symbolic perspectives.

Credit 3 units. UColl: OLH, OLI
U87 HRM 523 Organizational Communication
This course identifies the major theories and methods of communication at the individual, group, and organizational levels. Particular attention is devoted to the role of communication in achieving long-term organizational effectiveness. Strategy and tactics relevant to interpersonal communication, negotiation, and consensus building are also analyzed.
Credit 3 units. UColl: HRO

U87 HRM 530 Organizational Development
This course is designed to assist students in developing a framework for: 1) assessing the current condition of an organization, 2) developing an intervention strategy for changing the organization, and 3) executing the planned change in a manner that promotes effective organizational change and development. Within this context, substantial attention will be devoted to the developing the analytical, conceptual, and interpersonal skills required of effective change agents.
Credit 3 units. UColl: HRO

U87 HRM 531 Human Resources Management
This course develops a comprehensive understanding of the human resources function in an organization. Particular attention is given to selection, performance management, training, wage and salary administration, career development, human resource planning, and the federal regulations impacting on the function.
Credit 3 units. UColl: HRP, OLH, OLI

U87 HRM 543 Compensation Management
The methods of rewards for employee availability, capability, and performance. Topics include measures of performance and employment market issues; skill-building and design of compensation packages of money and benefits to improve employees' work quality and productivity.
Credit 3 units. UColl: HRP, OLH, OLI

U87 HRM 544 Diversity and Inclusion in the Workplace
In this course, we examine the history of diversity in the workplace and the demographic changes that drive diversity. We will study how inclusion affects business outcomes in areas such as talent, engagement, productivity, and innovation. Students will also explore diversity dimensions and unconscious biases in themselves and then apply these findings to the workplace by developing a business case for diversity and inclusion that includes defining return on investment, strategy, organizational alignment, accountability, and measurement. Successful diversity and inclusion initiatives will be addressed, including best practices for recruitment, development, training, mentoring, resource groups, benefits, and policies.
Credit 3 units. UColl: HRO, HRP, OLI

U87 HRM 5461 Managing Dispersed and Global Teams
This course focuses on understanding the social, political, and legal aspects of managing human capital in a global environment. The primary objective is to understand how effective management contributes to the overall success of international business ventures. The topics covered include recruitment; selection; legal and tax implications of international operations; compensation and benefit packages; training and development; cultural adaptation; and relocation and repatriation policies. This course is designed for both human resource professionals and other business professionals who will manage in a global business environment.
Credit 1.5 units. UColl: HRO

U87 HRM 553 Principles of Human Resources Development: A Case-Based Approach
This course addresses the integration of human resource functions, performance management, employee relations, human resource planning, and organizational development. We will study how HR maximizes the return on investment from the organization's human capital while minimizing financial risk. The course emphasizes human beings as creative and social beings that are viewed as the organization's most strategic asset in a very turbulent and complex market environment.
Credit 3 units. UColl: HRP

U87 HRM 555 U.S. Retirement Programs
This course provides an overview of the U.S. retirement system and the alternatives available for organizations. Attention is given to the purpose of employer-sponsored retirement programs and the employer objectives accomplished by different types of programs. Students will discuss the challenges a company faces in developing a retirement program and develop a program as part of the course requirement.
Credit 1.5 units. UColl: HRP

U87 HRM 557 Leadership Skills for Women Executives
This course examines the latest research and practice on women and leadership. Students learn about tools and methods to evaluate their personal leadership strengths and avoid career derailment. The class uses case studies, personal essays, and role-play designed to help individuals develop strategies to more effectively manage their career paths.
Credit 1.5 units. UColl: HRO

U87 HRM 558 HR Metrics
This course provides a foundation for measuring the effectiveness of human resources management (HRM) policies, programs, and processes. We will study basic measurement indices and research methods to better demonstrate outcomes such as cost savings, cost avoidance, and return on investment for the major HRM functional areas.
Credit 3 units. UColl: OLH, OLI

U87 HRM 559 Strategy Formation and Organizational Effectiveness
This course focuses on developing and implementing a strategy to sustain a competitive advantage in business. The process specifies mission, vision, and values, develops projects and programs, and allocates resources to achieve organizational effectiveness. Most principles taught in this course are transferable to nonprofit organizations.
Credit 3 units. UColl: OLH, OLI

U87 HRM 562 Group Processes in Organizations
Credit 3 units. UColl: HRO
International Affairs

Breath-taking changes in political, economic and social relations have taken place over the past several centuries. Living and working in a rapidly changing global environment presents great opportunities to advance the human condition, promote growth and development, create political liberties, recast bargains between governments and their societies, transform social welfare, and advance the boundaries of knowledge and scientific exploration.

Yet the same context presents great risks as people fear loss of identity, worry about economic subordination and loss to those beyond their borders, encounter environmental degradation, and confront potential decline in personal and social autonomy. Our heightened economic, political, social, cultural and environmental interdependence generates serious challenges in areas such as social justice, health, security, development, human rights, social welfare, inequality, diversity and technology. These challenges create the possibility for conflict but also for cooperation and compromise.

The Master of Arts in International Affairs offers an interdisciplinary approach to understanding global issues. The program draws on teaching and expertise from Washington University faculty and experienced practitioners in the St. Louis region, and it provides knowledge and skills for understanding and working with some of the most difficult international and cross-cultural problems faced by states, societies and communities. Students have the opportunity to tailor their studies to explore topics such as global politics, global economics, development, international security and conflict, international business, human rights, the role of gender, the environment and sustainability, and issues of regional importance.

Whether students are studying full-time or part-time, a range of on-campus and online courses makes it possible for them to shape their degree according to their interests and schedules. Please note, though, that this program is not fully online; some courses must be taken on the Washington University campus.

Contact: Jeremy Caddel
Email: jcaddel@wustl.edu
Website: http://ucollege.wustl.edu/programs/graduate/masters-international-affairs

Degree Requirements

Master of Arts in International Affairs

Total Requirements: 30 units

The Master of Arts in International Affairs is a 30-unit program that includes four core courses and a capstone research project. The purpose of the required core courses is to develop a coherent structure that will underpin the AM by ensuring that
some common theoretical foundations, knowledge and language are shared by students in this program and with graduates of similar programs around the world. This contributes to the building of a professional community and identity. Remaining electives may be chosen from International Affairs seminars or from other graduate-level courses approved by University College.

**Required Core Courses:** 12 units

Students must take four core courses aimed at the acquiring of a common understanding of foundational knowledge and skills for analyzing international affairs, thus enhancing their abilities to be thoughtful and critical users of academic research in applied settings and while pursuing careers in the field.

One required course is Process and Design of Research (IA 524), a research writing and methods seminar that helps students develop systematic tools for use as practitioners who write and present their work.

The other three core courses, selected from a list of core courses, provide a theoretical and substantive foundation for the analysis and understanding of international affairs. Students choose at least three core courses as indicated by the "International Affairs Core (IAC)" attribute in the course description. Examples include the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IA 5080</td>
<td>U.S. Law and International Relations</td>
<td>3</td>
</tr>
<tr>
<td>IA 509</td>
<td>International Organizations</td>
<td>3</td>
</tr>
<tr>
<td>IA 510</td>
<td>The United Nations and International Security</td>
<td>3</td>
</tr>
<tr>
<td>IA 511</td>
<td>International Law and Human Rights</td>
<td>3</td>
</tr>
<tr>
<td>IA 519</td>
<td>International Growth and Development, Inequality, and Transitional Justice</td>
<td>3</td>
</tr>
<tr>
<td>IA 5310</td>
<td>National Security Decision-Making</td>
<td>3</td>
</tr>
<tr>
<td>IA 535</td>
<td>American Foreign Policy</td>
<td>3</td>
</tr>
<tr>
<td>IA 5410</td>
<td>Alternative Analytic Techniques for International Affairs</td>
<td>3</td>
</tr>
<tr>
<td>IA 5571</td>
<td>Politics of Global Finance</td>
<td>3</td>
</tr>
<tr>
<td>IA 574</td>
<td>International Relations</td>
<td>3</td>
</tr>
<tr>
<td>IA 5772</td>
<td>State Failure, State Success and Development</td>
<td>3</td>
</tr>
</tbody>
</table>

These courses are designed to enable students to develop expertise and understanding of dominant analytical frameworks, tools, and common language in the field of international affairs so that they are better prepared to engage with other professionals in the field. A selection of three core courses, which are overlapping, ensures that this foundation will be sound and robust.

**Additional International Affairs Courses:** 15 units

These courses may be chosen from International Affairs seminars or, with permission, from graduate-level courses in other departments.

**Capstone Project:** 3 units

After completing formal course work, all students are required to complete a capstone research project under the supervision of a Washington University faculty member.

**Courses**

Visit online course listings to view semester offerings for U85 IA (https://courses.wustl.edu/CourseInfo.aspx?sch=U&dept=U85&crslvl=5:8).

---

**U85 IA 500 Independent Study**

An independent research project under the supervision of a member of the faculty of the International Affairs program. An approved proposal must be presented at the time of registration. Open only to students admitted into the International Affairs program. For more information, contact an adviser at 314-935-6700. Credit variable, maximum 3 units.

---

**U85 IA 502 Directed Research Project**

An independent research project under the direction of a member of the faculty in the International Affairs program. An approved proposal must be presented at the time of registration. Required for MA degree. Open only to students admitted to International Affairs program. Credit 3 units.

---

**U85 IA 505 Why Were We in Vietnam?**

Until the Afghan War, the American war in Vietnam was the United States’ longest and most costly war in blood and treasure. This course will investigate the origins and ideological context of this war more than 45 years after its end. How and why did the American commitment begin? How did the conflict unfold? How did it end, and at what price? How did the American effort affect U.S. national security and American interests in Asia? Credit 3 units.

---

**U85 IA 5053 Cultural Policy and the Politics of Culture in Latin America**

This course will examine cultural policy making in Latin America, which has developed from the close relationship between the state and a nation’s writers, intellectuals, and artists. Focusing on case studies from Mexico, Argentina, and Brazil, we will explore ways in which the arts have connected with civil society and the public sphere, in turn becoming engines of economic development, political mobilization, and social intervention. We also will examine the evolution of Latin American media and the manner in which public intellectuals have shaped public opinion in the region. Authors include Mary Coffey, George Yudice, Néstor García Canclini, Nicola Miller, and Anne-Marie Stock, among others. Credit 3 units. UColl: CD, IAA
U85 IA 506 The Mexico-U.S. Paradigm: The Southern Neighbor and the Scenes of Contemporary International Affairs
Since the foundation of both republics and up to the present, the relationship between Mexico and the United States has played a central role in defining a variety of paradigms in international affairs. In addition, Mexico's unique approach to diplomacy is at the core of various economic and diplomatic doctrines influential across the Global South. This course explores the ways in which this relationship helps us think about questions of development, international security, immigration and political intervention. The first part of the course looks at the relationship historically, focusing on the complex relationship between the two countries in the Cold War as well as Mexico's role as a negotiator with Cuba and the Soviet Union. The historical section will also discuss the role that Mexico played in the creation of developmental paradigms from the 1930s onward. The second part of the course looks at the three hot-button issues between the two countries: trade, immigration, and the Drug War. It will discuss the ways in which Mexico is an essential laboratory for policies related to security and commerce in the United States. The course will allow students to rethink ideas about economics, security, and other questions in international affairs from a unique yet fundamental point of view.
Credit 3 units. UColl: CD, IAC, IAI, OLI

U85 IA 5080 U.S. Law and International Relations
This course examines how law and politics interact to define the limits on government authority in foreign policy. Separation of powers is a key tenet of the U.S. political system, and nowhere is this principle challenged more than in the realm of foreign policy. All three branches of our government struggle with the inherent tension between the need for decisive action and secrecy on the one hand and the desire for democratic deliberation and accountability on the other. These tensions have been with us since the beginning of the nation, but they have become even more prominent with recent changes in technology, new international threats, and increased globalization.
Credit 3 units. UColl: IAC, OLI

U85 IA 509 International Organizations
This course examines the role of major international organizations in the modern world—the UN, EU, NATO, IMF, WTO, MERCOSUR, and others. We explore the background for the creation of these organizations, the purposes they serve, and those whose interests they promote. We also consider how they adapt and evolve over time. Our survey centers on three broad areas of investigation: first, we examine how international organizations promote and maintain international security. Second, we consider organizations designed to regulate and promote economic growth and development. This entails a focus upon the process of globalization and the challenges presented in an era of heightened economic interdependence. Finally, we examine growing efforts at regional cooperation though the emergence of organizations such as NAFTA, the EU, and MERCOSUR.
Credit 3 units. UColl: IAC, IAI, OLI

U85 IA 5093 Politics of the European Union
This course provides a political overview of the European Union and its 27 member states. Attention is paid to the emergence of European supranational governance in the 1950s and its trajectory to the present day. We also consider the interplay of geographical, economic, and cultural factors, together with an assessment of the EU and its place in the larger global political sphere.
Credit 3 units. UColl: IAC, IAI, OLI

U85 IA 510 The United Nations and International Security
The aim of this course is to gain a deeper understanding of the United Nations (UN) and its role in world politics. Beginning with an examination of the theory of the UN and its precursors, we will discuss the UN's structure and its three-part mission as outlined in the UN Preamble: international peace and security; human rights; and development. We will assess the strengths and weaknesses of the UN and its agencies in these three substantive areas, within the context of a rapidly shifting geopolitical climate. Attention will be paid to the ongoing debate among proponents and detractors of the UN, and the unique role played by the U.S. in this debate.
Credit 3 units. UColl: IAC, IAI, OLI

U85 IA 511 International Law and Human Rights
We will take a critical perspective of international law and human rights, examining the assumptions that guided the founding conventions and legal codes, and asking how relevant they are today. Why has the global income gap widened so rapidly in recent years? Why have transnationalized individuals been excluded from human rights agendas? Why are millions of stateless people around the world deemed "illegal" in the country where they live? How was Facebook implicated in the genocide of Rohingya in Myanmar? Why has the Chinese government confined millions of ethnic minority Uighurs in concentration camps? We will examine these and other questions through discussions and small group activities based on texts, films, and online interactive datasets. We will also speak to scholars, policy-makers, and non-profit practitioners from around the world.
Credit 3 units. UColl: CD, IAC, IAI, ML, OLI

U85 IA 512 Humanitarian Intervention in International Society
One of the more striking features of post-Cold War international society has been the development of a theory and practice of humanitarian intervention. This course explores the background, causes, nature, and limits of these changes. The course is interdisciplinary in nature, combining legal, moral, and political analysis, with an emphasis on the legal question of whether today there is so-called legal right of humanitarian intervention. The course does not assume prior background in international relations. We therefore also spend time introducing a few central concepts and issues in international relations in order to provide a theoretical framework for our substantive inquiries into humanitarian intervention.
Credit 3 units. UColl: OLI
U85 IA 5130 Dirty Wars and State Terrorism in South America
This course will explore the historical, political, and cultural impact of the so-called Operation Condor military dictatorships in 1970s and 1980s South America. We will focus on two of the most notorious dictatorships, those in Argentina and Chile, but we will also examine the examples of Bolivia, Uruguay, Paraguay, and Brazil. We will use historical accounts, remembrance sites, declassified U.S. government documents, literary works, and film to assess the various causes and results of a period that has marked these countries in ways that continue to influence national identities.
Credit 3 units. UColl: IAA

U85 IA 5142 Sustainable Development and Conservation: Madagascar
This course focuses on sustainable development in rural subsistence economies, using Madagascar as case study. Students from diverse disciplines are challenged to develop and assess the feasibility of projects that can have a positive impact on communities constrained by poverty traps. The span of projects includes topics such as forest conservation and use, nutrition, health, food security, clean water, education, and bottom-up economic growth. Students in humanities, social sciences, business, design, engineering, physical sciences, law, social work, economics, political science, public health and others use their different perspectives to search for answers. Teamwork and peer teaching are central to the course. Competitively evaluated projects will be field-tested in Madagascar. Selected teams will travel to Madagascar in May and work with the Missouri Botanical Garden Community Conservation Program to adapt projects to conflicting environmental, cultural, economic, and political factors. Poster board sessions for students taking the trip occur in the fall term. Project teams selected to go to Madagascar will be assessed a lab fee at the time their participation in the trip is confirmed. The lab fee covers the cost of airfare, in-country transportation, and approximately three weeks of in-country lodging and food. Undergraduate students should register for the course using one of the undergraduate cross-listed course numbers.
Credit 3 units.

U85 IA 5170 Gender and Globalization
Credit 3 units. UColl: IAI

U85 IA 5181 International Economics
This course provides an analysis of the international economy, the economic theories that help explain it, and analysis of important current issues of international economic policy. When David Ricardo proposed his famous theory of comparative advantage in 1821, he set out to explain why England exported cloth to and imported wine from Portugal. Today, international trade is much more complex. Apple devices are designed in Silicon Valley while their most expensive component, the hard drive, is manufactured by Toshiba in Philippines before it is finally assembled in China. Can Ricardo’s theory explain today’s patterns of international production and trade? Today, the number of these currencies has been reduced through the formation of the European Union. What are the cost and benefits of currency unions?
Credit 3 units. UColl: IAC, IAI

U85 IA 519 International Growth and Development, Inequality, and Transitional Justice
This course will explore contemporary trends in transnational inequality, and the strategies proposed to address them. We’ll look at the expanding wealth divide between global north and south countries, and inquire about the sources. Why is there a rising number of billionaires (who can end global poverty seven times over), and what are the policies that enable them to park and hide their wealth internationally? Do lending institutions like the World Bank and International Monetary Fund help rectify these problems, or make them worse? Will small dose “micro-credit” loans help women and their families out of poverty? How have population programs derailed women’s reproductive power, and supported heteronormative conceptions of the family? We will critically examine why “development” continues to be the main model for international aid programs. In addition, we’ll ask about the alternatives, and how can we move from development to social and economic justice.
Credit 3 units. UColl: IAC, IAI, OLI

U85 IA 5213 Latin America in World Affairs
This course examines Latin American foreign relations from the 1820s to the present with an emphasis on the period since 1945. Focusing on transnational relations, the course analyzes long term patterns and trends among Latin American states and between Latin America and the United States, Europe, and the global South. Attention will be paid to the way Latin Americans have sought to manage foreign influence. To this end we will analyze patterns of inter-American conflict and cooperation. The course will explore how elite culture, domestic social forces, development, and cultural identities influenced national political cultures, and how these in turn shaped Latin American foreign policies.
Credit 3 units. UColl: CD

U85 IA 5215 Grand Strategy
Credit 3 units. UColl: IAI

U85 IA 5230 The Law of the Sea: Governing the Oceans and Marine Resources
Credit 3 units. UColl: IAI

U85 IA 524 Process and Design of Research
This course introduces students in the International Affairs program to research design and methods and to the relationship of theory to research in the social sciences, with the aim of preparing students for writing research papers. Areas to be explored include overall research design, case selection, and literature reviews. The importance of theory is stressed.
Credit 3 units.

U85 IA 5242 Data Analysis for International Affairs
This course is an introduction to the concepts, tools, and procedures for quantitative analysis that is specifically tailored for application in International Affairs. Students will learn to locate, collect, clean, and store quantitative data relevant to international affairs; download, install, and perform basic tasks using the statistical software R; use descriptive statistics to visualize data for a variety of professional formats including oral presentations, written memos, and public websites; and understand the basic principles of statistical analysis to the interpretation of data using ordinary least squares and generalized linear models. The course is designed for adult learners and addresses the fear of
math that prevents them from developing these important skills. It serves as an optional Part II for the mandatory Process and Design of Research course, preparing students for their directed research projects and developing their competency in a high-demand skill that will broaden their employment opportunities after graduation.

Credit 3 units.

U85 IA 5264 Environmental Ethics
Credit 3 units. UColl: IAI

U85 IA 5273 Introduction to Israel Studies
An exploration of Israel in the Jewish experience from antiquity to modernity and in the history and culture of the Middle East. Special attention will be paid to the modern state of Israel and current issues in its politics, economy, and society. L75 5273 is intended for graduate students only.

Same as L75 JIMES 3273
Credit 3 units. A&S IQ: HUM BU: IS

U85 IA 5290 China's Role in the 21st Century
This course will examine China's global impact in the 21st century. Beginning with an overview of its current political and economic configuration, we will explore China’s complex global interactions, examining these from the perspective of Western and Asian nations, together with the view from within China. Drawing from the interdisciplinary scholarship of political scientists, economists, and anthropologists, as well as the writings of politicians, business leaders, and ordinary people, we will investigate how Chinese society and its mix of political and economic institutions have the potential to reshape international politics, the global economy, and the environment.

Credit 3 units. UColl: IAA

U85 IA 530 Modern Middle East
This course will explore the rapidly changing role of the media in Arab and Muslim societies in reporting about revolts and conflicts, the "Arab Spring," and the chronic impasse between Israel and the Palestinians. We will study the impact of social media, which have afforded greater access to "real-time" images of the Syrian civil war than was possible with previous conflicts. We will investigate the formation of public opinion in the Arab and Muslim worlds — in particular, the role of state-supported media operations such as Al Jazeera. We will compare the style and substance of Israeli and Arab media sources and the role of professional versus citizen journalists in covering newsworthy events.

Credit 3 units. UColl: IAA, OLI

U85 IA 5306 The Modern Mediterranean: Facts and Fictions
The countries and cultures around the entire Mediterranean basin have provided, and have been the scene of, much of the world's recorded history. In the 20th century, however, writers set out to explore, either by actual travel or else in their imagination alone, many of its lesser known corners: forgotten imperial ruins in Tunisia; remote and semi-primitive mountain villages of Crete; dusty and disease-ridden towns steeped in medieval customs in the Sahara; the secretive, aesthetically dazzling souks of Alexandria. In doing so, they often found many fascinating, if previously hidden and frequently disturbing places, peoples, behaviors. But sometimes, instead, they discovered mere symbolic fodder for an implied or sometimes even explicit critique of their own native lands and social mores.

In this course, we shall consider examples of the former in works like Andre Gide's Immoralist, Nikos Kazantzakis' Zorba the Greek, Paul Bowles' The Sheltering Sky, and Lawrence Durrell's Justine. As for the latter, our attention will turn to even more contemporary works, such as Derek Walcott's Omeros, which is partially based on the Homeric tale of Ulysses' wanderings around the Mediterranean, but which aims primarily at questioning the history of colonialism and cultural memory of his own Caribbean island of Saint Lucia. While students will pay attention to the stylistic features of these works, to understand better the role rhetoric plays in such fiction, they will also study closely the various important sociopolitical, economic, religious, and philosophical concerns raised by their authors. Some excerpts of film adaptations of these works are also used. Primary readings should be mostly completed in advance of the course.

Credit 3 units.

U85 IA 5310 National Security Decision-Making
This course will both simulate and seek ways to improve our national security decision-making process. Students will embody the various perspectives and priorities of strategic decision-makers, gaining an appreciation for the interagency process and the challenges of making foreign policy in a complex and fast-paced environment. Students will hone professional writing, oral presentation, negotiation and collaboration skills as we explore complicated challenges in cyber, climate and human security. We will explore both traditional and newer, more diverse voices in the international relations realm, in an effort to broaden both our concept of national security and the ranks of those who are making decisions about it.

Credit 3 units. UColl: IAC, OLI

U85 IA 5321 Africa and International Development Aid Policy
This course will examine the role that international actors play in the process of domestic development policy. With a focus on the nations of Africa, we will explore the history and evolution of key international entities, including financial institutions such as the World Bank and International Monetary Fund, nongovernmental organizations such as Oxfam, and multinational organizations such as the United Nations. We will consider competing theories and strategies on what constitutes the best development policy practices. A selection of case studies will help us assess the effectiveness of policy tools to promote or hinder development in poor countries. Readings will include works by Jeffrey Sachs, Paul Collier, Amartya Sen, and William Easterly.

Credit 3 units. UColl: IAC, OLI

U85 IA 5333 The Post-Cold War Order
This course will cover key developments in post-Cold War politics. Beginning with an assessment of the problem of achieving order in an international system lacking central authority, we will examine the emergence of international institutions intended to regulate global and regional security, nuclear weapons proliferation, the world economy, and the global environment. We will then consider ethnic and cultural sources of cooperation and conflict, including the "end of history" and "clash of civilizations" theses. Next, we will examine the challenge posed by American primacy, the development of international law and cooperation, and trends toward both globalization and regionalization. We will conclude by assessing approaches to the global war on terror.

Credit 3 units. UColl: IAA, IAI
U85 IA 535 American Foreign Policy
This course begins with a survey of the historical foundations of American foreign policy. Having established a broad understanding of the issues that have confronted the nation, we closely examine the current political climate and the challenges that the United States faces in terms of its economic and physical security. Finally, we consider strategies for dealing with the threats and challenges that beset this nation.
Credit 3 units. UColl: IAC, OLI

U85 IA 5400 NGOs in the International System
Over the past several decades, NGOs (nongovernmental organizations) have become an integral part of international politics, addressing crucial problems pertaining to environmental degradation, human rights, immigration, poverty, disease, and so forth. This course will explore ways in which NGOs influence the shaping and execution of policy in international affairs. We will first consider the rise of NGOs and the rationale for their emergence, then examine — through case studies in Africa, Asian, South America, and the former Soviet Union — how they have approached their mission and whether they have succeeded.
Credit 3 units. UColl: IAI, OLI

U85 IA 5402 Mathematical Modeling in Political Science
This course is designed to provide mathematical tools useful for the rest of the statistical methods sequence, as well as for other courses in formal theory or mathematical modeling. Throughout the course, the mathematical tools are motivated by applications to the general problem of how politics can be modeled for purposes of statistical analysis, deductive reasoning, or conceptual theorizing. This motivation is accomplished by means of a consistent focus on such processes as individual decision making, the representation of issues, statistical phenomena, and phenomena of change over time. The course assumes a sufficient background in elementary algebra, logic, functions, and graphs; remedial work in these areas will be offered through a review course during the last week or two of summer. Mathematical topics covered include: sets and relations; probability; differential calculus and optimization; difference equations; and linear algebra.
Same as L32 Pol Sci 5052
Credit 3 units.

U85 IA 5403 Global Collective Action: Why Do Nations Cooperate? Climate Change and Other Cases
Nation-states act in their self-interest — so how and when do they come together to address global problems? From nuclear disarmament to small pox eradication to tackling climate change, nations must transcend or transform self-interest to deal with these problems. Collective action and concepts such as tragedy of the commons, free riders, and prisoner’s dilemma, will be taught in the context of global problems. We will examine the role of the nation-state, non-state players and the sub-national players in the pursuit of global governance. With a focus on climate change negotiations, we will delve into what collective action means for the big economies (U.S., China, Russia), for the not-so-big economies and for the small island nation-states and indigenous peoples, and what this action means within the current international system and regimes.
Credit 3 units. UColl: IAI, OLI

U85 IA 541 The Global Village in the 21st Century
More than 50 years ago, McLuhan predicted that humans across the globe would become part of a global village linked by various forms of communications. With the internet and telecommunications, that day has arrived. This online course will explore how global communications systems have evolved, how they work, and how they affect vital policies of nation-states as well as central banks, political leaders, and ordinary citizens.
We will explore the ways in which hackers can penetrate secure systems (e.g., elections) and create misleading images and impressions as well as how to counteract those actions. A research paper is required.
Credit 3 units. UColl: IAI, OLI

U85 IA 5410 Alternative Analytic Techniques for International Affairs
This course instills analytic rigor and imagination into the consideration of our most pressing national security issues. Based on structured analytic techniques employed in the Intelligence Community, students in this course will hone critical thinking skills, consider overlooked ideas, and develop unique perspectives. Students will be given the tools to recognize and overcome biases, mental shortcuts, and unstated assumptions and to challenge conventional wisdom through the analysis of U.S. foreign and counter-terrorism policy and current events in the Middle East, China, and North Korea.
Credit 3 units. UColl: IAC, IAI, OLI

U85 IA 5443 Drones, Surveillance, and Biometrics: Global Cyberwar in the 21st Century
This course examines how the practice of militarism is changing worldwide through the development of new technologies. How are governments reshaping the practice of war and diplomacy with the use of unmanned drones to fight wars, biometric eye and finger scanners to patrol borders and immigration, wiretapping on civilian populations to conduct surveillance of foreign terrorists, etc.? How are civilians and nonstate actors engaging in cyberwar, as in the network attacks from China on major corporations like Google? What does it mean that anyone (from mathematicians to humanitarian groups) can now buy drones on the market from private firms? How has a former judge in Montana posed online as an Iraqi cyberspy for the U.S. government? We will assess theories and implications of these developments in readings from sociology, international relations, and science and technology studies. Guest speakers will be invited from institutions around the St. Louis region, such as the National Geospatial-Intelligence Agency, Boeing, legal specialists, and privacy advocates.
Credit 3 units.

U85 IA 5450 Confronting Weapons of Mass Destruction (WMD): International Legal, Political, & Military Frameworks
This course will examine and evaluate the mechanisms employed by states to address the global problem of weapons of mass destruction (WMD) — nuclear, chemical, and biological weapons and their means of delivery. We will establish a framework of understanding about WMD while exploring relevant historical developments. We will focus on a comparison of states’ WMD-control/nonproliferation strategies and their WMD-counter-proliferation strategies. We will also consider the matter of complementing the latter strategies with UN Security Council action. The course will conclude with a consideration of the nuclear-weapon abolition debate and viable WMD-control futures.
This course examines the contributions of economists and political scientists to analyzing the nature of poverty, to evaluating strategies for reducing or eliminating poverty, and to considering the effects of globalization on the poor. We also focus on ethical matters; namely, our moral obligation to the poor — both those in foreign lands and those who are fellow citizens. The relevant arguments and planning schemes will be assessed and compared.

Credit 3 units. UColl: IAI

U85 IA 5451 Global Poverty
This course examines the contributions of economists and political scientists to analyzing the nature of poverty, to evaluating strategies for reducing or eliminating poverty, and to considering the effects of globalization on the poor. We also focus on ethical matters; namely, our moral obligation to the poor — both those in foreign lands and those who are fellow citizens. The relevant arguments and planning schemes will be assessed and compared.

Credit 3 units. UColl: IAI

U85 IA 5494 Indonesia: History, Society, Culture, and International Relations
Indonesia is the largest nation in Southeast Asia and the world’s fourth most populous, with its largest Muslim population. This course will survey the history, politics, and culture of Indonesia. It will cover topics relating to religion, the arts and media, terrorism and ethnic violence, and a burgeoning economy that has generated serious ecological damage. In addition to studying the complexity and diversity of the Indonesian archipelago and its people, we will explore Indonesia’s evolving presence on the global stage.

Credit 3 units. UColl: IAI

U85 IA 5500 Current Issues in International Affairs
Topic varies from semester to semester.

Credit 3 units.

U85 IA 5501 Civil War and Peace
This course examines the causes and consequences of civil war as well as potential solutions to it, drawing on examples from countries throughout the world. The potential causes of intra-state violence include ethnic and religious identities, economic and security concerns, elite manipulation, and international diffusion. The different tools for managing intra-state conflict that we examine include minority representation, power-sharing, decentralization, and partition.

Credit 3 units. UColl: IAI

U85 IA 551 The Culture of Global Neoliberalism
This course will study neoliberalism, a key socioeconomic approach to the free market and influential model for development, as a phenomenon that has fundamentally affected politics, ideology, and culture across the global-local spectrum. We will explore concepts such as globalization, citizenship, consumerism, private governance, NGOs and the commodification of identity. Our coverage will incorporate the space shuttle; and Reagan's space station. We will also examine

the role of the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS). Most broadly, we will consider the growing importance of space to humanity at large and the attendant challenges that confront the international community.

Credit 3 units. UColl: IAI

U85 IA 553 International Business
Today's business environment has become increasingly global, and it is imperative that business leaders understand the theories, institutions, and environmental elements that underlie international commerce. Globalization of businesses presents not only the opportunity to sell to world markets but also the challenges of potential competitors in nearly every industry. This course is designed to provide students with an introduction to economic theories, international commercial entities, and the political and cultural environments that form the context for global business. Topics include country-market differences, trade and investment patterns, the international financial environment, issues in business-government relations, and strategies for international business. We focus on opportunities for, threats to, and options facing the multicultural business enterprises.

Credit 2 units. UColl: IAI

U85 IA 5553 Geopolitics in the 21st Century
In this course we undertake a conceptual history of geopolitics. The term “geopolitics” emerged near the end of the 19th century in relation to new forms of nationalism and imperialist competition in Europe and beyond. During the Cold War, geopolitics was used to denote a global struggle between the capitalist Western bloc and the Soviet Eastern bloc, which finally ended with the collapse of the Soviet Union. Today, geopolitics is more relevant than ever as new global power struggles characterize the post-post-Cold War world. The realm of geopolitics has expanded in the 21st century to include issues and questions previously ignored during the Cold War: civilizational clashes, global warming, social movement struggles, global finance, and transnational communication networks. Geopolitics now implicates global environmental degradation and ethnonationalism. We will examine the history, concepts, policies, and practices of geopolitics from the late 19th century to the present. We will also critically investigate the “new geopolitics” of an emerging multipolarity, the return to Great Power politics, and the renewed interest in geopolitical narratives of the 21st century.

Credit 3 units. UColl: OLI

U85 IA 5571 Politics of Global Finance
Global finance underwent stunning transformations over the past 40 years. The changes contribute to interdependence, challenge national sovereignty, alter state-society relations, affect economic development, and influence the distribution of wealth and power in the global political economy. The seminar examines the political economy of monetary relations, the globalization of capital markets, and their effects upon domestic and international affairs.

Credit 3 units. UColl: IAC, IAI

U85 IA 5581 Domestic Politics and U.S. Foreign Policy Decision-Making
This course examines U.S. foreign policy from the perspective of domestic politics, with the aim of understanding how our political institutions affect foreign policy outcomes. The first section of the course provides an overview of the paradigms that have been used to understand foreign policy decision-making
U85 IA 559 International Political Economy in Theory and Practice
Globalization, the accelerating rate of interaction between people of different countries, creates a qualitative shift in the relationship between nation-states and national economies. Conflict and war is one form of international interaction. Movement of capital, goods, services, production, information, disease, environmental degradation, and people across national boundaries are other forms of international interactions. This course will introduce the study of global political-economic relations and will develop a theoretical tool kit that will help students explore the globalization of material and social relations.
Credit 3 units. UColl: IAA

U85 IA 5630 Inside the Intelligence Community
This class will provide an in-depth look at the United States Intelligence Community (IC) — specifically, the different agencies that compose the IC and their varying missions, priorities, and resources — and how intelligence informs national security decision making. Students will analyze long-term national security issues on which the government would like to focus as well as the short-term crisis issues on which the government must focus. We will write strategic analytical products and simulate inter-agency coordination and testimony before Congress. Systems and infrastructure designed around security make virtual interaction the preferred means of communication for analysts with shared problem sets who operate around the world and around the clock. Accordingly, this course will introduce the student to the IC and the practice of intelligence as well as make virtual interaction the preferred means of communication for analysts with shared problem sets who operate around the world and around the clock. We will write strategic analytical products and simulate inter-agency coordination and testimony before Congress. Systems and infrastructure designed around security make virtual interaction the preferred means of communication for analysts with shared problem sets who operate around the world and around the clock. Accordingly, this course will introduce the student to the IC and the practice of intelligence.
Credit 3 units. UColl: IAI

U85 IA 565 From Mikado to Makudo: A Literary View of Japanese Culture
This course will survey Japan's social and cultural history through selected literary works that span the seventh century (Mikado) to the present day (Makudo). Our readings — including fiction, poetry, drama, and personal writings — will serve as guides to key historical epochs: the aristocratic culture of the Heian era (Tale of Genji), the warrior society of the medieval era (Tale of the Heike), and the insular Tokugawa period (Basho's haiku). Novels by Soseki, Tanizaki, Mishima, and Oe will expose the complexities of modern Japan. Students will gain an appreciation of Japan's unique heritage, social complexity, and place in East Asia and the world today.
Same as U89 MLA 5565
Credit 3 units. UColl: CD

U85 IA 5652 Korea: History, Culture, and People
This course will provide a comprehensive overview of Korea — its long history, its cultural heritage, its people — and the complexity of Korea’s place within East Asia and in the larger global context. Topics will include: the Korean War and its aftermath, the fraught North-South relationship, national and cultural identity, the gender question, collective memory, and the tension between tradition and modernization/globalization.
Credit 3 units. UColl: CD, IAA

U85 IA 5711 Issues in Applied Ethics
The aim of this course is to examine crucial ethical questions that have come to shape contemporary international relations. For instance, what is the responsibility of affluent countries to those in poverty? Should nations have a right to close their borders to immigrants seeking a better life? What is the normative justification for an international criminal court, and under what conditions should this court override the laws and sovereignty of nation states? We will survey the major ethical schools of thought and apply their approaches to prevalent moral debates. This theoretical background will facilitate our investigation of and reflection upon the challenging moral issues that confront us today.
Credit 3 units.

U85 IA 572 The Politics of International Trade
This course examines the politics and debates surrounding international trade. The course begins with a brief overview of the basic economic theory underlying the idea of free trade. We will then discuss the most important international economic organizations, such as the European Union, NAFTA, and the proposed Free Trade Area of the Americas. The course concludes with a series of in-class debates on several major trade policies, including the issue of outsourcing, agricultural subsidies in developed countries, the recent Dubai sports deal, and the apparent resurgence of economic nationalism, as well as the relationship between increased trade and environmental protection.
Credit 3 units. UColl: IAI

U85 IA 5721 Energy, International Politics, and the Quest for Power
This course will examine the history and political implications of oil, the world's preeminent strategic resource. We will trace the "flow" of oil from its discovery in 1859 to its current role as fuel for the global economy. We will explore oil in relation to military conflict and to the energy competition among Russia, China, the U.S., and other powers. We will study the relation between energy resources, business strategies, political power, and foreign policy.
Credit 3 units. UColl: IAI

U85 IA 574 International Relations
Globalization, the accelerating rate of interaction between people of different countries, creates a qualitative shift in the relationship between nation-states and national economies. Conflict and war is one form of international interaction. Movement of capital, goods, services, production, information, disease, environmental degradation, and people across national boundaries are other forms of international interactions. This course introduces major approaches, questions, and controversies in the study of
international relations. In a small group seminar we will examine the building blocks of world politics, the sources of international conflict and cooperation, and the globalization of material and social relations.
Credit 3 units. UColl: IAC, OLH, OLI

U85 IA 5772 State Failure, State Success and Development
This course takes an interdisciplinary approach to examining the role governments play in development and economic outcomes. We will look at some of the competing arguments about governments in failed and successful states and compare those arguments to the empirical world, or data. In so doing we will recognize that how governments affect development and economic outcomes in society is neither straightforward nor consistent with any of the ideological screeds that often dominate public discourse.
Credit 3 units. UColl: IAC, IAI

U85 IA 5784 Global Leadership
This course will study leadership issues in various global and multicultural settings. We will focus on developing an understanding of global leadership skills and the means of fostering such skills. Attention will be paid to practices that advance ethical awareness, diversity, and effective conflict management. We will discuss exemplary leaders such as Bill Clinton, Bill Gates, and Nelson Mandela. The course will feature an in-depth coverage of relevant theories and research on leadership in global and multicultural organizations. We will discuss team leadership and team collaboration skills within a culturally diverse world, as well as current events relating to global leadership.
Credit 3 units. UColl: IAI

U85 IA 5820 Ukraine in Turmoil
This course will examine recent events in Ukraine and their underlying long-term causes. We will consider the riots of February of 2014 and how the subsequent overthrow of the scandal-ridden Yanukovich government became a bloody civil war in Eastern Ukraine. The class will study the geopolitical Ukraine in the Eurasian land mass, and the tension it has generated between the Russian Federation, United States, and western Europe.
Credit 3 units. UColl: IAA

U85 IA 5825 Cold War 2.0 and the Balkans
This course examines the prospects of reemerging Cold War tensions between the United States and the Russian Federation with the Balkans serving as the central focus of such tensions. We will examine these tensions within the broader context of power projection and energy initiatives that drive international relations in the region. Topics include: grand strategy, arc of instability, competing pipeline corridors, ethnic and confessional strife, non-state actors operating in Macedonia, Serbia, Kosovo, and Bulgaria.
Credit 1 unit.

U85 IA 5861 Virtual Money Makes the World Go Round: Paypal, Bitcoin, and the Global Politics of Demonetization
Markets are shifting from paper to virtual currencies, but are the benefits experienced evenly around the world? This course will examine the transformation to cryptocurrencies like Bitcoin and mobile payment systems like Paypal. It will ask how state governments and policymakers are responding and the impact for communities of the poor, ethnic minorities, and women in the global south. Can mobile money circumvent broadscale governmental corruption, or does it solidify the power of elites? Are farmers in Kenya able to use their phones to get better prices for their harvests, or do mobile payment apps submerge them in debt to financial institutions? Why does the demonetization program in India, which removed lower-currency paper bills from circulation, rob rural women of their life savings? Who are the hidden workers of these new industries, like villagers in outsourcing centers who process financial data for the global north? What is the impact on the environment, as Bitcoin servers around the world collectively consume as much energy as the country of Denmark? What does it mean that widespread cryptocurrencies are operating completely outside of state regulations and oversight? We will bring in financial and international development experts and explore local debates in St. Louis, such as the role of our tech hub in designing mobile payment apps and the activist campaigns against payday lenders.
Credit 3 units.

U85 IA 5880 Against Development: International Affairs Otherwise
One of the key tenets of 20th-century geopolitics -- from various models of modernization theory to contemporary understandings of neoclassical and neoliberal theory -- has been the ideal of development as a key goal to address economic and political inequalities in the world system. This course focuses on different lines of thinking that challenge this worldview. We examine the work of both global north dissident thinkers and global south traditions of thinking, such as dependency theory, decolonialism, and liberation philosophy. The course will depart from critiques of the idea of development as an extension of colonialism and imperialism by authors like John Patrick Leary and Arturo Escobar. It will continue to discuss critiques of the contemporary geopolitical and geo-economic orders from the perspective of global south countries through concepts such as necropolitics (Achille Mbembe), gore capitalism (Sayak Valencia) and slow violence (Rob Nixon). The course will conclude with the study of theories that propose postdevelopmental and counterdevelopmental models of economic organization and political engagement, including decolonialism (Macarena Gómez Barris and others), “Epistemologies of the South” (Boaventure de Sousa Santos) and “Neoliberalism from Below” (Verónica Gago).
Credit 3 units.

U85 IA 5881 Israel and the Middle East
Places Israeli political issues and events within the context of existing political theories. Discusses the politics and ideology of pre-state Israel and the foundation of the state. The creation of modern Israeli political institutions, elections, and government coalitions. Also, Israeli foreign policy and international involvement. This is a fully online course. Only University College students may receive credit for online courses.
Credit 3 units.
Students pursue course work and independent research with Washington University scholars from a number of academic disciplines, including architecture, art, film, history, literature, music, philosophy, religion and science.

The MLA program emphasizes critical thinking and inquiry, close reading, intensive writing and problem solving, all of which are hallmarks of a liberal arts education and essential skills for a range of professional contexts.

Credit 3 units. UColl: IAI

**U85 IA 589 Topics in International Political Economy**

This course is intended to provide a broad exploration of multiple topics in the field of international political economy. We will draw from the literature in international relations, comparative politics, and economics to develop an understanding of international politics. We will address the following topics: 1) politics of international trade, 2) exchange policies and central banking, 3) foreign aid and development, 4) financial crisis, 5) international institutions, and 6) migration.

Credit 3 units. UColl: IAI

**U85 IA 591 Islam and Muslim Societies in the World Order**

Credit 3 units. UColl: IAA

**U85 IA 592 Modern Russia and the International Community: New Cold War**

The Cold War supposedly ended in the late 1980s, yet the United States and Russian Federation are on the brink of another period of escalating tensions. In a recent press conference the President of the Russian Federation, Vladimir Putin, issued a dire warning to the United States and its NATO allies. He said the forward deployment of U.S. “Aegis Ashore” missiles in Romania posed an offensive threat to Russia, and for this reason the world is in great danger. This course examines how this new era of strained relations between nuclear powers came to pass with special emphasis on U.S.-Russian relations from 1989 to 2016. Ancillary topics include the Ukraine crisis and Erdogan’s volte-face with Moscow.

Credit 3 units. UColl: IAA

---

**Master of Liberal Arts**

The Master of Liberal Arts (MLA) program fosters intellectual breadth through courses that address a broad range of cultural issues from different academic perspectives. Students may explore questions of identity through art, literature and religion. They may analyze the politics of race in fiction, historical documents, the visual arts and music. They may debate ethical choices presented by fiction writers, jurists, philosophers and scientists from antiquity through the present. MLA seminars examine literary, artistic and cinematic masterpieces; historic moments of discovery and change; traditions of thought; cultural differences; and civic responsibilities.

MLA students sharpen their thinking about contemporary values and choices through courses that ask them to reflect on the individual’s relation to society, technology and the spread of ideas, challenges to freedom, inspiration, and creativity.

---

**U85 IA 5888 International Affairs Through Film**

This seminar explores key topics in international affairs — nuclear policy and brinkmanship, the Vietnam War and its legacy, genocide, the failed-state syndrome, among others — through the analysis of a series of films that dramatize major events and epochs in our recent history. The “primary texts” will be films such as *Dr. Strangelove*, *Z*, *Hotel Rwanda*, and *The Fog of War*. They will be supplemented by related readings.

Credit 3 units. UColl: IAI

---

**U85 IA 5900/5901 Master of Liberal Arts/Graduate Writing**

Required Courses: 30 units

Students complete 30 units total, including at least 15 units of core MLA interdisciplinary seminars, one writing intensive course, one research methods course, and a final research project that typically earns 3 credits.

**Core MLA Seminars**

The MLA program consists of seminars that introduce students to the methods and questions of different disciplines. These seminars are planned and taught by full-time Washington University faculty, and they cover a wide variety of topics and issues. Most core seminars are held one evening a week during the fall and spring semesters and twice a week during the summer term.

Among the seminars, some will be noted as “writing intensive” and “research methods.” These courses are intended to hone graduate-level writing and research techniques, preparing students for their final research projects.

Some students take all required courses in the seminars that are designed specifically for the MLA program; others augment a particular interest by taking related courses drawn from different departments with MLA department approval.

**Final Project**

A 3-credit final research project, developed under the supervision of a Washington University faculty member, is required for the MLA degree. This project presents an opportunity for the student to independently and extensively explore an area of personal interest, and it must be completed at the conclusion of a student's course work. Under special circumstances and with permission, some students complete a final project that comprises two semesters of research and writing for 6 units of credit.
U98 MLA 354 Abnormal Psychology: The Major Mental Disorders
This is an introductory course in psychopathology or the scientific study of mental health disorders. The course will include definitions, theories, and classification of abnormal behavior. Content will focus on symptoms, classification, prevalence, etiology and treatment of mental health disorders, including mood, anxiety, eating, schizophrenia spectrum, substance use, and personality disorders. Prerequisite: Psych 100B.
Same as L33 Psych 354
Credit 3 units. A&S IQ: SSC Arch: SSC BU: BA EN: S

U98 MLA 4400 The American Novel on the Road
This course studies representations of mobility, travel, and transportation in the American novel over the course of the 20th century and into the 21st. Our readings may include such texts as "As I Lay Dying" (1930) by William Faulkner, "On the Road" (1957) by Jack Kerouac, "Play It as It Lays" (1970) by Joan Didion, "Parable of the Sower" (1993) by Octavia Butler, "Tropic of Orange" (1997) by Karen Tei Yamashita, "The Road" (2006) by Cormac McCarthy, "Nevada" (2013) by Imogen Binnie, "The Underground Railroad" (2016) by Colson Whitehead, "Sing, Unburied, Sing" (2017) by Jesmyn Ward, and "Lost Children Archive" (2019) by Valeria Luiselli. We will explore how realist, modernist, and postmodernist novels depict the changing shape of the American landscape and its culture through representations of transportation. Our analysis of novels will be supplemented with the study of historical documents, such as selections from Green Books (1936-1956; guidebooks for African-American travelers), as well as other historical and cultural events, from the Federal Highway Act of 1956 to the concept of the family vacation and road trip to early imaginings of the World Wide Web as an information superhighway. We will study how novels depict characters who are mobile as well as those who lack mobility—who are stranded or fixed in one place or time—and how the ways they reflect on the government's intervention in developing and maintaining infrastructures like the interstate system, within the context of conflicts such as the World Wars, the Cold War, and globalization. Through discussions, close readings, work with primary source documents, and attention to American culture's shifting aesthetic sensibilities, this course provides students with an understanding of how the American novel evolved over the 20th century in response to an ever-increasing reliance upon roadways. This course fulfills the Writing Intensive requirement for both the Master of Liberal Arts and the Master of Arts in American Culture Studies programs.
Same as U98 AMCS 4440
Credit 3 units. UColl: ACH, GWRT

U98 MLA 445 Seminar: Reality Theater
Rotating upper-level seminar. Senior seminar normally offered each semester and meant to satisfy the 400-level requirement for the drama major.
Same as L15 Drama 445
Credit 3 units. A&S IQ: HUM EN: H

U98 MLA 4471 Archeology of the St. Louis Region
This course introduces students to archaeology of the St. Louis region and explores the cultures of its early inhabitants, from 12,000 years ago through the 19th century. We study a number of very important archaeological sites in the region, including Mastodon State Park, where artifacts of human manufacture were found in direct association with extinct mastodons dating to about 12,000 years ago, and Cahokia Mounds State Historic Site (a World Heritage Site) in Illinois, dating to the Mississippian period AD 1050-1350. We also examine methods and theories used by archaeologists to understand archaeological remains. Same as U99 Anthro 3471
Credit 3 units.

U98 MLA 450 Topics in AMCS: The Future of Culture:
Cultural Sustainability & Why We Have to Let It Linger
Topic varies by semester.
Same as U99 AMCS 450
Credit 3 units. UColl: ACH, ACS

U98 MLA 472 Social Theory and Anthropology
A seminar on social theory and its ethnographic implications. Course combines major works of modern social theory, including Marx, Weber, and Durkheim, with current work by contemporary anthropologists, such as Clifford Geertz, Eric Wolf, Marshall Sahlins, and Fredrik Barth, and ethnographers from related disciplines, such as Pierre Bourdieu and Paul Willis. Prerequisite: previous anthropology course work or permission of instructor.
Same as L48 Anthro 472
Credit 3 units. A&S IQ: SSC, SC, SD Arch: SSC Art: SSC EN: S

U98 MLA 490A St. Louis Blues: The Musical History of a City
From bustling Mississippian city to frontier port town to the eclectic, innovative, storied metropolis of today, St. Louis never seems to stand still. In this course, we will explore the history of St. Louis through the music that has been made, sustained, and remembered here. In the words of ethnomusicologist John Blacking, music is nothing less than "soundly organized humanity." Our musical investigation will lead us to consider how St. Louis-area residents have constructed geography, place, ownership, and identity. We will progress through several chronological-topical units that engage with race/ethnicity, class, regional identity, and cultural memory. Celebrities and musical icons such as Chuck Berry and Tina Turner will share our attention with grassroots and community music-makers such as the musicians of Little Bosnia and the protesters who sounded off sounded during the Ferguson demonstrations. This course satisfies the humanities or arts distribution requirement for the AMCS MA program. This course also can count toward the undergraduate major or minor.
Same as U99 AMCS 490A
Credit 3 units. UColl: ACH

U98 MLA 4941 Milton
Major poems and prose works in relation to literary and intellectual currents of the 17th century.
Credit 3 units. Art: HUM EN: H
U88 MLA 4999 Racial Identity and American Popular Music
This course investigates the history of racial identity and American popular music from the mid-18th century to the present day. What can popular music -- a vehicle of entertainment and commercialism, culture and disposability -- tell us about how Americans have experienced and constructed race? How did Blackness and whiteness sonically rub shoulders, even during the heights of segregation? How did Frank Sinatra journey from being a son of Italian immigrants to being an icon of white American masculinity? Why did Miley Cyrus' twerking cause an uproar? Participants will be trained in listening closely to musical artifacts, and they will be given opportunities to contextualize their own listening history. Our analysis will incorporate methods from the fields of musicology, history, and cultural studies. Student assignments will include reading, listening, writing, and discussion. This course counts toward the American Culture Studies major for day students, and it fulfills the Humanities or Arts distribution requirement for the AMCS MA program. It also fulfills the Writing Intensive requirement for both the Master of Liberal Arts and the Master of Arts in American Culture Studies programs.
Same as U89 AMCS 4999
Credit 3 units. UCall: ACF, ACH, GWRT, OLI

U88 MLA 500 Independent Study
An independent research project under the supervision of a member of the faculty of the MLA program. Approved proposal must be presented at the time of registration. Open only to students admitted to the MLA program. For more information, contact the assistant dean for Graduate Programs at 314-935-6700. Credit variable, maximum 3 units.

U88 MLA 5002 Sounding Tudor Music
We will enter 16th-century English soundscapes, from the soaring brilliance surrounding Henry VIII (Taverner), to the determinedly earthbound tones of Edward VI's Chapel Royal, to the judicious mix of music, religion, and politics marking the beat of Elizabeth I's court (Tallis and Byrd). Exploring the wedding of notes to words, the class will study Byrd, who keeps an Englishman's head; Morley and Weelkes, who yield to Italian fashions; and Dowland, who charts a musical path that mingles British identity with a well-traveled sense of innovative international styles. We will look to (and try out) royal dance in order to experience, both rhythmically and politically, the cadences of court life. All "musically untutored" are welcome. Credit 3 units.

U88 MLA 5012 Family and Community Ties
This course examines documentary and imaginary accounts of family and community, to consider how individuals shape their family and community, to consider how individuals shape their ideas about family and community differ according to economic, racial, ethnic, educational, and personal experience. Materials include memoirs such as Jesmyn Ward, The Men We Reaped, and Alexandra Styron, All the Finest Girls; testimonial from the StoryCorps project, Ties That Bind, fictive journalism in Paula Hawkins, The Girl on the Train and Gabriel Garcia Marquez, Chronicle of a Death Foretold; Lauren Acampora's stories, The Wonder Garden; the novels, Matt Johnson, Loving Day, selections from Jonathan Franzen, The Corrections, and Carolyn Chute, Treat Us Like Dogs and We Will Become Wolves. Credit 3 units.

U88 MLA 502 Directed Research
An independent research project under the supervision of a member of the faculty of the MLA program. Approved proposal must be presented at the time of registration. Open only to students admitted to the MLA program. Prerequisite: U98 502. Credit 3 units.

U88 MLA 503 Master's Thesis
An independent research project under the supervision of a member of the faculty of the MLA program. Approved proposal must be presented at the time of registration. Open only to students admitted to the MLA program. For more information, contact University College at 314-935-6700. Prerequisite: U98 502. Credit 3 units.

U88 MLA 5031 Food Cultural Studies: Theories, Methods, and Public Writing
Over the past few years, the study of food and gastronomy from the perspective of cultural studies and the humanities has been on the rise. This course introduces students to the interdisciplinary field of food cultural studies and its theories, methods and practices. The course also uses the topics of food studies to train students into different forms of public writing, including reviews, longform magazine essays, blogs and others. The course will discuss the ways in which different disciplines focus on the study of food (including history, anthropology, philosophy and others), basic elements of global food history (e.g., the medieval spice trade, the Columbian Exchange, the role of colonialism and empire), case studies around different cuisines (including but not limited to Mexican, Italian, and Chinese), and the work of some of the major food writers of our time (e.g., Samin Nosrat, Michael Pollan). Credit 3 units.

U88 MLA 5041 Contemporary Latin American Female Writers
This course examines the newest and most cutting-edge novels and short-story collections of women writers in Latin America. We will develop a set of tools for literary analysis in order to examine these works from the point of view of style and literary expression, and we will also examine how these young authors engage with the issues facing women in the region today, including politically and sexually motivated violence, collective memory, gender and race, and citizenship. We will also address what it means to be a Latin American woman author in the 21st century, and we will look at related issues, including structural barriers in the industry, institutional erasure, sexism and the literary canon. Evaluation will be based on writing assignments and on a multimedia portfolio on a writer of students' choice, which they will present to the instructor and the class at the end of the semester. This course fulfills the research methods requirement for both the Master of Liberal Arts and the Master of Arts in American Culture Studies programs. Credit 3 units. UCall: ACF, ACH, GRES

U88 MLA 505 Darwin, Marx, and Wagner
This seminar studies three works completed in 1859 that profoundly influenced all western thought to the present day: Karl Marx's Treatise on Political Economy, Charles Darwin's On the Origin of Species Natural Selection, and Richard Wagner's
Tristan and Isolde. We will explore how these three works share remarkable and intriguing parallels: an inherent belief in evolution; materialism permeated with romanticism; faith in progress; and a similar ("dialectical") approach to understanding the dynamics of change and the application of change in all aspects of the natural and social world. These three works will enable the class to consider aspects of 19th-century intellectual, economic, and social sociopolitical history. No special knowledge of biology, political science, or music is required.

Credit 3 units.

U98 MLA 5072 Humanizing Technology
In order to explore the ways that technology had changed the way we read and write, this course examines the myriad ways that technology and the humanities interact in shaping culture and identity in contemporary society. We will study the interactions between the internet and literature, examining the ways that short stories by Jorge Luis Borges and novels like Snow Crash by Neal Stephenson have first shaped the ways that we use and think about the internet. We will investigate new approaches to writing inspired by digital technology with the Bolivian novelist Edmundo Paz Soldán's novel Turing's Delirium. The class will consider the development of a technological posthuman identity in society, literature, and films through an analysis of Philip K. Dick's novel Ubik, the film The Matrix, along with the work of cultural theorists Donna Haraway ("A Cyborg Manifesto") and Katherine Hayles (How We Became Posthuman). To examine the development of digital humanities as a discipline, students will read selections from Jerome McGann, Radiant Textualities and Schreibman, Siemens, and Unsworth, A Companion to Digital Humanities.

Credit 3 units.

U98 MLA 5114 Seminar: The Middle Ages: Languages and Histories of Desire
Same as L14 E Lit 511
Credit 3 units.

U98 MLA 5117 Popular Culture in Latin America
This course examines popular culture in Latin America both as it thrives today and as it has developed historically since the 1800s, when countries achieved their independence. We will study different forms of cultural practice, analyzing how they become "popular" and how they involve connections between artistic expression, politics, economics, ethnicity, and race. The course will consider differences between "high culture" and popular culture; folklore traditions; the impact of modernization and the dream of "being modern"; the role of the media; and the growth of globalized popular culture. Our cultural geography will survey the gauchos (cowboys) of Argentina and Uruguay; national dances such as salsa and reggaeton in the Caribbean; forms of cultural resistance to military rule in Chile; and the pervasive economic, political, and emotional power of soccer (fútbol). Students will examine the best-selling novel "The Gaucho Juan Moreira," the engaging political essay "The Open Veins of Latin America," stories of urban life, and contemporary texts that explore the rise of populism (elites vs. others), dictatorship and social revolution, and the immigrant experience. We will also consider examples of music; films including "The Secret in Their Eyes" and "Paper in the Wind"; and a pair of riveting television series (telenovelas) from Mexico and Argentina.

Credit 3 units.

U98 MLA 5120 Breath on the Mirror: Ancient Maya Religion
Contemporary scholars of Maya religion are gradually coming to appreciate the grand myth cycles, cosmogonic visions, and understandings of the Maya divine beings, due in large part to the increasingly productive decipherment of ancient texts and imagery. This course surveys what we know and how we document our current interpretations of ancient Maya religion. Topics include the Maya's famous calendar systems mathematics, astronomy, including Maya archaeoastronomy and time keeping. We will analyze the complexity and dynamism of Maya understandings of the supernatural. The class will examine enduring ideas and stories at the core of the Maya religion, as told in the Popol Vuh, the Quiche' Book of Counsel. We will also study recent field research and discoveries, exploring links between classic Maya religion and the religion of the great highland Mexican society of Teotihuacan in the Valley of Mexico. The professor will share information about his ongoing field research project in northwestern Peten at the site of El Peru-Waka. The class will learn what scholars have unearthed, literally, about El Peru-Waka, the capital of a kingdom and seat of a royal dynasty established in the Preclassic period that endured more than 500 years and boasted more than 26 successors to the throne.

Credit 3 units.

U98 MLA 5150 Hollywood on Hollywood
Same as U89 AMCS 5151
Credit 3 units. UColl: ACF

U98 MLA 5200 Visions and Re-Visions: 19th-Century Arts and Society
In this multidisciplinary course we will examine how 19th-century literature, painting, and music reflected, as well affected, contemporary Western life, both in Europe and the United States. We will consider how different writers and artists attempt first to represent and then to modify, either directly or indirectly, several important sociopolitical and economic situations of their time, such as the institution of marriage; increased urbanization and industrialization; and the spread of nationalism. Included among the literary works to be studied are Romantic, Transcendentalist, and utopian texts by Balzac (Père Goriot), Sand (The Country Waif), Thoreau (Walden), Hugo (Last Day of a Condemned Man), Baudelaire (The Painter of Modern Life), and Robert Owen (A New View of Society). In the field of art history we will analyze the social impact of paintings from the Realist and Barbizon schools. In the areas of theater and opera we will study works by Ibsen (A Doll's House), Maeterlinck (Pelleas and Melisande), and Wagner (Opera and Drama and examples of his Ring Cycle).

Credit 3 units.

U98 MLA 5203 America: Through a Glass Darkly
This course studies depictions of America by non-Americans. We will examine the social, political, and economic aspects of their accounts and their influence on America's beliefs, policies, and international reputation. The class will consider fundamental values as well as ethnic and gender-based differences. Comparing historical periods from both western and eastern perspectives, students will read texts written during the past three centuries from England, France, Germany, Cuba, and China. For the colonial/Revolutionary War period, we will study Charlevoix, History & Description of New France and Crévecoeur, "Letters from an American Farmer." Readings from

**U98 MLA 5204 Patterns of Thought**

Exploring how patterns shape our understanding, this seminar will focus on recurring motifs in literature and art. Our study of patterns will refer to thematic elements as well as to repeated figures, structures, and designs. We will examine the function of mirrors in paintings by van Eyck, Velázquez, and works of the Italian Renaissance, as well as the "mirror function" of paintings within paintings in works by Dutch Golden Age painters Vermeer and his contemporaries. We will also study the importance of mirroring in short stories by Borges and novels about novel writing ("metafiction"), including Krauss's *History of Love; Auster, The City of Glass*; and Knausgård's autobiographical novel *My Struggle*. The class will analyze the distinctive narrative structures of Lafayette, *The Princesse de Clèves* and *Joyce, de Clèves*. If on a Winter's Night a Traveler, *The Glass Key, The Blue Gardenia*, and *Chinatown*. Prerequisite: Consult Course Listings. Credit 3 units. UColl: ACF, ACH, OLI

**U98 MLA 5217 Paint it Black: Understanding American Film Noir**

A product of highly diverse influences and traditions, film noir is known for its stylized visual aesthetic, crackling dialogue, moral ambivalence, and existential paranoia. Its style and language continue to inform filmmakers in Hollywood and worldwide. This seminar positions the aesthetic shapes and traumatic narratives of film noir within the context of American culture and film history during the war and post-war years. As importantly, it explores film noir as a test case in order to probe notions of film history, genre, and authorship, of cultural and intermediational transfer and the popular. Required screenings will take place during the second half of each week's class. Films will likely include many of the following: *The Maltese Falcon, Phantom Lady, Double Indemnity, Laura, Gun Crazy, Somewhere in the Night, The Glass Key, The Blue Gardenia*, and *Chinatown*. Prerequisite: Consult Course Listings. Credit 3 units. UColl: ACF

**U98 MLA 524 The American Dream: Myth and Reality**

This course will examine the origins and history of "The American Dream." What do we mean when we use this term? How does it resonate and influence our politics, advertising, and especially the arts? We will discuss the experience of immigration and assimilation (how foreigners with different cultural backgrounds enter American society). Beginning with the implications of America's image as a "brave new world" in European thought and philosophy (including Shakespeare's "The Tempest"), and the prescient view of our culture by de Tocqueville and others, we will examine how the dream of success and wealth has been depicted and employed in theater, fiction, cinema, and the visual arts. Texts include Fitzgerald's "The Great Gatsby," Williams's "The Glass Menagerie," Miller's "Death of a Salesman," West's "Day of the Locust," Lorraine Hansberry's "A Raisin in the Sun," Albee's "The Zoo Story" and *The American Dream,* John Guare's "The House of Blue Leaves," Lynn Nottage's "Sweat," and so on. We will consider modern painters whose work offers an implicit commentary on the dream, such as Edward Hopper and Andy Warhol, and study cinematic innovators from Charlie Chaplin to Orson Welles ("Citizen Kane") and Francis Ford Coppola ("The Godfather"), who have used the idea of "The American Dream" as significant elements in their work. Credit 3 units. UColl: ACF, ACH, OLI

**U98 MLA 5209 Exploring Medieval Literature**

This course will explore modernism's search for new ways to narrate experience in a radically changed world. Traveling across time and space, from East to West, and into modern cities and uncharted locations, we will explore how writers and filmmakers in the 20th and 21st centuries experiment with innovative forms of artistic expression in response to the growing influence of foreign cultures; technological changes and developments in science; the globalization of world markets; and issues of identity, gender, race, and ethnicity. The class will analyze modernism as a rejection of social and political norms, a crisis of identities, and the fragmentation of life. Works to include Kafka, *The Metamorphosis*; Joyce, *Dubliners*; Joseph Conrad, *Heart of Darkness*; Amos Tutuola, *My Life in the Bush of Ghosts*; Italo Calvino, *If on a Winter's Night a Traveler*; Jorge Luis Borges, *Fictions*; Alejo Carpentier, *The Kingdom of This World*; Salman Rushdie, *East, West: Stories*, and Don DeLillo, *The Body Artist*, as well as films by Christopher Nolan (*Memento*); Akira Kurosawa (*Rashomon*), and Michelangelo Antonioni (*Blow-Up*). Credit 3 units.

**U98 MLA 5301 Against the Grain: Transgression and Controversy in Modern Art**

This course will examine the public controversies that surround the development of modern art over the last 150 years, to probe the question of the social and political functions of transgressive art. After reviewing key theories of the avant-garde, we analyze both the persona of the modern artist (Gauguin, Picasso, Pollock) and the place of women artists in the revolutions of modernism (Cassatt, Höch, Kahlo). A key issue to address is how modernism tests limits by asking what is (and is not) art (Duchamp and Brancusi). Some of the most controversial
exhibitions in this time frame, from the Salon des Refusés in 1863 to Mirroring Evil in 2002, highlight the challenges raised by modern artists’ treatment of the body. Debates waged over public art in St. Louis, and recent controversies over public funding of contemporary art, will close the course. No prior knowledge of art history required.

Credit 3 units.

U98 MLA 5303 Topics in AMCS: No Future: Punk and the End of the 20th Century

Topic varies by semester. For current title/description, please refer to semester listings.

Same as U89 AMCS 433

Credit 3 units.

U98 MLA 5310 Mind-Brain and the Arts

This course considers ways that recent research in cognitive science might shed light on four traditional topics in the philosophy of the arts. Each topic will focus on a certain type of art (although not exclusively) and on one or more mental faculties: How do pictures represent? How do we understand stories and what roles do they play in the life of the mind? What do we like in the arts and why, according to psychological theories based on brain research? What is style in the arts and can there be a scientific explanation of its history? A parallel concern is with how distinctive features of the arts might shed special light on the nature of the mind. Readings will include essays by prominent art historians, philosophers, psychologists, and scientists.

Credit 3 units.

U98 MLA 5353 Cultural Geography: Mapping Paris

This course explores how, over centuries and across national borders, Paris remains central to our sense of Western culture. Our focus on Paris will extend from the 16th century through the present via pairings that join the French capital with other European cities. We will study King Francis I's expansion of the Louvre in Paris in conjunction with the proliferation of castles in the Loire Valley, the court's patronage of Italian artists, and the arrival of Leonardo da Vinci in Amboise. The class will examine the 17th-century court of Versailles as it casts a shadow over Paris, and we will compare the art of the French monarchy during this period with that of Vermeer and his contemporaries in Delft and Amsterdam. We will analyze views of Paris and London the 18th century that show new architectural features and home decor and we will contrast paintings of Boucher, Fragonard, and Watteau in France with those of Hogarth and Gainsborough in England. The class will consider desire in the 19th century as it radiates both through Paris in Flaubert’s Madame Bovary and Vienna in Freud's Dora. We will consider contemporary portraits of Paris and New York in Barbey’s The Elegance of the Hedgehog and Foer's Extremely Loud and Incredibly Close. The animated film The Triplets of Belleville will offer a contemporary take of these cities. Open to all MLA and DLA students, including those who have taken Paris and New York.

Credit 3 units.

U98 MLA 5416 Urbis & Civitas: Florence Beyond the Tourist’s Gaze

This course explores the urban history of Florence, Italy, from its origins as a small Roman town at the edge of an Etruscan settlement to its contemporary position as the industrial, commercial, and cultural center of a sprawling metropolitan area along the Arno river valley. We will study Florence's long history as it comprises periods of rapid development, symbolic and intellectual pro-eminence, and political influence, on the one hand, and economic stagnation, internal conflicts, depopulation, and subjection to external control, on the other. Our focus on both the urbs (the built environment, the physical realm) and the civitas (the social constituency, the civic sphere) will reveal Florence to be a complex artifact that is constantly shaped and reshaped by human action and counteraction. In order to look beyond the tourist image of Florence that we have inherited from the late 19th century, we will examine what defines our experiences and conceptions of a city. This investigation will include comparisons of Florence with other urban centers and discussion about the meanings of urban memory, culture, and citizenship. Readings will address the study of the urban history of Florence as well as urbanization, urbanism, and the public sphere, including works such as An Outline of Urban History by Silvano Fei, Grazia Gobbi Sica, and Paolo Sica; A Brief History of Florence by Franco Cardini; and Florence: Architecture, City, and Landscape edited by Marco Bardeschi.

Credit 3 units.

U98 MLA 5420 History of American Architecture

This course examines the ideological, political, economic and social determinants that have shaped the look of American architecture. Throughout readings that will include a survey text in addition to topical works covering the social history of housing, the vernacular architecture of Las Vegas and the rise (and fall, and rise) of Frank Lloyd Wright, students will learn the definitive characteristics of American architecture. A central point of study will be examining contradictory tendencies in the American practice of architecture: the embrace of exceptionalism through modern forms and styles representing a new national identity, occurring alongside the emulation of classical and European precedents to legitimate a new nation's buildings. The readings will illuminate how the characteristics of American architecture reveal the social, economic and political structures of its production. Ultimately, students will be able to read an American building to discern evidence of national identity, individual political agency, the evolution of gender roles, the assertion of disciplinary and economic power, and the evolution of the American artistic sensibility. This course will count toward major in American Culture Studies for day students. This course fulfills the Humanities distribution requirement for the AMCS MA program. It also counts toward the MD and some concentration requirements for the AMCS major and minor.

Same as U89 AMCS 420

Credit 3 units. UColl: ACF, ACH

U98 MLA 5430 Imagining Germany in the Long 19th Century

Between the start of the French Revolution (1789) and the outbreak of the First World War (1914), Germany was transformed from a patchwork of over 300 sovereign territories into a unified nation-state with immense political and economic power. This course examines the crucial role played by literature and the arts in creating a sense of a German national community during this period. Our materials will include national anthems, fairy tales, painting, public monumental art, opera, essays, propaganda, and popular culture, and we will investigate these materials with an eye toward the different and sometimes opposing visions of the nation and national character to which they give expression. Within this broader context, we will address the perceived contribution of men, women, and the family to the project of nation building; the role of language, of national heroes and legends, and of geography in creating...
a sense of unity; and the ways in which national identity is defined in opposition to a perceived Other (in this case, France). We will also consider Zionism as an offshoot of the European nationalisms and a response to anti-Semitism in Germany. Works studied include fairy tales by the Brothers Grimm; essays and poems by Johann Wolfgang Goethe, Heinrich von Kleist, and Berthold Auerbach; Germany, A Winter’s Tale by Heinrich Heine; The Patrioteer by Heinrich Mann; and The Jewish State by Theodor Herzl.

Credit 3 units.

U98 MLA 5450 Global Cinema: A Love Story
Focusing on the ubiquity of love stories in cinema, this seminar will explore connections between romance, anxieties, and aspirations in contemporary society. Studying celebrated films from the United States (When Harry Met Sally, Eternal Sunshine of the Spotless Mind), Latin America (Love in the Time of Hysteria), Europe (Amélie, Café au Lait), South Asia (The Lunchbox), and East Asia (2046, Happy Together), among others, we will consider how love functions as a symptom of what ails society. The class will examine not only personal relationships but also social structures, economic systems, and political conflicts. Topics will cover issues of class, gender, and race; the construction of economic identities; and the formal structures and aesthetics of film. Students will be required to watch two films per week as well as to complete selected short readings.

Credit 3 units.

U98 MLA 5454 Medicine and Morality in Global Perspective
What does it mean to be sick? What does it mean to be a patient, or a healer? Is it possible to imagine a universal morality in which our understanding of medical ethics is shared among peoples worldwide? What are some of the ethical dilemmas associated with genetic testing, organ transplants, and global disparities in health? Framed by these questions, our class will examine how culture shapes our concepts of disease and our expectations for treatment. Similarly, we will consider how social class, race, and ethnicity influence both health and access to health care worldwide. Our readings will focus on medical history and the evolution of diagnosis and treatment of disease; health disparities; the varying relations of patients and healers in different cultures; African health crises; public health controversies; folk illness in Latin America; medical technologies and ethical conflicts; and other issues of medical anthropology pertaining to the prevention and treatment of illness and the healing process around the globe. We will also discuss three documentaries: Frontline: Sickness Around the World, Donka: X-Ray of an African Hospital (Doctors Without Borders); and Dan Rather Reports: Kidney Pirates (with anthropologist Nancy Scheper-Hughes).

Credit 3 units.

U98 MLA 5478 American Folklore in Context
For the last several election cycles, candidates and supporters from across the political spectrum have invoked “the real American.” But what does it mean to be authentically American? A simple answer might be that they are “us.” A more complex one requires that we dive into American folklore. The scholarly field of Folklore may be defined loosely as exploring what we say, what we do, and what we believe. Following this schema, this course will probe the question of what it means to be “American folk” by examining how folklore informs and shapes the world around us and our everyday lives. More particularly, we ask how race and ethnicity, class and gender are encoded and contested through folk expression. Beginning with the question “who are the folk,” we will look at classic and contemporary texts in folklore studies to explore how our food, our stories, our daily rituals, and our music, to name a few, interweave to create a complex, multilayered, and uniquely American folk. Readings pair specific genres with different theoretical approaches and include our jokes, urban legends, folktales, foodways, music, and material culture. Crucially, we seek to trouble popular notions of folklore as “antiquities” to question how the lens of Folklore studies may reveal how American culture not only consists of folklore but is constructed by it as folk forms are deployed in contemporary contexts, from Slenderman to Snopes to modern slave auctions. The course will entail several small collection projects to give students an understanding of the work a folklorist does in the field and how folklore is coproduced within a community, and a longer research project. This course satisfies the Humanities requirement for the master’s program in American Culture Studies.

Same as U89 AMCS 478A

Credit 3 units. UColl: ACH

U98 MLA 5497 Shakespeare and His Contemporaries
Though we often read Shakespeare in isolation, he developed his art in the vibrant theatrical culture of late 16th- and early 17th-century London, whose audiences discovered his distinctive qualities in comparison with other playwrights. In this course, we will read plays both by Shakespeare and by some of his most interesting contemporaries — including Kydd, Marlowe, Jonson, Webster, Beaumont, and Fletcher — and consider why some plays are "of an age" and others "for all time." This course will count toward the major in English literature for day students.

Same as U65 ELit 497

Credit 3 units. UColl: ENE

U98 MLA 5500 An Island with a View: Reimagining Cuba through Literature, Art, and Film
In the wake of such momentous events as president Obama’s visit to Cuba and Fidel Castro’s death, for many Americans the island has advanced from the category of a "forbidden fruit" to a full-fledged reality. Now is a good time to ask not only "What is next for Cuba?" but also "What can we learn from its history and its present?" This course explores the multilayered Cuban realities-both on the island and in the diaspora-and the intertwined history of the United States and Cuba (Missile Crisis, Bay of Pigs, Guantánamo). Using a combination of literary texts (Carpentier, Cabrera Infante, Ponte, Bobes, Obejas, Morejón, Padura), films (Strawberry and Chocolate, Guantanamera, The Promise, and The New Art of Making Ruins), artwork (Mendieta, Bruguera, Garcia), political speeches, and unique documentary materials compiled by the instructor during her many research trips to Cuba, we will look at the island’s "post-socialist" reality through the lens of its colonial and postcolonial past. Topics include ethnic and gender identities; the "myths" of Che Guevara and Fidel Castro; African-Cuban religions; popular music; political oppression and dissent; and migration and exile. We will also examine critical aspects of contemporary life in Cuba such as foreign tourism, food rationing, the dual-currency economy, the restoration of colonial Havana, education, and healthcare.

Credit 3 units. UColl: CD
U98 MLA 5501 Combating Cruelty
This seminar focuses on large-scale acts of violence such as war, torture, and genocide as they are expressed through "ordinary" acts of cruelty that degrade, isolate, exploit, and terrorize individuals. The class will analyze individual instances of envy, greed, anger, and brutality in novels depicting the early modern through the present, including Dunant, Birth of Venus; Racine, Phèdre; Laclos, Dangerous Liaisons; Zola, Thérèse Raquin; Faulkner, Sound and the Fury; Schlink, The Reader; Coetzee, Disgrace; and Barnes, Sense of an Ending, as well as examples of contemporary cinema by Kassovitz (Hate) and Haneke (The White Ribbon). Our goal is to consider the causes and effect of violence in order to appreciate aesthetic and ethical responses that combat the destructive effects of cruelty. Students enrolled in the DLA program should register for U98 581.
Credit 3 units.

U98 MLA 554 Paris and New York
Cultural icons, Paris and New York represent brilliant successes in art, theater, film, and urban design. We will study how the French and Americans define themselves through their premiere cities, notably in the works of leading writers, artists, and architects. The themes of innovation and tradition, order and disorder, integration and isolation as represented by Emile Zola, Marcel Proust, Baron G.-E. Haussmann, Edouard Vuillard, Henri Cartier-Bresson, Alfred Stieglitz, Henry James, Jackson Pollock, Adam Gopnik, Woody Allen, and others will guide our examination of the powerful hold Paris and New York have on our imagination. We will study history as reflected in public spaces (monuments, museums, and the streets themselves), exploring how each city functions as a locus of collective memory even as it fashions the future.
Credit 3 units.

U98 MLA 5555 From Mikado to Makudo: A Literary View of Japan
This course will survey Japan's social and cultural history through selected literary works that span the seventh century (Mikado) to the present day (Makudo). Our readings — including fiction, poetry, drama, and personal writings — will serve as guides to key historical epochs: the aristocratic culture of the Heian era (Tale of Genji), the warrior society of the medieval era (Tale of the Heike), and the insular Tokugawa period (Basho's haiku). Novels by Soseki, Tanizaki, Mishima, and Oe will expose the complexities of modern Japan. Students will gain an appreciation of Japan's unique heritage, social complexity, and place in East Asia and the world today.
Credit 3 units. UColl: CD

U98 MLA 566 The Experience of Modernity
This course explores what it means to be modern. Our expansive study will engage the concept of radical change as it affects a range of historical periods and geographical areas. The course will consider how modernity entails a breakaway from tradition; the development of new intellectual, scientific, and geographic frontiers; and the experimentation with new technologies and art forms as a way of creating new futures and ruptures with the past. By examining questions of time, space, innovation, and translation, we will study key literary and cultural works that express a groundingbreak sense of modernity and revolution in ways that highlight epistemological, political, and social tensions. Works studied include Cervantes's Don Quixote, Blake's poems, Wharton's Age of Innocence, Conrad's Heart of Darkness, Woolf's Mrs. Dalloway, Loomis's Poet in New York, Achebe's Things Fall Apart, and Lispector's Hour of the Star. We will also discuss Dalí's collaboration with Bunuel in their film An Andalusian Dog [Un Chien Andalou] along with Kurosawa's Rashomon and other visual works that capture the inventions, uncertainties, and energy of the modern experience.
Credit 3 units.

U98 MLA 567 Translating Worlds
This course studies different forms of cultural translation, that is, the communication of knowledge, behavior, and language from one culture to another. We will examine how an author reworks earlier and foreign traditions, adapting ideas and practices for which there may be no direct equivalent in the author's own culture. In the new cultural setting, do the roles of men and women shift? Do questions of ethnicity, class, religion, and sexuality become more pronounced, or do they fade away? These questions will frame our study of historic cultural encounters, colonialism, exile, and other processes that shape modernity. Students will explore two dramatic points of cultural intersection: Tolkien's modern reworking of Sir Orfeo, a medieval version of the classical myth of the musician Orpheus and his wife Eurydice; and Goethe's Italian Journey, the journal of the German writer's experiences with the people, art, and history that he encountered during his travels. We will see how diaspora and migration shape perceptions in works by Alejo Carpentier (The Kingdom of this World), Salman Rushdie (East/ West), and Jhumpa Lahiri (Interpreter of Maladies). The class will also learn how different scholarly and artistic fields address the concept of cultural translation, including cultural anthropology (James Clifford), film adaptation (Louis Malle's Vanya on 42nd Street, inspired by Chekhov's play), and colonial history (Vicente Rafael). In addition, we will discuss how digital technology affects cultural translation today (Google Translate, and projects using geographic information system (GIS) technology). Students will consider challenges facing the humanities and the sciences as these technologies advance. Will it be possible to make all knowledge, and all culturally-specific information universally accessible? No foreign language experience required.
Credit 3 units.

U98 MLA 569 Film, Politics, and Aesthetics in the Global South
This class introduces students to the cinema of industries outside the United States and the historically dominant markets of East Asia and Western Europe. Focused mostly on fiction films, the class explores the ways in which filmmakers around the world touch upon significant questions of our times - race, immigration, climate change, political strife-and develop new forms of filmmaking that seek new aesthetic pathways, distinct forms of cinematic experience and attention, and projects shielded from market pressures. Discussion will also focus on the ways in which this cinema, which rarely has access to movie theaters at a global scale circulates, through mainstream and alternative streaming platforms, including Netflix, MUBI and the Criterion Channel.
Credit 3 units. UColl: CD

U98 MLA 5701 The Making of the Modern Catholic Church
This course will look at three church councils that put their stamp on the Catholic Church at key moments in its history, making it what it is today. The first section will be dedicated to the Fourth Lateran Council (1215), which defined the high medieval church
as an all-encompassing papal monarchy with broad powers over the lives of all Europeans Christian and non-Christian alike. In the second section, we will turn our attention to the Council of Trent (1545-1563), which responded to the threat posed by the Protestant Reformation by reforming the Catholic Church, improving clerical education, tightening ecclesiastical discipline, and defining and defending Catholic doctrine. We will conclude with a consideration of the largest church council ever, Vatican II (1962-1965), which reformed the liturgy and redefined the church to meet the challenges of the modern, multicultural, postcolonial world.

Credit 3 units.

U98 MLA 572 Genre Cinema: The Art of Variation

This seminar explores the role of genre as a powerful means of mainstream cinema to tell compelling stories and structure the viewer’s identification. Even though genres such as the melodrama, the western, the romantic comedy, the musical, the science fiction film, the horror film, or the thriller are often seen as quite predictable staples of dominant filmmaking, they also inspire and allow for considerable formal experimentation and thematic departure. This seminar examines the logic of some of the most important genres of Hollywood filmmaking while at the same time emphasizing the creative possibilities of working with certain genre expectations. We discuss such classic representatives of certain genres as Imitation of Life, Stagecoach, His Girl Friday, The Day the Earth Stood Still, 42nd Street, and North By Northwest, and then juxtapose these paradigmatic examples with more contemporary films reworking or pushing the limits of the classical genre system such as Far from Heaven, Lone Star, Blade Runner, Dancer in the Dark, and Breathless.

Credit 3 units.

U98 MLA 575 From Buggy to Benz: Global Capitalism, Gender, and Race

In this course, students will examine global capitalism, with particular attention given to how it intersects with gender, race, and place in specific historical moments. Using critical, historical, and ethnographic perspectives, we will consider the emergence of and changes in capitalism and how it relies on and reproduces particular gender, racial/ethnic, and other hierarchies. Course materials will draw examples from around the world and will include novels, ethnographic and historical case studies, social theory, films, and articles from the popular media. Through written assignments, students demonstrate the ability to examine the impact of capitalism on the environment, health, indigenous and marginalized groups, policy, and access to education, jobs, housing, and other resources.

Credit 3 units.

U98 MLA 576 Haunting the World: Refugees in Literature & Film

As of 2019, 65.8 million people (or 1 in 113 individuals) had been forcibly displaced within their own countries or across borders. In this course, we will study literary texts, film, and other forms of cultural production that will provide a window into the complex lives of displaced individuals from World War II to the present. In addition to contextualizing the historical and legal significance of such terms as “refugee,” “asylum,” “sanctuary,” “non-refoulement,” and “forced displacement,” our discussions will also allow us to engage with the broader meanings of concepts that include human rights, hospitality, identity, belonging, and citizenship. Our course will move chronologically from the early 20th century to the present; the last part of the semester will focus specifically on new forms of storytelling that have emerged as a response to the current “crisis.”

Credit 3 units. UColl: ACF, ACH

U98 MLA 578 Representing Religion, Race, and Gender in Early Modern Latin America

This seminar explores the history of religion, gender, and empire in Latin America, focusing primarily on the colonial period (1492-1821) but also including some precolonial materials. Through primary documents, secondary scholarship and student-centered discussion, we will consider connections between religious belief and political thought and their impact on the lives of people in Latin America, including African slaves, Indigenous peoples, and Euro-American colonizers. We will conclude the class by discussing how these religious practices have persisted until the present day and what these legacies can tell us about questions of race and gender in a religious context in Latin America. This course will also introduce students to key research methods in the humanities and to the conventions of graduate-level writing necessary for completing the degree thesis.

Credit 3 units.

U98 MLA 579 National Identity and the Visual Arts

What is national identity? What does it mean to call oneself “an American,” “a Moroccan,” or “a Tahitian”? What elements comprise a national identity, and, more specifically, how do visual artists express them? This course will explore these questions in art and architecture from an array of periods and cultures, with an emphasis on the past 150 years and a special focus on art made after the Cold War. Readings in political theory will ground our study of specific artists whose works explore the tensions and complexities inherent in the construction of and challenges to national identities. Among the themes we will address are territory, history, language, ethnicity, immigration and emigration, “foreignness,” colonization, exile, and diaspora. We will also touch on issues of intersectionality, considering how gender, religious, and class identity can inflect one’s sense of national belonging.

Credit 3 units. UColl: ACS, OLI

U98 MLA 581 DLA Interdisciplinary Proseminar

This gateway course to the DLA program provides training in analytic thinking and writing through critical examination, discussion, research, and progressive writing on interdisciplinary topics such as historical narrative, text and image, the life of the mind, the creative impulse, the good life, and other major themes that have guided scholarly investigation and research in many fields. Students will analyze works from at least four disciplines (e.g., literature, art history, film, history, philosophy, women and gender studies, religion, political science, anthropology, history of science) and write a progressive research paper, submitted and reviewed incrementally, that demonstrates comparative, analytic, and critical thinking.

Credit 3 units.
This course is framed by a simple contradiction. Race is "socially constructed," yet racial categories have very real social, economic, material, legal, and health consequences. Racial categories are rooted in history and culturally constructed through laws, the media, and various institutions. These categories are reproduced, subverted, and sometimes changed by people through socialization, media consumption, interaction, dialogue, protest, and political participation. Yet, what makes race real, animates it with so much power, and fosters its tenacious hold on much of the Western world’s collective psyche? It is the fact that people largely believe that race has something to do with nature, biology, or rational science. Ironically, it is biology and the so-called natural sciences that provide the best evidence that there is no valid basis to organize people by racial categories. We will explore both race’s historical construction and its contemporary manifestation as a crucial aspect of many places around the world and an integral component of people’s identities. Drawing on classical and contemporary readings from Du Bois to Gould to Gilroy to contemporary ethnographies, we ask whether the logic of race has shifted over time, and, with that changed logic, how we can respond today to new configurations of race, science, technology, and inequality. Considered are the rise of evolutionary racism, debates about eugenics in the early 20th century, Nazi notions of "racial hygiene," nation-building projects and race in Latin America, colonial monuments, racialized state violence, and Black liberation such as the Black Lives Matter Movement. At the conclusion of this course, students should be able to critique contemporary ideas of biological notions of race; explain how race is socially constructed through laws, media, and popular culture; and understand that patterns of human diversity do not fit neatly into categories of race. Finally, students will begin to understand why race remains a powerful force in contemporary society.

Credit 3 units. UColl: ACH, OLI

U98 MLA 583 Global Energy and the American Dream
This course explores the historical, cultural, and political relationship between the United States and global energy politics. We focus primarily on the problem of fossil fuels (oil, coal, natural gas) and the challenge of transitioning to renewable energy (sun, wind, and water). Through international and US-based case studies, we learn about the social and technical dimensions of fossil fuel extraction, production, distribution, and use. We consider impacts on public health, politics, and the environment and how we are intimately connected to fossil fuels in daily life. The United States is the world’s largest consumer of oil and energy (per capita). That makes it one of the contributors to climate change (and to some extent, militarism and war). A major contradiction is this: the United States’ voracious demand for fossil-fuel based energy generates multiple kinds of violence both abroad and at home even though our culture tends to express love and desire for fossil fuel-dependent ways of life (trucks, gas stoves, SUVs, etc.). How might we think more deeply about the culture and politics of energy as a way of thinking more clearly about what a better relationship to energy and the climate might look like in the future?

Credit 3 units.

U98 MLA 5911 Reading the Globe
While literature from the United States and other English-speaking countries is translated into many languages across the world, only a very small percentage of literature published in English in the US is in translation. However, as readers, scholars and writers it is important that we go beyond the borders of our own national literary traditions and the English language and engage with the cultural contexts that the larger global literary landscape offers. Literary translation, moreover, goes beyond simply translating one text into another - it is an art form in itself. In this class, we will read literature from Africa, Asia, Europe and the Americas written in languages other than English. We will read and discuss them as novels in their own right and develop and strengthen our tools of literary analysis and close reading. However, we will also reflect on and study the question of translation and the theories that inform the task of the translator including. We will also look at translation concepts and debates including fidelity and foreignization as well as examine translation as activism, LGBTQ translation and translation’s intersection with race and gender. This class will also offer a focus on research and writing conventions for graduate students and will include: writing an abstract, writing an outline, peer review, citation, and preparing an annotated bibliography. Visits to the Writing Center and relevant research librarians are encouraged. No prior foreign language experience required.

Credit 3 units. UColl: GRES, GWRT

U98 MLA 592 Decoding the City
Does the space between a house and the sidewalk tell you something about class? Does a vacant lot on a dead-end street record the forced relocation of thousands of black residents? Can street names narrate the relationship between the growth of the city and national narratives of immigrant assimilation, continual expansion and world wars? The answer to these questions is yes, but it is far from obvious. The built environment of an American city like St. Louis can seem opaque and silent, when actually it is laden with social, economic, political, gender and racial meanings. This course unpacks St. Louis’ built environment by drawing broad historic and theoretical readings on urban space to specific local sites. Readings will assist students in the interrogation of actual places in St. Louis through field visits, so that the streets become unquiet and the embedded meanings in plain sight. This is a hybrid course, with an online discussion component and weekly field work sessions. Attendance at these field work sessions is mandatory. The course counts toward the American Culture Studies major for day students, and fulfills the Humanities and Social Science requirements for the M.A. Program in American Culture Studies. Same as U98 AMCS 492

Credit 3 units. UColl: ACH, ACS, HSM, HUS, OLH

U98 MLA 5931 The Baroque of Milton, Rembrandt, and Bach
In his magisterial J.S. Bach, Albert Schweitzer observes that we “classify the arts according to the material [artists] use to express the world around them.” We describe tones for a musician, colors for a painter, and words for a poet. But “the material,” he notes, “is secondary. [Each] is not only a painter, or only a poet, or only a musician, but all in one.” In this course we will examine works by the poet Milton, the artist Rembrandt, and the musician J.S. Bach, three major figures of the Baroque era. We will examine how they conceive their role and the function of their works, as well as their treatment of both religious and secular subjects. We will also consider the rich variety of techniques that these artists employ to achieve the most complex and
compelling rendering of subjects that extend from the mystery of divine justice in a dark world to the most intimate and searching self-examination. Works to include, among others, Milton's Paradise Lost and Samson Agonistes; Bach's St. Matthew Passion and Art of the Fugue; self-portraits by Rembrandt, as well as some of his Biblical paintings and etchings. Credit 3 units.

U98 MLA 5941 Milton
This course analyzes the world of John Milton, arguably the greatest of English poets and also among the greatest of polymaths. The class will examine how, for Milton, extensive learning rhymed with magnificent poetry. Having read every significant book published up until his time in an attempt to educate himself "to perform justly, skillfully, and magnanimously all the offices, both public and private, of peace and war," Milton produced an epic poem of such scope and power that "the world would not willingly let it die." We will closely read that poem, Paradise Lost, as well as his other major poems (Paradise Regained, Samson Agonistes), adding lesser poems and prose works to illuminate his development as a writer and thinker, and his relation to theological, literary, intellectual, and political currents of the 17th century. Credit 3 units.

Nonprofit Management
Nonprofit organizations confront the challenges and opportunities that mission-driven organizations face today in areas such as succession planning, volunteerism, resource development and competitive funding. The Master of Arts in Nonprofit Management addresses these areas, drawing on the expertise of experienced practitioners in the St. Louis area.

The graduate program in nonprofit management provides a range of courses that address the major responsibilities and challenges of nonprofit and human resources management. It prepares students to work effectively in the field, and it enhances the management skills of those seeking careers in related fields. Administered jointly by the Office of Graduate Studies, Arts & Sciences, and University College, the program is designed for working adults attending school on a part-time basis.

This program provides students with the skills and resources needed to lead mission-driven organizations as productive examples of social entrepreneurship. Studies are grounded in the historical context of nonprofit management and philanthropy, and students acquire skills in all operational areas of nonprofit management, including financial management, law, grant writing, volunteer management, resource development, research and statistical analysis, and marketing communications. At the strategic level, the program teaches leadership, organization development, strategic planning, marketing communications, and the skills of social entrepreneurship.

Contact: Amy Buehler
Email: abuehler@wustl.edu
Website: https://ucollege.wustl.edu/programs/graduate/masters-nonprofit-management

Degree Requirements
Master of Arts in Nonprofit Management
The Master of Arts in Nonprofit Management consists of 36 units of graduate course work covering all aspects of nonprofit administration and management in a combination of nonprofit and human resources management courses, of which 27 units are required.

Required Courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPM 507</td>
<td>Management in Nonprofit Organizations</td>
<td>3</td>
</tr>
<tr>
<td>NPM 508</td>
<td>Resource Development for Nonprofit Organizations</td>
<td>3</td>
</tr>
<tr>
<td>NPM 510</td>
<td>Statistics and Research Design in Nonprofit Management</td>
<td>3</td>
</tr>
<tr>
<td>NPM 514</td>
<td>Integrative Capstone Project for Nonprofit Management</td>
<td>3</td>
</tr>
<tr>
<td>NPM 520</td>
<td>Organizational Behavior and Management</td>
<td>3</td>
</tr>
<tr>
<td>NPM 525</td>
<td>Financial Management of Nonprofit Organizations</td>
<td>3</td>
</tr>
<tr>
<td>NPM 531</td>
<td>Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>NPM 555</td>
<td>Leadership in the Nonprofit Sector</td>
<td>3</td>
</tr>
<tr>
<td>NPM 570</td>
<td>Legal Issues Impacting Nonprofit Organizations</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units 27

The remaining courses (9 credits total) are nonprofit-related electives of the student's choice.

Courses
Visit online course listings to view semester offerings for U76 NPM (https://courses.wustl.edu/CourseInfo.aspx?sch=U&dept=U76&crslvl=4:8).

U76 NPM 450 Social Entrepreneurship
This course links the passion of a social mission with the discipline and skills of successful business performance to explore the issues, concepts, and processes associated with social entrepreneurship. Students learn to design an economically sustainable business model that also addresses an existing social problem. In learning to apply skills and strategies...
that produce a successful bottom line, both financially and socially, each student develops a business plan for a social entrepreneurial venture or evaluates the business model of an existing social entrepreneurial business venture.

Credit 3 units. UColl: OLI

U76 NPM 470 Grantwriting
This course will teach grantwriting from request for proposals through the grant award. Students will learn the language of grantwriting, the basics of grant prospect research, and how to write a grant. Each student will prepare a grant application in response to a request for proposal and will have the grant evaluated. The course will focus on private sector grants and will not explore federal or state grants.

Credit 3 units. UColl: OLI, OLI

U76 NPM 507 Management in Nonprofit Organizations
Effective mission-driven leadership is central to the success of a nonprofit organization. This core course provides an overview of fundamental principles of management, governance, and leadership in nonprofit organizations. Particular attention is given to issues of motivation, supervision, evaluation of professional staff and volunteers, and working with the board of directors.

Credit 3 units. UColl: OLI, OLI

U76 NPM 508 Resource Development for Nonprofit Organizations
This course concentrates on effective fundraising management, accenting the practice, principles, processes, and programs of fundraising from the private sector. A special focus of the course is an examination of the historical, legal, ethical, and theoretical contexts for fundraising. A comprehensive review and analysis is provided of annual and major gift programs, together with planned giving and capital campaign strategies. The course includes the choice of a preparation of a 12-month fundraising plan or a paper chronologically describing a completed capital campaign. Registration is limited to 20 people.

Credit 3 units. UColl: OLI, OLI

U76 NPM 509 International Organizations
This course examines the role of major international organizations in the modern world—the UN, EU, NATO, IMF, WTO, MERCOSUR, and others. We explore the background for the creation of these organizations, the purposes they serve, and those whose interests they promote. We also consider how they adapt and evolve over time. Our survey centers on three broad areas of investigation: first, we examine how international organizations promote and maintain international security. Second, we consider organizations designed to regulate and promote economic growth and development. This entails a focus upon the process of globalization and the challenges presented in an era of heightened economic interdependence. Finally, we examine growing efforts at regional cooperation through the emergence of organizations such as NAFTA, the EU, and MERCOSUR.

Same as U85 IA 509
Credit 3 units. UColl: IAC, IAI, OLI

U76 NPM 510 Statistics and Research Design in Nonprofit Management
This course emphasizes the application of basic behavioral and social science research methods in the evaluation and management of nonprofit programs. Students learn the tools available to evaluate and report the effectiveness of programs and organizations, including program evaluation, survey design, and qualitative and quantitative research methods.

Credit 3 units. UColl: OLI

U76 NPM 513 Executive Coaching
Executive coaching is an effective leadership development tool often focused on high potential middle- to upper-level managers. It is also used by managers at all levels to develop individuals and teams. Coaching is a collaborative partnership designed to facilitate and hasten the individual’s learning and achieve identified business results. This course will compare and contrast executive coaching to other types of remedial approaches; personal coaching; and mentoring relationships. It will review the grounding principles that form the foundation of a coaching partnership; outline the steps in the coaching process; and review the expectations and guidelines for each member of the coaching team—which can include the individual, the coach or manager-coach, organizational sponsors and human resources.

Same as U87 HRM 513
Credit 3 units. UColl: HRO, OLI

U76 NPM 514 Integrative Capstone Project for Nonprofit Management
This capstone course provides the opportunity to integrate the program course work through 1) a substantial independent project conducted in a host organization, and 2) the review of several important trends affecting organizations and human resources management.

Credit 3 units. UColl: OLI, OLI

U76 NPM 520 Organizational Behavior and Management
This is a survey course focusing on the individual, group, organizational, and environmental factors relevant to understanding and managing behavior in complex organizations. It considers behavior from structural, human resources, political, and symbolic perspectives.

Same as U87 HRM 520
Credit 3 units. UColl: OLI, OLI

U76 NPM 521 Overview of the Nonprofit Sector
Nonprofit organizations are profoundly affected by the social, economic, and political environment in which they exist. Through readings, case studies, and discussions with guest speakers from business, government, and the nonprofit sector, students examine the impact of external forces and societal trends on the evolution, current status, and future of nonprofit institutions.

( Same as U76 NPM 421)
Credit 3 units.

U76 NPM 525 Financial Management of Nonprofit Organizations
This course focuses on important financial and accounting principles and techniques, with particular attention given to operational and project budgeting, financial statement analysis, cash flow projections, endowment building, investment management, and strategic financial planning. Course content
is designed to help non-accountants understand standard accounting concepts and procedures, manage the record-keeping function, make effective financial decisions, and report financial status to key constituents. Credit 3 units. UColl: OLI

U76 NPM 530 Organizational Change and Development
This course is designed to assist students in developing a framework for: 1) assessing the current condition of an organization, 2) developing an intervention strategy for changing the organization, and 3) executing the planned change in a manner that promotes effective organizational change and development. Within this context, substantial attention will be devoted to developing the analytical, conceptual, and interpersonal skills required of effective change agents. Same as U87 HRM 530 Credit 3 units. UColl: HRO

U76 NPM 531 Human Resources Management
This course develops a comprehensive understanding of the human resources function in an organization. Particular attention is given to selection, performance management, training, wage and salary administration, career development, human resource planning, and the federal regulations impacting on the function. Same as U87 HRM 531 Credit 3 units. UColl: HRP, OLH, OLI

U76 NPM 533 Topics in Nonprofit Management: Emerging Research
In this course, students read, analyze, and discuss research on the nonprofit sector that has been released within the past five years, compare this new information with the sector's historically identified best practices, and determine how this affects the future success of nonprofit organizations. Credit 3 units. UColl: OLI

U76 NPM 536 Marketing and Communications for Nonprofit Organizations
This course is designed to introduce students to the use of marketing techniques used by nonprofit organizations to create unique brands, reach stakeholders, achieve financial stability, and fulfill their missions. Students will learn to set goals and measurable objectives, assess the competitive landscape and position an organization, understand brand, determine audiences and messaging, and understand the importance of web presence and social media. Students will learn from real-world case studies, meet professionals in the field, and develop a marketing and communications plan for a local nonprofit. Credit 3 units. UColl: OLH, OLI

U76 NPM 544 Diversity and Inclusion in the Workplace
In this course, we examine the history of diversity in the workplace and the demographic changes that drive diversity. We will study how inclusion affects business outcomes in areas such as talent, engagement, productivity, and innovation. Students will also explore diversity dimensions and unconscious biases in themselves and then apply these findings to the workplace by developing a business case for diversity and inclusion that includes defining return on investment, strategy, organizational alignment, accountability, and measurement. Successful diversity and inclusion initiatives will be addressed, including best practices for recruitment, development, training, mentoring, resource groups, benefits, and policies. Credit 3 units. UColl: OLI

U76 NPM 545 Leading and Engaging Volunteers in Nonprofit Organizations
Students will explore and develop practical strategies for effective program planning, volunteer recruitment and retention, staff and volunteer relations, program evaluation, volunteerism trends within a global context, and ethical practices. This course will provide an introduction to the core competencies of volunteer resource management as presented by the Association for Volunteer Administration through its credentialing program. Credit 3 units. UColl: OLI

U76 NPM 5494 Voices in Action: History and Poetry of Protest in America (1939 to Present)
What sparks and sustains people's movements for social justice? This history and creative-writing course explores the contexts and expressions of 20th century and contemporary protest movements, ranging from labor, civil rights, the Vietnam War, ethnic people and women's movements, to contemporary social and environmental justice movements. We will explore speeches, manifestos, visual and oral texts, songs, and poetry to consider how dissent is voiced in response to specific social contexts and historic events. We will consider the role of personal expression in enacting democracy, focusing on poetry that helps articulate what is at stake in the protest movements of the 20th and 21st centuries. We will examine how language moves people, raising awareness of the facts and felt experiences of injustice, helping to fuel social movements, and "call forth a public" to make change. Assignments include a mix of historical analysis, ethnographic and participatory work, creative writing, and reflection. Same as U89 AMCS 494 Credit 3 units. UColl: ACF, ACH, ACS, HUM

U76 NPM 555 Leadership in the Nonprofit Sector
Students will examine leadership in the nonprofit sector and develop their own leadership style. Students will study traditional leadership styles including authoritarian, participative, and delegative; examine the differences in leadership in the nonprofit, for-profit, and government sectors; and explore the distinctive roles of nonprofit leaders, including the relationship between the nonprofit executive director and the board of directors, and the relationship between nonprofit leaders, volunteers, and staff. In addition to readings, student research will include interviews and discussions with real-world nonprofit leaders. Credit 3 units. UColl: OLH, OLI

U76 NPM 562 Group Processes in Organizations
Same as U87 HRM 562 Credit 3 units. UColl: HRO

U76 NPM 565 Building High Performance, Team-Based Organizations
This course examines the factors that are most critical in developing high-performance, team-based organizations. We pay particular attention to the assessment of organizational climate, and analyze steps organizational leaders must take to make the transition to a team-based approach. We also examine important systems and processes that support this design. Same as U87 HRM 565
U76 NPM 570 Legal Issues Impacting Nonprofit Organizations
This course focuses on the opportunities and requirements placed on nonprofit organizations under federal and state laws. We explore how nonprofits are organized, governed, operated, and financed within this legal framework.
Credit 3 units. UColl: HRO, OLH

U76 NPM 582 Principles of Finance
This course offers HR professionals training in basic financial management methods and evaluation techniques used to assess overall organizational financial and business performance. Students will acquire: an ability to evaluate capital investments, capital acquisitions, and capital budgets; an understanding of uncertainty (risk) and risk management; knowledge of cash and credit management techniques; knowledge of the costs of alternative sources of short-, intermediate-, and long-term financing (both debt and equity); and an understanding of financial statement analysis.
Same as U87 HRM 582
Credit 3 units. UColl: OLI

Statistics
Note: As of Summer 2022, this program is no longer accepting new students.

The Master of Arts in Statistics prepares students to perform in an information-rich, data-driven workforce that requires both general and specialized skills in statistical analysis. The 36-unit program — designed primarily for part-time study — covers essential elements of statistical studies, with courses in probability, statistical computation and model building, experimental design, survival analysis, Bayesian statistics and stochastic processes. These courses and the required practicum provide a foundation for further doctoral-level study in mathematics and statistics or in other academic disciplines such as anthropology, biology, economics, political science and psychology.

In addition to providing a solid theoretical foundation, the program also offers applied value by providing tools, strategies and technical skills in areas such as predictive analytics and big data to help professionals in many fields analyze large volumes of data, make reliable and productive business decisions, and use technology efficiently. The program offers flexibility and a wide range of elective and applied courses that emphasize statistical analysis in mathematics, computer science, engineering, clinical investigation, biostatistics, economics and business. Students may choose from a broad-based pool of elective courses across disciplines, or they may organize elective course work and design the required practicum in one of the optional tracks that correspond to strong industry demand for statisticians: Biology and Health, Business and Finance, or Engineering and Materials.

A maximum of 6 credits of related and comparable graduate-level course work may be transferred from another university or from a related graduate program at Washington University with the approval of the program director. These must be graduate-level credits not used to fulfill undergraduate degree requirements. Transfer credit may be granted only for authorized courses for which the student received a grade of B or higher.

Required Courses (15 Units)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 593</td>
<td>Probability</td>
<td>3</td>
</tr>
<tr>
<td>Math 594</td>
<td>Mathematical Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Math 5601</td>
<td>Theory of Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>Math 5602</td>
<td>Theory of Statistics II</td>
<td>3</td>
</tr>
<tr>
<td>Math 5291</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>or Math 5392</td>
<td>Advanced Linear Statistical Models</td>
<td></td>
</tr>
<tr>
<td>Math 539</td>
<td>Linear Statistical Models</td>
<td>3</td>
</tr>
<tr>
<td>Math 575</td>
<td>Statistical Computation</td>
<td>3</td>
</tr>
</tbody>
</table>

Students must take one of the following two-course sequences:

They must also take all of the following courses:

In the case that an equivalent course has been taken and proficiency in the course material has been demonstrated, other 500-level electives may be substituted in consultation with the advisor.

Contact: Lisa Kuehne
Phone: 314-935-4226
Email: lmkuehne@wustl.edu
Website: http://ucollege.wustl.edu/programs/graduate/masters-statistics

Degree Requirements
Master of Arts in Statistics

The Master of Arts in Statistics is a 36-unit program that includes 15 units of required course work, 3 units of required thesis practicum, and 18 units of electives. Students may choose electives broadly from the list below, or they have the option of organizing elective course work and designing the required thesis practicum in one of these suggested tracks: Biology and Health, Business and Finance, or Engineering and Materials. Candidates for this degree will have completed the calculus sequence (differential, integral and multivariable) as well as an intermediate statistics course (e.g., Math 305) prior to beginning graduate study.

Candidates for this degree will have completed the calculus sequence (differential, integral and multivariable) as well as an intermediate statistics course (e.g., Math 305) prior to beginning graduate study.

A maximum of 6 credits of related and comparable graduate-level course work may be transferred from another university or from a related graduate program at Washington University with the approval of the program director. These must be graduate-level credits not used to fulfill undergraduate degree requirements. Transfer credit may be granted only for authorized courses for which the student received a grade of B or higher.
**Required Thesis Practicum (3 Units)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 502</td>
<td>Statistics Practicum</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives (18 Units)**

Additional 500-level electives, selected from the list below, will be chosen by the student in consultation with University College to make up the 36 units. Other 500-level electives may be selected in consultation with an advisor. Students may choose elective courses broadly or follow one of the suggested tracks.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 5145</td>
<td>Advanced Theoretical Econometrics</td>
<td>3</td>
</tr>
<tr>
<td>Math 5161</td>
<td>Applied Econometrics</td>
<td>3</td>
</tr>
<tr>
<td>Math 520</td>
<td>Experimental Design</td>
<td>3</td>
</tr>
<tr>
<td>Math 534</td>
<td>Survival Analysis</td>
<td>3</td>
</tr>
<tr>
<td>Math 538</td>
<td>Measurement and Latent Trait Models</td>
<td>3</td>
</tr>
<tr>
<td>Math 549</td>
<td>Numerical Applied Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>Math 551</td>
<td>Advanced Probability I</td>
<td>3</td>
</tr>
<tr>
<td>Math 552</td>
<td>Advanced Probability II</td>
<td>3</td>
</tr>
<tr>
<td>Math 559</td>
<td>Bayesian Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Math 584</td>
<td>Multilevel Models in Quantitative Research</td>
<td>3</td>
</tr>
<tr>
<td>Math 585</td>
<td>Stochastic Processes</td>
<td>3</td>
</tr>
</tbody>
</table>

**Biology and Health Optional Track**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 520</td>
<td>Experimental Design</td>
<td>3</td>
</tr>
<tr>
<td>Math 522</td>
<td>Biostatistics</td>
<td>3</td>
</tr>
<tr>
<td>Math 534</td>
<td>Survival Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

**Business and Finance Optional Track**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 525</td>
<td>Multilevel Modeling</td>
<td>3</td>
</tr>
<tr>
<td>Math 549</td>
<td>Numerical Applied Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>Math 559</td>
<td>Bayesian Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Engineering and Materials Optional Track**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 549</td>
<td>Numerical Applied Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>Math 559</td>
<td>Bayesian Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Math 585</td>
<td>Stochastic Processes</td>
<td>3</td>
</tr>
</tbody>
</table>

**Courses**

Visit online course listings to view semester offerings for U20 Math ([https://courses.wustl.edu/CourseInfo.aspx?sch=U&dept=U20&crsvl=5:8]).

---

**U20 Math 500 Independent Study**

Credit 3 units.

**U20 Math 502 Statistics Practicum**

Final project for the AM in Statistics. Requires signed proposal, committee approval and oral defense. Credit 3 units.

**U20 Math 5061 Theory of Statistics I**

An introductory graduate level course. Probability spaces; derivation and transformation of probability distributions; generating functions and characteristic functions; law of large numbers; central limit theorem; exponential family; sufficiency, uniformly minimum variance unbiased estimators, Rao-Blackwell theorem, information inequality; maximum likelihood estimation; estimating equation; Bayesian estimation; minimax estimation; basics of decision theory. Prerequisite: Math 493 or the equivalent. Some knowledge of basic ideas from analysis (e.g. Math 411) will be helpful: consult with instructor. Same as L24 Math 5061 Credit 3 units.

**U20 Math 5161 Applied Econometrics**

Introduction to econometrics as it is applied in microeconomics and macroeconomics (modular). Topics related to the analysis of microeconomic data include maximum likelihood estimation and hypothesis testing; cross-section and panel data linear models and robust inference; models for discrete choice; truncation, censoring and sample selection models; and models for event counts and duration data. Topics related to the analysis of macroeconomic data include basic linear and nonlinear time series models; practical issues with likelihood-based inference; forecasting; structural identification based on timing restrictions and heteroskedasticity; and computational methods for hypothesis testing and model comparison. Prerequisite: Econ 512. Same as L11 Econ 5161 Credit 3 units.

**U20 Math 520 Experimental Design**

A first course in the design and analysis of experiments, from the point of view of regression. Factorial, randomized block, split-plot, Latin square, and similar design. Prerequisite: CSE 131 or 200, Math 3200, or permission of instructor. Credit 3 units. Art: NSM

**U20 Math 522 Biostatistics**

A second course in elementary statistics with applications to life sciences and medicine. Review of basic statistics using biological and medical examples. New topics include incidence and prevalence, medical diagnosis, sensitivity and specificity, Bayes’ rule, decision making, maximum likelihood, logistic regression, ROC curves, and survival analysis. Prerequisites: Math 3200 or a strong performance in Math 2200 and permission of the instructor.
U20 Math 5291 Linear Algebra
Introduction to the linear algebra of finite-dimensional vector spaces. Topics covered include matrix computations for solving systems of linear equations over fields; bases and coordinate systems in vector spaces; algebra of linear transformations and functionals' determinants; elementary canonical forms; inner product spaces. Prerequisite: U20 Math 3101 or permission of instructor. U20 Math 309 is not an explicit prerequisite but students should already be familiar with such basic topics from matrix theory as matrix operations, linear systems, row reduction, and Gaussian elimination. Material on these topics in early chapters of the text will be covered very quickly. Note: Not equivalent to L24 429.
Credit 3 units.

Same as L24 Math 322
Credit 3 units. A&S IQ: NSM Arch: NSM Art: NSM

U20 Math 534 Survival Analysis
Life table analysis and testing, mortality and failure rates, Kaplan-Meier or product-limit estimators, hypothesis testing and estimation in the presence of random arrivals and departures, and the Cox proportional hazards model. Techniques of survival analysis are used in medical research, industrial planning and the insurance industry. Prerequisites: CSE 131 or 200, Math 309 and 3200, or permission of the instructor.
Same as L24 Math 434
Credit 3 units. A&S IQ: NSM Art: NSM

U20 Math 535 Statistical Learning: An Introduction to Data Mining
This course is an introduction to applications of statistical learning to big data sets. Topics include assessing model accuracy, linear v. logistic regression, cross validation and resampling, shrinkage and regularization (lasso) methods, decision trees and other tree-based methods, and clustering methods such as K-means, hierarchical clustering, and support vector machines. We also cover data mining for massive data sets, such as association rule mining. Linear regression will be reviewed. The course provides skills and experience for careers in statistical and machine learning, and for positions such as data scientist, data analyst, applied statistician, and data-savvy manager. Prerequisites: U20 Math 594 Mathematical Statistics or permission of instructor, and introductory-level programming (R, SAS, or Python).
Credit 3 units.

U20 Math 539 Linear Statistical Models
Theory and practice of linear regression, analysis of variance (ANOVA) and their extensions, including testing, estimation, confidence interval procedures, modeling, regression diagnostics and plots, polynomial regression, colinearity and confounding, model selection, geometry of least squares, etc. The theory will be approached mainly from the frequentist perspective and use of the computer (mostly R) to analyze data will be emphasized. Prerequisites: CSE 131 or 200, Math 3200 and a course in linear algebra (such as Math 309 or 429), or permission of instructor.
Credit 3 units. Art: NSM

U20 Math 5392 Advanced Linear Statistical Models
Review of basic linear models relevant for the course; generalized linear models including logistic and Poisson regression (heterogeneous variance structure, quasilikelihood); linear mixed-effects models (estimation of variance components, maximum likelihood estimation, restricted maximum likelihood, generalized estimating equations), generalized linear mixed-effects models for discrete data, models for longitudinal data, optional multivariate models as time permits. The computer software R will be used for examples and homework problems. Implementation in SAS will be mentioned for several specialized models. Prerequisites: Math 439 and a course in linear algebra (such as Math 309 or 429), or consent of instructor.
Same as L24 Math 4392
Credit 3 units. A&S IQ: NSM Arch: NSM Art: NSM

U20 Math 549 Numerical Applied Mathematics
Computer arithmetic, error propagation, condition number and stability; mathematical modeling, approximation and convergence; roots of functions; calculus of finite differences; implicit and explicit methods for initial value and boundary value problems; numerical integration; numerical solution of linear systems, matrix equations, and eigensystems; Fourier transforms; optimization. Various software packages may be introduced and used. Prerequisites: CSE 200 or 131 (or other computer background with permission of the instructor); Math 217 and 309.
Same as L24 Math 449
Credit 3 units. A&S IQ: NSM Arch: NSM Art: NSM

U20 Math 559 Bayesian Statistics
This course introduces the Bayesian approach to statistical inference for data analysis in a variety of applications. Topics include the comparison of Bayesian and frequentist methods, Bayesian model specification, choice of priors, computational methods such as rejection sampling, stochastic simulation (Markov chain Monte Carlo), empirical Bayes method, and hands-on Bayesian data analysis using appropriate software. Prerequisites: Math 493 and either Math 3200 or 494; or permission of the instructor. Some programming experience such as CSE 131 is also helpful (consult with the instructor).
Credit 3 units. Arch: NSM Art: NSM UColl: OLI

U20 Math 561 Time Series Analysis
Time series data types: autocorrelation; stationarity and nonstationarity; autoregressive moving average models; model selection methods; bootstrap confidence intervals; trend and seasonality; forecasting; nonlinear time series; filtering and smoothing; autoregressive conditional heteroscedasticity models; multivariate time series; vector autoregression; frequency domain; spectral density; state-space models; Kalman filter. Emphasis on real-world applications and data analysis using statistical software. Prerequisite: Math 493 and either Math 3200 or 494; or permission of the instructor. Some programming experience may also be helpful (consult with the instructor).
Same as L24 Math 461
Credit 3 units. A&S IQ: NSM Arch: NSM Art: NSM

U20 Math 575 Statistical Computation
Introduction to modern computational statistics. Pseudo-random number generators; inverse transform and rejection sampling. Monte Carlo approximation. Nonparametric bootstrap procedures for bias and variance estimation; bootstrap confidence intervals. Markov chain Monte Carlo methods; Gibbs
U20 Math 584 Multilevel Models in Quantitative Research
This course covers statistical model development with explicitly defined hierarchies. Such multilevel specifications allow researchers to account for different structures in the data and provide for the modeling of variation between defined groups. The course begins with simple nested linear models and proceeds on to non-nested models, multilevel models with dichotomous outcomes, and multilevel generalized linear models. In each case, a Bayesian perspective on inference and computation is featured. The focus on the course will be practical steps for specifying, fitting, and checking multilevel models with much time spent on the details of computation in the R and BUGS environments. Prerequisite: Math 2200, Math 3200, Poli Sci 581, or equivalent. Same as L32 Pol Sci 584
Credit 3 units.

U20 Math 585 Stochastic Processes
Content varies with each offering of the course. Past offerings have included such topics as random walks, Markov chains, Gaussian processes, empirical processes, Markov jump processes, and a short introduction to martingales, Brownian motion and stochastic integrals. Prerequisites: Math 233 and 493, or permission of instructor. Math 310 is recommended but not required.
Same as L24 Math 495
Credit 3 units.

U20 Math 593 Probability
Mathematical theory and application of probability at the advanced undergraduate level; a calculus based introduction to probability theory. Topics include the computational basics of probability theory, combinatorial methods, conditional probability including Bayes' theorem, random variables and distributions, expectations and moments, the classical distributions, and the central limit theorem.
Credit 3 units.

U20 Math 594 Mathematical Statistics
Theory of estimation, minimum variance and unbiased estimators, maximum likelihood theory, Bayesian estimation, prior and posterior distributions, confidence intervals for general estimators, standard estimators and distributions such as the Student-t and F-distribution from a more advanced viewpoint, hypothesis testing, the Neymann-Pearson Lemma (about best possible tests), linear models, and other topics as time permits. Prereq: Math 305 and U20 Math 593, or permission of the instructor.
Credit 3 units. UColl: OLI

U20 Math 595 Thesis Practicum I
Credit 3 units.

U20 Math 596 Thesis Practicum II
Credit 3 units.

Teaching and Learning
The Master of Arts in Teaching and Learning (MATL) is designed for adult career-changers who are committed to teaching in at-risk schools. University College, the Institute for School Partnership, and the St. Louis Teacher Residency (STLTR) program (https://www.stlteach.org/) collaborate to train and support aspiring teachers who, in turn, will accelerate student achievement.

The first year of the program is facilitated by STLTR and begins with a one-year residency. Student residents work with an experienced mentor teacher in a high-needs classroom, developing the skills needed to be a leader in the classroom. Residents also take courses focused on the core competencies needed to have a successful career in teaching. By joining STLTR, students make a commitment to serve the learners and families in St. Louis—area public schools.

At the end of the first-year residency, students earn their teacher certification. During the second year, residents teach in their partner school districts while completing their master’s degrees at University College. Master’s pedagogical course work continues to support and inform the students’ classroom teaching, and it is complemented by subject-specific courses. After completing the master’s degree, participants commit to teaching for two additional years in their home districts, and they receive continued support from STLTR staff during their early years of teaching.

Experienced teachers in STLTR partner schools who wish to strengthen and deepen their practice and prepare to mentor new teachers may also enroll in the MATL.

Contact: Pat Matthews
Phone: 314-935-6754
Email: patmatthews@wustl.edu
Website: https://ucollege.wustl.edu/programs/graduate/masters-teaching-learning

Degree Requirements
Master of Arts in Teaching and Learning

Required Courses (15 units)

• Educ 5124: Intentional Classroom Planning (3 units)
• One of the following series (3 units total):
  • Educ 5125 & Educ 5130: Advanced Teaching Methods: Elementary
  • Educ 5126 & Educ 5131: Advanced Teaching Methods: Secondary English/Language Arts
Credit 3 units. Same as L12 Educ 512

• Educ 5128 & Educ 5133: Advanced Teaching Methods: Secondary Science
• Educ 5129: Advanced Teaching Methods: Project-Based Learning and Assessment (3 units)
• Educ 5140: MATL Capstone Seminar I (3 units)
• Educ 5141: MATL Capstone Seminar II (3 units)

Elective Courses (15 units)

Students tailor their degree by taking additional courses in education or in subject-specific areas such as English, math or biology.

Students who have completed the STLTR year earn 9 credits toward their electives. Visit the STLTR website (https://www.stlteach.org/) for more information.

Experienced teachers who would like to qualify to serve as mentor teachers in the STLTR residency program must complete these 6 units as part of their elective course work:

• Practicum I: Instructional Coaching (1.5 units)
• Practicum II: Instructional Coaching (1.5 units)
• Educ 4301: The American School (3 units)

Courses

Visit online course listings to view semester offerings for U08 Educ (https://courses.wustl.edu/CourseInfo.aspx?sch=U&dept=U08&crslvl=5:8).

U08 Educ 500 Independent Study
Prerequisite: Permission of instructor. Permission to enroll is given in McMillan 215. The amount of credit will be determined in each case, with a maximum of 6 credit units.
Credit variable, maximum 6 units.

U08 Educ 503 Foundations of Educational Research
An introduction to the basic concepts, philosophies, and techniques of research. The first portion of the course introduces the various kinds of methodologies used in education, including an analysis of the strengths, weaknesses, and limitations of each. The last portion of the course is devoted to the techniques used in investigating a topic of relevance to the students.
Prerequisite: graduate standing or permission of instructor.
Same as L12 Educ 503
Credit 3 units.

U08 Educ 511 Child Development
This course serves as an introduction to developmental theory and research methods by highlighting the various processes (including biological and sociocultural forces) that influence human psychological change. Emphasis is given to normative social-emotional and cognitive development in childhood, using current empirical studies as the basis for student exploration, discussion, and debate.
Same as L12 Educ 512
Credit 3 units.

U08 Educ 5125 Advanced Teaching Methods: Elementary - Fall
In this course, students will continue to refine their vision for high quality instruction in an elementary Language Arts and Mathematics classroom. Language Arts: students will build upon their understanding of best practices in elementary literacy by designing the structure for a Balanced Literacy block in their classrooms. These literacy blocks include instructional time devoted to explicit phonics instruction, shared reading, guided reading, read-aloud instruction, and vocabulary instruction. Students will also focus on writing instruction and will implement writing mini-lessons and student conferences in their classrooms. Mathematics: This course will also build on students’ understanding of effective mathematics instruction and their knowledge of both direct instruction and inquiry-based approaches to learning. Students will explore effective instructional strategies through the lens of content, with a core focus in Basic Operations (addition, subtraction, multiplication, and division); Geometry, Fractions and Measurement; & Problem-Solving, Algebra, and Graphing. By analyzing instruction through the lens of specific mathematical concepts, students will have the opportunity to design lessons that focus on the connections between mathematical content as well as the standards for mathematical practice. Students must have instructor approval to register.
Credit 3.5 units. UColl: OLI

U08 Educ 5126 Advanced Teaching Methods: Secondary English/Language Arts - Fall
In this course, students will continue to refine their vision for high-quality English/language arts instruction in a secondary classroom. This course will build upon students’ understanding of effective novel studies and writing units by focusing on the fundamentals of close reading, word study, embedded nonfiction, and “writing for reading” strategies. Sophisticated discussions are one of the hallmarks of advanced practice in ELA classrooms. Middle and high school students must be able to fluently use academic language and to internalize habits of discussion. This course will also focus on the role of discussion in an ELA classrooms, and students will implement multiple discussion formats, including Socratic Seminars and Literature Circles. Students in this course will revisit the concept of rigor in a secondary ELA classroom by discussing the importance of text selection, studying text attributes and leveling systems, and analyzing the text selections embedded in their school’s curriculum. Students must have instructor approval to register.
Credit 1.5 units. UColl: OLI, OLI

U08 Educ 5127 Advanced Teaching Methods: Secondary Mathematics - Fall
In this course, students will continue to refine their vision for high-quality mathematics instruction in a secondary classroom. Students will revisit the fundamental design elements present in inquiry-based lessons, focusing on the development of their students’ conceptual understandings. The course will also focus on the importance of computational and procedural fluency, and students will create a backwards plan that allows for daily fluency practice within their classrooms. Moving beyond fundamental lesson planning and assessment structures, students in this course will learn specific strategies to develop and assess their students’ problem-solving skills and abilities and to implement effective discourse in their mathematics classrooms. Students will design instructional activities that allow their students to
U08 Educ 5128 Advanced Teaching Methods: Secondary Science - Fall
In this course, students will continue to refine their vision for high-quality science instruction in a secondary classroom. Moving beyond fundamental lesson planning and assessment structures, students in this course will learn specific strategies to develop and assess their students' problem-solving skills and abilities and to implement effective discourse in their science classrooms. Students will design instructional activities that allow their students to explore and discuss challenging problems and tasks through structures such as problem-solving seminars and performance-based assessments. Students must have instructor approval to register.
Credit 1.5 units. UColl: OLH

U08 Educ 5140 MATL Capstone Seminar I
The first semester of the year-long Capstone course will focus on the foundations of building a goal-driven classroom. When the school year begins, students will embark upon the important work of getting to know their students and their school setting. Building on their knowledge of data-driven instruction, students will use the information gained about their teaching placement and their students in order to set ambitious goals both for their classroom as a whole and for individual students. Students will also use investment and engagement strategies to launch their vision and goals with their students. Throughout the semester, students will acquire new skills related to data analysis and remediation. Students will be asked to develop a classroom vision, academic and social-emotional goals, systems to track and share progress, and a classroom management and investment plan. An important component of the Capstone course will be one-on-one instructional coaching. The Capstone coach will support each student as they work to apply the content of the course to their individual schools and classrooms. The coaching cycle will consist of a classroom observation, a coaching conversation, and follow-up action steps, and this will occur on a biweekly basis. Prerequisite: instructor approval.
Credit 3 units. UColl: OLH

U08 Educ 5141 MATL Capstone Seminar II
During semester two of the Capstone Seminar, students will begin drafting their Master’s Capstone. Students will curate a Capstone portfolio, displaying their best work from the past two years of teaching. Students will also report on their students’ final achievement and socio-emotional growth results. In sum, the final Capstone will consist of the Capstone portfolio, a film of an outstanding lesson, the presentation of a data narrative, and the delivery of an oral defense. For the oral defense, students will present and defend their K-12 students’ growth and achievement data, as well as key learnings from their residency and master’s course work, to faculty members and guests. Prerequisite: Instructor approval.
Credit 3 units. UColl: OLH

U08 Educ 515 Continuing the Portfolio Process
This course involves a seminar format that is used to facilitate continuing portfolio development. There is emphasis on making connections between university course work and individual teaching practice, and there is ongoing professional dialogue with peers and mentors to provide direction and collegial support as students use the portfolio process to construct meaning out of their teaching experience and provide a clearer vision of their growth and development as teachers.
Credit 1 unit.

U08 Educ 590 Graduate Independent Study
Prerequisite: permission of instructor.
Credit variable, maximum 6 units.

U08 Educ 6001 Topics in Education: Hands-On Science K-8: Electricity and Magnetism
This course includes laboratory experiences, discussions, and lectures designed to prepare teachers to implement or strengthen hands-on science teaching in grades K-8. Inquiry activities illustrating electrical and magnetic principles will be selected in congruence with the National Science Education Standards and the Missouri Show-Me Standards. Prerequisite: Permission of instructor; intended for in-service teachers.
Credit 3 units.

U08 Educ 6002 Topics in Education: Hands-on Science K-8: Life Cycles and Heredity
This course includes laboratory experiences, discussions, and lectures designed to prepare teachers to implement or strengthen hands-on science teaching in grades K-8. Inquiry activities illustrating the sexual and asexual life cycles of plants, animals, fungi, and microbes will be selected in congruence with the National Science Education Standards and Missouri Show-Me Standards. Prerequisite: Permission of instructor; intended for in-service teachers.
Credit 3 units.

U08 Educ 6005 Scientific Inquiry for the Classroom Teacher
An inquiry-based course for practicing teachers in the elementary and middle school, grades K-8. Teachers will strengthen their conception of inquiry-based teaching as they learn to create a culture of inquiry in their classroom to nourish 21st-century learners through STEM. Teachers will learn how to incorporate thinking routines as they encourage students to explain phenomena and design solutions to real-world problems. Teachers will learn strategies for encouraging collaboration and active learning. The continuum of inquiry will be explored as teachers learn how to move to student-centered learning that encourages lifelong learning through inquiry. A school-based implementation project will be required. Topics to vary by semester. Prerequisite: permission of instructor. For STEM Teacher Quality Institute students only.
Credit 3 units. UColl: OLH, OLI

U08 Educ 6006 Science Inquiry for Educators
Laboratory experiences and discussions designed to help teachers use inquiry methods in the K-8 classroom. Science themes, structured in accordance with national and state educational standards, will be variable by semester. Classroom project required. Course is intended for in-service teachers. Permission of instructor required.
U08 Educ 6007 Advanced Scientific Inquiry for Educators
This course is designed to prepare teachers to strengthen skills associated with the delivery of a successful inquiry-based science curriculum in the K-8 classroom. Through laboratory experiences and discussions, teachers will work on developing questioning strategies, sequencing activities to support the various experiential levels of students, and developing relevant lessons and activities from student questions. Classroom project required. Course is intended for in-service teachers. Prerequisite: permission of instructor. Credit 3 units.

U08 Educ 6008 Teaching the Process of Scientific Investigation
This course is intended for in-service teachers. Participants will engage in the process of scientific investigation while developing hands-on lessons for their students that support their ability to understand the nature of the scientific process of problem solving. The focus will be on pedagogical strategies that help foster independent investigation among students. Classroom project is required. Prerequisite: Permission of instructor. For STEM Teacher Quality Institute students only. Credit variable, maximum 3 units. UColl: OLI

U08 Educ 6009 Hands-On Science K-8: Matter and Energy
This course includes laboratory experiences, discussions, and lectures designed to prepare teachers to implement or strengthen hands-on science teaching in grades K-8. Inquiry activities illustrating basic matter as well as energy and chemistry concepts will be selected in congruence with the National Science Education Standards and the Missouri Show-Me Standards. Prerequisites: Permission of instructor; for STEM Teacher Quality Institute students only. Credit 3 units. UColl: OLI

U08 Educ 6010 Hands-On Science K-8: Mathematics Concepts
Discussion intensive and lecture course designed to prepare teachers to implement or strengthen hands-on mathematics teaching in grades K-8. Inquiry activities illustrating numerical, rational numbers, and ratios will be selected in congruence with the NCTM Principles and Standards for School Mathematics, the National Science Education Standards, and the Missouri Show-Me Standards. Prerequisite: permission of instructor; intended for in-service teachers. Credit 3 units.

Laboratory experiences, discussion and lectures designed to prepare teachers to implement or strengthen hands-on science teaching in grades K-8. Inquiry activities illustrating planetary motion, tides, lunar phases, constellations, comets, terrestrial planets, gas giants, plate tectonics, volcanoes, and earthquakes will be selected in congruence with the National Science Education Standards and Missouri Show-Me Standards. Registration fee collected first night of class. Prerequisite: permission of instructor; intended for in-service teachers. Credit 3 units.

U08 Educ 6013 Scientific Inquiry: Advanced Pedagogy for Educators
This course is designed to prepare teachers to strengthen skills associated with the delivery of a successful inquiry-based science curriculum in the K-8 classroom. Through laboratory experiences and discussions, teachers will work on a variety of pedagogical skills including developing questioning strategies and sequencing activities to support the various experiential levels of students. Participants will conduct an implementation project at their school or learning site. Scientific themes, structured in accordance with national and state standards, vary by semester. Credit 1.5 units. UColl: OLI

U08 Educ 6015 Hands-On Science K-8: Earth Systems
Laboratory experiences, discussion, and lectures designed to prepare teachers to implement or strengthen hands-on science teaching in grades K-8. Inquiry activities involving the water cycle, erosion, the earth's composition, weather patterns, geology, and natural resources will be selected in congruence with the National Science Education Standards and the Missouri Show-Me Standards. Registration fee collected the first night of class. Prerequisite: permission of instructor; intended for in-service teachers. Credit variable, maximum 3 units. UColl: OLI

U08 Educ 6018 Hands-On Science K-8: Diversity of Life
This course includes laboratory experiences, discussion, exploration of different teaching strategies, and lectures designed to prepare teachers to implement or strengthen hands-on science teaching in grades K-8. The course topics include the taxonomy and characteristics of the major groups of protists, plants, and animals as well as issues affecting biodiversity (genetic, species, and ecosystem diversity). Inquiry activities that illustrate the content are selected in congruence with the National Science Education Standards and Missouri Show-Me Standards. A registration fee is collected the first night of class. Prerequisite: permission of instructor; intended for in-service teachers, grades K-8. Credit 3 units.

U08 Educ 6019 Researched Practices in Math Instruction
A pedagogy course for practicing teachers in the elementary and middle school, grades K-8. The course is an introduction to research-proven practices in mathematics, supported by math content. These pedagogical practices include the use of student-work to inform conceptual development, the use of small-group instruction as situated in a diverse set of classroom organizational patterns, approaches to conceptual change and conceptual development, uses of formative assessment, direct instruction, etc. For any particular workshop, a set of approaches and the research associated with it are presented in relation to standards-based content topics. Participants are engaged in developing their math content and pedagogical skills with a primary emphasis on the learning of high quality classroom practices. Participants conduct an implementation project at their school or learning site to ensure that what they learn is effectively applied within their own classroom setting. Credit 3 units. UColl: OLI
U08 Educ 6022 Improving Content and Instruction: Algebra
This course will focus on topics in algebra, including topics covered in the national framework standards document for grades 4 through 9. Prerequisites: Must be a practicing teacher and have approval of the instructor to enroll. Credit 3 units. UColl: OLH

U08 Educ 6023 Scientific Inquiry: Advanced Pedagogy for Educators, Part II
This course is designed to prepare teachers to strengthen skills associated with the delivery of a successful inquiry-based science curriculum in the K-8 classroom. Through laboratory experiences and discussions, teachers will work on a variety of pedagogical skills including developing questioning strategies and sequencing activities to support the various experiential levels of students. Participants will conduct an implementation project at their school or learning site. Scientific themes, structured in accordance with national and state standards, vary by semester. This is Part II of a two-part series. Credit 1.5 units.

U08 Educ 6024 Leadership In Scientific Inquiry
In this course, students review literature related to science teacher leadership. Students conduct an implementation project in which they direct a test of change, a defined professional development program, or another leadership experience targeting a specific audience. Students read and discuss different models for inquiry-driven change, implement an innovation, collect and analyze data, and determine impact. Credit 3 units.

U08 Educ 6025 Reading and Writing in the Science Content Area
This course will study the theoretical frameworks underlying literacy (reading and writing) instruction in the science classroom. Teachers in this course will learn research-based instructional methodologies to support disciplinary literacy and content literacy practices. Teachers will gain an understanding of how explicit literacy instruction connects with and supports three-dimensional curriculum and instruction. Teachers will use trade books, implement strategies to teach the comprehension of scientific text, and explore ways to support student writing in the science classroom, including using graphic organizers, note-taking strategies, and constructing written explanations and lab reports. Teachers will apply their learning to develop unit plans and lesson plans that strategically incorporate literacy strategies to support student learning in the science classroom. A class project is required. Credit 3 units. UColl: OLH

U08 Educ 6026 Improving Content and Instruction: Probability and Statistics (K-8)
Students will learn how to analyze the progression of learning that students encounter in middle and high school and how to engage students in probability and statistical thinking using authentic learning opportunities. The course will give teachers the opportunity to learn and practice research-based strategies for teaching these concepts and skills to students. Credit 3 units.

U08 Educ 6027 Equity in the Math Classroom
Students will consider ways to embed equitable practices in the math classroom by studying practices that support access to math knowledge and thinking for all students. They will discuss the historical context that has led to inequality in the American classroom and practice embedding inclusive practices into math teaching in service of closing the achievement gap in our schools, especially for girls and students of color. For STEM Teacher Quality Institute students only. Credit 3 units. UColl: OLH, OLI

U08 Educ 6028 Computational Thinking Across the Curriculum
This course focuses on applying computational thinking across disciplines in grades K-8. Teachers will develop their understanding of the main concepts and skills involved in computational thinking and learn how to incorporate these into their curriculum across domains. A classroom implementation project is required. Credit 3 units.

U08 Educ 6029 Educational Technology
The course will emphasize how to use technology in meaningful ways. Teachers in this course will critically evaluate the purpose, potential privacy concerns, and cognitive barriers of ed-tech hardware and software. They will learn how to use educational technology to create opportunities for deeper learning. A classroom project is required. Credit 3 units.

U08 Educ 6030 Engineering Across the Curriculum
This course is designed to introduce teachers to how engineering concepts can be used to engage students in learning via interdisciplinary lessons. Teachers will engage in and develop learning experiences that utilize different resources to engineer solutions. Resources may include devices, robots, software, and materials easily found in classrooms. A classroom implementation project is required. Credit 3 units.

U08 Educ 6031 Introduction to Computer Science Teaching
This course is designed to introduce teachers to the fundamental concepts and practices of computer science (CS). Teachers will be engaged in experiences designed to provide authentic, meaningful experiences with both CS topics and pedagogy. Current Missouri CS Standards and the K-12 CS Framework will be used as a framework for discussion. A classroom project is required. For STEM Teacher Quality Institute students only. Credit 3 units. UColl: OLH, OLI

U08 Educ 6100 Practical Strategies for Teachers to Effect Personal Change
This course features six 1-credit-unit sections that cover diverse topics. The course is designed for teachers who want to develop skills and knowledge that they can apply in their classrooms. The sections do not overlap; each is independent of the others. Teachers may choose to enroll in as few (one) or as many (up to six) topic sections as they desire, and they will receive 1 credit unit for each topic section they successfully complete. Students can enroll in more than one section at a time up to a maximum of six. For STEM Teacher Quality Institute participants only. Credit 1 unit.
U08 Educ 7000 Teaching Physical Science: Inquiry Methods for 9-12 Teachers
This course is designed for high school teachers of both the physical and life sciences. Participants will be engaged in developing their physical science content knowledge as it relates to inquiry-based pedagogy in both physical science and integrated life science curricula. Participants are required to conduct research on a classroom implementation project. Credit 3 units.

Graduate and Advanced Certificates
University College awards advanced and graduate certificates in many specialized areas of professional and personal development. All certificate programs are credit-bearing and vary in length and requirements. For those that include 18 or fewer units of credit, all course work must be completed at University College. To receive a graduate certificate, students must have earned a cumulative grade-point average of 3.0 or higher for all courses taken.

All units from graduate certificate programs may count toward the unit requirements for a master's degree with the same program title. However, for all other certificate and graduate degree combinations, the student must complete a minimum of 9 units beyond the requirements for the degree.

Applicants to graduate certificate programs should have a baccalaureate degree from an accredited institution and a minimum overall GPA of 3.0.

Please visit the individual certificate pages for more detailed information, requirements and policies.

Clinical Research Management
The Advanced Certificate in Clinical Research Management is designed primarily for experienced professionals who already hold an advanced degree in a related health care field or in business and who need a targeted cluster of courses in clinical research management for career enhancement. Candidates for this certificate aspire toward leadership positions in academic research centers or related private sector organizations, especially the pharmaceutical industry.

Note: This program is not currently accepting applications from international students using an F-1 or J-1 visa.

Contact: Sally Anderson
Phone: 314-935-6700
Email: sallyanderson@wustl.edu
Website: http://ucollege.wustl.edu/programs/certificates/advanced/clinical-research-management

Requirements Advanced Certificate in Clinical Research Management
The 21-unit certificate program consists of the following required courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRM 500</td>
<td>Fundamentals of Clinical Research Management</td>
<td>3</td>
</tr>
<tr>
<td>CRM 512</td>
<td>Advanced Data &amp; Information Management in Health Sciences</td>
<td>3</td>
</tr>
<tr>
<td>CRM 515</td>
<td>Medical Writing for Clinical Research</td>
<td>3</td>
</tr>
<tr>
<td>CRM 518</td>
<td>Drug and Device Development</td>
<td>3</td>
</tr>
<tr>
<td>CRM 522</td>
<td>Compliance, Legal, and Regulatory Issues</td>
<td>3</td>
</tr>
<tr>
<td>CRM 555</td>
<td>Health Care Policy</td>
<td>3</td>
</tr>
<tr>
<td>CRM 588</td>
<td>Epidemiology for Clinical Research</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td></td>
<td><strong>21</strong></td>
</tr>
</tbody>
</table>

All courses must be completed with a minimum overall grade-point average of 3.0, and all must be taken at Washington University.

Course descriptions for the courses above can be found on the Master of Science in Clinical Research Management (p. 36) page of this Bulletin.
Human Resources Management

The Advanced Certificate in Human Resources Management provides a range of courses in the major responsibilities and challenges of human resources to prepare students to work effectively in the field. The certificate is available as a fully online or in-classroom program.

Contact: Jennifer Fickeler
Email: jfickeler@wustl.edu
Website: http://ucollege.wustl.edu/programs/certificates/advanced/human-resources-management

Requirements

Advanced Certificate in Human Resources Management

The Certificate in Human Resources Management is a 15-unit program composed of three required courses (9 units) and 6 units of elective courses:

Required courses (9 units):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM 520</td>
<td>Organizational Behavior and Management</td>
<td>3</td>
</tr>
<tr>
<td>HRM 559</td>
<td>Strategy Formation and Organizational Effectiveness</td>
<td>3</td>
</tr>
<tr>
<td>HRM 571</td>
<td>Legal Aspects of Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

Elective courses (6 units):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM 531</td>
<td>Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>HRM 543</td>
<td>Compensation Management</td>
<td>3</td>
</tr>
<tr>
<td>HRM 544</td>
<td>Diversity and Inclusion in the Workplace</td>
<td>3</td>
</tr>
<tr>
<td>HRM 558</td>
<td>HR Metrics</td>
<td>3</td>
</tr>
<tr>
<td>HRM 565</td>
<td>Building High-Performance, Team-Based Organizations</td>
<td>3</td>
</tr>
</tbody>
</table>
| HRM courses can be found on the Master of Arts in Human Resources Management (p. 51) page of this Bulletin.

International Affairs

Breathtaking changes in political, economic, and social relations have taken place over the past several centuries. Living and working in a rapidly changing global environment presents great opportunities to advance the human condition, promote growth and development, create political liberties, recast bargains between governments and their societies, transform social welfare, and advance the boundaries of knowledge and scientific exploration.

Yet the same context presents great risks as people fear loss of identity, worry about economic subordination and loss to those beyond their borders, encounter environmental degradation, and confront potential decline in personal and social autonomy. Our heightened economic, political, social, cultural, and environmental interdependence generates serious challenges in areas such as social justice, health, security, development, human rights, social welfare, inequality, diversity and technology. These challenges create the possibility for conflict but also for cooperation and compromise.

The Advanced Certificate in International Affairs provides a foundation of courses for students who want to understand and analyze the complex questions, risks and opportunities associated with living and working in a rapidly changing global environment. Our heightened economic and political interdependence generates challenges in areas such as social justice, diversity, international security, sustainable development, resource distribution, technology and human rights. Moreover, rising nationalism and complex ethnic and religious tensions pose ongoing challenges while at the same time inviting strategies for compromise and cooperation.

Contact: Jeremy Caddel
Email: jcaddee@wustl.edu
Website: http://ucollege.wustl.edu/programs/certificates/advanced/international-affairs

Requirements

Advanced Certificate in International Affairs

For the 15-unit Advanced Certificate in International Affairs, students must choose courses from the International Affairs curriculum. Up to 6 units of electives from a related area may apply with approval. All courses must be at the 400 (graduate) level or above.

Online Option: University College offers several online courses in International Affairs, providing students with the option of completing this certificate in a fully online format.

International Affairs courses can be found on the Master of Arts in International Affairs (p. 54) page of this Bulletin.

Nonprofit Management

Designed to prepare students to succeed in the leadership and administration of nonprofit organizations, the Advanced Certificate in Nonprofit Management is intended for practicing managers and leaders in a broad range of human service,
cultural, educational, religious and community organizations and for those who wish to prepare for professional advancement. The curriculum provides a theoretical and practical examination of the governance of nonprofit organizations, the management of volunteers and professionals, marketing, resource development and fundraising, strategic planning, program evaluation, financial oversight, and the social and political context of the nonprofit sector. All classes are offered during late afternoon or evening hours, online, and on weekends for the convenience of working adult students.

The curriculum covers all aspects of nonprofit administration and management:

- Leading and managing nonprofit organizations and interacting with boards of directors
- Supervising volunteers and professionals
- Fundraising and resource development
- Marketing
- Quantitative and qualitative program evaluation
- Financial management
- Planning and decision making
- Social, economic and political trends affecting the nonprofit sector

This certificate is available as a fully online or in-classroom certificate.

Contact: Amy Buehler
Email: abuehler@wustl.edu
Website: http://ucollege.wustl.edu/programs/certificates/advanced/nonprofit-management

### Requirements

#### Advanced Certificate in Nonprofit Management

Students seeking the Advanced Certificate in Nonprofit Management (NPM) must complete 15 units of course work with a 3.0 grade-point average and no grade below a B-. The certificate can normally be completed in one to two years.

**Course Requirements:**

The following courses are required:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPM 507</td>
<td>Management in Nonprofit Organizations</td>
<td>3</td>
</tr>
<tr>
<td>NPM 508</td>
<td>Resource Development for Nonprofit Organizations</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPM 525</td>
<td>Financial Management of Nonprofit Organizations</td>
<td>3</td>
</tr>
<tr>
<td>NPM 570</td>
<td>Legal Issues Impacting Nonprofit Organizations</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units** 12

The remaining 3 units are electives.

NPM courses can be found on the Master of Arts in Nonprofit Management (p. 72) page of this **Bulletin**.

### Post-Baccalaureate Teacher Certification

**Note:** As of Summer 2022, this program is no longer accepting new students.

The **Post-Baccalaureate Teacher Certification** program provides students who have completed a bachelor's degree with the course work necessary to obtain a Missouri teaching certificate. All courses are offered through University College during afternoon and evening hours with the exception of student teaching, which requires full-time availability during the fall (elementary) or spring (middle school, secondary and K-12) semester. Required course work is taken for undergraduate credit. Certification through this program is available in the following teaching areas:

- Secondary Education (grades 9-12): biology, chemistry, earth science, English, mathematics, physics or social science
- Middle School (grades 5-9): language arts, mathematics, science or social science
- K-12: art, dance or world languages (Chinese, French, German, Japanese, Latin, Russian, Spanish)
- Elementary Education (grades 1-6)

Contact: Michele Augustin
Phone: 314-935-3571
Email: maugusti@wustl.edu
Website: https://ucollege.wustl.edu/programs/398

**Requirements**

**The Curriculum**

The actual number of credit units necessary for certification depends on the student's background and program. Upon admission to the Post-Baccalaureate program, each student's transcript is evaluated by an advisor in the Department of Education to determine the courses needed for certification. Students who have no prior course work in education should plan on a minimum of 30 credit units in education courses (48 units for elementary education).
SHRM Courses and Certification

**SHRM-CP® and SHRM-SCP® Certification**

University College offers the SHRM Learning System course in partnership with the Society for Human Resource Management. The instructional program follows the SHRM model stating that Knowledge + Behavioral Competencies = Success. The competencies include a broad range of skills needed in the applied setting, including leadership and navigation, business acumen, ethical practice, relationship management, consultation, critical evaluation, global and cultural effectiveness, and communication.

**Program Objectives**

The majority of participants enroll in this program to prepare to take the SHRM-CP and SHRM-SCP examinations. The highly interactive instructional methodology provides a rich but scheduled review of the content areas assessed by these tests. Other participants take the program to enhance their level of professionalism in the field of human resource management.

**Contact:**
Ron Gribbins  
Phone: 314-369-2731  
Email: grrib@wustl.edu  
Website: [http://ucollege.wustl.edu/areas/special_programs/shrm](http://ucollege.wustl.edu/areas/special_programs/shrm)

**Statistics**

**Note:** As of Summer 2022, this program is no longer accepting new students.

The **Advanced Certificate in Statistics** recognizes those who have pursued significant advanced study in the field of statistics beyond the bachelor’s degree. It is designed for professionals who need enhanced skills in general and specialized statistical analysis. All 15 units of the certificate will apply to the 36-unit Master of Arts in Statistics for those who plan to continue their study in the field.

**Requirements**

**Advanced Certificate in Statistics**

Applicants should have a baccalaureate degree from an accredited institution and a minimum overall grade-point average of 3.0. Degree candidates should have completed the calculus sequence (i.e., differential, integral and multivariable calculus), an intermediate statistics course (e.g., Math 305 Probability and Statistics), and either Math 3091 Matrix Algebra or Math 3101 Foundations for Higher Mathematics prior to beginning the certificate program.

**Required courses (9 units):**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 5291</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>Math 593</td>
<td>Probability</td>
<td>3</td>
</tr>
<tr>
<td>Math 594</td>
<td>Mathematical Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives:**
- 6 units of graduate-level statistics courses

**STEM+C, Math, and Science Education**

Washington University’s Institute for School Partnership, in coordination with the Department of Education, has established three 15-unit Advanced Certificate programs offered through University College.

The Advanced Certificate program in Science, Technology, Engineering, Math, and Computational Thinking (STEM+C) Education is run in coordination with the Departments of Biology and Mathematics and Statistics.

The Advanced Certificate program in Math Education is run in coordination with the Department of Mathematics and Statistics.

The Advanced Certificate program in Science Education is run in coordination with the Department of Biology.

These programs are directed toward in-service teachers of grades K-8. Candidates for these programs generally teach K-8 science or math but do not have college degrees in STEM fields. Admission to these programs is competitive and by application only.

**Contact:** Rachel Ruggirello  
Phone: 314-919-7574  
Email: schoolpartnership@wustl.edu  
Website: [https://ucollege.wustl.edu/programs/certificates/advanced/stem-math-science-education](https://ucollege.wustl.edu/programs/certificates/advanced/stem-math-science-education)

**Requirements**

**Advanced Certificate in Science, Technology, Engineering, Math, and Computational Thinking (STEM+C) Education**

**Required:** 15 units
Teachers receive 3 graduate credits in education for each relevant course completed. The credits may include undergraduate STEM+C courses offered through University College as well as selected STEM+C education courses. The program is designed so teachers will receive graduate credit for the additional undergraduate courses.

**Advanced Certificate in Math Education**

**Required:** 15 units

Teachers receive 3 graduate credits in education for each relevant course completed. The credits may include undergraduate math courses offered through University College as well as selected math education courses. The program is designed so teachers will receive graduate credit for the additional undergraduate courses.

**Advanced Certificate in Science Education**

**Required:** 15 units

Teachers receive 3 graduate credits in education for each relevant course completed. The credits may include undergraduate natural science and math courses offered through University College as well as selected science education courses. The program is designed so teachers receive graduate credit for the additional undergraduate courses.

**Additional Programs**

University College offers the following additional graduate programs:

- Combined Bachelor's/Master's Program (p. 87)
- Graduate Student-at-Large (p. 88)

**Combined Bachelor's/Master's Program**

The Combined Bachelor's/Master's Degree Program in University College is designed for students who wish to pursue rigorous and accelerated study that will lead to both a Bachelor of Science and either a Master of Arts or Master of Science in areas of study for which there are degree programs in University College.

**Eligibility Requirements**

Eligibility requirements for the Combined Bachelor's/Master's Degree Program in University College include the following:

- Admission to a Bachelor of Science degree program in University College
- Completion of a minimum of 60 units toward the Bachelor of Science degree, including transfer credit, with a 3.0 or higher cumulative grade-point average; only in exceptional cases will candidates be authorized to pursue the Bachelor's/Master's Program after completing 84 units
- Completion of a minimum of 12 units of undergraduate course work in University College, at least 9 of which must be at the advanced level (300- and 400-level courses), with a 3.0 or higher cumulative GPA
- Completion of a Combined Bachelor's/Master's Program Preliminary Authorization Request
- Two academic writing samples, at least one of which must be research-based, to be submitted to University College
- Personal interview with the Director of Advising and/or the Associate Dean for Academics

**Admission Requirements**

Students who meet the eligibility requirements noted above should meet with their undergraduate advisor and complete the Combined Bachelor's/Master's Preliminary Authorization Request. Two academic writing samples, one of which must be research-based, and a personal interview are also required for preliminary authorization. After a review of the writing samples and the personal interview, applicants will be informed whether or not they have been authorized to pursue the Combined Bachelor's/Master's Degree Program, which includes the authorization to register for graduate course work that will count toward both the undergraduate degree and the appropriate master's degree.

Students receiving this preliminary authorization are required to submit the Application for Graduate Admission (http://ucollege.wustl.edu/apply/) in University College during their final 30 to 36 units of undergraduate study, at which time their academic performance and potential for continued graduate study will be re-evaluated. If approved, students will be formally admitted to a graduate program of study.

**Program Requirements**

- Formal admission to the Office of Graduate Studies, Arts & Sciences, or University College
- Completion of a minimum of 135 units of course work, undergraduate and graduate, including all residency requirements for the Bachelor of Science degree
- Completion of all requirements of the student’s graduate program, including a final written project where required, and in accordance with all academic policies and procedures for undergraduate and graduate study in University College and/or the Office of Graduate Studies, Arts & Sciences
• A maximum of 15 to 18 units of graduate course work (depending on the specific master's program) at the 400 and 500 levels may count toward requirements for the graduate degree and as unrestricted electives for the undergraduate degree.
• Students will receive both the Bachelor of Science and Master of Arts or Master of Science at the completion of the entire program.

For more information or to schedule an appointment to discuss the program, please call 314-935-6759.

Graduate Student-at-Large

The Graduate Student-at-Large program provides an opportunity for qualified individuals who have earned a bachelor's degree to register for evening and online graduate courses in University College or to register for day courses offered through the College of Arts & Sciences on a non-degree basis. This program is coordinated by University College, the continuing education and professional studies division at Washington University.

The program is designed for the following types of students:

• Individuals who wish to enroll in graduate courses on a part-time basis for personal or career enrichment
• Individuals who wish to try out a few graduate courses before seeking admission to a graduate program in University College
• Graduate students in good standing from another St. Louis-area college or university who wish to enroll in courses not offered at their home institution

Individuals who would like to take an undergraduate course through University College may do so by enrolling directly via the University College registration site (https://acadinfo.wustl.edu/ucollege/).

Policies and Procedures

• Individuals wishing to participate in the Graduate Student-at-Large program in Arts & Sciences must apply online (http://ucollege.wustl.edu/students/prospective/apply/) and provide all requested information.
• Eligibility for Graduate Student-at-Large status includes an earned bachelor's degree at another accredited college or university and a 3.0 minimum final cumulative grade-point average. Demonstrated achievement in professional and other work-related experiences will also be considered when applications are evaluated.
• A Graduate Student-at-Large is eligible to register for evening graduate courses offered through University College or day undergraduate courses offered through Arts & Sciences. Individuals who wish to register for day graduate courses in preparation for a graduate degree program in the College of Arts & Sciences at Washington University are required to apply for non-degree study through the Office of Graduate Studies, Arts & Sciences.
• All course enrollments are on a space-available basis and must be approved by the instructor and a University College advisor.
• A Graduate Student-at-Large is eligible to register for a maximum of 6 units (normally two courses) of graduate course work in a single semester. The student is eligible to register for a maximum of 9 units (normally three courses) of undergraduate course work in a single semester.
• A Graduate Student-at-Large may take courses for a letter grade, audit them, or take them on a pass/fail basis.
• Students register for courses through University College and pay tuition in full at the time of registration. Students are charged day tuition rates for day courses and evening rates for evening courses.
• Graduate Student-at-Large status will be terminated if a student receives a grade of F or if the student's cumulative GPA falls below 3.0 at any time.
• Permission to register under this arrangement does not constitute admission to a degree program at Washington University. Qualified students may apply for admission at a future date to one of the degree-granting divisions of the university.
• A maximum of three courses taken while a student has Graduate Student-at-Large status may be applied to a graduate program in University College with authorization by University College. All courses applied to a graduate program must be taken for a letter grade.
• Courses taken as a Graduate Student-at-Large may be applied to a graduate or professional degree program at another division of Washington University with authorization by that academic division.
• Federal or institutional financial assistance is not available for the Graduate Student-at-Large.
• International students interested in the advanced certificate programs must hold a visa that permits part-time study (including F-2 and J-2 visas). Students holding F-1 visas are not eligible for these programs. Students holding B-2 visas may be eligible if the course work is recreational or avocational in nature.

Housing

On-campus housing is not available to a Graduate Student-at-Large during the academic year. However, off-campus housing is available. For more information about housing options, please contact the Office of Residential Life (http://reslife.wustl.edu) at 314-935-5050 or Quadrangle Housing (https://quadrangle.wustl.edu) at 314-935-9511.
For additional information about the Graduate Student-at-Large program, please contact us:

Phone: 314-935-6700
Email: ucollege@wustl.edu
Website: https://ucollege.wustl.edu/programs/
non-degree/graduate-student-at-large
University College - Undergraduate

University College is the professional and continuing education division at Washington University in St. Louis. The division offers a wide range of courses in both online and face-to-face formats in a variety of academic departments and interdisciplinary and professional areas of study. Part-time and full-time study options in undergraduate degree programs, master's degree programs, and certificate programs are available. University College is also home to the Osher Lifelong Learning Institute (https://ucollege.wustl.edu/programs/non-degree/lifelong-learning-institute/) for adults 50 years old and older. In addition, University College sponsors special lectures and programs such as the Master of Liberal Arts (MLA) Saturday Lecture Series and the Summer Writers Institute. For more information, visit the University College website (http://ucollege.wustl.edu).

Undergraduate Study

University College awards Associate in Arts and Bachelor of Science degrees in a wide range of academic subjects and interdisciplinary areas of study. Students may also select courses from many other academic departments and programs at Washington University that do not offer majors or programs of study in University College. Undergraduate certificate programs (http://ucollege.wustl.edu/programs/20/) for professional and personal development are also available. Please visit the University College website (http://ucollege.wustl.edu) or call 314-935-6700 for more detailed information, requirements and policies concerning specific undergraduate degree and certificate programs.

Admission

The admissions policies and procedures of University College reflect the special circumstances of part-time adult students and vary by academic program. Students seeking admission to an undergraduate degree or certificate program should meet with an academic advisor in University College to discuss goals prior to submitting an application for admission. Formal admission is required of all students seeking undergraduate degrees or certificates in University College.

Admission requirements for both the Associate in Arts degree and the Bachelor of Science degree include a high school diploma or its equivalent as well as at least 6 units of transferable college-level course work taken at another accredited institution with a minimum grade-point average of 2.7 or at least 6 units of course work taken at University College with a minimum GPA of 2.7.

Bachelor's Degrees

Requirements for the Bachelor of Science (BS) degree in University College represent both breadth and depth of study. Admission requirements for the BS degree include a high school diploma or its equivalent and at least 6 units of transferable college-level course work with a minimum grade-point average of 2.7 taken at another accredited institution or at least 6 units of course work taken at University College with a minimum grade-point average of 2.7.

The following Bachelor of Science degrees are offered:

- Anthropology (p. 91)
- Clinical Research Management (p. 99)
- Communications (p. 100)
- Economics (p. 105)
- Global Leadership and Management (p. 108)
- Health Care (p. 109)
- History (p. 116)
- Industrial and Organizational Psychology (p. 126)
- Integrated Studies (p. 133)
- Political Science (p. 135)
- Psychological & Brain Sciences (p. 140)
- Sustainability (p. 148)

For more specific information about BS degree requirements and policies as well as specific requirements for each major:

Phone: 314-935-6700
Website: http://ucollege.wustl.edu

Degree Requirements

Bachelor of Science Degrees

To receive a Bachelor of Science degree from University College, students must be admitted to degree candidacy; complete a minimum of 120 units of college-level work with a cumulative grade-point average of 2.0 or higher in all courses.
Students who receive a grade lower than a C- in EComp 111 should be well prepared for the required writing courses at University College, and transfer credit will be awarded for this work according to our regular transfer credit policies. However, new students will begin with EComp 111 in University College. Students who feel they have a strong writing background may petition to take a placement test to demonstrate the skills needed to begin with EComp 203 instead. All students will complete EComp 203 and a 300-level writing course at University College.

Distribution Requirements: 36 units; 9 units in each area noted below. Major courses may also fulfill basic and distribution requirements, but each distribution area must include course work from at least two disciplines:

- Natural Sciences and Mathematics
- Social Sciences
- Humanities
- Languages and the Arts

Overlap Policies: If a student has two majors, each major's upper-level units of credit must be independent of the other (i.e., no double counting of the upper-level units required for the majors is permitted). Prerequisite courses at the 100 or 200 level may count for both majors.

Should the same upper-level course satisfy a requirement in more than one of a student's major programs, a departmentally sanctioned upper-level elective must be chosen to replace the course in one of the programs. If a student has a major and a minor, the minor must include at least 9 unique units. Major or minor course work may be applied to distribution requirements for general education. If a student is pursuing a bachelor's degree and a certificate, the certificate must include at least 9 unique units. (The exception to this restriction on certificates applies to sequential programs of the same name, in which case all certificate courses may apply to the next-level program.)

A single course can count without restriction toward any two of the following categories: (1) major requirements; (2) basic requirements for numerical applications or cultural diversity; or (3) distribution requirements.

Anthropology

Anthropology investigates issues such as human evolution, origins of civilization, gender, ethnic relations, social institutions, medical anthropology, and the impact of the modern world on human societies everywhere. Sociocultural anthropology is a good foundation for careers with an international focus as well as those such as education, medicine and business, which require an understanding of human cultural behavior. Biological anthropology provides background for work in zoology, conservation and public health venues. Archaeological anthropology is particularly useful for historical and cultural approaches to institutions.

To stay up to date with events and news in the Department of Anthropology (http://anthropology.artsci.wustl.edu/) at Washington University, visit our website.
Contact: Kirsten Jacobsen  
Phone: 314-935-7770  
Email: kjacobsen@wustl.edu  
Website: http://ucollege.wustl.edu/programs/undergraduate/bachelors-antropology

**Degree Requirements**

**Bachelor of Science in Anthropology**

All University College undergraduate students must satisfy the same general-education requirements (p. 90).

Requirements specific to this major include the following:

- At least 6 units from the introductory anthropology sequence:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthro 150</td>
<td>Introduction to Human Evolution</td>
<td>3</td>
</tr>
<tr>
<td>Anthro 160</td>
<td>Introduction to Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>Anthro 190</td>
<td>Introduction to Archaeology</td>
<td>3</td>
</tr>
</tbody>
</table>

- 15 additional units of course work in the department (must include 12 advanced units)
- 12 additional units in social sciences (must include 3 advanced units)

Anthropology majors are also encouraged to take a range of courses in the humanities and the natural sciences.

**The Minor in Anthropology**

- At least 6 units from the introductory anthropology sequence:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthro 150</td>
<td>Introduction to Human Evolution</td>
<td>3</td>
</tr>
<tr>
<td>Anthro 160</td>
<td>Introduction to Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>Anthro 190</td>
<td>Introduction to Archaeology</td>
<td>3</td>
</tr>
</tbody>
</table>

- 9 additional advanced units of course work in anthropology

**Courses**


**U69 Anthro 100 Introduction to Anthropology**

Anthropology is a field that seeks to synthesize and integrate all aspects of what it means to be human, including the study of human diversity across time and space. Anthropologists are collectively interested in studying humans from a holistic perspective, including cultural, linguistic, and biological anthropology and archaeology. This course aims to introduce students to basic concepts within anthropology, integrating the perspectives and methods of each of the subfields into the approach. We will examine how culture, environment, and biology are intertwined in the variation seen within humans both past and present. Topics addressed will include aspects of human evolution and variation, non-human primates, Paleolithic cultures, subsistence strategies, kinship, political organization, the rise and fall of complex societies, religion, language, globalization, and anthropology in the present and future.  
Credit 3 units. UColl: OLI

**U69 Anthro 150 Introduction to Human Evolution**

The fossil evidence for human evolution, the genetics of human variation and evolution, the study of living nonhuman primates, and the fossil record and its interpretation.  
Credit 3 units. UColl: OLI

**U69 Anthro 150M Introduction to Human Evolution**

Online version of the course U69 150. This course is a survey of the fossil evidence for human evolution. The course includes discussion of the genetics of human variation and evolution, the study of living nonhuman primates, and the fossil record and its interpretation. An evolutionary perspective is used in an attempt to understand modern humans from the naturalistic point of view.  
Credit 3 units. UColl: OLI

**U69 Anthro 160 Introduction to Cultural Anthropology**

Equality, hierarchy, and stratification in tribal, peasant, and industrializing societies from past and present cultures.  
Comparison of the ways in which different cultures legitimize social difference; myth and ritual in relation to the social order and social process; patterns of authority and protest; theories of sociocultural change and evolution.  
Credit 3 units. UColl: CD

**U69 Anthro 1751 Introduction to Linguistic Anthropology**

This course provides an introduction to the theoretical foundations of linguistic anthropology, the study of language use in cultural contexts. The readings, lectures, and discussions will focus on linguistic anthropology's integration of theory and ethnographic practice.  
Credit 3 units.

**U69 Anthro 190 Introduction to Archaeology**

Archaeology plays a critical and unique role in understanding the human past. Through study of the methods and theories of archaeology, and a survey of important firsts in the human past, this course introduces students to the way archaeologists use material culture to reconstruct and understand human behavior. Chronologically ordered case studies from around the globe are used to look at social, ecological, and cultural issues facing humans from the earliest times to the present. Students gain practice reconstructing the past through hands-on participation in two 1-hour labs focusing on lithics and animal bones. By the end of the course, students are expected to be able to think critically about how the past is presented, and why, and the importance of the past as it relates to the present and future.  
Credit 3 units. Arch: SSC

**U69 Anthro 190B Introduction to Archaeology**

Archaeology plays a critical and unique role in understanding the human past. Through study of the methods and theories of archaeology, and a survey of important firsts in the human past, this course introduces students to the way archaeologists use material culture to reconstruct and understand human behavior. Chronologically ordered case studies from around the globe
are used to look at social, ecological, and cultural issues facing humans from the earliest times to the present. Students gain practice reconstructing the past through hands-on participation in two 1-hour labs focusing on lithics and animal bones. By the end of the course, students are expected to be able to think critically about how the past is presented, and why, and the importance of the past as it relates to the present and future. Same as L48 Anthro 190B
Credit 3 units. A&S IQ: Arch: Art: BU: EN: S
U69 Anthro 2091 Achievements of Past Civilizations
This course is a selective survey of some milestone achievements of past civilizations that have a far-reaching impact on our modern society. Using examples from archaeological sites around the world this class will explore how these achievements have changed the developmental trajectory of humanities. A feature of this course is that it will not only discuss the achievements of the so-called cradles of civilization but also those areas that receive much less scholarly attention in the study of ancient civilizations, such as Central Asia and Sub-Sahara Africa. Besides learning about archaeological facts, students who take this course will also get exposure to basic archaeological theories and methods. Some topics we will cover in this class include the domestication of crops and animals, the emergence of early cities, the invention of metallurgy, and the arrival of state societies.
Credit 3 units. UColl: CD
U69 Anthro 260 Topics in Health and Community
A survey of current topics in community health and medicine, with an emphasis upon social science approaches to issues affecting medicine and medical care in contemporary U.S. society. Issues include ethical debates in health care delivery, social stratification and health, access to health services, and factors affecting community wellness at local, national, and global levels. Presented as a weekly series of topical presentations by community health experts from the St. Louis area. Required for students enrolled in the Medicine and Society Program, and also open to other interested students.
Credit 1 unit.
U69 Anthro 280 Introduction to Anthropological Genetics
Anthropology is the study of humans, past and present. In the post-genomic era, we now have the capability to uncover the genetic basis of being human. This course will examine the intersection of genetics and anthropology. Students will be taught the basic principles of molecular evolutionary analysis and population genetics that are applied to the study of humans and other primates. In addition, students will learn how genetic data can supplement the archaeological, linguistic, cultural, paleoanthropological, and comparative primate research of traditional anthropology. Specifically, we will survey (1) methods of measuring and drawing inferences from human genetic variation, (2) theories of modern human origins and peopling of the world, and (3) recent advances in studying the genetic underpinnings for human disease. The first portion of every class will be devoted to lecture while the latter half will be a discussion of the assigned articles. There will be one in-class laboratory in which we explore some of the electronic resources available to anthropological geneticists. Finally, we will spend part of one class engaged in lively scientific debate over the question: are modern humans still evolving? Students should leave this class with a basic understanding of the contribution of genetics to the field of anthropology and how anthropological knowledge can illuminate genetic findings.
Credit 3 units.
U69 Anthro 300 Independent Study
Credit variable, maximum 3 units.
U69 Anthro 3004 Second Sight: Topics in Visual Anthropology
Visual anthropology is as old as the camera, and, like North Atlantic anthropology, it shares a long history with colonial exploitation and expansion. This course examines the history of both ethnographic film and photography and considers the ethics of visual anthropology in the 21st century. This survey of ethnographic film and photography aims to familiarize students with the concepts of visual anthropology and to introduce a variety of ethnographic and media studies concepts, theories, methods, and ethical considerations. Drawing from a broad spectrum of materials, we will focus on analyzing film and photography in class, discussing ethics, challenging the boundaries of ethnographic conventions, and inviting filmmakers and photographers into conversation via Skype.
Credit 3 units.
U69 Anthro 3014 Wining and Dining in the Classical World
The focus of this course will be food culture in Greek and Roman societies from the Archaic to the late Roman period. However, foodways from adjacent contemporary cultures will also be briefly examined. Sources will include textual evidence, as well as ethnographic studies of ancient people, iconographic and archaeological evidence, specifically osteological and botanical remains from archaeological sites. Experimental studies will be conducted in class to augment the learning experience of students.
Same as U02 Classics 3031
Credit 3 units.
U69 Anthro 302 People and Cultures of the Middle East
This course will introduce the cultural diversity and unity of the peoples of the Middle East. The emphasis is on historical and ethnological relationships, social and political structure, religious pluralism and contemporary youth issues. We will explore the lived experiences of the peoples in the modern nation-states of Egypt, Lebanon, Syria, Jordan, Israel, the Palestinian Territories, Turkey, Saudi Arabia and the countries of the Arabian Peninsula, Iraq, and Iran. We will access this material through short stories, poetry, biographies, essays, videos, blogs, and political and anthropological reports.
Same as L48 Anthro 302B
Credit 3 units. A&S IQ: LCD, Art: BA:BU:IS
U69 Anthro 3030 Introduction to Human Ecology
Human ecology investigates the complex relationships between humans and their environment. The discipline is typically divided into two primary fields of research: cultural ecology (the study of cultural solutions to environmental challenges) and human biological ecology (the study of physical changes that occur in response to environmental stressors). This course examines both biological and cultural human adaptation to the earth’s major ecosystems and surveys human subsistence strategies within these environments. Students will investigate the consequences of population growth, modernization, nutritional disparities, medical ethics, and environmental stewardship in a globalized world. The final section of the course will focus on world globalization, modernization, inequality, and health.
Credit 3 units. UColl: ML

U69 Anthro 3038 Ancient Technologies
This course is designed to examine technologies developed in the ancient world, from Prehistoric to Roman times. The course is structured around the use of key materials such as wood, textile, stone, clay, and metal. Larger themes, such as agriculture, warfare, and seafaring, combine these technologies to fulfill necessary and desired functions. The main focus of this course is Greek and Roman technologies, though some references will be made to adjacent cultures, such as Mesopotamian hunting, Egyptian engineering, Scythian tattooing, and the foodways and medicines of Germanic tribes. After the first two sessions, class will meet every alternate week for this hybrid course. Two meetings will include field trips to make pottery and observe cuttlebone metal pendant molding at Craft Alliance (material costs included in the fees), and examine manufacturing techniques from real artifacts at the Saint Louis Art Museum.
Same as U02 Classics 3036
Credit 3 units.

U69 Anthro 308M Race Matters! How Race and Racism Affect Health and Medicine
This course grapples with the relationships among race, racism, health, and medicine, both in the United States and abroad. It examines the historical roots of medical racism, the role of medical and genetic research in constructing and deconstructing race as a biological concept, and the ways that systemic racism harms health. This course will also consider how race operates with other intersecting social and political identities (e.g., ethnicity, age, sex, gender, sexual orientation, class, disability) to influence health outcomes. Although anthropological and critical race theories will frame our learning, we will read broadly across other disciplines, including (but not limited to) sociology, the history of medicine, law, public health, and science and technology studies.
Credit 3 units. UColl: OLI

U69 Anthro 3093 Anthropology of Modern Latin America
A survey of current issues in the anthropological study of culture, politics, and change across contemporary Latin American and the Caribbean. Topics include machismo and feminism, the drug war, race and mestizaje, yuppies and revolutionaries, ethnic movements, pop culture, violence, multinational business, and the cultural politics of U.S.-Latin American relations. Attention will be given to the ways that anthropology is used to understand complex cultural and social processes in a region thoroughly shaped by globalization.
Same as L48 Anthro 3093
Credit 3 units. A&S IQ: LCD, SSC Arch: SSC Art: SSC BU: IS EN: S

U69 Anthro 310C Ancient Civilizations of the New World
An examination of the Inca empire in Peru, and the Maya and Aztec empires in Mexico through the inquiry into the roots, development, form, and evolutionary history of pre-Columbian civilization in each region from its earliest times to the rise of the classic kingdoms. Examples of respective artistic accomplishments will be presented and discussed.
Same as L48 Anthro 310C
Credit 3 units. A&S IQ: HUM, LCD Arch: SSC BU: HUM

U69 Anthro 3137 The Pandemic: Science and Society Follow-up
This course is an extension of The Pandemic: Science and Society (Anthro L48 3515/U69 3136). Drawing from topics covered in the first course, this course will provide further examination of the societal and environmental impacts of the COVID-19 pandemic now and in the future. This course will offer students the opportunity to reflect on and apply the knowledge and critical-thinking skills acquired in Anthro L48 3515/U69 3136 to current events as well as their own experiences regarding the global pandemic. A core component of this course is its focus on the interconnectedness of the COVID-19 pandemic to health and racial disparities, education, climate change, and the human-animal-environment interface.
Credit 1 unit. UColl: OLI

U69 Anthro 3143 Plants in the Life of New World Cultures: Past and Present Perspectives
This course looks at the diverse ways in which past cultures in the New World domesticated, processed, consumed, and ritualized plants. Looking at pre-Columbian societies, we will study how certain plants native to the New World were used in daily and sacred activities, and how some are featured in myths and creation stories. We will look at the period after the Columbian exchange to understand how colonialism in the New World and the introduction of Old World plants impacted societies in the New World. We will also consider how some of these New World plants shape the world we live in today. We will study both archaeological and historical perspectives, and learn to evaluate archaeologic evidence that relates to the plant world in the Americas.
Credit 3 units. UColl: OLI

U69 Anthro 3151 Evolution of the Human Diet
Many researchers and health enthusiasts believe that the abandonment of our “Paleolithic” diet and lifestyle with the onset of agriculture some 10,000 years ago has lead to a rapid decline in health and perpetuated countless “diseases of civilization.” While diet fads come and go, it seems this new enthusiasm for “Paleo diets” is here to stay. But what is a “Paleo diet” anyway? Through a comparative evolutionary and anthropological approach, we will examine the diets of extinct hominins, our extant primate relatives, ethnohistoric and contemporary foraging peoples, and even our own dietary habits. We will strive to answer key questions about diets in prehistory and their implications for living people today: How do we know what our ancestors ate? How have dietary hypotheses been used to explain processes in human evolution? When and how did the gendered division of labor come about in human diet evolution? How bad is agriculture for global health? What role did certain foods play in shaping our modern physiology? Are we maladapted to our contemporary diets? What does it mean to eat “Paleo”? A mix of discussion and lecture will encourage students to develop their own interests in human evolutionary nutrition, which will be presented as a short presentation and final paper.
Credit 3 units.

U69 Anthro 3164 Origins of Chinese Civilization and Arts
This course traces Chinese civilization from its formative period, extending from the Neolithic period (10,000 BP to circa 3000 BCE), through the Bronze Age (from circa 3000 BCE to the Shang and Zhou dynasties) to the early dynastic period (Qin and Han dynasties). We cover a wide variety of contributions and achievements from early Chinese civilization, such as...
brass vessels and metallurgy, porcelain, jade, writing systems, martial arts, and cuisine, as we become familiar with the history and material culture of the critical formative period of Chinese civilization.

Credit 3 units. UColl: CD

U69 Anthro 3206 Global Gender Issues
This course compares the life experiences of women and men in societies throughout the world. We will discuss the evidence regarding the universal subordination of women, and we will examine explanations that propose to situate women's and men's personality attributes, roles, and responsibilities in the biological or cultural domains. In general, through readings, films, and lectures, the class will provide a cross-cultural perspective on ideas regarding gender and how gendered meanings, practices, and performances serve as structuring principles in society.

Credit 3 units.

U69 Anthro 3215 Food, Culture, Power
The foods we eat, the way we get them, the way we produce them, and the way in which we eat them speak volumes about our beliefs, our technology, our understanding of how the world works, and our ability to function within it. Food connects consumers and producers through vast global supply chains that enable cheap fresh food year-round for some but require others to live on desperately low wages. Throughout the world, the way we eat has serious consequences for how we make a living, manage our environment, and stay healthy. This course is designed to make students think critically about the food they eat and the way it is produced. This course is divided into four parts and each week will have a thematic focus. We will begin at the beginning — the origins of agriculture, modern hunting and gathering, and pastoralism. What did we evolve to eat? Is agriculture "better" than hunting and gathering? What does it mean to say that? The third section of the class will introduce us to the commodity chain — the way by which people who do not produce food themselves eat. How have the history and politics of our economy shaped the way that we eat globally? How has food been used to understand other cultures? Then we will discuss the views of food and agriculture that have informed our modern perception of food and production. Are there too many people? What does the future of food look like? Why do some foods make us nauseous while people love them? We will conclude by examining the recent wave of interest in alternatives to that system, questioning how food came to take such a prominent place in our society after such a long period of neglect.

Credit 3 units.

U69 Anthro 3283 Introduction to Public Health
This course provides a general introduction to the field of public health. It examines the philosophy, history, organization, functions, activities, and results of public health research and practice. Case studies include infectious and chronic diseases, mental health, maternal and reproductive health, food safety and nutrition, environmental health, and global public health. Students are encouraged to look at health issues from a systemic and population-level perspective, and to think critically about health systems and problems, especially health disparities and health care delivery to diverse populations. No background in anthropology or public health is required.

Credit 3 units. BU: SCI

U69 Anthro 3208 Race Matters! How Race and Racism Affect Health and Medicine
This course grapples with the relationships among race, racism, health, and medicine, both in the United States and abroad. It examines the historical roots of medical racism, the role of medical and genetic research in constructing and deconstructing race as a biological concept, and the ways that systemic racism harms health. This course will also consider how race operates with other intersecting social and political identities (e.g., ethnicity, age, sex, gender, sexual orientation, class, disability) to influence health outcomes. Although anthropological and critical race theories will frame our learning, we will read broadly across other disciplines, including (but not limited to) sociology, the history of medicine, law, public health, and science and technology studies.

Credit 3 units. UColl: OLI

U69 Anthro 3310 Health, Healing, and Ethics: Intro to Medical Anthropology
A cross-cultural exploration of cultures and social organizations of medical systems, the global exportation of biomedical, and ethical dilemmas associated with medical technologies and global disparities in health.

Credit 3 units. UColl: CD, ML, OLI
U69 Anthro 333 Culture and Health
A survey of cultural dimension in health, disease, wellness, illness, healing, curing, as seen in selected alternative medical traditions, Shamanism, Ayurveda, Traditional Chinese medicine, homeopathy, chiropractic, and others surveyed and compared with conventional biomedicine. Lectures, video case studies, approximately eight textbooks.
Credit 3 units. UCall: CD

U69 Anthro 3381 Media, Politics and Religion
What are media and mass media? How are we to understand mass media in relation to politics and religion? With the emergence of mass media, political and religious movements have been consolidated among increasingly diverse and larger populations. This course will address the origins and development of these media, movements, and populations in both local and global contexts. Specifically, we will investigate how information technologies -- from books and newspapers to radio, television and the internet -- engage with democracy, nationalism, and a wide range of political and religious movements around the world. We will discuss the current dynamics of these phenomena as well as what to expect in the coming years.
Credit 3 units.

U69 Anthro 3391 Economies as Cultural Systems
Many contemporary approaches to economics downplay or bracket the importance of culture in the workings of economic systems. In this class we will focus on approaches to distribution and exchange in which culture and social institutions figure prominently, if not pre-eminently. We will sample a diverse array of economies, from gift exchange to the ceremonial destruction of wealth, from Melanesia to Wall Street, in order to evaluate some of the assumptions that undergird market capitalism. These assumptions include the perception of market actors exclusively as calculative, maximizing individuals. Topics to be covered include the Industrial Revolution; utilitarianism; economic anthropology; the formal vs. substantivist debates; ethnography of finance, and Marxist sociology.
Credit 3 units.

U69 Anthro 3421 Becoming Human
Paleolithic cave paintings, elaborate burials, engravings, and figurines have long been celebrated by scholars and the public alike as some of the earliest evidence of human artistic expression. This course will survey the evolution of Paleolithic art and symbolic behaviors among Homo sapiens and closely related species such as the Neanderthals. We will explore explanations for the origin(s) of symbolic expression and spend some time situating the evidence within its appropriate archaeological contexts. We will then investigate the many possible meanings and functions of Paleolithic symbolic objects (e.g., personal ornaments, figurines, rock art, burial goods), and we will explore the range of technologies and actions involved in creative expression. Some topics covered include "shamanic" interpretations of Paleolithic art, the so-called "Venus" figurines, the origins and elaboration of human burial, rites of passage, and the diversity of Paleolithic rock art. Students will gain a deeper understanding of the symbolic underpinnings that make us human through a mixture of hands-on activities, projects, and discussion.
Credit 3 units.

U69 Anthro 3422 American Indian Art, Symbol and Meaning
An introduction to the arts among a broad range of native peoples who inhabited North, Middle, and South America. Course begins with basic concepts of art and anthropology. Emphasis is on the iconography found in various art styles, particularly the prehistoric rock carvings and paintings left by Native Americans throughout the New World. Oral traditions and myths found in the ethnographic record provide fascinating associations and interpretations.
Credit 3 units. UCall: CD

U69 Anthro 3423 Body Art/Body Modification Across Cultures
All cultures practice one form or another of body modification. It can be in the form of face or body painting, piercing, tattooing, scarring, or re-shaping. Body modification is usually done to indicate social position, family, marital status, identity with a particular ethnic, age, or gender group, perform a rite of passage such as puberty, ward off or invoke the spirits, or send a message. This course explores body art and body modification in several world cultures -- including our own.
Credit 3 units. UCall: CD

U69 Anthro 3471 Archaeology of the St. Louis Region
This course introduces students to archaeology of the St. Louis region and explores the cultures of its early inhabitants, from 12,000 years ago through the 19th century. We study a number of very important archaeological sites in the region, including Mastodon State Park, where artifacts of human manufacture were found in direct association with extinct mastodons dating to about 12,000 years ago, and Cahokia Mounds State Historic Site (a World Heritage Site) in Illinois, dating to the Mississippian period AD 1050-1350. We also examine methods and theories used by archaeologists to understand archaeological remains.
Credit 3 units.

U69 Anthro 3476 Archaeologies of Graffiti from Antiquity to the Present
The modern story of graffiti — revolving around social, economic, and political contexts such as bathroom stalls, subways and alleys steeped with urine and trash, decrepit buildings and train cars situated in less reputable areas of cities and towns — leads people to associate it with antisocial behaviors, dissent, and the vandalism of public and private property. However, some people consider graffiti as a legitimate form of art, communication, and a somewhat anonymous expression of current social climates. The disparity between these two perspectives has provided a great deal to study for social scientists. However, a consideration of graffiti's simple definition — words or drawings etched or painted on some surface in a public place — leads us to recognize that feats of graffiti originate way before the inner-city movements of the 1970s. In this class we will draw upon a range of studies from archaeology, anthropology, sociology, art, and history to broadly explore the creation and meaning of graffiti from antiquity to the present. Our goal is to learn how to examine the form, function, and context of graffiti across cultures and through time, with regard to the circumstances of its creation. In doing so, we aspire to better understand what lies behind the human urge to leave a mark. Prerequisite: Introduction to Archaeology.
Credit 3 units.
U69 Anthro 3531 Love, Courtship, and Marriage in Africa: The Anthropologies of Intimacy and Conjugality
This course is an exploration of past and present anthropological inquiry into love, courtship, and marriage across the African continent. The course explores the various reasons that love on the continent has been of great interest to social scientists in certain historical moments while completely ignored in others. Other key questions in this course revolve around making connections between love and political economies, kinship, gender, health, labor migration, colonialism, and the law, among other key topics. The course will begin by introducing students to earlier anthropological assumptions, which presumed that intimacies in African contexts were tied to urbanization or development theory. Early anthropological works often ignored long histories of companionate relationships and love, setting them at odds with kinship involvement. Only since the 1990s has anthropological inquiry begun to consider intimacy and affect in Africa more fully. The bulk of the semester will be spent exploring these recent contributions. Course goals include tracing the history of scholarship on love in Africa, exploring contemporary ethnographies in local and global context, and thinking critically through anthropological inquiry and methodologies. Course materials will include a mix of ethnography, scholarly journal articles, and popular news clips as well as films and novels by African scholars and artists. Credit 3 units. UColl: CD

U69 Anthro 361 Culture and Environment
An introduction to the ecology of human culture, especially how "traditional" cultural ecosystems are organized and how they change with population density. Topics include foragers, extensive and intensive farming, industrial agriculture, the ecology of conflict, and problems in sustainability. Credit 3 units. Arch: SSC Art: SSC BU: ETH EN: S UColl: CD

U69 Anthro 3621 Anthropology of Human Birth
This course will examine the interaction between human biology and culture in relation to childbirth. Emphasis will be placed on understanding the cultural challenges posed by the physiology of human reproduction, the ways various cultures have attempted to meet those challenges, and the resultant consequences that this has had for women's lives. The course will draw on material from human anatomy and embryology, paleoanthropology, clinical obstetrics, public health, social anthropology, the history of medicine, and contemporary bioethics. Same as L48 Anthro 3621 Credit 3 units. A&S IQ: LCD, SSC Arch: SSC Art: SSC BU: ETH EN: S

U69 Anthro 3625 The Female Life Cycle in Cross-Cultural Perspective
This course will examine the biology of the female reproductive cycle — menarche, menstruation, and the menopause — and its cultural interpretation around the world. Topics covered will include the embryology of human sexual differentiation, the biology of the menstrual cycle and how it influences or is influenced by various disease states, contraception, infertility, cultural taboos and beliefs about menstruation and menopause, etc. The course will utilize materials drawn from human biology, clinical gynecology, ethnography, social anthropology, and the history of medicine and will examine the interplay between female reproductive biology and culture around the world. Same as L48 Anthro 3625 Credit 3 units. A&S IQ: LCD, NSM Arch: NSM Art: NSM BU: SCI

U69 Anthro 3665 Observing Animal Behavior at the St. Louis Zoo
This course is an introduction to methods for the collection of behavioral data in studies of animal behavior. Students will be trained in the design of research projects and the analysis and interpretation of behavioral data. Students will learn how different methods are used to answer specific questions in animal behavior research. Research will be conducted at the St. Louis Zoo. Credit 3 units.

U69 Anthro 3667 Primate Social Behavior
Credit 3 units.

U69 Anthro 3691 Kill Assessment: An Investigation into Death, Genocide, and Other Forms of Violence
This course analyzes violence as an integral component of culture and social relations, rather than as random acts which are marginal to society. We consider different types of violence — physical, intersubjective, structural and symbolic, and focus on its complex cultural, social, and structural manifestations. We study specific examples which span different historical time periods, regions of the world, scales of experience and disciplinary paradigms. Examples include state violence and genocide in Guatemala, torture in Chile and Argentina, structural and economic violence in Latin America, murder and the alienated work of serial killers in the U.S., violence and black humor, hip-hop aesthetics in Brazil, violence in new Brazilian cinema, and violence and care in neoliberal Chile. We also explore how violence becomes an aesthetic object, a commodity, and a valued resource for cultural production and consumption. This multifaceted approach helps us to evaluate particular anthropological contributions to our understandings of violence. Credit 3 units.

U69 Anthro 3775 Ancient Eurasia & The New Silk Roads
This course will explore the rise of civilization in the broad region of Eurasia, spanning from the eastern edges of Europe to the western edges of China. The focus of the course is the unique trajectory of civilization that is made evident in the region of Central Eurasia from roughly 6000 BC to the historical era (ca. AD 250). In addition to this ancient focus, the course aims to relate many of the most historically durable characteristics of the region to contemporary developments of the past two or three centuries. Fundamentally, this course asks us to reconceptualize the notion of "civilization" from the perspective of societies whose dominant forms of organization defied typical classifications such as "states" or "empires" and, instead, shaped a wholly different social order over the past 5000 years or more. This class provides a well-rounded experience of the geography, social organization, and social interconnections of one of the most essential and pivotal regions in world history and contemporary political discourse. Same as L48 Anthro 3775 Credit 3 units. A&S IQ: LCD, SSC, SD Arch: SSC Art: SSC BU: SCI

U69 Anthro 3777 Compassion Cultivation Training
Compassion Cultivation Training (CCT) is an 8-week educational program designed to help students cultivate compassion, strengthen their resilience, feel more connected to others, and improve their overall sense of well-being. CCT is a distillation
from Tibetan Mahayana Buddhist practices for developing compassion, adapted to a secular setting. Initially developed by Stanford University scholars with support from the Dalai Lama, CCT combines traditional contemplative practices with contemporary psychology and scientific research. The program involves instruction in a series of meditation practices starting with mindfulness-based meditation. The curriculum uses modern concepts of psychology and neuroscience to understand and enhance our ability to be compassionate.

Credit 1 unit.

U69 Anthro 3795 Anthropology and Climate Change: Past, Present, and Future
This course provides an overview for interplay between humanity and global climate change that encompasses three-field anthropological subjects. Course material includes the role of climate change in shaping human evolution, human solutions to climatic challenges through time, the impact of human activities on the climate, and modern sociocultural examinations of how climate change is affecting the lives of people around the world. Credit 3 units. UColl: OLI

U69 Anthro 3796 Ecocide and Climate Change: The Collapse of Societies
How can we use the past to help solve modern issues of climate change? In the face of modern climate change and environmental degradation, many have turned to examining how past societies successfully or unsuccessfully responded to environmental change. This seminar-style course will survey how academic and public discourse use historical and archaeological examples of past human response to environmental change to evaluate our best options to thrive in a globally warmer environment. By reading public intellectual works by anthropologists, economists, and geographers, we will first examine current theoretical understandings of why societies collapse and the impacts that future climate change may have on our modern societies. We will then turn our attention to past societies and study how past people responded to past challenges of environmental change. By evaluating discourse between the past and the present, we will examine which methods and theories are the most helpful when using the past to inform future strategies addressing modern issues of environmental degradation and climate change. Credit 3 units.

U69 Anthro 3797 Anthropology and Climate Change: The Collapse of Societies
In recent years, the impacts of the Anthropocene -- the era of human disruption of the global environment -- are becoming increasingly apparent. The news is full of reports of massive wildfires, devastating hurricanes, floods, droughts, extinctions, and more. However, not all humans share the same risks or experience equivalent burdens from hazards associated with the Anthropocene. In this course, we will explore these unequal experiences of environmental hazards through the lens of environmental justice (EJ). EJ is both a field of scholarship and a social movement. It emerged in the 1970s and 1980s in response to the growing realization that poor and marginalized communities often experience disproportionate, harmful impacts from exposure to toxic waste. Since then, EJ scholars and activists have worked to document and understand cases in which environmental hazards compound the burdens of poverty, racism, gender discrimination, and other forms of social inequality. This seminar will focus on environmental hazards that have been caused directly or indirectly by humans, including hurricanes, rising sea levels, and toxic waste exposure. Most of the examples that we explore will come from North America, but we will also discuss ideas and concepts that are applicable elsewhere in the world.
Credit 3 units. UColl: ML, OLI

U69 Anthro 387 Medical Anthropology
This overview of the field of medical anthropology provides a perspective on health, medical systems, disease, and culture. We examine beliefs about illness, healing, and the body across cultures. We learn to distinguish physical "disease" from cultural understandings of "illness" and explore the ways that cultural conceptions shape the experience of illness. We look at the interaction of biology and culture as it affects health and medical systems. Throughout the course, we compare other beliefs and health systems with our own culture's management of health and illness.
Credit 3 units.

U69 Anthro 3876 Darwin and Doctors: Evolutionary Medicine and Health
Back pain, diabetes, obesity, colds, even morning sickness. These are all common human health problems. But have you ever wondered why we have these and other health conditions? In this class, we will investigate this question — and others — specifically using evolutionary theory to inform current understandings of contemporary health problems.
Credit 3 units. Art: NSM BU: SCI

U69 Anthro 3880 Multispecies World: Animals, Global Health, and Environment
Amid escalating global environmental and health crises that impact all forms of life, this course critically considers the diverse relationships of humans with other forms of life and varied ecological systems. Although the discipline has long studied humans' use of and impact on environments, anthropologists have begun to increasingly pay attention to human-animal cohabitations, engagements, and shared cultures and worlds. This seminar looks at how diverse contemporary contexts -- such as zoos, farms, forests, and laboratories -- involve fascinating human-animal relationships and contentious implications for ethics, health, and ecology. In investigating how animals are central to scientific knowledge production, debates about animal welfare, environmental sustainability issues, companionship and pets, entertainment and sports, and zoonic disease, we will explore the possibility for more richly understanding the world by fully appreciating species diversity and interconnectedness.
Credit 3 units. UColl: ML

U69 Anthro 4022 Transnational Reproductive Health Issues: Meanings, Technologies and Practices
This course covers recent scholarship on gender and reproductive health, including such issues as reproduction and the disciplinary power of the state, contested reproductive relations within families and communities, and the implications of global flows of biotechnology, population, and information for reproductive strategies at the local level. We will also explore how transnational migration and globalization have shaped reproductive health, the diverse meanings associated with reproductive processes, and decisions concerning reproduction. Reproduction will serve as a focus to illuminate the cultural politics of gender, power, and sexuality.
Credit 3 units. Art: SSC BU: BA UColl: OLI
U69 Anthro 459 Human Osteology
Analysis of skeletal material recovered in human paleontological and archaeological excavations. The development of bone and major diseases that affect skeletal structure. Prerequisite: permission of instructor. Same as L48 Anthro 459 Credit 3 units. A&S IQ: NSM Arch: NSM Art: NSM

U69 Anthro 4813 Zooarchaeology: Birds and Fishes
Methods and techniques of the analysis of faunal remains recovered in an archaeological context. Prerequisites: one course in archaeology and permission of instructor. Credit 3 units.

Clinical Research Management
The Bachelor of Science in Clinical Research Management is designed for students in the early stages of a career in clinical research as well as more experienced individuals such as investigators, coordinators, and sponsor representatives who want to expand their knowledge and skills in the field.

The program lays a foundation in principles and applications from the basic sciences and then covers in greater depth the processes necessary for the management of studies that develop drugs, devices, and treatment protocols for patient care.

This customized undergraduate program focuses on the scientific methods of clinical research, good clinical practice, research ethics, and the regulatory guidelines that protect human subjects, all of which are integral components of clinical trial management in academic research or pharmaceutical industry settings.

Contact: Sally Anderson
Phone: 314-935-6700
Email: sallyanderson@wustl.edu
Website: http://ucollege.wustl.edu/programs/undergraduate/bachelors-clinical-research-management

Degree Requirements
Bachelor of Science in Clinical Research Management
All University College undergraduate students must satisfy the same general-education requirements (p. 90). Requirements specific to the major include the following:

Required Courses: 38 units

U80 CRM 250 Fundamentals of Clinical Research Management I
This introductory course provides the basic foundation for clinical research. We examine the historical evolution of research, linking it to the current regulations and guidelines for good clinical practice. Course material includes research roles and responsibilities, institutional review boards, phases of drug development, the informed consent process, human subject protections, and an overview of study conduct. Credit 3 units.

U80 CRM 251 Fundamentals of Clinical Research Management II
This course focuses on the application of principles and theories covered in Fundamentals of Clinical Research Management I. Students will develop and complete documents for a specific assigned protocol. This will include completing institutional review board paperwork, writing an informed consent, developing source documents, and critiquing research articles. Prerequisite: Fundamentals of Clinical Research Management I or instructor permission. Credit 3 units. UColl: OLI

U80 CRM 306 Evidence-Based Decision Making
Policies can fail because of weak foundational support. Many times, there are no detailed strategic objectives and no clear and measurable success criteria, or these may not be aligned with strategic goals. This course is an introduction to developing policy. Using information about COVID-19 in St. Louis as a case study, this course highlights the intersection of culture;
government; leadership; and social determinants such as sex, gender, and poverty. To develop the skills used to evaluate and solve problems, students will learn to critically examine the following: (1) the concept of health (broadly defined); and (2) how data are used to develop policies and programs for communities. 

Same as U86 HCARE 306
Credit 3 units. UColl: OLI, SSC

**U80 CRM 318 Introduction to Data & Information Management in Health Sciences**

This course presents the basic principles for understanding the design, conduct, analysis, and endpoints of clinical trials. We will review statistical terminology and explain trial design from a clinician's point of view, including theoretical and practical aspects of randomization, stratification, blinding, and single center versus multicenter trials. Additional topics include hypothesis formulation, commonly used research designs, statistical significance, confidence intervals, and statistical tests. Credit 3 units. UColl: OLI

**U80 CRM 325 Research Ethics and Regulatory Affairs**

This course will provide an understanding of the ethical guidelines, issues, and challenges of conducting research on human subjects. We will explore issues such as conflicts of interest, genetic testing, limits of confidentiality, risk, and the distinction between compliance and ethics. As we learn about protecting research groups and interests and explaining rights and liabilities, we will study health care legislation and regulations, guidelines, contractual matters, and the complex regulatory framework that governs human subject research. Finally, we will learn to use an ethical problem-solving model in clinical research. 

Same as U80 CRM 525
Credit 3 units. UColl: ML, OLI

**U80 CRM 326 Drug-Induced Diseases: Detection, Prevention, and Management**

A drug-induced disease (DID) is the unintended effect of a drug that results in mortality or morbidity with symptoms sufficient to prompt a patient to seek medical attention and/or require hospitalization. There have been great advances in drug therapy that have had tremendous beneficial impact on patient outcomes. However, the effects of drugs are not always beneficial; drugs are also capable of causing new diseases or exacerbating those that already exist. Some of these diseases are well known and transient (e.g., diarrhea, weight gain). Others, like liver disease and diabetes, are neither. This course will explore these issues in a novel, disease-specific way that will be accessible to a wide range of students: clinical research managers, medical students, nurses, pharmacists and other allied health professionals. The course will include weekly readings from the textbook or other sources. Regular group discussions will be important, addressing how this new knowledge can be applied to students' professional or personal practices. 

Same as U80 CRM 526
Credit 3 units. UColl: OLI

**U80 CRM 330 The Business of Clinical Research**

An overview of the business elements of clinical research, this course covers drug and device development, the regulatory environment, finance, corporate structures, and the clinical trials office. We will consider stakeholders including pharmaceutical and device industries, academic and private research centers, government agencies such as the National Institutes of Health, non-profit agencies and a variety of other organizations such as American Diabetes Association and the National Cancer Institute. We also will study local, state, and federal regulations, as well as international and global issues that impact the business of clinical research. 

Credit 3 units. UColl: OLI

**U80 CRM 350 Practicum/Capstone**

This course provides student-specific guidance and experience in a clinical research environment. Students will engage in practical experiences in a field and therapeutic area of their choice, or, if desired, get exposure to diverse clinical research settings. The practicum will take place in departments within Washington University outpatient research settings, and pharmaceutical and device industry settings. Students already working in a clinical research environment will have the option of completing a research project with instructor approval or a hybrid between the practicum and the capstone in order to fit their goals. Prerequisite: completion of all other courses for the undergraduate degree and undergraduate certificate in the Clinical Research Management Program. May be concurrent with final course. 

Credit 3 units. UColl: OLI

**U80 CRM 353 Pharmacology for Clinical Research**

This course presents the basic principles of pharmacology and their application to clinical research management to help ensure safe and effective management of drug trials. We will study the foundations of pharmacology, including the principles of drug absorption, distribution, metabolism and excretion, drug binding sites and interactions, and drug development. We also will examine pharmacological problems with special populations, and the emergent area of pharmacogenetics. In the second half of the course we will review important drug classes, with an emphasis on understanding "Investigator's Brochures;" including drug action and place in therapy, pharmacology, toxicity, chemical properties, and kinetics. 

Credit 3 units.

**Communications**

The Bachelor of Science in Communications focuses on theories and applications of communications: organizational, interpersonal, cultural, political and digital. Required core courses build a foundation in communications theory, research, ethics, law, technology and business. Students also select a concentration for greater professional focus in one of the following areas: Integrated Marketing Communication, Public Relations, Applied Media Practice or Professional Writing.

This program prepares students for careers in governmental, business and media organizations that need expert communicators. Communications-related jobs are everywhere, as fast-paced companies and brands seek professionals who understand communications strategies and can translate business objectives into media messaging. The program's
core courses and concentration options represent the breadth and depth associated with the study of communications, and they define this field as an important standard of a liberal arts education.

The program also emphasizes integration across academic disciplines and industry functions, and it provides the opportunity to analyze and implement communications and leadership skills in a range of organizational settings, media relations roles, and social or political advocacy functions in a changing and complex media environment.

Contact: Justin Lopinot
Phone: 314-935-6700
Email: justin.lopinot@wustl.edu
Website: http://ucollege.wustl.edu/programs/undergraduate/bachelors-communications

Degree Requirements
Bachelor of Science in Communications

All University College undergraduate students must satisfy the same general-education requirements (p. 90).

The Bachelor of Science in Communications is a 34- to 36-unit program of study that includes 18 units of required core courses; a 13- to 15-unit concentration in Integrated Marketing Communication, Public Relations, Applied Media Practice or Professional Writing; and a required 3-unit internship or capstone experience.

Required Core Courses: 18 units

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comm 234</td>
<td>Foundations of Communications</td>
<td>3</td>
</tr>
<tr>
<td>Comm 305</td>
<td>Market Research and Communications Strategies</td>
<td>3</td>
</tr>
<tr>
<td>Comm 378</td>
<td>Communications Technology and New Media</td>
<td>3</td>
</tr>
<tr>
<td>Comm 381</td>
<td>The Business of Communications</td>
<td>3</td>
</tr>
<tr>
<td>Comm 385</td>
<td>Digital Communications Analytics</td>
<td>3</td>
</tr>
<tr>
<td>Comm 4160</td>
<td>Communications Ethics and the Law</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 18

Internship or Capstone Course: 3 units

Concentration Area: 13-15 units

- Concentration in Integrated Marketing Communication: 13 units

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comm 262</td>
<td>Integrated Strategic Communications</td>
<td>3</td>
</tr>
<tr>
<td>Bus 270</td>
<td>Marketing Concepts</td>
<td>3</td>
</tr>
<tr>
<td>Comm 3090</td>
<td>Social Media for Public Relations</td>
<td>1</td>
</tr>
<tr>
<td>Comm 350</td>
<td>Public Relations Principles and Social Media</td>
<td>3</td>
</tr>
<tr>
<td>Bus 364</td>
<td>Strategic Planning</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 13

- Concentration in Public Relations: 13 units

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comm 203</td>
<td>Writing for Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>or Comm 3451</td>
<td>Effective Editing</td>
<td>3</td>
</tr>
<tr>
<td>Comm 3090</td>
<td>Social Media for Public Relations</td>
<td>1</td>
</tr>
<tr>
<td>Comm 350</td>
<td>Public Relations Principles and Social Media</td>
<td>3</td>
</tr>
<tr>
<td>Bus 364</td>
<td>Strategic Planning</td>
<td>3</td>
</tr>
<tr>
<td>Comm 372</td>
<td>Crisis Communications</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 13

- Concentration in Applied Media Practice: 13 units

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comm 218</td>
<td>Website Design and Development</td>
<td>3</td>
</tr>
<tr>
<td>Comm 3090</td>
<td>Social Media for Public Relations</td>
<td>1</td>
</tr>
<tr>
<td>Comm 308</td>
<td>Making the Cut: Editing Digital Video</td>
<td>3</td>
</tr>
<tr>
<td>or JRN 346</td>
<td>Shoot, Cut, and Upload: Create Media Like a Pro</td>
<td>3</td>
</tr>
<tr>
<td>Comm 318</td>
<td>Advanced Website Design and Development</td>
<td>3</td>
</tr>
<tr>
<td>Comm 330</td>
<td>Photojournalism</td>
<td>3</td>
</tr>
<tr>
<td>or JRN 327</td>
<td>Audio Storytelling: From Podcasts to Newscasts</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 13

- Concentration in Professional Writing: 15 units

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comm 211</td>
<td>Introduction to Journalism</td>
<td>3</td>
</tr>
<tr>
<td>Comm 3451</td>
<td>Effective Editing</td>
<td>3</td>
</tr>
<tr>
<td>Comm 331</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>or NPM 470</td>
<td>Grantwriting</td>
<td>3</td>
</tr>
<tr>
<td>Two upper-level writing electives from English Composition or Journalism</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

Total Units: 15

The Minor in Communications

Total Units Required: 18 units

Required Courses: 9 units
U48 Comm 211 Introduction to Public Speaking
Public Speaking is an essential skill for success in a student's professional career and in public life. This class is geared for students to succeed. The focus of this class is to develop each student's innate ability and the confidence necessary to speak effectively in public. The presentation skills we will work on are: structuring an effective speech, writing to be heard and not read, and using the voice and body successfully. Students will present an introductory speech, an informative speech and a persuasive speech.
Credit 3 units. UColl: OLI

U48 Comm 211M Introduction to Public Speaking
This course is the online version of U48 2111. Public speaking is an essential skill for success in a student’s professional career and in public life. This online version is particularly geared toward virtual public speaking and presentation. The focus of this course is to develop each student’s ability as well as the confidence necessary to speak effectively in public. Students will learn to structure an effective and ethical speech, write to be heard and not read, use the voice and imagination successfully, and look and sound professional in a virtual meeting or job interview. Students will present a special occasion speech, an informative speech, and a persuasive speech.
Credit 3 units. UColl: OLI

U48 Comm 218 Website Design and Development
This course covers website development using the three methods that have been used since web design first began: hand-coding HTML using a text editor; building webpages using a WYSIWYG editor like Dreamweaver; and using the most modern method, a Content Management System that separates design from content while making it easy for nontechnical users to update a site. We will cover design principles, Cascading Style Sheets, server-side vs. client-side technologies, web browsers, and web servers. We will conclude the course with a brief overview of the future of web development: XHTML and XML.
Credit 3 units. UColl: OLI

U48 Comm 224 Foundations of Communications
Foundations of Communication is designed to help you be a more effective communicator by examining the principles and contexts of human communication. It introduces fundamental elements (including self-awareness, perception, listening and responding, and verbal and nonverbal messages) and models of communication, basic communication theory, interpersonal communication, small group communication, and public speaking, with an emphasis on a practical application at each level. Students will learn the skills and techniques essential to effective communication and will be expected to demonstrate those in each communication context throughout the semester.
Credit 3 units. UColl: OLI

U48 Comm 260 Marketing Communications
An introduction to advertising, public relations, and promotions and how they influence communications, journalism, and mass media. Students explore each of the “three sisters” of marketing and how they are used to build integrated marketing programs. Specific tools, including special events, direct mail, sponsorship, and press materials, will be discussed. In addition, the class will examine current and memorable marketing campaigns, view new technologies, and learn techniques and trends from professionals in the marketing field.
Credit 3 units. UColl: OLH

**U48 Comm 262 Integrated Strategic Communications**

Strategic communication programs enable organizations to accomplish business goals by building and maintaining trusted relationships with their most important communities. A strategic communication plan includes clear and measurable objectives, is based on positioning that clearly differentiates the organization, and takes advantage of appropriate and effective tactics. This course provides an overview of all aspects of strategic communication and how they relate to each other in corporate, agency and not-for-profit environments. It covers the critical concepts needed to manage diverse communication disciplines — including marketing, branding, advertising, public relations, promotions, graphic design, traditional and new media. This course provides the foundation in theory and practice required by today’s business executives and professional communicators to create and manage successful programs, using all available strategic communication techniques.

Credit 3 units. UColl: OLH

**U48 Comm 282 Fundamentals of Public Affairs: Messaging Strategies, Public Policy and Advocacy**

This course examines the relationships between the public and influential institutions, especially different levels of government and media communication networks. Students also study how changes in communications and media, including the internet, print, and social media, have influenced the field of public affairs. Related course topics include lobbying, publishing, and entertainment, their interface with political, economic, and social issues, and their influence on the work of public affairs professionals. We also will analyze how changes in the media impact international communication, and how these influence our understanding of other cultures, regions, and countries.

Credit 3 units.

**U48 Comm 300 Independent Study in Communications**

Credit variable, maximum 4 units.

**U48 Comm 305 Market Research and Communications Strategies**

This course provides an overview of market research techniques with an emphasis on planning for communications campaigns. The course provides a hands-on look at several popular market research techniques used in supporting communications, such as focus groups and phone surveys. No previous knowledge of statistics is necessary. Recent case studies are used to illustrate how research results have influenced communications campaigns.

Credit 3 units. UColl: OLI

**U48 Comm 306 Digital and Content Marketing**

Students in this course will learn how to incorporate a strategic digital marketing plan into broader marketing strategies in best practices organizations. Studying how content marketing converts interested buyers into customers, we will learn and practice the four E’s of content marketing — educate, engage, encourage, and embrace repeat customers — and study essential digital marketing skills and practices such as inbound marketing and website search engine optimization (SEO). We also look closely at successful email marketing strategies and how they optimize the website conversion funnel, all along learning and using reliable data analytical tools such as Google analytics. Students will be able to connect and fully understand the relationship between a company website, marketing strategy, current and prospective customers, and an effective inbound marketing program.

Credit 3 units.

**U48 Comm 308 Making the Cut: Editing Digital Video**

This course introduces students to video editing: reducing hours of recorded video to compelling moments and creatively weaving together the best parts to attract and hold viewers. Students will use supplied video material to learn how to guide the viewer’s attention, build suspense, and inform the audience. We will also learn tricks to fix common mistakes made in the field and explore higher-level production methods (e.g., color correction, picture-in-a-picture technique) to achieve a professional look. By the end of the course, students will be proficient in making simple edits to create the equivalent of a basic short narrated video package or promotional video. Students will also learn to improve their videography skills by seeing what works in the editing suite.

Credit 3 units. UColl: OLH

**U48 Comm 309 Social Media for Public Relations**

This class introduces students to the various ways social media may be used in the practice of public relations and marketing. We use the traditional steps of research, strategy, and measurement and apply them to online campaigns. We learn about various emerging social media technologies— including blogs, wikis, Facebook, Twitter, and LinkedIn—and how they have changed the world of PR and marketing.

Credit 1 unit. UColl: OLH, OLI

**U48 Comm 313 Communications Technology & the Law in the Digital Age**

Credit 3 units.

**U48 Comm 316 Sports, Media and Society**

This course is aimed at preparing journalists for the challenge of covering contemporary sports in America, but it is not a class about sportswriting so much as a class about the issues sportswriters — and intelligent sports fans — need to understand. We will take a critical look at a number of sports-related issues and study the role of the media in the multibillion dollar industry that is big-time spectator sports. Discussion also of the roles sports serve in modern American culture. Same as U49 JRN 316

Credit 3 units.

**U48 Comm 318 Advanced Website Design and Development**

This course focuses on one of the most important parts of Web development: Cascading Style Sheets (CSS), which allow developers to set the formatting and positioning of content in webpages. We will cover topics such as CSS selectors, media-specific styles, animation, navigation, layouts with Flexbox and Grid, and lightboxes. We will also take an in-depth look responsive web design via Bootstrap and other frameworks. Prerequisites: U48 Comm 218 or instructor permission.

Credit 3 units.
U48 Comm 3240 Intercultural Communication
This course is designed to further students' sensibility toward cultural variables and to cultivate their practical skills in managing cultural diversity in everyday life and business. Our interrogation focuses on how cultural variables affect the thought, behavior, value systems, the transmission and interpretation of messages, and characteristics of interpersonal and cross-cultural communication. We learn key concepts in this field (verbal and non-verbal communication, individualism and collectivism, stereotypes and ethnocentrism, etc.) and issues of particular concern in the current world (inter-ethnic/racial relations, and intercultural communication in classrooms, medical care, and international business, etc.).
Same as U49 JRN 324
Credit 3 units. UCall: CD

U48 Comm 326 Blogs to Wikis: Building Community in a Virtual Environment
Credit 3 units.

U48 Comm 328 Online Journalism
The internet continues to have a major impact on the practice of journalism. All major newspapers now maintain web sites; journalists routinely use the worldwide web for research and communication purposes, including interviews; many newspapers maintain themselves online as information portals; and the web itself has given birth to a wide variety of online journals, magazines, and newsletters. Some have said that the internet is "democratizing" journalism, in that a major capital investment is no longer necessary to participate in the journalism marketplace. This course will examine the rapidly developing state of online journalism, including how traditional print newspapers and news magazines are utilizing the worldwide web; "webzines" and other online publications; how online journalism differs from print and broadcast journalism in style, technique and content; and how the web both simplifies and complicates journalistic research.
Same as U49 JRN 328
Credit 3 units. UCall: OLI

U48 Comm 330 Photojournalism
This course introduces students to the tools, techniques, and concepts of visual journalism; the mechanics of photography and its uses as a language of communication. Students develop an awareness of visual literacy and establish a point of view through shooting assignments. The benchmark for success is understanding concepts, not photographic expertise. No darkroom work. Access to a digital or film camera and a flash is recommended. Cell phone cameras are acceptable.
Same as U49 JRN 330
Credit 3 units. UCall: OLH, OLI

U48 Comm 331 Technical Writing
For those whose professions require them to present complex information precisely, logically, and efficiently. Examination of the audiences for technical writing and effective methods of organizing information to meet their needs. Variety of formats: letters, memos, trip reports, progress reports, proposals, and informal reports. Prerequisite: U11 203 or 203M.
Same as U11 EComp 331
Credit 3 units.

U48 Comm 3411 Technology for Managers: Tools and Strategies
This course is designed for managers involved in making business decisions involving technology. Students are expected to know how to use a computer, but this course is not a hands-on tutorial. Instead, we will discuss a range of issues focusing around modern technologies used by businesses around the world. Topics include networking, communications, open source software, content management systems, computer based training, web services, website usability, wireless, productivity tools, and more.
Credit 3 units.

U48 Comm 3451 Effective Editing
Today's communicators don't just write; they also must edit their work for posting on a website or publishing in print. Learn about editing, including the basics of professional-grade grammar, punctuation and style usage. Most editing today involves not just copyediting, however. Communicators must know how to spot sexist and racist language, poor organization and imprecise sentences. This class will help students edit others' work, and, most importantly, their own.
Same as U49 JRN 345
Credit 3 units. UCall: OLI

U48 Comm 350 Public Relations Principles and Social Media
This course provides an overview of public relations and its social media and online components. We will consider theoretical and practical applications of communications with various publics: media, employees, consumers, the community, and shareholders.
Credit 3 units. UCall: OLH, OLI

U48 Comm 372 Crisis Communications
Both profit and nonprofit organizations are increasingly embroiled in controversies and crises. Consequently, demands are growing for public relations practitioners to help restore an organization's good name and reputation, along with its financial stability. In learning to construct, implement and evaluate a crisis communication plan, students will research and analyze an organizational crisis, identify the communication demands of various audiences affected by a crisis, and develop strategies and communication tools for managing a crisis.
Credit 3 units. UCall: OLI

U48 Comm 374 Communications That Work
Credit 3 units.

U48 Comm 378 Communications Technology and New Media
This course explores concepts, production, design, publications, strategies and practical applications of interactive media. The course focuses on emerging topics and technologies to help students develop strategies for addressing and resolving both basic and complex issues associated with interactive media. Case studies will be introduced to examine a range of interactive media topics including photography, blogging, videography, ethics and social media marketing.
Credit 3 units. UCall: OLI
Economics

Economics is an excellent course of study to pursue because it contributes to a broad liberal arts education. It can help students to develop superior problem-solving skills, whether they are in the work force or considering graduate work in business, law, engineering or the social sciences.

The economics major will familiarize students with the problems of a modern economy and the tools of analysis developed by economists. It emphasizes both the development of analytic models and their application to such real-world problems as inflation, unemployment, taxation, poverty, pollution, government decision making and regulation.

Contact: Dorothy Petersen
Phone: 314-935-5644
Email: dottie@wustl.edu
Website: https://ucollege.wustl.edu/programs/undergraduate/bachelors-economics

Degree Requirements
Bachelor of Science in Economics

All University College undergraduate students must satisfy the same general-education requirements (p. 90).

Note: For both the major in economics and the minor in economics, calculus (Math 155, at least) is recommended.

Total units required: 30

Required courses (18 units):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Econ 1011</td>
<td>Introduction to Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>Econ 1021</td>
<td>Introduction to Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>Econ 406</td>
<td>Intermediate Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>Econ 407</td>
<td>Intermediate Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>Econ 414</td>
<td>Econometric Techniques</td>
<td>3</td>
</tr>
<tr>
<td>Math 205</td>
<td>Applied Statistics</td>
<td>3</td>
</tr>
<tr>
<td>or Math 305</td>
<td>Probability and Statistics</td>
<td></td>
</tr>
</tbody>
</table>

Total Units 18

Elective courses (12 units; at least 9 units at the 300-400 level):

- Electives can be drawn from U07 electives or the following courses (or other courses, with permission):
  - U44 Bus 263 Financial and Managerial Accounting
  - U44 Bus 342 Business Finance
  - U20 Math 133 Programming with Python
- Recommended:
  - U20 Math 155 Calculus I is strongly recommended.
The Minor in Economics

Total units required: 15

Required courses (12 units):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Econ 1011</td>
<td>Introduction to Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>Econ 1021</td>
<td>Introduction to Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>Econ 406</td>
<td>Intermediate Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>Econ 407</td>
<td>Intermediate Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

Elective course (3 units):

- One economics elective having Econ 1011 and/or Econ 1021 as a prerequisite.

Courses


U07 Econ 1011 Introduction to Microeconomics
Determination of prices; distribution of national income; theory of production. For a thorough introduction to economics, Econ 1021 also should be taken.
Credit 3 units. Arch: NSM, SSC Art: NSM, SSC EN: S

U07 Econ 101M Introduction to Microeconomics
Online version of U07 1011; fulfills the same program requirements. Determination of prices; distribution of national income; theory of production. For a thorough introduction to economics, Econ 1021 or U07 102M also should be taken.
Credit 3 units. UColl: OLI

U07 Econ 1021 Introduction to Macroeconomics
Business fluctuations: inflation, recession; monetary and fiscal policy; economic development. For a thorough introduction to economics, Econ 1011 should also be taken.
Credit 3 units. Arch: NSM, SSC Art: NSM, SSC EN: S

U07 Econ 102M Introduction to Macroeconomics
Online version of U07 1021; fulfills the same program requirements. Business fluctuations: inflation and recession; monetary and fiscal policy; economic development. For a thorough introduction to economics, Econ 1011 should also be taken.
Credit 3 units. UColl: OLI

U07 Econ 220 Financial Statement Analysis
Accounting terminology and theory form the base for all later knowledge in the financial services area. This course presents the highlights of basic and intermediate accounting. The goal is to enable students to evaluate accounting statements when making financial decisions, not to train professional accountants. The focus is on the principal financial statements (balance sheet, income statement, statement of cash flows, etc.) and core analytical tools.

Credit 3 units.

U07 Econ 308 Real Estate Investments
The theoretical and practical aspects of investing in real estate, including investment strategies, types of real estate, forms of ownership, analysis of risk factors, leverage, effects of inflation, methods of valuation, analysis of financial statements, tax effects, special considerations for the small or first-time investor, how and when to buy, and knowing when to sell. No previous real estate training necessary.
Credit 3 units. UColl: OLH, OLI

U07 Econ 313 Economies in Transition and Development
This course examines transition and development in world economies experiencing unprecedented change. In the course we'll cover the main episodes and events in the development of the world economy in the past 300 years, split into two main parts. The first part will be about the development of the Western world, beginning at the time of the Malthusian era, moving on to the take-off of growth in the Industrial Revolution and the Great Divergence in living standards that followed, ending with the Golden Era of the 1950s and 1960s and the challenges faced at the start of the 21st century. The second main part of the course will cover the histories of other major regions — the Soviet Union, Asia, Latin America and Africa as they catch up, fall behind, and converge with the lead established by the West. This course will consider the economic history of "what" happened as well as touch on theories of "why" these events happened and "how" we can use these economic history lessons going forward. Prerequisites: U07 Econ 1011 and U07 Econ 1021.
Credit 3 units.

U07 Econ 335A Money and Banking
Money and the monetary system; money creation by the banking system; central bank functions; monetary theory and economic policy. Prerequisites: Econ 1011 & 1021. Same as L11 Econ 335
Credit 3 units. A&S IQ: SSC Art: SSC EN: S

U07 Econ 3391 Economies as Cultural Systems
Many contemporary approaches to economics downplay or bracket the importance of culture in the workings of economic systems. In this class we will focus on approaches to distribution and exchange in which culture and social institutions figure prominently, if not pre-eminently. We will sample a diverse array of economies, from gift exchange to the ceremonial destruction of wealth, from Melanesia to Wall Street, in order to evaluate some of the assumptions that undergird market capitalism. These assumptions include the perception of market actors exclusively as calculative, maximizing individuals. Topics to be covered include the Industrial Revolution; utilitarianism; economic anthropology; the formal vs. substantivist debates; ethnography of finance, and Marxist sociology.
Same as U69 Anthro 3391
Credit 3 units.

U07 Econ 352 Health Economics
Analysis of consumer demand for health care, medical technology, and the role of health insurance. Emphasis placed on behavior of the physician (whether he acts as an agent for the consumer or on his own behalf); on the use of paramedics,
preventive care, outpatient care, and the general market organization of the health industry. The major concern will be the rising cost of health care and appropriate public policy responses. Prerequisite: Econ 1011 or 101M. Credit 3 units. Art: SSC BU: BA EN: S UColl: OLI

**U07 Econ 3531 Law and Economics**

The application of economics concepts and analysis to legal and public-policy issues. We broadly examine the roles of prices and markets, the causes of market failures and the criteria for "corrective" intervention. Specific topics include (1) the long-run and short-run economic interests of individual, corporate and public sector clients in a variety of legal contexts, (2) the normative judgments that are implicit in many economic policies and the legal structures implementing such policies; and (3) the uses and limits of economic analysis and economic data in solving a variety of social problems. Prerequisite: U07 Econ 1011. Credit 3 units.

**U07 Econ 355 Environmental Economics**

Environmental Economics is a subfield of economics concerned with environmental issues, both theoretical as well as applied and public-policy oriented. Central to environmental economics is the concept of market failure, particularly the existence of externalities. Correcting for externalities and crafting acceptable public policy responses will be a central focus of this course. Topics explored will include consumer theory and valuation; pollution and production theory; environmental protection and welfare; the Coase theorem; resource management; and economic growth and environmental sustainability. Prerequisite: U07 Econ 1011 or equivalent. Credit 3 units.

**U07 Econ 362 Investment Chart Analysis**

Investment Chart Analysis, also known as "Technical Analysis," represents one of two major methods of analyzing securities (e.g., stocks, futures and commodities, foreign exchange, etc.), with the other method being "Fundamental Analysis." Technical Analysis involves studying the statistics generated as a result of market activity. In other words, we look at supply and demand in a market, with the goal of predicting what direction, or trend, will continue in the future. The purpose of this course is to present the basic skills used in Investment Chart Analysis. Topics covered will include: an overview (including the difference between "fundamental" and "technical" analysis), the definition of a chart, how to recognize and use trends, how to characterize indicators (i.e., of a change in trend) and how to use basic statistics (such as a moving average) as indicators of changes in trends. The course grade will reflect weekly homework assignments, a midterm exam and a final exam. Data, charts, modeling and back test analytic programming software included. Computer literacy required. Prerequisites: Econ 1011, Econ 1021, Math 205. Credit 3 units.

**U07 Econ 3711 International Agricultural Development & Policy**

Examination of selected aspects of international agricultural development and public policy choices related to development outcomes. The focus is on low- and middle-income countries, where the bulk of agricultural output comes from subsistence agriculture. Important questions that will be considered include: What are the strategic roles of agriculture in national development strategies? How can agricultural transformation be accelerated? How can rural economic development be promoted to generate jobs and reduce poverty in rural areas? Additional considerations will include sustainability, along with the gender and environmental aspects of farm-household decision-making and production. Prerequisites: Econ 101M and Econ 102M, approved substitutes or instructor permission. ACTRAC students must have completed U07 Econ 406 (or an approved substitute) and U07 Econ 414 (or Lt 1 Econ 413). This course is fully online. Students enrolled in day classes at Washington University should review the policies of their home division on credit earned for online courses. Credit 3 units. UColl: CD, OLI

**U07 Econ 375 Global Financial and Trade Policy**

Concept of comparative advantage arguments for free trade and protectionism and balance of payments adjustment over fixed and flexible exchange rates. Prerequisites: U07 Econ 1011 and 1021. Credit 3 units. UColl: OLI

**U07 Econ 3801 Regional Economics & Geographic Information Systems (GIS)**

Classical theories of economics are the foundation of today's regional thinking, and they are the starting point of this course. Modern information technology in the form of geographic information systems, global positioning systems, and mobile computing have combined to empower traditional theories with a penetrating pretense in application to contemporary public and private sector issues. The course will be the rising cost of health care and appropriate public policy responses. Prerequisite: Econ 1011 (or a similar introduction to microeconomic principles). Credit 3 units.

**U07 Econ 406 Intermediate Microeconomics**

Analytic theory of consumer and producer behavior under perfect and imperfect competition. Coverage of demand theory (indifference curves and utility functions) and preferences under uncertainty, including expected utility and risk aversion. Development of the concepts of competitive equilibrium and Pareto efficiency. Prerequisite: Econ 1011. (Calculus I recommended.) Credit 3 units.

**U07 Econ 407 Intermediate Macroeconomics**

Analysis of forces that determine the general level of prices, output, and employment; relationship between economic growth and business fluctuations; policies of achieving full employment and price stability. Prerequisite: Econ 1021. (Econ 1011 and Calculus I recommended.) Credit 3 units. UColl: OLI
U07 Econ 414 Econometric Techniques
Basic techniques of econometric analysis, including multiple and generalized linear regressions, residuals analysis, instrumental variables, simultaneous equation methods, and logit and probit models. Students apply the theory with regression analysis using econometric software packages. Prerequisites: U07 1011 and U07 1021, or U20 205 or equivalent. Credit 3 units.

U07 Econ 427 Economic Systems in Theory and Practice
Theory and practice of mercantilism, capitalism, and socialism. Historical and contemporary examples considered, with contemporary focus on Latin America, Eastern Europe, and Hong Kong. Primary emphasis on choices open to individuals; pecuniary and non-pecuniary prices paid to exercise those choices. Statistical evidence and case studies will be used. Course requirements include weekly written critique. Prerequisite: U07 Econ 1011 or 1021. Credit 3 units. UCell: OLI

U07 Econ 4301 Understanding the Financial Crisis
The global financial crisis of 2007-2009 was the most severe since the Great Depression. The goal of the course is to provide tools to analyze key elements of this crisis. We will move from a corporate finance perspective - to understand the behavior of firms and financial institutions - to a macroeconomic perspective - to make this behavior in aggregate outcomes and policy responses. Topics covered include: The U.S. crisis in historical and international perspective; corporate finance of firms and banks in closed and open economy; monetary and fiscal policy intervention; the open economy dimension of the financial crisis; the European Sovereign Debt crisis. Same as L11 Econ 4301 Credit 3 units. A&S IQ: SSC Arch: SSC Art: FAAM, SSC EN: S

U07 Econ 435 Open Economy Macroeconomics
This course will begin with a review of international trade theory, of the balance of payment accounts and their relationship to international borrowing and lending. We will then study the asset approach to exchange rates determination, exchange rate behavior in the short and in the long run, and the relationship of exchange rates with prices and output. The course will also explore monetary and fiscal policy under both fixed and floating exchange rates, macroeconomic policy coordination and optimum currency areas, international debt problems of developing countries and their relation to stabilization program. Prerequisite: Econ 4021. Same as L11 Econ 435 Credit 3 units. A&S IQ: SSC Art: SSC BU: IS EN: S

Degree Requirements
Bachelor of Science in Global Leadership and Management
All University College undergraduate students must satisfy the same general-education requirements (p. 90). Requirements specific to the major include the following:

Required Courses: 33 units
The Bachelor of Science in Health Care provides an academic foundation for students pursuing managerial, clinical or research careers in health care. The program includes a base of core courses that examines scientific, social, political, economic, ethical and organizational issues in health care and that also addresses implications for individual practice and public policy. This required core, drawn largely from the liberal arts, underscores the complex interdisciplinary nature of health care today and the mandate for critical thinking, contextual understanding and ethical behavior across all related fields and careers. Grounded in these common questions and skill sets, students then pursue more specialized professional interests by selecting a concentration in either health care management or health sciences.

The program equips students with an academic foundation for graduate or professional school or for work in a variety of health care professions, including (but not limited to) hospital administration, community health, public health, biomedical research, medicine, nursing, dentistry, and physical and occupational therapy.

Website: http://ucollege.wustl.edu/programs/undergraduate/bachelors-health-care

Degree Requirements

Bachelor of Science in Health Care

All University College undergraduate students must satisfy the same general-education requirements (p. 90). Requirements specific to this major include the following:

Required core courses: 12 units

Total units required: 42
### Bulletin 2022-23

**University College - Undergraduate (08/12/22)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phil 233</td>
<td>Biomedical Ethics</td>
<td>3</td>
</tr>
<tr>
<td>HCare 309</td>
<td>Health and Society</td>
<td>3</td>
</tr>
<tr>
<td>Anthro 3283</td>
<td>Introduction to Public Health</td>
<td>3</td>
</tr>
<tr>
<td>Psych 358</td>
<td>Health Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units** 12

### Health Care Management Concentration

**Required courses:** 24 units

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Econ 1011</td>
<td>Introduction to Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>Econ 352</td>
<td>Health Economics</td>
<td>3</td>
</tr>
<tr>
<td>Math 1011</td>
<td>Introduction to Statistics</td>
<td>3</td>
</tr>
<tr>
<td>or Math 205</td>
<td>Applied Statistics</td>
<td></td>
</tr>
<tr>
<td>or Math 305</td>
<td>Probability and Statistics</td>
<td></td>
</tr>
<tr>
<td>Bus 263</td>
<td>Financial and Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>Bus 339</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>HCare 312</td>
<td>Legal Issues in Health Care Management</td>
<td>3</td>
</tr>
<tr>
<td>or Comm 234</td>
<td>Foundations of Communications</td>
<td></td>
</tr>
<tr>
<td>or Comm 262</td>
<td>Integrated Strategic Communications</td>
<td></td>
</tr>
<tr>
<td>or Comm 372</td>
<td>Crisis Communications</td>
<td></td>
</tr>
<tr>
<td>HCare 314</td>
<td>Health Care Finance</td>
<td>3</td>
</tr>
<tr>
<td>HCare 355</td>
<td>Health Care Policy</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units** 24

### Health Sciences Concentration

**Required courses:** 11 units

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bio 101</td>
<td>General Biology I (with Lab)</td>
<td>4</td>
</tr>
<tr>
<td>Bio 102</td>
<td>General Biology II (with Lab)</td>
<td>4</td>
</tr>
<tr>
<td>Bio 342</td>
<td>Introduction to Human Disease and its Scientific Basis</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units** 11

**Electives courses** (12 units chosen from the following list*; at least 6 units at the 300-400 level):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chem 105</td>
<td>Introductory General Chemistry I PB</td>
<td>3</td>
</tr>
<tr>
<td>Chem 106</td>
<td>Introductory General Chemistry II PB</td>
<td>3</td>
</tr>
<tr>
<td>Chem 151</td>
<td>General Chemistry Laboratory I PB</td>
<td>2</td>
</tr>
<tr>
<td>Chem 152</td>
<td>General Chemistry Laboratory II PB</td>
<td>2</td>
</tr>
<tr>
<td>Chem 261</td>
<td>Organic Chemistry I with Lab PB</td>
<td>4</td>
</tr>
<tr>
<td>Chem 262</td>
<td>Organic Chemistry II with Lab PB</td>
<td>4</td>
</tr>
<tr>
<td>Phys 211</td>
<td>General Physics</td>
<td>4</td>
</tr>
<tr>
<td>Phys 212</td>
<td>General Physics II</td>
<td>4</td>
</tr>
</tbody>
</table>

**Bio 322** Human Anatomy & Physiology I 5

**Bio 323** Human Anatomy & Physiology II 5

**Bio 406** Introduction to Biochemistry 3

**Bio 431** Biology of Aging 3

**Psych 322** Developmental Psychology 3

**Psych 3200** Child Health Psychology 3

**Psych 460** Behavioral Medicine 3

**Anthro 387** Medical Anthropology 3

* Other elective courses are allowed with approval.

### The Minor in Health Care

**Total units required:** 15

**Required courses (3 units):**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCare 355</td>
<td>Health Care Policy</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective courses (12 units):**

- Course work in Health Care, including at least 9 units of advanced-level courses (300-400 level).

### Courses

Visit online course listings to view semester offerings for U86 HCare (https://courses.wustl.edu/CourseInfo.aspx?sch=U&dept=U86&crslvl=1:4).

#### U86 HCare 1001 Concepts in Chemistry

This is a one-semester survey of the major topics covered in general chemistry, organic chemistry, and biochemistry. The course is intended for students pursuing a degree or certificate in clinical research management as well as for those seeking broad coverage of chemical concepts. This course does not replace general chemistry, organic chemistry, or biochemistry requirements for premedical students or others majoring in the sciences.

Same as U05 Chem 1001

Credit 3 units.

#### U86 HCare 101 General Biology I

First part of a two-semester introduction to basic biological principles and concepts. The first semester covers the molecular and cellular basis of life, bioenergetics, signal transduction, DNA and protein synthesis, and the function of whole organisms (physiology). Laboratory one evening per week. Laboratories include traditional wet labs as well as inquiry-based online labs. The lab portion of this course is restricted to students admitted to the Post-Baccalaureate Premedical Program or a University College degree program. Others may register with instructor permission and on a space-available basis.

Same as U29 Bio 101

Credit 4 units. UColl: OLH, OLI
U86 HCARE 102 General Biology II
Second semester of a two-semester sequence that provides a broad but rigorous introduction to basic biological principles and concepts. The second semester covers DNA technology and genomics, the genetic basis of development, the mechanisms of evolution, the evolutionary history of biological diversity, plant form and function, and ecology. Laboratory one evening per week. Laboratories include traditional wet labs as well as inquiry-based online labs. Prerequisite: General Biology 101. The lab portion of this course is restricted to students admitted to the Post-Baccalaureate Premedical program or a University College degree program. Others may register with instructor permission, and on a space-available basis. Same as U27 Span 123
Credit 4 units. UColl: OLI, OLI

U86 HCARE 123 Beginning Spanish for Health Care Professionals I
This course is designed for practicing medical professionals who treat Spanish-speaking patients. Students practice the Spanish language through model conversations within varied medical settings, and learn anatomical and medical vocabulary and grammar to function in their current work environment. Vocabulary acquisition and speech are rehearsed and tested in simulated patient contacts. Prerequisite: Some previous knowledge of Spanish or study of other languages is recommended; please direct level questions to the Instructor. This class does not fulfill requirements for Spanish majors or minors. Same as U27 Span 123
Credit 3 units. UColl: OLI

U86 HCARE 124 Spanish for Health Care Professionals II
A continuation of Beginning Spanish for Health Care Professionals I, this class expands grammar and vocabulary knowledge while providing continuing practice in communication in medical settings. Designed for practicing or future medical professionals, including physicians, nurses, ER personnel, physical therapists, etc., who need to treat Spanish-speaking patients and wish to learn basic Spanish to do interviews, clinic history assessments, examinations, diagnosis, prescription, and basic health education. This course also covers the key cultural differences in treating an American Patient vs. a Latino Patient. Exams will emphasize vocabulary acquisition and oral ability in simulated physician-patient contacts. Prerequisite: Beginning Spanish for Health Care Professionals U27 123, Elementary Spanish 101 or equivalent. This course may not count toward the minor or major in Spanish offered through the Dept of Romance Languages and Literatures in the day school. Same as U27 Span 124
Credit 3 units. UColl: OLI

U86 HCARE 134 Introduction to Magnetic Resonance Imaging
An introduction to magnetic resonance imaging (MRI) and its applications in medicine. We will focus on the very basic principles of MRI and the various MR contrast mechanisms, which are needed to correctly read MRI images acquired with specific acquisition schemes. Course will cover basic image acquisition techniques, parameters optimization to improve image quality, popular pulse sequence designs, and special applications such as MR angiography (MRA), cancer imaging, and functional MRI (fMRI, if time allows). Same as U23 Phys 134
Credit 3 units.

U86 HCARE 170 Fitness and Wellness: Introduction to Exercise Science
Students in this course will learn to utilize current concepts of physical fitness and wellness to increase the quantity and quality of their own lives as well as of the lives of others. Topics include body mechanics, nutrition and body composition, stress, the contributions of physical exercise to the prevention of certain life-threatening diseases, and the relationship of physical exercise and activity to the aging process. Students will also be introduced to a variety of exercise science assessment techniques and training programs. Same as U74 Sci 170
Credit 3 units. UColl: OLI

U86 HCARE 204 Nutrition
This introductory course examines nutrition as an interdisciplinary science. Topics include: the chemistry, function, and metabolism of nutrients; regulations of food intake; food habits; digestion and absorption of nutrients; methods of determining nutrient content of foods and nutrient requirements for humans and animals; comparative nutrition; problems of human malnutrition; relation of nutrition to disease; toxic materials in foodstuffs; economic, nutritional, and social problems involved in feeding the world population and future possibilities for meeting nutritional needs of the world's population. This is a basic course in nutrition; it is not designed to train nutritionists. Same as U29 Bio 204
Credit 3 units. UColl: OLI

U86 HCARE 204H Nutrition
Online hybrid version of the course U29 204. This introductory course examines nutrition as an interdisciplinary science. Topics will include the chemistry, function, and metabolism of nutrients; the regulation of food intake; food habits; the digestion and absorption of nutrients; methods of determining the nutrient content of foods and nutrient requirements for humans and animals; comparative nutrition; problems of human malnutrition; the relationship of nutrition to disease; toxic materials in foodstuffs; and the economic, nutritional, and social problems involved in feeding the world's population today as well as possibilities for meeting those nutritional needs in the future. Same as U29 Bio 204H
Credit 3 units. UColl: OLI

U86 HCARE 211 General Physics
This course is designed for prospective majors in science and engineering as well as students planning to enter professional schools. Topics include kinematics, Newton's laws, energy, momentum, rotation, gravity, harmonic motion, wave motion, sound, and fluids. Weekly laboratory sessions are required; no labs meet the first week of class. This course is restricted to students admitted to the Post-Baccalaureate Premedical Program. Other students may register with instructor permission on a space-available basis. Prerequisite/Corequisite: U20 Math 156 or equivalent. There is a materials fee of $65 for this course. Same as U23 Phys 211
Credit 4 units.
U86 HCARE 212 General Physics II
Continuation of General Physics I. Designed for prospective majors in science and engineering and for students planning to enter professional schools. Electricity and magnetism, electromagnetic waves, light and optics, quantization. Weekly laboratory sessions. Prerequisites: U23 Phys 211 and working knowledge of calculus. Concurrent enrollment in U20 Math 255 is acceptable.
Same as U23 Phys 212
Credit 4 units. UColl: OLI

U86 HCARE 230 Human Growth and Development
This course provides an overview of emotional, psychological, physical, and social development through the life span. We will emphasize the developmental tasks, characteristics, and typical behaviors of each developmental era (infancy, childhood, adolescence, adulthood, later life). We will study major developmental theorists including Freud, Erickson, Piaget, Millet, Gilligan, and Kohlberg. Prerequisite: U09-100.
Same as U09 Psych 230
Credit 3 units. UColl: OLI

U86 HCARE 235 Introductory Statistics for the Health Sciences
This course covers material commonly presented in introductory statistics classes from a health science perspective, with some additional techniques from medical research. Topics include exploratory data analysis, hypothesis testing, probability, t-tests and ANOVA, correlation and regression, chi-square, diagnostic performance, and survival analysis. In-class examples cover medical issues, and there are supplementary readings from professional journals. There will be a computer lab in which students use a statistics package to analyze research data. In addition to mastery of statistical concepts, considerable emphasis will be placed on understanding how to interpret information in journal articles and how to carry out research.
Credit 3 units.

U86 HCARE 250 Fundamentals of Clinical Research Management I
This introductory course provides the basic foundation for clinical research. We examine the historical evolution of research, linking it to the current regulations and guidelines for good clinical practice. Course material includes research roles and responsibilities, institutional review boards, phases of drug development, the informed consent process, human subject protections, and an overview of study conduct.
Same as U80 CRM 250
Credit 3 units.

U86 HCARE 251 Fundamentals of Clinical Research Management II
This course focuses on the application of principles and theories covered in Fundamentals of Clinical Research Management I. Students will develop and complete documents for a specific assigned protocol. This will include completing institutional review board paperwork, writing an informed consent, developing source documents, and critiquing research articles. Prerequisite: Fundamentals of Clinical Research Management I or instructor permission.
Same as U80 CRM 251
Credit 3 units. UColl: OLI

U86 HCARE 270 Exercise Science and Personal Training
Students in Exercise Science and Personal Training will learn exercise science and personal training principles in order to sit for a personal training examination. The course will cover the field and science of personal training and exercise science. Topics include basic musculoskeletal anatomy, biomechanics, exercise physiology, nutrition and human performance, behavior modification, client screening, and comprehensive exercise program prescription. Students will also be introduced to a variety of exercise science assessment techniques and training programs.
Same as U74 Sci 270
Credit 3 units.

U86 HCARE 280 Microbiology for Health Professions
This course will introduce students to microbes with the emphasis on microbial diversity, transmission of infectious diseases, antimicrobial chemicals, and human defenses against infection. The course includes a two-hour weekly lab. Prerequisites: Concepts in Chemistry (U05 1001), General Biology I lecture only (U29 101), or high school Biology or Chemistry within the last five years, or permission of the instructor.
Same as U29 Bio 280
Credit 4 units. UColl: OLI

U86 HCARE 301 Doctoring in the 21st Century
Medicine is a humane and caring art based on the application of facts and principles discovered by biological and social scientists to maintain health as well as to diagnose and treat symptoms or recognizable disease entities. It requires the constant re-evaluation of evidence obtained from patients, hypothesis formation and testing, the repeated weighing of probabilities, and an openness to being challenged and appearing wrong. This course is designed to introduce students to the following: (1) how doctors think and diagnose disease, how this process evolved over the past 3000 years, and how doctors take a medical history and perform a medical exam; (2) major disease processes such as infection, neoplasia, and metabolic and developmental disease; (3) therapeutic modalities (e.g., pharmacology, surgical repair, organ replacement); and (4) medical ethics, including informed consent and end-of-life issues. As a prelude to this course, students should be familiar with basic concepts of cell structure and function, genetics, and evolution. The basics of anatomy, physiology, and biochemistry will be provided early in the course.
Same as U29 Bio 308
Credit 3 units. UColl: ML

U86 HCARE 306 Evidence-Based Decision Making: Unlocking the Power of Information
Policies can fail because of weak foundational support. Many times, there are no detailed strategic objectives and no clear and measurable success criteria, or these may not be aligned with strategic goals. This course is an introduction to developing policy. Using information about COVID-19 in St. Louis as a case study, this course highlights the intersection of culture; government; leadership; and social determinants such as sex, gender, and poverty. To develop the skills used to evaluate and solve problems, students will learn to critically examine the following: (1) the concept of health (broadly defined); and (2) how data are used to develop policies and programs for communities.
Credit 3 units. UColl: OLI, SSC
U86 HCARE 308M Race Matters! How Race and Racism Affect Health and Medicine
This course grapples with the relationships among race, racism, health, and medicine, both in the United States and abroad. It examines the historical roots of medical racism, the role of medical and genetic research in constructing and deconstructing race as a biological concept, and the ways that systemic racism harms health. This course will also consider how race operates with other intersecting social and political identities (e.g., ethnicity, age, sex, gender, sexual orientation, class, disability) to influence health outcomes. Although anthropological and critical race theories will frame our learning, we will read broadly across other disciplines, including (but not limited to) sociology, the history of medicine, law, public health, and science and technology studies.
Same as U69 Anthro 308M
Credit 3 units. UColl: OLI

U86 HCARE 309 Health and Society
This course examines topics of how public and personal health are affected by societal and institutional forces. We will use a historical perspective to explore the complex interplay between individual genetic susceptibilities and an evolving environment, where traditional metabolic signals are not always operative, often replaced by synthetic materials that the receptors have not encountered before through evolution. We will explore how sleep, food, and leisure have been changed by industrial, economic, political, and cultural developments (globalization). We will take a close look at the roles of urban planning, industrial farming, industrial food production / processing, animal husbandry, and the attendant evolving role of the family as well as the education of the individual. We will scrutinize global climate change, as it influences infectious disease vectors, pandemics, pollution, and related political and economic forces that do not promote societal health and well-being. Finally, we will focus on the role of the mind-brain in communication with the environment and needed in health and healing. Through critical reading of medical journal articles and newspapers we will discuss related ethical and policy questions relevant to disease prevention and public health.
Same as U80 CRM 509
Credit 3 units. UColl: OLI

U86 HCARE 310 Legal Issues in Health Care Management
This course offers an overview of the most important legal issues currently facing hospitals, physicians, and other health care organizations. We will study the Affordable Care Act, liability for data breaches under HIPAA / HITECH (the health privacy laws), False Claims Act and whistleblower suits (for Medicaid and Medicare fraud), laws governing physician-hospital relationships (the Stark Law and Anti-Kickback laws), labor and employment issues, mergers and antitrust law, medical malpractice and tort reform, and scope of practice laws.
Credit 3 units. UColl: OLI

U86 HCARE 312 Introduction to Public Health
This introduction to the field of public health examines the philosophy, history, organization, functions, activities, and results of public health research and practice. Case studies include infectious and chronic diseases, mental health, maternal and reproductive health, food safety and nutrition, environmental health, and global public health. Students are encouraged to look at health issues from a systemic and population-level perspective, and to think critically about health systems and problems, especially health disparities and health care delivery to diverse populations.
Credit 3 units. UColl: OLI

U86 HCARE 3137 The Pandemic: Science and Society Follow-up
This course is an extension of The Pandemic: Science and Society (Anthr L48 3515/U69 3136). Drawing from topics covered in the first course, this course will provide further examination of the societal and environmental impacts of the COVID-19 pandemic now and in the future. This course will offer students the opportunity to reflect on and apply the knowledge and critical-thinking skills acquired in Anthro L48 3515/U69 3136 to current events as well as their own experiences regarding the global pandemic. A core component of this course is its focus on the interconnectedness of the COVID-19 pandemic to health and racial disparities, education, climate change, and the human-animal-environment interface.
Same as U69 Anthro 3137
Credit 1 unit. UColl: OLI

U86 HCARE 314 Health Care Finance
The magnitude of healthcare expenditures is a growing problem for providers and patients. This course, for current or future healthcare managers, covers fundamental tools, concepts, and applications of finance in healthcare organizations that produce cost-effective, efficient operations. We examine how expenditure control is influenced by individuals, governmental institutions, and newly formed insurance exchanges. We also study how healthcare organizations maximize revenue sources. The course explores the relationship between market behavior, financial efficiency, and quality in healthcare organizations, and how these factors affect an organization’s survival and growth in the changing healthcare environment.
Credit 3 units.

U86 HCARE 314M Health Care Finance
Online version of U86 314; fulfills the same program requirements. The magnitude of health care expenditures is a growing problem for providers and patients. This course for current or future health care managers covers fundamental tools, concepts, and applications of finance in health care organizations that produce cost-effective, efficient operations. We examine how expenditure control is influenced by individuals, governmental institutions, and newly formed insurance exchanges. We also study how health care organizations maximize revenue sources. The course explores the relationship between market behavior, financial efficiency, and quality in health care organizations as well as how these factors affect an organization’s survival and growth in the changing health care environment.
Credit 3 units. UColl: OLI

U86 HCARE 318 Statistics in Clinical Research
This course presents the basic principles for understanding the design, conduct, analysis, and endpoints of clinical trials. We will review statistical terminology and explain trial design from a clinician's point of view, including theoretical and practical aspects of randomization, stratification, blinding, and single center versus multi-center trials. Additional topics include hypothesis formulation, commonly used research designs, statistical significance, confidence intervals, and statistical tests.
U66 HCARE 3191 Planning Sustainable & Racially Equitable Urban Communities
This course explores principles, ethics and practice for planning sustainable and equitable urban communities. Learning how to manage resources for both current and future generations, students will gain greater understanding of the importance of integrating environmental, economic, social and institutional efficiency. With a focus on communities in the St. Louis region, students in this course will focus on equity and community capitalism aimed at ensuring that fairness and well-being are inclusive for all people in providing for health, safety and the built environment. You will learn to integrate and utilize a racial equity lens, trauma-informed approaches, cultural competence and Anti-Bias/Anti-Racism practices to help lead to better decision-making and creating solutions aimed at reducing adverse impacts on the environment, preventing gentrification, improving the welfare of people, and shaping urban areas and neighborhoods into healthier, robust and more equitable communities. This course will prepare the student to be a leader-advocate for sustainable urban planning and community development, whether as an elected or public official, a professional staff person, or a citizen volunteer. Same as U86 SUST 319
Credit 3 units. UColl: OLI

U66 HCARE 3200 Child Health Psychology
This course examines the field of child health psychology, which focuses on the impact of health and illness on the physical and psychological development of children and adolescents. We will explore the relations among psychological and physical health and the welfare of children within a developmental perspective, considered within the contexts of families, health care systems, schools, peers, and community. Topics such as chronic illness (e.g., Cystic Fibrosis, sickle cell disease, organ transplant, asthma), adherence to medically prescribed regimens, and neuropsychological aspects of chronic illness will be addressed. Previous course work in Developmental Psychology (e.g., U09 290, U09 322) would be helpful but not required.
Credit 3 units.

U66 HCARE 324 Health Care Reform and Policy
This course examines the complexities of health care policy, using the Patient Protection and Affordable Care Act (PPACA) as a reference point. In analyzing this most recent (2010) health care legislation, we begin with an historical perspective on health care reform — how and why we got here — and then look at the social, political, and economic realities going forward. We will study and apply policy analysis tools for measuring cost and overall effectiveness of new proposals. Additional course topics include special interests, federal and state government roles, unintended consequences of health care policies, influence of regulatory agencies, and ethical issues.
Credit 3 units.

U66 HCARE 326 The Doctor Is In: Anton Chekhov and Narrative Medicine
This course bridges the world of literature and the world of medicine by focusing on both Anton Chekhov, a practicing doctor and one of the greatest Russian writers of the 19th century, and the newly emerging field of Narrative Medicine. In this course we will explore how Chekhov was able to integrate and express cultural attitudes towards illness, suffering, and healing in his writing and medical practice, as we simultaneously explore how doctors and other health care practitioners apply such topics in their professional work today. We will supplement Chekhov readings with foundational Narrative Medicine texts and the works of such contemporary doctor-writers as Atul Gawande, Sayantani DasGupta, and Paul Kalanithi. Class will include self-reflective writing workshops with Sarah Stanage, MD. The course is discussion-based and appropriate for students of literature, culture, and medicine at all levels. This course counts towards both the IAS major and the Medical Humanities minor. Same as U43 IS 326
Credit 3 units.

U66 HCARE 3310 Health, Healing, and Ethics: Introduction to Medical Anthropology
A cross-cultural exploration of cultures and social organizations of medical systems, the global exportation of biomedicine, and ethical dilemmas associated with medical technologies and global disparities in health.
Credit 3 units. UColl: CD, ML, OLI

U66 HCARE 342 Introduction to Human Disease and its Scientific Basis
This course will examine current research on the physiological, genetic, and biochemical pathways of human diseases. Topics will include cardiovascular disease, stroke, osteoporosis, diabetes, kidney disease, arthritis, cancer, chronic obstructive pulmonary disorder, obesity, and infectious disease. We will study the primary causes, risk factors, and biological mechanisms underlying such diseases, their impact on the lifestyle and lifespan of afflicted individuals, and what effective preventative or therapeutic treatment strategies are currently in use or emerging through exciting new research discoveries. Special topics will focus on new therapeutics and the lessons they can teach us about the inherent difficulties associated with pharmaceutical drug development today. Prerequisites: General Biology I and General Biology II.
Same as U69 Anthro 3310
Credit 3 units. UColl: CD, ML, OLI

U66 HCARE 346 Managing Healthcare Organizations: Clinical Perspectives
Credit 3 units.

U66 HCARE 349 Health Care Communications and Marketing Strategy
This course provides an integrated approach to organizational strategy, brand development and marketing communications programs within health care organizations. We will explore the fundamental steps required to shape an organization's strategic plan: environmental scan, SWOT assessment, consumer assessment, operating assessment and the development of strategic goals and objectives. Building on this foundation, we will learn to shape an organizational brand to articulate what we stand for, what we strive for, how we express our brand, and how we structure our brand.
Credit 3 units.
U86 HCARE 353 Pharmacology for Clinical Research
This course presents the basic principles of pharmacology and their application to clinical research management to help ensure safe and effective management of drug trials. We will study the foundations of pharmacology, including the principles of drug absorption, distribution, metabolism and excretion, drug binding sites and interactions, and drug development. We also will examine pharmacological problems with special populations, and the emergent area of pharmacogenetics. In the second half of the course we will review important drug classes, with an emphasis on understanding "Investigator's Brochures," including drug action and place in therapy, pharmacology, toxicity, chemical properties, and kinetics.
Same as U80 CRM 353
Credit 3 units.

U86 HCARE 355 Health Care Policy
This course examines important and complex developments in contemporary health care policy. We begin with an historical overview, then look at the structure of current health care delivery, and identify political and economic challenges moving forward. In particular, we will critically examine methods and principles for evaluating health care costs and measuring policy effectiveness. The course also addresses unintended consequences of health care policies, special interests and political agendas, and the influence of major institutional forces on clinical and translational research. Case studies and guest speakers will help illustrate current ethical dilemmas and other real challenges to contemporary health care and reform.
Same as U80 CRM 555
Credit 3 units. UColl: OLI

U86 HCARE 358 Health Psychology
This course examines the history of health psychology and its place in general health care. We will examine relevant theory as applied to specific topics including stress, coping, weight loss, chronic illness in general (diabetes in particular), adherence to medically prescribed regimens, Type A personality and cardiac risk factors. Prerequisite: U09-100.
Same as U09 Psych 358
Credit 3 units. UColl: OLI

U86 HCARE 360 Strategic Planning and Management in Health Care
Healthcare Strategic Planning and Management provides students with a framework to assess, develop, implement, and monitor strategic plans for health care organizations. Goals include understanding the relationship between mission, vision, values and strategic objectives; developing a plan based on organizational and environmental constraints and opportunities; creating action plans that support achievement of the plan; and measuring, monitoring, and modifying the strategic plan.
Credit 3 units.

U86 HCARE 363 Healthcare Negotiations
Healthcare spending in the United States is the highest in the world, and the industry requires leaders who can understand and negotiate opportunities while managing conflict and change. This course covers major challenges in health care negotiations, including managing competing constituencies, negotiating financial conflicts, drawing together providers and patients, and leading negotiations about access and quality of care. We also study negotiation pre-planning and competitive assessment, shifting from competition to cooperation, irrational actors in negotiations, and when to end negotiations. The course provides a theoretical framework for negotiation along with simulations with local health industry executives.
Credit 3 units.

U86 HCARE 364 Healthcare Entrepreneurship
Health care entrepreneurs improve the overall quality of health care delivery. This course introduces students to the particular characteristics of health care entrepreneurship, focusing on the creation, funding, and management of biotechnology and health services enterprises. Students will learn the steps involved in the conceptualization, planning, capitalization, launch, compensation, and management of an entrepreneurial health care venture. Students will use course principles and skills to develop an entrepreneurial business plan that addresses a real clinical problem.
Credit 3 units.

U86 HCARE 369 Strategic Planning and Management in Health Care
Credit 3 units.

U86 HCARE 370 Writing and Representation of Pain
This course explores a range of discourses about pain, including theoretical and technical ones.
Same as U65 ELit 370
Credit 3 units. UColl: ENL

U86 HCARE 377 Compassion Cultivation Training
Compassion Cultivation Training (CCT) is an 8-week educational program designed to help students cultivate compassion, strengthen their resilience, feel more connected to others, and improve their overall sense of well-being. CCT is a distillation from Tibetan Mahayana Buddhist practices for developing compassion, adapted to a secular setting. Initially developed by Stanford University scholars with support from the Dalai Lama, CCT combines traditional contemplative practices with contemporary psychology and scientific research. The program involves instruction in a series of meditation practices starting with mindfulness-based meditation. The curriculum uses modern concepts of psychology and neuroscience to understand and enhance our ability to be compassionate.
Same as U69 Anthro 3777
Credit 1 unit.

U86 HCARE 4022 Transnational Reproductive Health Issues: Meanings, Technologies and Practices
This course covers recent scholarship on gender and reproductive health, including such issues as reproduction and the disciplinary power of the state, contested reproductive relations within families and communities, and the implications of global flows of biotechnology, population, and information for reproductive strategies at the local level. We will also explore how transnational migration and globalization have shaped reproductive health, the diverse meanings associated with reproductive processes, and decisions concerning reproduction. Reproduction will serve as a focus to illuminate the cultural politics of gender, power, and sexuality.
Same as U69 Anthro 4022
Credit 3 units. Art: SSC BU: BA UColl: OLI
U86 HCARE 409 Health and Society
Credit 3 units.

U86 HCARE 458 Readings and Research in Biomedical Sciences
Each day, more than 5000 new biomedical research articles are published. As future physicians and scientists, students will need to be able to identify and stay current on medical advancements. Medicine is interdisciplinary, and a successful scientific career means being able to make connections between diverse research fields. The goal of this journal club is to help students develop skills for locating, analyzing, and understanding scientific research articles. Students will learn how to locate primary journal articles using a variety of search engines such as PubMed and Ovid, and practice reading articles outside of their comfort zone without being intimidated by scientific jargon and formal writing styles. Students will be expected to discuss current research articles and develop effective scientific writing skills by analyzing the main sections of a scientific manuscript (Abstract, Background, Methods, Results, Discussion, Conclusion, Implications).
Same as U29 Bio 458
Credit 2 units.

U86 HCARE 460 Behavioral Medicine
The role of behavior in the prevention and treatment of significant medical problems will be studied. The history of the field of behavioral medicine will be reviewed, with applications to medical problems and its complementary role in preventative medicine in the context of a number of medical disorders and risky behaviors, including obesity, chronic pain, cancer, and smoking. Effective stress management practices to help ameliorate common results of stress such as tension headache and high blood pressure also will be studied. Prerequisite: Psych 100.
Same as U09 Psych 460
Credit 3 units.

U86 HCARE 471 Topics in Cancer Biology
Cancer has a significant impact on society in the United States and across the world. This course aims at providing students with a more extensive understanding of what cancer is and how it affects the human body. This course will teach you to be conversant on issues related to cancer, including its etiology, development, genetics, treatments, and prevention. We will be using a combination of lectures and discussions, so each student is expected and encouraged to participate in class discussions and contribute relevant thoughts and ideas. The material will cover the basics of cancer biology using a traditional lecture including a review of relevant primary literature. The online portion of the course will include discussions of current topics and research articles and videos that will be assigned. The major topics covered in the course include causes of cancer, Oncogenes, p53 role in cell cycle and cell death, Mutagens and carcinogenesis, Cancer Genetics, Cancer metastasis, Hypoxia, Angiogenesis, Epithelial-Mesenchymal Transition (EMT), Cancer screening, diagnosis, Cancer therapy including immunotherapy, Cancer biomarkers, Cancer staging, Cancer Imaging and Personalized medicine. Prerequisite: General Biology I.
Same as U29 Bio 471
Credit 3 units. UColl: OLH, OLI

History
Meditating on the history of the American South, novelist William Faulkner famously proclaimed, “The past is never dead. It’s not even past.” Learning about the relationship of the past to the present is what history is all about. The past is indeed not past: it shapes, in complex and powerful ways, the world we live in now. Yet the past can be radically different from the present. Studying history allows us to grasp the immense variety of human experience across time, place and culture; to develop insight into the ways that people understand themselves in relation to the societies in which they live; and to engage critically with contemporary issues.

Students who major in history at Washington University are encouraged to cultivate a broad understanding of global themes while also having the flexibility to focus on areas of special interest. Our instructors emphasize the development of analytic skills that are useful not only in history courses but also in a range of occupations and professions, including law, business, communications, education and public policy. These skills include organizing and interpreting data, developing logical and convincing arguments, doing research and sifting the significant from the insignificant, reading with comprehension, and writing with precision and clarity. Whether students pursue a major or a minor or instead simply sample our courses, studying history will help them to develop the knowledge and critical skills that are essential for life in an increasingly complex and contentious world.

Phone: 314-935-6700
Email: ucollege@wustl.edu
Website: http://ucollege.wustl.edu/programs/undergraduate/bachelors-history

Degree Requirements
Bachelor of Science in History

Required courses: 27 units

All University College undergraduate students must satisfy the same general-education requirements (p. 90). Requirements specific to this major include the following:

Introductory courses (6 units):

• One introductory course chosen from this list:
### The Minor in History

**Required courses: 18 units**

**Introductory courses (6 units):**

- One introductory course chosen from this list:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hist 101</td>
<td>Western Civilization</td>
<td>3</td>
</tr>
<tr>
<td>Hist 102</td>
<td>Western Civilization II: 1650 to the Present</td>
<td>3</td>
</tr>
<tr>
<td>Hist 163</td>
<td>Introduction to the History of the U.S.</td>
<td>3</td>
</tr>
<tr>
<td>Hist 164</td>
<td>Introduction to World History</td>
<td>3</td>
</tr>
<tr>
<td>Hist 209</td>
<td>America to the Civil War</td>
<td>3</td>
</tr>
<tr>
<td>Hist 210</td>
<td>U.S. History Since 1865</td>
<td>3</td>
</tr>
</tbody>
</table>

• One additional introductory course (any 100- or 200-level History course)

**Advanced-level courses (18 units):**

At least 18 units of 300- or 400-level courses, including the following:

- One course designated "premodern" and one course designated "modern"
- One course each from three of the following geographical areas: Africa, East Asia, South Asia, Europe, Latin America, Middle East, or the United States or transregional history

* If a student chooses to count a transregional course toward the geographical requirement, at least one of the two other geographical areas must cover a region that is not included in the transregional course. For example, a student who has completed courses in U.S. and Latin American history could not count toward this requirement a transregional course that examines the comparative history of the United States and Latin America.

**Capstone experience (3 units):**

A capstone experience, consisting of either one specifically designated Research Seminar or an Honors Research Project, must be completed. The Honors Research Project is reserved for students admitted to the University College Undergraduate Honors Program.

- Research Seminars are upper-level, limited-enrollment courses that emphasize engagement with primary sources. Course assignments will feature texts and images from a variety of primary sources, and students will research and write a substantial paper over the course of the semester from independently selected and analyzed primary sources. All research seminars will be so designated.
- The Honors Research Project requires enrollment in U16 Hist 399 during both the fall and spring semesters (3 credits per semester). As a result, for students admitted to the University College Undergraduate Honors Program, the history major will consist of a minimum of 30 units. It is highly recommended that, before undertaking the Research Project, students enroll in one or more Research Seminars (which would, in this case, count toward the required 18 units of advanced-level courses).

### Courses


#### U16 Hist 101 Western Civilization

This course is an introduction to history as a discipline, and an analysis of Western civilization from its prehistoric origins to the 17th century. We will begin with an examination of the three historical cultures from which this civilization was to draw many of its traditions: the Near East, Greece, and Rome. The course will go on to discuss the adoption of these traditions by the Celtic and Germanic peoples; the formation of kingdoms which would prefigure contemporary European nations; and the development of the culture of Latin Christendom. We will examine external interaction between Latin Christendom and its Slavic, Byzantine and Islamic neighbors, the resurgence of interest in classical culture, the effects of famine and pandemic, and challenges to secular and religious authority. Students in these fields will become more aware of how human values, ideas of justice, and methods of interpretation influenced and have been influenced by time, culture and personal perspective.

Credit 3 units. UColl: OLI

#### U16 Hist 102 Western Civilization II: 1650 to the Present

This course examines social, cultural, economic, and political developments in European society from the seventeenth century to the present. Students will explore roughly three-and-a-half centuries of European history, investigating, among other topics, the Scientific Revolution; the European Enlightenments; the era of the French Revolution and Napoleon's empire; the Industrial Revolution; the two world wars and the Holocaust; the Cold
U16 Hist 164 Introduction to World History
This course introduces students to key themes and concepts in world history through selected topics. Recent topics include "China/Silk Road" and "Empires." For the course scope and topic in a given semester, please see that semester's course listings.
Credit 3 units. UColl: OLI

U16 Hist 209 America to the Civil War
The American experience from the age of Columbus to that of Lincoln; development of distinctive American patterns of thought, culture, society, politics, and religion. Topics include efforts to cope with the wilderness; colonial maturity and the development of revolutionary ideology; defining the American character; literature and art for a new republic; the impulses of religion, idealism, and perfectionism.
Credit 3 units. UColl: HSM, HUS

U16 Hist 210 U.S. History Since 1865
This is a course in modern American history. We begin with Reconstruction after the Civil War, with the transition of the United States from an agricultural nation to an urban industrial one. We will investigate changes in technology, urban growth, and immigration as well as new ideas of government and nationalism as the United States achieves its position as a world leader through World War I and II, the Cold War, and the global world of the 21st century.
Credit 3 units. UColl: OLI

This course covers the two world wars; fascism, nazism and communism; postwar recovery and the Cold War, and the loss of empire. We will pay significant attention to the ways in which religion, ideology, and nationalism appreciably shaped the lives of people living in Europe during an era of total war, competing ideologies, and decolonization, focusing on what historians often call "the short 20th century," from 1914 to 1991.
Credit 3 units.

U16 Hist 216 The American South in Black and White
This course explores the history of the American South from the colonial era to the present, focusing on the interplay between black and white cultures. Topics include Southern plantation life, the Civil War, Jim Crow, Southern music, and the Civil Rights Movement. Using film, photography, and other media, the course also considers representations of the South in popular culture. Particular attention is paid to how images and stereotypes of the South have evolved--and to how the region's history has influenced the nation as a whole.
Credit 3 units. UColl: OLI

U16 Hist 217 The Italian Family from the Renaissance to Today
The Italian family, which is the basic building block of the Italian society and state, has been extremely resilient yet continually evolving. This course focuses on the institution as well as the roles of women, men, children, and servants from the Renaissance (15th century) until today. We will discuss the historical roles of mothers vs. fathers, shared family time and resources, family-run workshops, and how couples planned, named and educated their offspring. We will examine how the
family can be experienced in a variety of ways, including the form of the papal famiglia and all-male households headed by cardinals. Finally, we will see how divorce legislation (1970) destroyed the notion of eternal family solidarity. The family is still being shaped as Italians recently legalized same-sex civil unions (2016), forcing them to define what a family is and what rights its members should enjoy. We will consider Pope Francis’ role in discussions of Italian and global family life in a nation that hosts thousands of migrant families, too.

Credit 3 units.

U16 Hist 218 The Crusades
In 1095, Pope Urban II urged Christian princes to liberate the Holy Land from Muslim rule. Four years later, after enduring great hardships, the knights who had answered Urban’s call conquered the city of Jerusalem. This first crusade and its accomplishments shaped the way future crusades were conducted as well as the way in which historians have both understood and framed the idea of a “crusade” as an armed pilgrimage to the holy land sanctioned by the papacy. However, the language of “crusade” was also invoked in campaigns against other enemies of Christendom: the long struggle to reconquer Spain from its Muslim rulers, the wars waged against pagan peoples along the Baltic Sea, and campaigns undertaken against Christian heretics and political foes of the papacy. This course aims to explore the idea of “crusade” and “crusading” over the course of the Middle Ages. We will examine the causes, immediate effects, and long-term consequences of the crusades and to trace the lasting memory of crusading ideology throughout the Middle Ages and beyond. By the end of this course, students will understand the major themes and ideas that made up the medieval crusades and how those themes and ideas changed over time.

Credit 3 units. UColl: OLI

U16 Hist 2216 Books and Bodies
Books and Bodies is a five-week course held in the Special Collections department of the Bernard Becker Medical Library. The course explores how changes in medical knowledge and print technology have influenced depictions of the human body from the 15th through the 19th centuries. Each week students will explore an aspect of print and medical history by examining the library’s rare materials and carrying out exercises that require them to make use of the library’s resources. The course will not only provide students with an overview of the development of anatomical illustration, but will also provide them with an understanding of special collections research. This course counts toward the medical humanities minor.

Credit 1 unit.

U16 Hist 2652 Spain's Golden Age
The Spanish Empire stretched across Europe and the New World. Beginning with the unification of the kingdoms of Castile and Aragon in 1469 and ending with the death of Philip IV in 1665, this course explores the ways in which Spaniards, Africans, and Indians — both male and female — were involved in and affected by the Imperial endeavor. The course also investigates the experiences of religious minorities (e.g., Jews, Muslims, Protestants) within the home country. Students will evaluate the successes and failures of the period through close studies of several major spiritual, artistic, and literary figures and their works. We will also explore the dynamics between political, domestic, and religious policy on the mainland and in the colonies, with particular focus on the operations of the Spanish Inquisition.

Credit 3 units. UColl: OLI

U16 Hist 300 Independent Study
Requires approval from instructor, dept coordinator and director in University College.

Credit variable, maximum 4 units.

U16 Hist 3016 Slavery and Freedom in Latin America and the Caribbean
This course surveys the history of slavery and freedom in the Atlantic world of Latin America and the Caribbean. It focuses on slavery as an economic system and the relations of power it created. The course moves forward chronologically, with each week organized according to a particular theme and geography. Students will learn how British, French, Spanish, and Portuguese settlers established slavery in the new world; how different social and legal practices developed around particular labor patterns and commodity production; how the enslaved endured and resisted enslavement; and what it meant to be free in a slave society.

Credit 3 units. UColl: CD, HLA, HSM

U16 Hist 301T Historical Methods: Transregional History
This is a small-group reading course in which students are introduced to the skills essential to the historian’s craft. Emphasis will be on acquiring research skills, learning to read historical works critically, and learning to use primary and secondary sources to make a persuasive and original argument. See Course Listings for current topics. Required for history majors. Preference given to History majors; other interested students welcome.

Same as L22 History 301T

Credit 3 units. A&S IQ: HUM, LCD Arch: HUM Art: HUM BU: HUM, IS EN: H

U16 Hist 3022 Religion and Politics in Early America
This course is a 16-week fully online class that investigates the intersections between religion and politics in America from the Colonial Era through the long 19th century. The course material is delivered directly by the instructor in the form of audio lectures with accompanying PowerPoint presentations. Thus, students will have an ongoing conversation with the individual professor, although somewhat at a distance. Content is divided into topical sections: Christian Foundations, Modern Evangelicalism, Anti-Catholicism & Religious Pluralism, Second Disestablishment, and Separation of Church & State.

Credit 3 units. UColl: HSM, HUS, OLI

U16 Hist 3031 Wining and Dining in the Classical World: Food Culture in Classical Antiquity
The focus of this course will be food culture in Greek and Roman societies from the Archaic to the late Roman period. However, foodways from adjacent contemporary cultures will also be briefly examined. Sources will include textual evidence, as well as ethnographic studies of ancient people, iconographic and archaeological evidence, specifically osteological and botanical remains from archaeological sites. Experimental studies will be conducted in class to augment the learning experience of students.

Same as U02 Classics 3031

Credit 3 units.
U16 Hist 3068 An Inconvenient Truth: The Human History of Climate Change
Although global warming is unprecedented in its origin and potential consequences for human beings, climate change itself is actually nothing new. For thousands of years, entirely natural influences have altered Earth's climate in ways that shaped human history. The 18th-century advisors to the king of France were warning that deforestation would have an adverse effect on rainfall. The Little Ice Age that began in the 16th century altered settlement patterns, forced new trade networks, and encouraged innovations in agriculture. In this course, we will examine the longer history of climate change and how it has been addressed as a scientific, political, and environmental issue. We will look at such climate phenomena as the discovery of the Green House Effect, El Niño events in the late 19th century, and glacial melting in the 20th century. This course will also introduce students to the field of environmental history and explore how the methods of this field of inquiry challenge traditional historical categories. We will consider the following questions: What happens when time is no longer bound by the written word and is understood in geological terms? How does history play out when the actors driving the action of the story are non-human? How might historians geographically frame their narratives when the subject matter is rarely bound by the political borders of human communities? Credit 3 units.

U16 Hist 3077 Civil Liberties in Wartime
This course will examine the history of American civil liberties in times of war and international tension. The class will begin by examining how English political traditions, Enlightenment philosophies, and the experience of the American Revolution helped to forge American principles of civil liberty as defined in the Bill of Rights. Students will explore how the experience of war and international conflict places these principles under stress, focusing in particular on the following episodes: the 1798 Alien and Sedition Acts; the Civil War; the American governance of the Philippines; the two World Wars; the Cold War; and the response to terrorism. Credit 3 units.

U16 Hist 3142 African Civilization from 1800 to the Present Day
Course is an in-depth investigation of the intellectual and material cultures
Same as U84 AFAS 322
Credit 3 units. Arch: HUM Art: HUM BU: IS EN: H UColl: HAF, HSM

U16 Hist 3153 Women and Slaves in Classical Antiquity
This course investigates the lives of women and slaves in ancient Greece and Rome. It will explore not only the limitations imposed on women and slaves by the ruling male citizenry, but also the power and privileges each group exercised. We study how the society and economy formed the roles of women and slaves, how women and slaves were portrayed in literature and the arts, and how writers from Classical antiquity influenced later generations beyond the Roman Empire.
Same as U02 Classics 3151
Credit 3 units. UColl: HSP

U16 Hist 3154 The Syrian Conflict in Historical Context
This course examines Syria and its on-going civil war through the lens of historical forces that forged the region's heterodox communities. It will identify the region's Christian and Islamic inheritances. It will investigate the history of great power tensions over Syria. It will explore New Silk Road economic development corridors. It will assess Russia's historical interests in the region. Finally, it will debate the implications of an emerging Kurdish homeland in Northern Syria and beyond. Topics include: Kurdish question, Sykes-Picot Agreement, New Cold War, Silk Road infrastructure corridors.
Credit 3 units. UColl: CD, HME

U16 Hist 3165 The Classic Dynasties of China
This course takes as its focus the period in Chinese history when cultural and political patterns were established. After a brief survey of the earliest periods of Chinese history, the course moves from the T'ang Dynasty through the Song, Ming, and Qing Dynasties. Extensive primary sources from each dynasty will be supplemented by a set of historical works that we will read and discuss. The sources and books will address social and cultural development along with diverse aspects of daily life. The class concludes with an examination of the elements of decline evident during the late Qing Dynasty and an exploration of the major themes of Chinese history that we have discovered in our semester study.
Credit 3 units. UColl: CD, HEA, HSM

U16 Hist 3167 China and Japan 1800 to 1949
This course focuses on China and Japan's encounters with the West in the 19th century and how that contact helped shape both nations' destinies in the first half of the 20th century. To resist Western intrusion, China and Japan ultimately had to transform themselves while attempting to preserve their cultural identity. China struggled for much of this time to find the correct formula for resistance, while Japan became a superpower only to plunge itself and China into the cataclysm of World War II. In this course, we examine why each followed the path it chose, the profound consequences of those decisions, and the personalities and events associated with the road through modernization and Westernization and to World War II.
Credit 3 units. UColl: CD, HEA, HSM

U16 Hist 3168 The Creation of Modern Japan, 1568-1945
This course will explore the development of modern Japan from the Tokugawa Shogunate through the Meiji Restoration and culminate in Japan's role in World War II. Alongside the history of this period, we will explore cultural expressions of the time occurring in Japan in the areas of gender, ethnicity and class. The course readings will consist of Japanese fiction, drama and poetry in translation.
Credit 3 units. UColl: CD, HEA, HSM, HSP

U16 Hist 3193 Roman History: The Dominate
If we mark the beginning of Roman history from the foundation of the city on the Tiber and continue that narrative until the fall of Constantinople to the Ottoman Turks in 1453, we see a grand political experiment without parallel in world history. Persian historians would have been hard pressed to match these boasts. This course focuses on one segment of that history: the Later Roman Empire, beginning with the accession of Constantine the Great, the first Christian emperor, to the outbreak of a calamitous
war between rival superpowers Rome and Persia in the early seventh century of the Christian era. That conflict destroyed the classical world of the Eastern Mediterranean basin, and it paved the way for the rise of Islam in the region and beyond.

U16 Hist 3301 Motherly Women and Conquering Men: Gender Stereotypes and the Atlantic World
We give a lot of thought to gender and power today—who makes more money, who occupies leadership roles, who gets interrupted. But challenges to the idea that physical anatomy and one's position in the world are permanently linked are much older. Rather, when Portuguese and Spanish sailors began exploring the Atlantic Ocean in the 1400s, they discovered different visions of what it meant to be male and female. This course looks at the results of this exchange, assessing how European encounters with new ideas of gender and sexuality in Africa and the early Americas, 1400 to 1800, created new opportunities and entrenched expectations for both colonizers and colonized.

Credit 3 units. UColl: HSM, HSP, HTR, OLI

U16 Hist 3304 Race in the Age of Exploration
We talk a lot about racialized identities and experiences in the 21st century, but discussions about differences perceived in skin tone, ethnic ancestry, and birthplace are nothing new to the modern world. This course explores an important segment of early conversations on race, focusing on the impact of European encounters with the Asian, African, and American continents between the 12th and 18th centuries and interactions with the diverse peoples encountered therein. Students will look at the ways that struggles for control in this global age shifted historical concepts of difference from being fluid and cultural to entrenched and biological, with the effects still felt today.

Credit 3 units. UColl: CD, HSP, HTR, OLI

U16 Hist 3309 Facing East: an Indigenous View of Early North America
When Europeans arrived in North America in and after 1492, they were surprised to find civilizations with advanced political and military alliances, trade networks, communication systems, and artistic traditions. In fact, despite efforts to minimize these accomplishments, it was largely due to aid from indigenous persons that Europeans survived and prospered in the New World. This course looks in detail at how indigenous men and women shaped colonial North America and the early United States. Together, we will assess themes such as first encounters, trade, war and diplomacy, family formation, religion and concepts of race and difference. We also will revisit well-known events like the 1519 Spanish landing in modern-day Mexico, the 1614 marriage of MataỌka (or Pocahontas) to an Englishman, and the American Revolution from an indigenous point-of-view. Ultimately, we will consider how indigenous Americans used both calculated assimilation and expressions of cultural independence to identify a place for themselves within the post-1492 world.

Credit 3 units. UColl: CD, HSP, HUS, OLI

U16 Hist 3324 Jews and Christians in Nazi Germany
This course examines how religion, culture, and ideology shaped the lives of Jews and Christians living in Germany during the Third Reich. We will examine the reactions of German Protestants and Catholics to the Nazi regime's oppression of Germany's Jewish population and attempt to annihilate European Jewry. We also focus on the experiences and reflections of German Jews living in these desperate times.

Credit 3 units. UColl: HEU, HSM, OLI

U16 Hist 3325 The 20th Century: The Age of Genocide
This course will explore some of the darkest and most difficult to understand topics in recent human history: the Holocaust and other genocide events of the 20th century. From World War II to Rwanda, humans in the 20th century have demonstrated a terrifying capacity to inflict violence upon specific groups of people. The global occurrence of these events indicates that they are limited to no single region, religion, political system, or ideology. This course will explore the complex historical factors that produced genocides. Particular cases examined will vary from year to year, but will include, for example, Armenia, Cambodia, the former Yugoslavia, and the Nazi genocide of the Jews, Sinti, and Roma. Themes addressed may include gender and genocide, genocide prevention and intervention, justice and genocide, and memory and memorialization. We will also examine the stories of those who fought oppressive regimes and spoke out against genocidal leaders, seeking to understand how confronting these issues in the past may help us to confront human cruelty in the present.

Credit 3 units. UColl: CD, HEU, HSM, OLI

U16 Hist 3473 The American Wars in Asia and the Pacific, 1898-1975
This course examines the causes, conduct, and consequences of four wars that the United States has fought in Asia since 1898: the Philippine-American War; the Pacific theater in World War II; the Korean War; and the Vietnam War. We will focus on the political, diplomatic, and military aspects of these conflicts and explore how these wars shaped the history of Asia and the United States. The course provides an opportunity for students to conduct their own research and to hone their analytical and writing skills.

Credit 3 units. UColl: HSM, HUS

U16 Hist 3510 The History of the Civil Rights Movement: Jamestown to Ferguson
This course examines the origins, evolution, and impact of the U.S. Civil Rights Movement beginning with the North American slave trade in Jamestown, Virginia, in 1619, through civil disobedience and race riots in the mid-20th century; to the response, locally and nationwide, to Michael Brown's violent death in Ferguson. Special emphasis is placed on tracing its impact and continuing legacy on contemporary ideas and social policies about race, ethnicity, culture and national origin.

Credit 3 units. UColl: ACH, ACS, HSM, HUS, ML
U16 Hist 3520 “Happy Wars and Sad Love Songs”: A History of Ireland

Through a broad range of primary sources — including imaginative literature and music — this course examines Ireland’s relations with and contributions to the wider history of the British Isles and Europe as well as the consequences of the Irish diaspora in the modern era. The course is arranged thematically and chronologically, and lessons address the major trends in the history of Ireland from earliest times to the present day, with roughly two-thirds of the semester focusing on the last two and a half centuries.
Credit 3 units. UColl: HEU, HSM

U16 Hist 3529 Global Perspectives on the American Civil War

The Civil War is widely understood to be the turning point of American history. But scholars are only beginning to address the scope and character of its impact on world history. This course treats the American Civil War as a global event. It places the war to preserve the Union and end slavery in the wider context of the long 19th century, one that encompasses various histories of slavery, anti-slavery, capitalism, nationalism, state-building, and empire as they collectively gave birth to the modern world. As Union and Confederate troops collided, parallel contests over democracy and the rights of labor gripped Europe.
Credit 3 units. UColl: HSM, HSR, HTR

U16 Hist 3610 Women and Gender in Renaissance Italy

This course allows students to gain a solid knowledge of and appreciation for the experience of women who lived in early modern or “Renaissance” Italy. We will explore what is distinctive about the Renaissance era for women, underline the unique contributions that women made to early modern Italian society and culture, and discuss how their roles and participation in their world differed from those of the men with whom they interacted.
Credit 3 units. UColl: HEU, HSM, OLI

U16 Hist 3620 Research Seminar: Liberals and Conservatives in Recent American History

This course explores the interplay of modern American liberalism and conservatism, the two ideologies/political worldviews that have defined U.S. politics since the 1930s. It is impossible fully to understand one without also studying the other. Modern liberalism became a political force during the presidency of Franklin Delano Roosevelt, while modern conservatism emerged as a viable movement during the early Cold War years and came of age during the presidency of Ronald Reagan. Looking at political thought, grassroots activism, and electoral politics, the course will trace the evolution of both political perspectives, along with their frequent intersections, from the New Deal years up to the present. Students will engage primary sources and recent scholarship, and special time will be dedicated to putting the current political moment (including the 2020 election) in context.
Credit 3 units. UColl: ACH, ACS, HSM, HSR, HUS

U16 Hist 3633 Creating a National Memory, 1790–1840

In this course, we will analyze the differences between history as the best evidence suggests it occurred and the culturally constructed version of the past. We will explore the forgotten, sometimes bizarre — and, in retrospect, often humorous — “bodily turn” in American memory culture from 1790 through 1840, when patriotic Americans collected historical artifacts, including bodily relics, of their country’s dying Revolutionary war heroes. Topics include African-American Revolutionary War veteran’s memories; the popular science of memory in the early republic; influential theologies of memory; the pedagogy of memory; feminist linkage of politics to memory; and traveling “freak shows.” The instructor will email registered students with instructions. Students will engage with recent scholarship along with numerous primary sources. The course fulfills the Research Seminar requirement for history majors in University College.
Credit 3 units. UColl: HSR, OLI

U16 Hist 3635 American Forgiveness: Reconciliation, Reparation, and Pardon in U.S. History

How has the very meaning of “forgiveness” evolved in American history, and why? Can understanding the history of forgiveness in American culture usefully inform present efforts at forgiveness and reconciliation in American culture? Topics include: forgiveness of loyalists and of Britain after the Revolution; imperfect racial and regional reconciliation after the Civil War; intergenerational tensions and forgiveness in American history; influential theologies of forgiveness; altered views concerning bankruptcy and debt forgiveness; political scandals and forgiveness; the history of “restitutions” as an aim in the American justice system; grievances and forgiveness involving U.S. treatment of Native American nations, and with respect to the internment of Japanese Americans in World War II; forgiveness as a theme of the Civil Rights movement; President Gerald Ford’s pardoning of President Nixon; changing divorce and adultery laws; and so on.
Credit 3 units. UColl: HSM, HUS, OLH, OLI

U16 Hist 3638 Debating U.S. History: Museums, Monuments and Public Memory

Americans have long been fascinated with physical markers of their history, and debates over the significance of past persons, places and artifacts have gained added weight in visions of the country’s political, social and cultural future within the last 30 years. For example, when the New Orleans City Council sought to remove three Confederate monuments in 2017, it couldn’t find contractors willing to risk public scorn. Two monuments were taken down in the middle of the night by masked workers, and the third removal was accompanied by a speech that earned Mayor Mitch Landrieu national attention (and gossip about his potential as a 2020 presidential candidate). This course looks at the ways in which public history as a field has developed in the United States, including how processes like collecting, cataloguing, researching, interpreting and teaching have an impact on popular interactions with past events. Students will assess key and heated reflective moments in American public history—like a 1994 slave auction at Colonial Williamsburg and the proposed 1995 Enola Gay exhibit at the Smithsonian—as well as consider how historical persons, places and events are represented in their communities. This course, ultimately, will reflect on the power and responsibility inherent in remembering the past.
Credit 3 units. UColl: HSM, HUS, OLI

U16 Hist 3639 The World in Crisis: 1914–1945

This course examines the first half of the 20th century, with particular emphasis on the years between 1914 and 1945, and the extent to which the period realized or rejected ideals and expectations of the previous 100 years. After a brief overview of 19th-century western concepts of liberalism and progress, we will consider the disruption and violence of two world wars.
in Europe, Africa, the Middle East, and Africa. In addition, we will consider the course and consequences of civil war and revolution, famine and disease, rising and falling empires, worldwide economic instability, new nation states and population resettlements, and emerging rival political ideologies. Among other things, we will challenge the suitability of the label "interwar period" for the years from 1918 to 1939. Credit 3 units. UColl: HSM, HTR

U16 Hist 3641 A Social History of World War I: Reconsidering the Great War in Global Context
World War I changed the course of world history. It brought about the disintegration of four vast empires and seriously undermined the stability of two others. At the same time, World War I confirmed the arrival of the United States unto the world stage and re-drew the political and territorial frontiers of central and southeast Europe, the Middle East, Africa, and the Pacific. We will place the First World War in a global context, examining it from social, political, economic, and military viewpoints, and consider its continuing legacy into the 21st century. Credit 3 units. UColl: HSM

U16 Hist 3644 World War II in Global Perspective
This course will examine the origins, conduct, and consequences of the Second World War. Topics include political, diplomatic and military strategies, the experience of civilian populations, and the role of resistance movements. The course will also explore how the war reshaped the politics and culture of peoples around the world — fueling nationalist movements in Asia and Africa and transforming attitudes toward military conflict in Europe. The course provides an opportunity for students to conduct their own research into historical topics and to hone their writing skills.
Credit 3 units. UColl: HSM, HTR

U16 Hist 3645 Pursuing Happiness in America
This course considers how and why Americans’ beliefs about the nature and sources of happiness have changed. Topics include colonial American preacher Jonathan Edwards’s theology of joy; early American political revolutionaries’ reasoning on the universality of human "pursuit of happiness"; and subsequent revolutions in economy, sentiments, sexuality, psychology, and pharmacology over the following two centuries.
Credit 3 units. UColl: HSM, HUS, OLI

U16 Hist 3648 Working Class: Labor in American History
This course explores how working men and women shaped the history of the United States. The course begins with the various forms of indentured and enslaved labor in the colonial era, continues through the rise of industrial capitalism in the Gilded Age, and concludes with the "postindustrial" days of the early 21st century. Students engage the social, political, economic, and environmental transformations of working life in America, including issues of race, class, gender, immigration, urbanization, industrialization, trade unions, technology, and globalization.
Credit 3 units. UColl: HSM, HUS

U16 Hist 3665 The Politics of Secrecy in America, 1790 to the Present
From fears of secret machinations by British colonial ministers that underwrote the American Revolution to conspiratorial theories about the intent of Lincoln and his "Black Republicans" that precipitated southern secession in 1860 and 1861 to contemporaneous conspiracy theories about the 2000 and 2004 elections, the 9/11 attacks, and the present "War on Terror," secrets — both real and imagined — have dramatically influenced political attitudes, beliefs, and practices in American history.
Credit 3 units. UColl: HSM, HUS, OLI

U16 Hist 3666 The History of Eating in America from Colonial Times to the Present
This course is a history of the myriad ways that Americans have used food to mark class, gender, style, region, patriotism, dissent, politics, and personality. From the "starving time" in colonial Jamestown to today’s "Fast Food Nation," Topics include the Boston Tea Party, African-American foodways, revolution, famine and disease, rising and falling empires, worldwide economic instability, new nation states and population resettlements, and emerging rival political ideologies. Among other things, we will challenge the suitability of the label "interwar period" for the years from 1918 to 1939. Credit 3 units. UColl: HSM, HUS, OLI

U16 Hist 3671 Liberals, Conservatives, and American Presidents — From Roosevelt to Reagan to Obama
As the nation chooses a new president, the events of the Obama years — recession, recovery, divided government, profound social changes, and renewed fears — are the events of the Obama years. This course offers such perspective by exploring the political worldviews that have defined U.S. politics since the 1930s, along with the presidential administrations that have shaped their development. Modern liberalism became a force during the presidency of Franklin Delano Roosevelt. Modern conservatism came of age with the election of Ronald Reagan. By tracing the evolution of liberalism and conservatism, this course offers a chance to compare the Obama presidency with past administrations and to put the unfolding presidential campaign in context.
Credit 3 units. UColl: HSM, HUS

U16 Hist 3679 Immigrant America
The United States may be known as a “nation of immigrants” and “melting pot,” but debates over who to welcome across its borders — and who is a threat — are as old as the country itself. This course traces national discussions over immigration from the first 1790 Naturalization Act to the era of Donald Trump, asking how our country and its citizens have encouraged and deterred foreign-born settlers as well as how immigrant Americans responded to these opportunities and challenges.
Credit 3 units. UColl: HSM, HUS

U16 Hist 3682 The Cold War and the Modern Spy
This course studies the Cold War through the lens of modern espionage. We begin by studying how technology developed in World War I, such as the use of codes and code-breaking machines, enabled the growth of intelligence organizations with the goal of collecting information against the Germans. World War II spawned a new age of electronic surveillance, spies and counterspies, as tensions increased between democratic and communist allies. We will examine the creation of the CIA and KGB; NATO and the Warsaw Pact; the use of secret tunnels; aerial and satellite reconnaissance; embedded spies and moles; the "Atomic Spy"; and the use of military intelligence in government covert activities.
Credit 3 units. UColl: HSM, HTR, OLI
U16 Hist 3683 Christmas in American History: Colonial Times to the Present

This January intercession course will explore the history of Christmas and its discontents in America, from colonial times to today. Topics will include: early Puritan opposition to a distinct Christmas holiday; indifference toward the holiday in much of the colonial Chesapeake; the association of Christmas celebrations with pranks in the early-national United States; the rise of a consumer-centered Christmas in the nineteenth century; harrowing celebrations of Christmas in times of tragedy and war (from George Washington's crossing of the Delaware in 1776 to the 1972 Christmas bombing in Vietnam); the music, television, and filmography of Christmas in America from the late nineteenth century; and histories of inclusion and marginalization by non-Christians, atheists, and agnostics. The course will also look at celebrations of other religious and cultural winter holidays etc., along with ongoing cultural and political battles over the "secularization" of Christmas, with historical roots extending all the way back to Benjamin Franklin's lament in 1743: "How many observe Christ's birth-day! How few, his precepts! O! 'tis easier to keep holidays than commandments."
Credit 3 units. UColl: HSM, HUS, OLH, OLI

U16 Hist 3684 Winter in America: A Social and Environmental History

This course looks at the experience of winter in North America from the Little Ice Age of c.1550 to 1700 through the evident decline in winter weather as seen today with the melting glaciers of Greenland. Topics include interest in the winter solstice in ancient Cahokia; references to snow and winter cold in the writings of the United States' founding generation and in 19th- and 20th-century newspapers; the evolution of the appearance of "snowmen"; epic snowball fights from the era of the American Revolution through the Civil War and beyond; differing experiences of snowstorms in rural and urban areas and by race, gender and class; the history of "snow days" in American schools; and the remarkable story of Vermont's "Snowflake Man," farmer Wilson Bentley, whose pioneering microphotographs of snowflakes taken between 1885 and 1931 are still studied today by environmental historians and artists.
Credit 3 units. UColl: HUS, OLH

U16 Hist 3685 New Year's Day in America, Colonial Period to Today

This January intercession course explores the fascinating, freighted social and cultural history of New Year's Day in America from colonial times to the present. Topics include the history of New Year's Day traditions, such as mummery, drinking, visitations, and religious observances as well as the broader history of how Americans across time have perceived and marked the day. New Year's Day in St. Louis, from the mid-19th century onward, is closely considered. Specific U.S. New Year's histories explored include New Year's 1800, as Americans learned of the death, days before, of George Washington; the politically charged presentation on New Year's Day 1802 of a 1,200-pound "Mammoth Cheese" to President Jefferson; President Lincoln's New Year's Day 1863 Emancipation Proclamation; the association, by 1900, of new technology with new years and centuries; the first Times Square New Year's ball drop in 1908; the Cold War tradition of offering friendly greetings on the U.S.-Soviet telecommunications hotline on New Year's Day, plus U.S./U.S.S.R. leaders' 1987 televised New Year's addresses to the peoples of their opposite's nations; and the year 2000's "Y2K" scare and foiled "millennium terror plot." The course will also consider this coming New Year's Day and a world besieged by the novel coronavirus, meme-makers, and other social media denizens preparing to count down to 2021.
Credit 3 units. UColl: OLI

U16 Hist 3690 Sports in American History

This course examines American sports from the colonial period through the 21st century, with emphasis on the rise of organized sports institutions, as well as individual and team play, and their role in shaping and influencing American society and culture. Students will examine the relationships of race, class, gender, ethnicity, and religion in sports. These issues will be discussed in the context of baseball, football, basketball, tennis, and soccer, as well as the Olympics and other international sport.
Credit 3 units. UColl: HSM, HUS
### U16 Hist 3780 St. Louis History: A Regional Exploration
This course considers the development of St. Louis metropolitan history in light of its 250th anniversary and its recent tumultuous years. It will explore how this river town grew into the fourth largest city and the evolution of its hinterlands divided into a hundred municipalities. The focus of the course will include the changing built environment and the influences of the landscape, from the rivers to the red clay. It will give attention to the region's social history and the shifting status of race, class, and ethnicity. Students will read primary and secondary sources to understand why the region looks the way it does today.
Credit 3 units. UColl: HSM, HUS

### U16 Hist 380 African-American History Since 1865
Examination of the economic, political, social, and cultural factors that shaped the African-American experience in the United States from the close of the Civil War to the present time.
Credit 3 units.

### U16 Hist 3870 The History of the Holocaust
This course deals with the Nazi regime's attempt to annihilate European Jewry. Important points of focus are antisemitism, the Nazi world view, and the examination of pivotal events on the path to the "Final Solution." We will also address a number of significant debates in the historical literature about the Holocaust. Was Nazism a "political religion"? Should we compare the Holocaust to other genocides, or was it an historically unique event? Can or should we consider the Holocaust as an event separate from World War II? To what extent did antisemitism factor in the actions and beliefs of perpetrators of violence against Jews? How deep did support for Hitler and the Nazis run among the German populace?
Credit 3 units. UColl: HEU, HSM, OLI

### U16 Hist 3890 St. Louis in American History: Pre-Columbus Cahokia to Today
This online interactive course explores greater St. Louis's place in American history from Pre-Columbian indigenous peoples to today. Topics include: the Cahokian Mounds, St. Louis as a site of imperial contest and conquest in colonial America, the Lewis and Clark expedition, the Dred Scott cases, the Civil War, late nineteenth-century progressive and populist politics, the politics of race and imperialism at the 1904 World's Fair, riots, immigration, white-flight, sports, city planning, urban reform, and the construction and cultural meaning of the St. Louis Arch. Using self-supplied technology (e.g., smartphone, digital camera), students will personally or virtually visit several sites of historical significance in St. Louis and produce and share personal written reflections, photos, and videos. Students will consider analytically how those places may be experienced today as portals into the long history of greater St. Louis and be used to better comprehend American history generally.
Credit 3 units. UColl: HEU, HSM, OLI

### U16 Hist 3920 History of the Mafia in Italy and the United States
This course examines the changing structures of power in the Mafia, along with its relationship to politics and religion, from its beginnings in the Middle Ages to its influence today in the United States. Our study takes us to the roots of the Italian Mafia, the migration of Sicilians to the United States, the growth and decline of organized crime under fascism. We also look at the resurfacing of the Mafia during World War II, the rise of the Cosa Nostra and drug trafficking from Sicily to the United States, and the Mafia's arrival in the United States. The course concludes with a discussion of organized crime families and syndicates in a global context.
Credit 3 units. UColl: HEU, HSM, OLI

### U16 Hist 395 History of Pre-Modern China
The history of pre-modern China is crucial to our understanding of China and the world today. While many of China's developments of the last two centuries mark its departure from a long-standing tradition, these developments were also continuations of long-term trends that had lasted for about a millennium. This course surveys certain major issues, themes, events, personalities, and patterns of "pre-modern China" from the Neolithic era to the early nineteenth century, with a particular focus on the period between 1000 and 1650. Arranged in chronological order, it covers milestone events such as the rule of the Mongols and the rise of the Ming Empire and also presents long-term social, economic, and culture changes such as the Tang-Song Transition and the "localist turn." Students will not only learn historical knowledge about China but also get familiar with the practice of history through close engagements with primary and secondary sources. Prerequisites: no.
Credit 3 units. UColl: CD, HEA, OLI

### U16 Hist 3972 Riots and Revolutions: A History of Modern France, 1789 to the Present
This course surveys the history of France from the Revolution of 1789 through the beginning of the 21st century. From the political revolution that kicked off the modern era of French history through the race riots of 2005, this history is punctuated by popular protest and political revolution. In this course, we will examine the long history of the modern era through the lens of riots and revolution.
Credit 3 units. UColl: HEU, HSM

### U16 Hist 3975 Dark Continent: Europe in the Age of Total War, 1914-1945
World War I led to the deaths of some 20 million people. Although this war has since been viewed as a senseless waste, at its outset, it was seen in a generally positive light: a war for defense against aggression, for the liberation of occupied territories, and for national glory. In this course, students will explore European politics, society, and culture during a period dominated by two world wars. Particular attention will be paid to the ways in which religion, ideology, and nationalism appreciably shaped the lives of people living in an era of total war.
Credit 3 units. UColl: HSM, OLI

### U16 Hist 399 Senior Honors Research Project
Directed research and writing for the Honors Research Project. Only open to students admitted to the University College Undergraduate Honors Program, and with permission of instructor.
Credit 3 units.

### U16 Hist 400 Independent Study
Credit variable, maximum 3 units. UColl: OLI
U16 Hist 4422 Reading Historical Figures: Cultural Analysis and Afterlives
Walt Whitman famously wrote, "If you want me again look for me under your boot-soles," Although we will not be looking under any bootsoles in this course, we will be looking for -- and finding -- U.S. historical figures everywhere in contemporary culture, from television and film to fiction, advertising, and social media. During the semester, Whitman will serve as our case study, and students will be asked to read his poetry and prose. However, our ultimate aim is more wide-reaching. This course approaches a broad question -- What is American identity now? -- from a specific point of reference: the afterlives of figures from the past who are increasingly important to our modern national identity. During the semester, each student will undertake their own research project centered on a figure from the past whose presence in American life looms large today, such as Audre Lorde, Che Guevara, Thomas Jefferson, Andrew Jackson, James Baldwin, or Alexander Hamilton, among others. Same as U89 AMCS 442 Credit 3 units. UColl: ACH, HSM, HUS

U16 Hist 4921 Decoding the City
Does the space between a house and the sidewalk tell you something about class? Does a vacant lot on a dead-end street record the forced relocation of thousands of black residents? Can street names narrate the relationship between the growth of the city and national narratives of immigrant assimilation, continental expansion and world wars? The answer to these questions is yes, but it is far from obvious. The built environment of an American city like St. Louis can seem opaque and silent, when actually it is laden with social, economic, political, gender and racial meanings. This course unpacks St. Louis' built environment by drawing broad historic and theoretical readings on urban space to specific local sites. Readings will assist students in the interrogation of actual places in St. Louis through field visits, so that the streets become unquiet and the embedded meanings in plain sight. This is a hybrid course, with an online discussion component and weekly field work sessions. Attendance at these field work sessions is mandatory. The course counts toward the American Culture Studies major for day students, and fulfills the Humanities and Social Science requirements for the MA program in American Culture Studies. Same as U89 AMCS 492 Credit 3 units. UColl: ACH, ACS, HSM, HUS, OLH

Industrial and Organizational Psychology
The undergraduate degree in Industrial and Organizational Psychology is designed for students planning to work in the fields of general management, human resources/personnel, and organizational behavior. The course work focuses on the behavioral aspects of managing and supervising the human resources of an organization or industry.

We also offer a minor in Industrial and Organizational Psychology for students who are interested in this area but pursuing other subjects.

Degree Requirements
Bachelor of Science in Industrial and Organizational Psychology
All University College undergraduate students must satisfy the same general-education requirements (p. 90). Requirements specific to this major include the following:

Required core courses in psychology (15 units):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psych 100</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Psych 300</td>
<td>Introductory Psychological Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Psych 315</td>
<td>Introduction to Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>or Psych 353</td>
<td>Psychology of Personality</td>
<td></td>
</tr>
<tr>
<td>Psych 359</td>
<td>Cognitive Psychology</td>
<td>3</td>
</tr>
<tr>
<td>or Psych 365</td>
<td>Learning and Memory</td>
<td></td>
</tr>
<tr>
<td>Psych 404</td>
<td>Psychological Tests and Measurements</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units 15

Required industrial and organizational psychology courses (12 units):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psych 214</td>
<td>Introduction to Industrial and Organizational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Psych 314</td>
<td>Industrial and Organizational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Psych 468</td>
<td>Applied Psychology of Learning: Training in Industry</td>
<td>3</td>
</tr>
<tr>
<td>Psych 480</td>
<td>Introduction to Group Dynamics</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units 12

Business-related courses (9 units from the following list; others by permission):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus 263</td>
<td>Financial and Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>Bus 342</td>
<td>Business Finance</td>
<td>3</td>
</tr>
<tr>
<td>or Bus 270</td>
<td>Marketing Concepts</td>
<td></td>
</tr>
<tr>
<td>Bus 339</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
</tbody>
</table>
The Minor in Industrial and Organizational Psychology

Required courses (18 units):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psych 100</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Psych 214</td>
<td>Introduction to Industrial and Organizational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Psych 300</td>
<td>Introductory Psychological Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Psych 315</td>
<td>Introduction to Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>or Psych 353</td>
<td>Psychology of Personality</td>
<td></td>
</tr>
<tr>
<td>or Psych 404</td>
<td>Psychological Tests and Measurements</td>
<td></td>
</tr>
<tr>
<td>or Psych 468</td>
<td>Applied Psychology of Learning: Training in Industry</td>
<td></td>
</tr>
</tbody>
</table>

6 units of authorized Psychology or Business courses, of which at least one must be an upper-level (300-400) course

Total Units 18

Students who elect to major in psychological & brain sciences and also to complete this special minor must complete a total of 45 units in psychology instead of the usual 33. They must choose courses for the psychological & brain sciences major that are distinct from those required for the industrial and organizational psychology minor, with the exception of Psych 100 and Psych 300. Students completing an industrial and organizational psychology minor are strongly encouraged to include basic economics courses among their social science electives.

Courses


U09 Psych 100 Introduction to Psychology
This course covers current concepts and theories of learning, motivation, emotion, perception, thought, intelligence, and personality, emphasizing both biological and philosophical aspects. This course is a prerequisite for all 300-level and above psychology courses.
Credit 3 units. UColl: OLI

U09 Psych 122 Applying Psychological Science to the COVID-19 Pandemic
Psychological science is highly relevant to daily life. In this course, we will use introductory-level psychology concepts to explore aspects of the current COVID-19 pandemic. We will cover concepts from psychological subfields, including health psychology, community psychology, industrial-organizational psychology, and others. Our inquiry will be focused around four questions: (1) How have work, education, and socializing changed during COVID-19? (2) How do you encourage people to act in ways that promote public health? (3) What are the psychological consequences of COVID-19? (4) What is the impact of the pandemic across groups?
Credit 1 unit. UColl: OLI

U09 Psych 214 Introduction to Industrial and Organizational Psychology
This course explores the application of research findings in psychology and other behavioral sciences to issues and problems in the workplace, including both theory and methodology. Includes motivation, communication, learning, decision making, leadership, power and influence, and personnel selection.
Credit 3 units. UColl: OLI

U09 Psych 230 Human Growth and Development
This course provides an overview of emotional, psychological, physical, and social development through the life span. We will emphasize the developmental tasks, characteristics, and typical behaviors of each developmental era (infancy, childhood, adolescence, adulthood, later life). We will study major developmental theorists including Freud, Erickson, Piaget, Millet, Gilligan, and Kohlberg. Prerequisite: U09-100.
Credit 3 units. UColl: OLI

U09 Psych 235 Life Stories: Personal Approaches to Adult Development, Learning, and Life Planning
This course examines adult development and adult learning as points of reference for analyzing the major decisions, changes, and opportunities that influence our own lives — at work, at school, at home, and in the larger community. We will also examine the sustaining role of liberal education in our personal and professional growth. We will read a combination of personal memoir, autobiography, and other nonfiction to illustrate how other people have responded to life’s challenges and transitions, and to help us construct our own life stories, educational and professional plans. Selected readings from psychology, education, literature, anthropology, sociology, leadership and career development, include Composing a Life, Tuesdays with Morrie, Habits of the Heart, The Leadership Challenge, Journey in the Middle of the Road, and A River Runs Through It. Cannot count toward requirements for the psychological and brain sciences major or minor for day students. Prerequisite: Psych 100.
Credit 3 units.

U09 Psych 240 Internship in Psychology
Participation under supervision in an applied, non-academic community agency for course credit. Signed Internship Learning Agreement required prior to enrollment. Open only to University College Psychology majors. Must be taken pass/fail.
Credit variable, maximum 3 units.

U09 Psych 270 Positive Psychology and Happiness
Positive psychology is the study of the positive elements of human nature, behavior, and experiences, as well as the practices that facilitate these positive elements. In the first part of this course, we review the history of positive psychology, examine the meaning and measurement of happiness and well-being, explore the role of genetics and circumstances on happiness, and review the myriad benefits of happiness. In the second part of the course, we review the research detailing who
is happy and why, and we explore the research on the practices and habits that facilitate happiness. Specific practice and habit topics include gratitude, mindfulness, optimism, strengths identification, meaning and purpose in life, meaningful social connections, compassion, forgiveness, positive relationships, sleep, and more. Throughout the course, we will participate in experiential learning from assessing our own happiness and strengths to engaging in practices found to facilitate happiness. This course will not count toward the major in Psychological and Brain Sciences for day students.

Credit 3 units.

U09 Psych 300 Introductory Psychological Statistics
This course introduces descriptive statistics, including correlation and regression. Other topics include inferential statistics, including non-parametric and parametric tests of significance through two-way analysis of variance. The course emphasizes underlying logic and is not primarily mathematical, although knowledge of elementary algebra is essential. Prerequisite: Psych 100.
Credit 3 units. UColl: OLI

U09 Psych 3011 Experimental Psychology
Psych 3011 is limited to students who have not taken Psych 300 and want to enroll in Psych 300 and Experimental Psychology concurrently. Therefore, students who enroll in Psych 3011 must also register for Psychology 300. Psych 3011 fulfills the Psychology 301 requirement for the major. Topics in the two courses (i.e., Psych 300 and Psych 3011) will be coordinated in order to integrate the concepts from Statistics with those from Experimental Psychology. Experimental Psychology provides training in the logic and techniques of psychological research so as to provide students with experience in the design of psychology experiments and interpretation of results. Topics include experimental design and control, library research, quantitative treatment of data, graphical presentation of results, and clarity of scientific writing. Lectures focus on general principles of experimentation while the laboratory component provides an introduction to a range of psychological phenomena through hands-on experience in experimentation. Each student also completes an independent research project of his or her own design under supervision of a faculty member. Enrollment limited to 15 students. Declared P&BS majors will have priority. PREREQ: Psych 100B and concurrent enrollment in Psy 300. Same as L33 Psych 3011
Credit 4 units. A&S IQ: NSM Arch: NSM Art: NSM BU: BA, SCI

U09 Psych 3015 Research Methods
This course provides training in the logic and techniques of psychological research so as to provide students with experience in the design of psychology experiments and interpretation of results. Topics include experimental design and control, library research, quantitative treatment of data, graphical presentation of results, and clarity of scientific writing. Not open to day students. Prerequisites: U09-100, U09-300.
Credit 3 units. UColl: OLI

U09 Psych 308 Social Gerontology
This course provides an introduction to aging and growing old from an interdisciplinary perspective. Specific attention is paid to demographics, physical health and illness, mental health, interpersonal relations, work issues, living arrangements, ethics, and death and dying. Prerequisite: U09 100. This course satisfies the Lifespan Development (Area E) requirement for the University College Bachelor of Science in Psychological and Brain Sciences degree.
Credit 3 units.

U09 Psych 309 Evolutionary Psychology
This course will explore the extent to which an understanding of biological evolution is relevant to an understanding of human psychology. Fundamental evolutionary principles will be introduced and their application to psychological theory and research carefully evaluated. Individual topics include romantic relationships, family dynamics, cooperation, clinical pathology, judgment and decision-making, religious belief, and more.
Prerequisite: U09-100.
Credit 3 units. UColl: OLI

U09 Psych 311 History and Modern Systems of Psychology
An introduction to the history of psychology. This course begins with a brief consideration of forces leading to development of psychology in the mid-1800s. It then examines the birth of modern psychology in Germany, and the schools of psychology that emerged early in the 20th century. Newer orientations and ideas are considered in the final segment of the course. We also consider the impact of psychology on American public life during the 20th century. Prerequisite: U09 100.
Credit 3 units. UColl: OLI

U09 Psych 312 Sport Psychology
Overview of theoretical and applied principles of sport and exercise psychology. Special emphasis on psychological factors that effect sport performance, including personality, motivation, attention, anxiety, self-regulation of arousal, group dynamics, leaderships, causal attributions, and performance enhancement. Prerequisite: Psych 100.
Credit 3 units.

U09 Psych 314 Industrial and Organizational Psychology
Interactions of individuals and organizations in measures of human performance, motivation, leadership, job satisfaction, training, ability testing, and stress. Skill-building in the techniques of psychology that are applied to the solution of business and industrial problems. Prerequisite: U09-214 or 300, or permission of instructor.
Credit 3 units. UColl: OLI

U09 Psych 315 Introduction to Social Psychology
Interaction of biological, cultural, situational, and technological factors on who we are and how we interact with others: person perception, motivation, attitudes, and communication.
Credit 3 units. UColl: OLI

U09 Psych 317 Psychology of War, Terrorism, and Peace
This course will promote understanding and critical thinking on war, terrorism, and peace from a psychosocial perspective. Intrapersonal, interpersonal and socio-cultural sources of geopolitical conflict will be examined in both historical and contemporary contexts. Emphasis will be placed on understanding the psychosocial dimensions involved in a multi-disciplined approach for the integration of political, economic, religious, and military interventions in resolving conflict and pursuing peace. PREREQ: U09 100. Introduction to Social Psychology (U09-315) is also recommended.
U09 Psych 3195 Abnormal Child Psychology
This course will familiarize students with current perspectives on the nature, causes, assessment, treatment, and prevention of child psychiatric disorders and related family dysfunction. Theoretical perspectives and research findings will be discussed pertaining to anxiety, depression, conduct disorder, attention-deficit/hyperactivity disorder, autism, learning impairments, and parent-child conflict. Prerequisite: U09 322 or U09 354. Credit 3 units. Arch: SSC Art; SSC BU: BA EN: S

U09 Psych 3200 Child Health Psychology
This course examines the field of child health psychology, which focuses on the impact of health and illness on the physical and psychological development of children and adolescents. We will explore the relations among psychological and physical health and the welfare of children within a developmental perspective, considered within the contexts of families, health care systems, schools, peers, and community. Topics such as chronic illness (e.g., cystic fibrosis, sickle cell disease, organ transplant, asthma), adherence to medically prescribed regimens, and neuropsychological aspects of chronic illness will be addressed. Previous course work in Developmental Psychology (e.g., U09 230, U09 322) would be helpful but not required. Credit 3 units.

U09 Psych 322 Developmental Psychology
In this course we will study behavior in children including developmental methodology, prenatal development, memory, cognition, attention, perception, language, sex roles, morality, emotions, aggression, and intelligence testing. Prerequisite: U09-100. Credit 3 units. UColl: OLI

U09 Psych 325 Psychology of Adolescence
Psychology of the period from puberty to adulthood; the major developmental tasks such as identity formation and the influence of differential parental style upon the development of adolescents. Prerequisite: U09-100. Credit 3 units. UColl: OLI

U09 Psych 3251 Juvenile Delinquency
This course explores the nature of juvenile delinquency, including its root causes and influences, as well as the various strategies currently being employed to reduce and prevent delinquent behavior. The course discusses how delinquency begins, persists, and is overcome. Delinquency will be looked at from both a sociological and developmental-psychological perspective. We will discuss the criminal justice response to delinquency and evaluate programs and models that have met with varying degrees of success, as well as those that have had the opposite effect on reducing delinquent behavior. Credit 3 units. UColl: OLI

U09 Psych 3261 Psychology of Aging
Study of the processes of aging in the individual in terms of their behavioral effects. Age changes in biological functions, sensation, perception, intelligence, learning, memory, and creativity studied to understand the capacities and potential of the mature and older person. Credit 3 units. UColl: OLI

U09 Psych 330 Perspectives on Counseling
This is an experiential course teaching skills in the counseling process. We will examine awareness and listening, attending and reflecting, questioning and summarizing, empathy, concreteness, problem definition, probing, and detailing. Role-playing and group work supplement didactic material. Prerequisite: U09-100. Credit 3 units. UColl: OLI

U09 Psych 3401 Biological Psychology
This course presents an introduction to biological mechanisms underlying behavior. Topics will include the physiology of nerve cells, the anatomy of the nervous system, the control of sensory and motor activity, arousal and sleep, and motivation and higher mental processes. Prerequisite: Psych 100B. Credit 3 units. Art: NSM BU: SCI

U09 Psych 353 Psychology of Personality
This course covers basic theories of personality and complex human behavior. We study related techniques, procedures, and findings of personality assessment and personality research, and examine critical issues in the evaluation of personality theories. PREREQ: Psych 100. Credit 3 units. UColl: OLI

U09 Psych 358 Health Psychology
This course examines the history of health psychology and its place in general health care. We will examine relevant theory as applied to specific topics including stress, coping, weight loss, chronic illness in general (diabetes in particular), adherence to medically prescribed regimens, Type A personality and cardiac risk factors. Prerequisite: U09-100. Credit 3 units. UColl: OLI

U09 Psych 359 Cognitive Psychology
Thought processing from an information processing approach. Includes pattern recognition, attention, memory, reasoning, language processes, decision making, and problem solving. Credit 3 units. UColl: OLI

U09 Psych 3604 Cognitive Neuroscience
This course provides a general introduction to the underlying principles and mechanisms of brain function that give rise to complex human cognitive behavior. Emphasis will be placed on how emerging methods and approaches from both neuroscience and cognitive psychology have been integrated to yield new insights into the organization and structure of higher mental processes. Topics include perception, attention, memory, language, and executive control. Prerequisite: Psych 100B. Credit 3 units. Arch: NSM Art: NSM BU: SCI

U09 Psych 361 Psychology of Learning
The experimental analysis of behavior is presented with examination of Operant and Pavlovian conditioning, aversive control, theories of reinforcement, choice behavior, behavioral economics, etc. Theoretical and experimental approaches to the study of behavior as developed in the laboratory are emphasized. Consideration is given to applications from the laboratory to everyday behavior. PREREQ: Psych 100B. Enrollment limited to 30. Same as L33 Psych 361
**U09 Psych 365 Learning and Memory**
In this course we focus on the major theories of human learning and memory. We review several behavioral-associationist theories, including classical conditioning and behavior modification. The course emphasis is on cognitive-organizational theories, human information processing, current perspectives on knowledge representation, and their implication for understanding and recall. Credit 3 units. UColl: OLI

**U09 Psych 366 Introduction to Psychopathology and Clinical Psychology**
This course will cover affective, cognitive, and behavioral abnormalities that create patterns disruptive to mental health comprised of psychiatric symptoms, personal distress, and/or functional impairments. Topics will include biological, psychological, social, and cultural determinants of mental health and illness as well as the diagnosis, etiology, and treatment of clinical-level concerns. This course is the same as Abnormal Psychology in both Arts & Sciences and University College (L33 Psych 354/U09 Psych 354), and thus students may not take both. Prerequisite: Psych 100B and at least one 300 level course. Credit 3 units.

**U09 Psych 367 Seminar in Positive Psychology**
Reviews the relatively recent development in the field known as “Positive Psychology.” Topics may include: happiness and life-satisfaction, positive self-esteem, creativity, caring relationships, love-passionate and otherwise, empathy, optimism, ambition, moral character development, attachment, compassion, forgiveness, helping, work ethics, and successful aging. Designed to take a sampling of those aspects of psychology that emphasize the positive side of human nature. Prerequisite: Psych 100B and at least one 300 level course. Credit 3 units.

**U09 Psych 368 Introduction to Psychopathology and Clinical Psychology**
This course will cover affective, cognitive, and behavioral abnormalities that create patterns disruptive to mental health comprised of psychiatric symptoms, personal distress, and/or functional impairments. Topics will include biological, psychological, social, and cultural determinants of mental health and illness as well as the diagnosis, etiology, and treatment of clinical-level concerns. This course is the same as Abnormal Psychology in both Arts & Sciences and University College (L33 Psych 354/U09 Psych 354), and thus students may not take both. Prerequisite: Psych 100. Credit 3 units. UColl: OLI

**U09 Psych 371 Investigative Psychology**
This course will expose students to a variety of methods and techniques for identifying and apprehending an unknown criminal suspect. Investigative techniques including effective information collection, detecting deception, and the development of decision support systems will be discussed. Empirically tested models such as multidimensional scaling and social network analysis will be covered, with attention given to the psychological processes underlying these decision support tools. Credit 3 units. UColl: OLI

**U09 Psych 373 Psychology in the Courtroom**
This course studies ways in which principles of psychology are used in the courtroom, looking at how the principles influence and are used by lawyers, judges, witnesses, defendants, and jurors. We will consider issues of persuasion and prejudice in influencing jurors’ decisions, and the role and tactics of expert witnesses and jury consultants, including the ethical guidelines under which they operate. Finally, the course will discuss the danger of violent behavior inside the courtroom, and how this behavior can be anticipated and prepared for through the development of security profiles. Credit 3 units. UColl: OLI

**U09 Psych 374 Psychology of Policing**
This course will expose students to the discipline of police psychology, which is broadly defined as the application of psychological principles and methods to law enforcement. Subjects addressed will include the screening and hiring of police officers; conducting screening for special squads (e.g., SWAT); fitness-for-duty evaluations; training and consultation; and stress counseling, among others. The course examines the evolution of police psychology and early influences on the profession such as the experimental investigation of psychological testing on police attitude and performance. Influential figures in the field of police psychology are discussed, including the work of Dr. Martin Reiser of the Los Angeles Police Department, the nation’s first full-time police psychologist. This course is fully online. Only University College students receive credit for online courses. Credit 3 units. UColl: OLI

**U09 Psych 376 Introduction to Criminology**
A general introduction to the study of crime from an interdisciplinary perspective. Classical and contemporary sociological theories to explain and predict criminal behavior will be studied, as well as psychological theories from the psychoanalytic, behavioral, and cognitive traditions that attempt to account for criminality and the psychosocial development of a criminal personality type. Other topics include the measurement and extent of crime, the role of age, race, gender, social class in the causation of and reaction to crime, and the criminal justice response to crime, as well as recent trends in policing, corrections, and community-based interventions. Credit 3 units. UColl: OLI

**U09 Psych 376M Introduction to Criminology**
Online version of the course U09 376. This course is a general introduction to the study of crime from an interdisciplinary perspective. Classical and contemporary sociological theories to explain and predict criminal behavior will be studied, and we will also review psychological theories from the psychoanalytic, behavioral, and cognitive traditions that attempt to account for criminality and the psychosocial development of a criminal personality type. Other topics include the measurement and extent of crime, the role of age, race, gender, and social class in the causation of and reaction to crime; the criminal justice response to crime; and recent trends in policing, corrections, and community-based interventions. Credit 3 units. UColl: OLI

**U09 Psych 377 Introduction to Forensic Psychology**
Forensic psychology is the application of scientific psychological knowledge to matters that come before the judge or jury. This course will focus on criminal cases such as homicide and sex offender commitment and on personal injury cases. Topics will include consultation with attorneys, psychological tests used and recommended by forensic psychologists, and sex offender risk assessment. Other topics will include keys to being a dangerous expert on the witness stand. Numerous actual case studies will be presented. Credit 3 units. UColl: OLI

**U09 Psych 377M Introduction to Forensic Psychology**
Online version of the course U09 377. This course is a general introduction to the study of crime from an interdisciplinary perspective. Classical and contemporary sociological theories to explain and predict criminal behavior will be studied, and we will also review psychological theories from the psychoanalytic, behavioral, and cognitive traditions that attempt to account for criminality and the psychosocial development of a criminal personality type. Other topics include the measurement and extent of crime, the role of age, race, gender, and social class in the causation of and reaction to crime; the criminal justice response to crime; and recent trends in policing, corrections, and community-based interventions. Credit 3 units. UColl: OLI
U09 Psych 378 Crisis Intervention: The Criminal Justice Response to Chaos, Mayhem, and Disorder
This course explores the nature and psychology of the major types of crises criminal justice professionals confront on a daily basis, including domestic violence, terrorism, riots and post-disaster panic, cults, threatened suicide, and active shooters, among others. Students will explore these topics against the backdrop of actual case examples like hurricane Katrina, the attacks of 9/11, the shooting at Columbine High School, and the Branch Davidian standoff at Waco. Major theories and typology schemes that attempt to account for these behaviors will be explored, as well as the emotional impact of crisis response on police, correctional officers, and other first responders. The course may be used as an elective in the University College Psychology major, but it will not apply to the distribution areas in the major.
Credit 3 units. UColl: OLI

U09 Psych 379 Correctional Psychology
This course will introduce students to the correctional environment, and the many psychological considerations involved in the detention, rehabilitation, and reintegration of prison inmates. We will focus heavily on the psychological impact of incarceration, as well as various treatment issues related to inmate rehabilitation. Topics include the dynamics of power and oppression, gang affiliation, inmate management and control, and the problems of sexual assault and suicide among the inmate population. We also will discuss various legal issues affecting the correctional environment, especially in relation to mental health treatment. Recommended: Abnormal Psychology.
Credit 3 units. UColl: OLI

U09 Psych 380 Psychology and Religion
This course offers an examination of the empirical literature on the psychological study of religion. Students will explore whether psychology can offer a scientifically valid examination of religion. We will use psycho-physiology research to examine religious and mystical experiences that are induced by methods ranging from breath control to meditation to use of hallucinogenic drugs. We will then look at social psychology research to investigate the relationship between religion and a host of issues such as fundamentalism, altruism, social and emotional adjustment, physical health, and satisfaction in life. Prerequisite: Introduction to Psychology. Note: Accelerated (ACTRAC) option: University College students have the option of taking this class for 4 units.
Credit 3 units.

U09 Psych 381 Cross-Cultural Psychology
An overview of social, developmental, and organizational forces from a cross-cultural perspective, with a focus on culture as a variable and its relationship to attitudes and behavior. A review of historical biases in the discipline of psychology will precede the study of research methodologies best suited to cross-cultural work. Also emphasized is the manner in which social and cultural forces shape the human experience. Prerequisite: Psych 100.
Credit 3 units. UColl: CD, OLI

U09 Psych 382 Moral Psychology
This course presents an overview of scientific approaches to moral psychology. The issues to be studied include how morality evolved, whether nonhuman animals or human infants have morality, how morality developed through the lifespan and across cultures, the roles of psychological mechanisms in morality, how morality is affected by psychological disorders, and altruism.
Credit 3 units.

U09 Psych 383 Correctional Theory & Practice
In this course we will explore every aspect of correctional theory and practice in America. We will look at the structure of the correctional system, both jails and prisons, the demographics of the inmate population, and the experience of those working in a correctional setting, especially correctional officers. We will look at inmate psychology, and the personality changes (prisonization) that often take place in an inmate during their period of incarceration. We will look at the special problems that must be addressed by correctional systems relating to juvenile, female, mentally ill, and aged inmates. Finally, we will discuss the death penalty and the ongoing debate in America about this type of punishment.
Credit 3 units. UColl: OLI

U09 Psych 384M Principles of Forensic Assessment
This course addresses a breadth of topics in forensic assessment through an examination of the methods utilized in this endeavor, particularly in the criminal arena. Students will become familiar with the administration, scoring, and interpretation of instruments used to assess competence to stand trial, criminal responsibility, malingering, and dangerousness, among other domains. Factors surrounding ethics in forensic evaluation, the dilemmas encountered in dealing with the diverse criminal population, and recent social and ethical criticisms of forensic assessment processes themselves constitute pivotal course content. Students will have the opportunity to observe and take a role in forensic evaluations through the use of critical examinations of forensic assessment instruments, the observation of case materials, and the completion of assigned course activities.
Credit 3 units. UColl: OLI

U09 Psych 385 Criminal Typologies
This course examines a wide range of delinquent and criminal behavior, with special emphasis on the developmental, biological, learning and situational, and cognitive-behavioral factors that form the origins of criminal behavior. Deriving from the perspective that juvenile and adult criminal behaviors are continually influenced by multiple systems, we will also examine the social, economic, political, and ecological factors that interact to influence such behaviors. This course will consider the precursors to and typologies of delinquency: criminal psychopathy; homicide, assault, and intimate partner and family violence; multiple murder, school, and workplace violence; modern terrorism; sexual assault; sexual abuse of children and youth; burglary, home invasions, thefts and “white-collar” offenses; violent economic crime, cybercrime, and crimes of intimidation; and substance abuse crimes.
Credit 3 units.
U09 Psych 389 Psychology of Consumer Behavior
Examination of consumer preferences and purchasing decisions in relation to psychological needs, sociological and multicultural influences, economic considerations, and advertising impact. The roles of attention, perception, emotion, learning, and cognition in attitude formation, change, and ultimately in consumer choices. The marketing concepts of segmentation, product positioning, brand image, and brand loyalty are examined, as well as ethical considerations pertaining to product quality and safety, and to the advertising message. An overview of consumer research methodology, including questionnaire design, sampling and surveys, focus groups, observations, recall and recognition techniques, and physiological measures. Prerequisite: Psych 100. Credit 3 units.

U09 Psych 400 Independent Study
Students register for this course to perform reading or research in a special area of psychology. Approval of a specific plan of reading or research by the supervising faculty member and the departmental coordinator is required prior to registration. Prerequisite: 15 hours of psychology course work, advanced standing, permission of instructor, and permission of departmental coordinator. This course is open only to University College psychology majors with a minimum grade-point average of 3.00. Credit variable, maximum 3 units.

U09 Psych 404 Psychological Tests and Measurements
This course is an introduction to psychological tests and measurements. We will cover basic principles of test construction, including reliability, validity, item analysis, and the development of normative data. We will examine major types of tests (e.g., intelligence, personality, interests, attitudes) as well as their application to career counseling, clinical diagnosis, employee selection, performance appraisal, and organizational assessment. Prerequisite: One course in statistics. Credit 3 units. UColl: OLI

U09 Psych 406 Verbal Behavior
This course will offer a comprehensive study of language from a behavioral perspective. Structural differences between types of verbal behavior will be examined as will empirical literature demonstrating verbal behavior interventions for individuals with deficits in language. Critiques of the behavioral perspective will be considered in terms of their impact on conceptual advances in the analysis of verbal behavior. Prerequisite: U09-100. Credit 3 units.

U09 Psych 409 Introduction to Behavior Analysis
This course is an introduction to principles of learning and behavior analysis and how they relate to the profession of applied behavior analysis. Topics to be covered include reinforcement, punishment, extinction, discrimination training, generalization, shaping, conditioned reinforcement, and schedules of reinforcement. The primary focus of the course will be on basic principles derived from laboratory research, but we also will examine applications of these principles to areas such as developmental disabilities (e.g., autism), academic skills, and oppositional behaviors. Philosophical and historical antecedents of behaviorism also will be covered. Credit 3 units.

U09 Psych 414 Current Issues in Human Resources Management
This course looks at current challenges and problems of managing people at work to meet individual, organizational, and societal needs. Prerequisites: U09-214 and 314. Credit 3 units. UColl: OLI

U09 Psych 444 Applied Behavior Analysis I
This course focuses on behavioral principles and procedures as related to the acquisition of new behavior and the modification of existing behavior. Topics to be covered include: reinforcement, punishment, extinction, discrimination training, generalization, shaping, classical conditioning, conditioned reinforcement, and schedules of reinforcement. Although the focus is on basic principles derived from laboratory research, applications of these principles to areas such as developmental disabilities (e.g., autism), academic skills, and oppositional behaviors are discussed. Philosophical and historical antecedents of behaviorism also are explored. This class is part of a sequence of courses that the Behavior Analyst Certification Board, Inc. has approved for eligibility to take the Board Certified Associate Behavior Analyst Exam. Credit 3 units.

U09 Psych 445 Applied Behavior Analysis II: Procedures for Behavior Change
This course focuses on the complex behavioral principles and on issues surrounding their application in the analysis and modification of behavior. In addition, students learn to identify behavior and environment relations that constitute behavioral deficits or excesses. Behavioral change procedures to be explored include: functional analysis, reinforcement, shaping, chaining, discrete trials, contingency contracting, reinforcement, and maintenance of behavior change. Ethical considerations are also addressed. This class is part of a sequence of courses that the Behavior Analyst Certification Board, Inc. has approved for eligibility to take the Board Certified Associate Behavior Analyst Exam. Prerequisite: U09-444. Credit 3 units.

U09 Psych 446 Applied Behavior Analysis: Research Methods and Evaluation
This course focuses on research design and methodology in behavior analytic research, with a focus on single-subject experimental designs. Various behavior-assessment and behavior-intervention evaluation strategies will be examined. In addition, the course explores techniques for direct observation, and measurement of behavior, as well as methods of summarizing data, data analyses, and the ethics of research. Prerequisite: ABA I: Basic Principles of Behavior. Credit 3 units.

U09 Psych 449 Applied Behavior Analysis Practicum
This practicum provides experience in applied behavior analysis and is designed for individuals who intend to pursue certification through the Behavior Analysis Certification Board (BCBA) examination at the Associate level (Board Certified Associate Behavior Analyst: BCABA). Students will work in community-based agencies and be supervised by the community agency and the Practicum faculty. Prerequisites: Admission to the Washington University Applied Behavior Analysis Certificate Program, and ABA I: Basic Principles of Behavior and ABA II: Procedures for Behavior Change and permission of instructor.
U09 Psych 460 Behavioral Medicine
The role of behavior in the prevention and treatment of significant medical problems will be studied. The history of the field of behavioral medicine will be reviewed, with applications to medical problems and its complementary role in preventative medicine in the context of a number of medical disorders and risky behaviors, including obesity, chronic pain, cancer, and smoking. Effective stress management practices to help ameliorate common results of stress such as tension headache and high blood pressure also will be studied. Prerequisite: Psych 100.
Credit 3 units.

U09 Psych 468 Applied Psychology of Learning: Training in Industry
Overview of the foundations of industrial training and the "tools of the trade." Review of learning and memory and recent findings on cognition. Study of methods and techniques used for analysis, design, development, and evaluation of training. Impact of recent advances in computing and instructional technologies. Prerequisites: U09-100 required and U09-214 or U09-314 recommended. Same as U87-468.
Credit 3 units.

U09 Psych 476 I/O Psychology from a Behaviorist Perspective
The material in this course is intended to provide an initial overview of the field of organizational behavior management (OBM). OBM involves the application of principles of behavior in order to improve individual or group performance within an organizational setting such as a business or human service setting. Some of the pioneers in the field will be reviewed along with applications to different types of issues that both large and small organizations face on a daily basis. The role of OBM in the prevention of significant organizational problems, its role in building better management practices as well as service delivery issues will be presented.
Credit 3 units.

U09 Psych 480 Introduction to Group Dynamics
Various aspects of group process including group decision making and problem solving, group influence processes, communication, power, and leadership. Small group behavior and its application to organizations. Prerequisites: U09 214 or 315 or permission of the instructor.
Credit 3 units. UColl: OLIH

U09 Psych 488 Addiction and Treatment
This course examines the motivation and behavior patterns of the drug/alcohol user. This examination takes place in the wider context of deviance. A portion of the course is devoted to a survey and evaluation of the services and programs available to the drug/alcohol user from the point of view of the user, the user's family, and society. Topics include: the history of psychotropic substances and their purpose and use in human society to the present; the history and philosophy of counseling interventions for psychotropic substance abuse and dependence; the ethnic, environmental, and socioeconomic factors affecting which substances are used, receptivity to treatment, and attitudes toward intervention; various treatment modalities such as 12-step groups, therapy groups, and in-patient treatment for both self-referred and court ordered clients. Prerequisite: U09-100.
Credit 3 units.

U09 Psych 4891 Study for Honors in Psychology
Part 2 of Honors Thesis work in Psychology for students admitted to the Honors Program. Requires signed proposal and permission from psychology coordinator and dean in University College.
Credit 3 units.

U09 Psych 492 Research in Psychology
The planning, execution, and written reporting of an original empirical research work within the area of psychology. Approval of the project or experiment by a supervising faculty member and the departmental coordinator required prior to registration. Prerequisites: advanced standing, 12 hours of psychology course work including U09-300 and 301, permission of the instructor, and permission of the departmental coordinator. Open only to University College psychology majors. Petition forms for enrollment are available online (http://ucollege.wustl.edu/forms/).
Petition must include the formal written research proposal. A student may enroll in this course only once.
Credit 3 units.

U09 Psych 494 Behavioral Psychology Readings Group
This weekly journal-style readings class provides the opportunity to read and discuss seminal as well as current papers on the conceptual aspects of behavioral psychology and relevant research. Points of contact among behaviorism, cognitivism, and neuroscience and the natural lines of fracture will be examined. Prerequisites: Psych 100B and one of the following: Psych 361, Psych 360, or a Philosophy course.
Same as L33 Psych 494
Credit 1 unit. A&S IQ: SSC Arch: SSC Art: SSC EN: S

U09 Psych 495 Directed Readings in Psychology
Prescribed readings in a special area of psychology. Approval of a specific reading list by the supervising faculty member and the departmental coordinator is required prior to registration. Prerequisite: 12 hours of psychology course work, advanced standing, permission of the instructor, and permission of the departmental coordinator. Open only to University College psychology majors. Petition forms for enrollment are available online (http://ucollege.wustl.edu/forms/). A student may enroll in this course only once.
Credit 3 units.

Integrated Studies
The Bachelor of Science in Integrated Studies is designed for adult learners who want to build on their existing education and tailor their degree to match their personal and professional educational goals. Learners discover and engage with subjects across disciplines in a given area concentration or combine their Arts & Sciences courses with professional studies. Students acquire the foundation for career development and lifelong learning, honing skills in writing, deep reading, communication
and critical thinking. By approaching subjects across disciplines, learners consider and analyze issues using multiple lenses. They deepen their understanding of problems, test new approaches to challenges, and learn to solve issues creatively.

The Bachelor of Science in Integrated Studies can be completed in both on-campus and online formats. Students interested in completing this degree online should visit the University College webpage for the Bachelor of Science in Integrated Studies — Online (https://ucollege.wustl.edu/programs/undergraduate/bachelors-integrated-studies-online/).

Contact: University College Advising
Phone: 314-935-6700
Email: https://ucollege.wustl.edu/resources/advising
Website: https://ucollege.wustl.edu/programs/undergraduate/bachelors-integrated-studies

Degree Requirements

Bachelor of Science in Integrated Studies

All University College undergraduate students must satisfy the same general-education requirements (p. 90).

Students in the Bachelor of Science in Integrated Studies program choose from the Area Concentration Track or the Arts & Sciences Professional Track, each of which culminates in a capstone experience.

Area Concentration Track

Required Courses: 36 units

In the Area Concentration Track, students take course work from across the Humanities, Mathematics & Sciences, and the Social Sciences, which presents multiple perspectives and approaches to similar subjects. Learning how a variety of disciplines approach questions provides a foundation for appreciating differences across cultures, in different areas of work and life, and among individuals. Students acquire a range of tools for approaching problems and creating solutions.

Students complete 33 units in one of the following areas of concentration. At least 18 units must be at the 300 or 400 level.

Humanities concentration, which includes the following:

- African and African-American Studies
- Art and Archaeology
- Classics
- English Composition*
- English Literature
- French**

- History
- Italian**
- Korean**
- Philosophy
- Spanish**
- Women, Gender, and Sexuality Studies

* English composition courses to fulfill this requirement must be taken at the 300 level and above.

** Foreign languages fulfill the Humanities Concentration of the Integrated Studies degree; they can also fulfill the Languages and the Arts distribution area for general education requirements.

Mathematics & Sciences concentration, which includes the following:

- Biology
- Chemistry
- Earth & Planetary Sciences
- Mathematics and Statistics
- Physics

Social Sciences concentration, which includes the following:

- Anthropology
- Economics
- History
- Political Science
- Psychology
- Sociology
- Women, Gender, and Sexuality Studies

Capstone (3 units):

Students must also complete a 3-unit capstone essay in which they reflect on the integration of a topic across fields within the chosen concentration.

Arts & Sciences Professional Track

Required Courses: 36 units

In the Arts & Sciences Professional Track, students pair the critical thinking, research and writing that are essential across multiple careers with a set of skills that advances their prospects in a particular profession.

Area concentration (18 units):

Students choose from Humanities, Social Sciences, or Mathematics & Sciences. Courses must be at the 300 and 400 level.

Professional studies (15 units):
Students choose individual courses that best advance their goals or that focus on a given area. Professional studies courses are chosen from the following:

- Business
- Clinical Research Management
- Communications
- Computers and Information Management
- Design Thinking
- Forensic Psychology
- Geographic Information Systems
- Human Resources Management***
- Journalism
- Nonprofit Management***
- Sustainability

*** Undergraduates may take a maximum of 9 units of 500-level (graduate-level) course work.

Capstone (3 units):
Students reflect on, research and develop a set of best practices in a chosen profession.

Optional certificate:
Students in the Arts & Sciences Professional Track may focus on a given area and can earn a certificate (13 to 21 units) in the following:

- Business
- Clinical Research Management
- Forensic Psychology
- Geographic Information Systems
- Marketing
- Strategic Communications
- Sustainability

Political Science
The Department of Political Science offers students the opportunity to study all aspects of politics using cutting-edge technical and theoretical tools. Our courses are animated by long-standing problems related to the use of power, its rightful exercise by governments and individual actors, and the institutions that affect how that power is exercised. Reflecting the breadth of the discipline, we offer a range of classes, including courses on elections and electoral politics, international political economy, justice and the state, and comparative analyses of political institutions across states.

A major in political science thus exposes students to the primary themes of the discipline: American politics, comparative politics, international politics, political methodology and political theory. A political science major offers students the opportunity to study political life as part of a broad liberal education, and it is a useful step toward law or business school. Other political science students pursue careers or further education in public administration, urban planning, journalism, education and social work or in federal, state or local government.

Phone: 314-935-5810
Email: polisci@wustl.edu
Website: https://ucollege.wustl.edu/programs/undergraduate/bachelors-political-science

Degree Requirements
Bachelor of Science in Political Science
All University College undergraduate students must satisfy the same general-education requirements (p. 90).

Required: 30 units minimum
To major in political science, students must complete a minimum of 30 units of political science course work, including at least 6 units of introductory course work, the course U25 PolSci 323 Introduction to Quantitative Methods, and at least 18 units of advanced courses at the 300 and 400 levels. The 18 advanced units for the major must include at least one 3-unit course from three of the following five fields:

- American politics
- Comparative politics
- International politics
- Political and social theory
- Methods of political research and analysis

The department encourages students to explore a wide variety of courses in political science. A student’s program should be planned in close consultation with an academic advisor.

The Minor in Political Science
Required: 15 units
For the minor, 15 units of course work in political science, including at least 9 units of advanced-level courses, are required.

Courses

U25 PolSci 101 American Politics
This course provides an overview of the politics of American government. The topics covered are the historical developments of American politics, federalism, political participation (e.g., voting) institutions (e.g., congress), and public opinion. That political actors are strategic in their pursuit of objectives is a
theme underlying our examination of these topics. Accordingly, we explore the many ways in which strategic political behavior impacts institutions and the interactions between political actors in the United States.

Credit 3 units. UColl: OLI, OLI

U25 PolSci 102 Comparative Politics
This course introduces the student to the fundamentals of cross-national research, study, and understanding. Comparative politics is the study of the domestic politics of other countries. Comparative political study is important because domestic politics shapes what goes on within a given country and shapes how that country’s citizens and leaders interact with other countries. Comparative study is challenging because it requires both factual and theoretical knowledge about the world’s political systems and how and why they function. Without a strong background in the factual information and the theoretical frameworks around which we can begin to explain and predict political decisions, we cannot understand the world. This lack of understanding impedes effective decision making at the local, regional, national and international scales. In this course, we will study the dominant structures within which politics occurs and examine how those structures shape political choices.

Credit 3 units. Arch: SSC Art: SSC BU: BA, IS UColl: CD, OLI

U25 PolSci 103 Introduction to International Politics
This is an introductory survey course. Its goal is to familiarize students with the basic concepts of International Relations (IR) as a subfield of political science and to introduce them to important issues, such as cooperation and conflict, interdependence in the era of globalization, human rights and human development, and the environment.

Credit 3 units.

U25 PolSci 203 Topics in Politics
The topic of this course varies by semester, dependent on faculty and student interests.

Credit 3 units. UColl: OLI

U25 PolSci 227 Just Do It! Running for Political Office
The course will focus on skills related to the democratic expression of political rights and responsibilities. The course will balance background knowledge of the issues with application. Students will explore how to use coalition building and advocacy skills to relate to personal issues to public issues. Students will research a current Missouri bill, create a strategic plan for its passage or failure, and prepare to give testimony on such bill in a mock House of Representatives committee hearing. Students will also learn about ethical dilemmas in policy and politics and create a plan for turning their passions into policy.

Same as L32 Pol Sci 227
Credit 1 unit. A&S IQ: SSC Arch: SSC Art: SSC EN: S

U25 PolSci 230 U.S. Presidential Campaigning
With the 2016 Presidential race as our backdrop, this course will explore the road to the White House, from early primaries and caucuses through the general election. We will study the role and impact of the media, political parties, and interest groups. We will discuss campaign strategy and organization and the importance of fundraising, debates, polling, social media, and national conventions. We will assess the strengths and weaknesses of current presidential campaigns in real time. Students will select a candidate to "manage" throughout the course and develop themes, speeches, and a general election strategy for their candidate. We will not debate which candidate is the best, but we will discuss who has the best message, organization, and overall campaign.

Credit 3 units. UColl: PSA

U25 PolSci 260 Game Theory in Science and Culture
Introduces the major intellectual insights of game theory in a nontechnical fashion, and examines the influence game theory has had on geopolitics, social philosophy, psychology, art, and the humanities. In addition to covering the basic machinery of the theory, the class will: participate in numerous illustrative classroom games; examine game theory in film, literature, and literary criticism; see how game theory has contributed to social theory; and learn about the background of game theory and its history and perception as a hoped-for tool in the Cold War. Grades based on problems, short essays, two short-essay exams, and participation.

Same as L32 Pol Sci 260
Credit 3 units. A&S IQ: SSC

U25 PolSci 3006 Humanitarian Intervention
This course will examine the political factors that influence humanitarian intervention by studying the ethical, legal, economic, and geostrategic aspects underpinning one of the more controversial developments, namely, the use of military force to protect civilians caught up in internal conflict, such as in Somalia, Bosnia, and Kosovo. The course reviews traditional humanitarian principles and considers how 21st-century intrastate wars have influenced humanitarian organizations. We also consider the “Responsibility to Protect” doctrine and its impact on NATO operations.

Credit 3 units.

U25 PolSci 3031 Race and Ethnicity in American Politics
This course will examine both the historic and current role of minorities in American politics. Special emphases will be placed on political participation / voting behavior, the uses of race in campaigns and political rhetoric, race as it affects public policy, and finally, the effect of racial issues on American party alignment.

Credit 3 units. Arch: SSC Art: SSC BU: BA EN: S UColl: PSA

U25 PolSci 3032 Global Energy Policy: From Israel to Iran
This course examines how the global energy markets operate and how energy policy is formulated, with a special focus on the Middle East. Students interested in working in the energy and/or policy world will gain a deeper understanding of the complexities involved in energy policy formulation and its profound impact on national security, the economy, and foreign policy. Students will deal with issues such as securing energy markets and suppliers, managing oil revenue, deciding on the country’s fuel mix for electricity, promoting nuclear energy in the Middle East, engaging with environmental concerns, using energy resources as a “weapon” in foreign policy, subsidizing renewable energy, and the role of energy in war. After learning the basics of the energy market, students will focus on the major players in the Middle East and examine their energy markets -- from Israel to Saudi Arabia and Iran -- including the involvement of foreign actors such as the United States and Russia. They will then be tasked with writing their own op-eds and policy papers to try and influence the process of energy policymaking and to gain experience writing for different audiences. The course
will include a guest lecture by an executive from a major coal producer operating in St. Louis (depending on availability) and an optional class visit to a renewable energy project near St. Louis.

Same as U94 JME 303
Credit 3 units. UColl: CD, OLI, PSI

U25 PolSci 3050 Politics of International Law
In this course, we will focus on key issues of international law and international politics, and how issues of law and politics intersect at the international level. This will include a focus on theories of international relations, theories of international law; conflicts regarding resources, territory and ideology; the military-industrial complex; globalization, privatization and commercialization; international trade; international treaties; international institutions; the limits of international law; customary international law; the law of the sea; space law; the concept of empire, unilateralism; human rights; and war law.
Credit 3 units. UColl: PSI

U25 PolSci 3061 Sex, Race, and Justice: The U.S. Supreme Court Year Review
Credit 3 units.

U25 PolSci 3103 Topics in Politics: Middle East Politics
This course is designed to explore the historical background, social and political environment, political structure, political dynamics, foreign policy, and future prospects of the most influential and “hotspot” countries of Middle East: Turkey, Iran, Syria, Iraq, Israel, Palestine, and Yemen.
Credit 3 units. BU: BA UColl: CD, OLI, PSC, PSI

U25 PolSci 3111 The Trump Administration: An Examination of a New Paradigm for Presidential Leadership & Governance
This course will examine and assess the promise, progress, and performance of the Trump administration by addressing Trump as the president, the politician, and the person. We will examine Trump's historic upset victories in the Republican primary and the Presidency, including his populist-nationalist political philosophy and campaign strategy. We will study how Trump, the politician, has been able to successfully win the right, despite controversial positions. We will examine how he implements his brand of political-economic strategy and global world view across contemporary issues, including public activism and Black Lives Matter, immigration and civil liberties, fake news and media literacy, gender issues, the environment, and globalization. The syllabus schedule may change in response to political events.
Credit 3 units.

U25 PolSci 3153 Local Economic Development
This course introduces students to the concepts and practices of local economic development.
Credit 3 units. UColl: PSA, PST

U25 PolSci 3191 Topics in American Politics
This course is intended primarily for sophomores and juniors. The topic of this course varies by semester, dependent on faculty and student interests.
Credit 3 units. UColl: OLI, PSA

U25 PolSci 3232 Introduction to Quantitative Methods
This course introduces the basic concepts of data analysis and statistical computing, both increasingly used in the social sciences and the humanities. The emphasis is on the practical application of quantitative reasoning and data analysis. The general goal is to provide students pragmatic tools for assessing statistical claims and conducting their own basic statistical analyses. Topics covered include basic descriptive measures, measures of association, sampling and sample size estimation, and simple linear regression. Assignments are based on real-world data and problems in political science. Basic math skills (algebra) are recommended.
Credit 3 units. UColl: OLI

U25 PolSci 3232 Introduction to Data Analysis for Public Policy and Politics
The goal of this course is to establish a baseline understanding of the qualitative and quantitative techniques, tools, and processes used to wield data for effective decision making in government, politics and the nonprofit sector. Its approach focuses on pragmatic, interactive learning using logical methods, basic tools, and publicly available data to practice extracting insights and building recommendations. It is designed for students with little prior statistical or mathematical training and no prior experience with statistical software.
Credit 3 units. UColl: OLI

U25 PolSci 3252 Topics in Comparative Politics
This course is intended primarily for sophomores and juniors. The topic of this course varies by semester, dependent on faculty and student interests.
Credit 3 units. UColl: PSC, PSI

U25 PolSci 3267 Research in the Contemporary Academic Library: Prison Education Project Research Partnership
This course has a dual role as an introduction to political science research approaches and methods and as a practical training opportunity in library research. Students will have opportunities for direct application of their information and data literacy as research assistants working with faculty and incarcerated students in the Washington University Prison Education Project. This course is appropriate for political science and other social studies students as well as students participating in any scholarly community.
Credit 3 units.

U25 PolSci 3291 Modern South Asian Politics
This course will focus on the recent political history and development of South Asia. It will begin with a review of the British colonial period and the Independence movement. The remainder of the course will examine different political issues in India, Pakistan, Bangladesh, and Sri Lanka. Topics will include political mobilization, land reform, law and politics, social movements, religious and caste politics, the rise of religious nationalism, and political control of the economy.
Same as L32 Pol Sci 3292
Credit 3 units. A&S IQ: LCD, SSC Art: SSC BU: IS
U25 PolSci 330 Topics in Political Science: Theoretical Foundations of the Movement for Black Lives
This course explores the theoretical underpinnings of the Black Lives Matter (BLM) movement and the Movement for Black Lives (M4BL) policy platform. Since its emergence, BLM has articulated an intersectional critique of anti-black violence in the United States (and, to a certain extent, globally). BLM and the larger M4BL coalition provide an in-depth analysis of the specific ways structures of oppression such as white supremacy, patriarchy, and racial capitalism affect Black populations. By historically, theoretically, and politically situating BLM and the M4BL policy platform in the context of Black radical thought, including but not limited to abolitionist thought, intersectionality, and conceptualizations of racial capitalism, we will trace the ways BLM and M4BL adopt and build on various lineages of critique to diagnose contemporary forms of anti-black violence. Credit 3 units. UColl: PSA, PST

U25 PolSci 331 Topics in Political Science
Varies by semester
Credit 3 units. UColl: PSI

U25 PolSci 3310 Topics in Politics: Theories of Social Justice
This course is intended primarily for sophomores and juniors. The topic of this course varies by semester, dependent on faculty and student interests. Same as L32 Pol Sci 331
Credit 3 units. A&S IQ: SSC Arch: SSC Art: SSC BU: ETH, HUM EN: S

U25 PolSci 3312 Environmental and Energy Issues
This course considers the major issues in these increasingly important areas of public policy. We discuss the importance of political processes and actors on such phenomena as global warming, endangered species, and public lands. This course emphasizes the American experience but also considers international implications. Credit 3 units. UColl: OLI, PSA

U25 PolSci 3313 St. Louis Metropolitan Urban Politics
This course will focus on examining, analyzing, critiquing and exploring the political institutions, political operatives and political activities of the myriad various urban communities that comprise the greater St. Louis metropolitan urban region. Credit 3 units. UColl: PSA

U25 PolSci 3322 Sustainability Policy
Credit 3 units.

U25 PolSci 3326 Topics in Politics: Constitutional Politics in the U.S.
This is a topics course in Political Science. Same as L32 Pol Sci 3325
Credit 3 units. A&S IQ: SSC Art: SSC BU: BA EN: S

U25 PolSci 3331 Topics in Politics: Social and Political Movements
This course is intended primarily for sophomores and juniors. The topic of this course varies by semester, dependent on faculty and student interests.
U25 PolSci 364 The New Space Rush
This course will introduce students to new activities regarding outer space. New types of spaceships and space hotels are being designed. Vast quantities of natural resources such as gold, platinum, iridium, osmium, helium 3 and water were recently discovered in outer space. These new advances in space exploration, science, technology and architecture can be analyzed through the lens of political science. Across various disciplines, these accomplishments in physics, biology, chemistry, engineering, medicine and computer science, along with the likely economic implications, can be explained by political science concepts, theories and analytical tools. Students from many disciplines can learn more by understanding the big picture of patterned activities relevant to outer space. Newly emerging industries such as space tourism, space mining, commercial space settlements and outer space colonization will be discussed.
Credit 3 units. UColl: PSC, PSI

U25 PolSci 367 Ancient Political Thought
Same as U02 Classics 367
Credit 3 units.

U25 PolSci 370 Topics in Politics: The European Union
The European Union is a unique phenomenon in international politics. It is also the largest single market and one of the three top players in international trade (together with the United States and China). In this class we will study its history and relevant theoretical perspectives, its institutions and policies as well as its successes, failures, and challenges.
Credit 3 units. UColl: OLI, PSC

U25 PolSci 374 American Foreign Policy
American foreign policy from the end of World War II to the present; the domestic constraints on America's ability to create a coherent, effective foreign policy.
Credit 3 units. UColl: PSI

U25 PolSci 375 Topics in International Politics: International Organizations and Global Governance
This course surveys postwar American foreign policy in historical perspective. It begins by evaluating the rise of the United States as a world power during the 20th century, its current position of primacy and its consequences in the post-Cold War period, and the distinctive traditions and institutions shaping the making of American foreign policy. It then examines the origins of the strategy of containment during the early Cold War period before considering how these debates animated the changing course of American foreign policy through the various phases of the Cold War conflict. The course concludes by analyzing American foreign policy since the end of the Cold War, up to and including debates about the consequences of September 11, 2001, for the United States' position of primacy, the Bush Doctrine, and the American-led intervention in and subsequent occupation of Iraq.
Credit 3 units. Art: SSC BU: IS

U25 PolSci 3781 Israeli Politics
Places Israeli political issues and events within the context of existing political theories. Discusses the politics and ideology of pre-state Israel and the foundation of the state. The creation of modern Israel political institutions, elections, and government coalitions. Also, Israeli foreign policy and international involvement.
Credit 3 units. UColl: CD, PSC, PSI

U25 PolSci 382 Introduction to Public Policy
In this course students will learn the structures, processes, and actors comprising policymaking in the United States at the national and state level. Using various models of the policy process, students will gain understanding of policies in a variety of policy arenas. The core project of the course will help students develop their analytic and writing skills by applying the models learned in class to a specific policy debate within one of the areas discussed in the course.
Credit 3 units. UColl: OLI, PSA

U25 PolSci 3911 History of Political Thought: Justice, Virtue, and the Soul
This course offers a critical introduction to the main issues and debates in Western political theory, including but not limited to the topics of justice, legitimacy, equality, democracy, liberty, sovereignty, and the role of history in the political and social world. This course is designed to be the first in a three-semester sequence on the history of political thought, and students are encouraged, but not required, to take the courses in chronological sequence. The first semester begins with ancient Greek political thought, and follows its development up to the early 16th century.
Same as L32 Pol Sci 391
Credit 3 units. A&S IQ: LCD, SSC Arch: SSC BU: BA EN: S UColl: ML

U25 PolSci 400 Independent Study
Must complete independent study forms with signatures from faculty, University College Coordinator and dean at University College.
Credit 3 units.

U25 PolSci 4013 Negotiating Major Legislation in Congress
This course examines the outcomes of the legislative process in the United States. The first third of the course will examine key concepts and major determinants of the negotiation process: majority rule instability, agenda control, political parties, the amendment process, and the uncovered set. The rest of the course will examine the negotiations that led to some of the most significant legislation in the past 100 years, from the Federal Reserve Act of 1913 through the Voting Rights Act of 1965 to the immigration bill of 2006. Along with other assignments, each student will write several drafts of a major research project on a major piece of legislation. Each research project will examine the amendments offered, the strategic intentions of the participants, the politics and ideology of the amendment process, and the uncovered set. The rest of the course will examine the negotiations that led to some of the most significant legislation in the past 100 years, from the Federal Reserve Act of 1913 through the Voting Rights Act of 1965 to the immigration bill of 2006. Along with other assignments, each student will write several drafts of a major research project on a major piece of legislation. Each research project will examine the amendments offered, the strategic intentions of the amendments' sponsors, the agenda process, and the role of party. Prerequisite: PolSci 101B.
Same as L32 Pol Sci 4013
Credit 3 units. A&S IQ: SSC, WI
U25 PolSci 4080 Voting Rights and Election Law
This course will study legal concepts of voting rights and election law that impact the ability of citizens participate in the democratic process. What is the nature of the right to vote? Who gets to participate and on what terms? This question has been an ongoing source of debate and controversy since the founding of our nation, and remains so today, as the vote is symbolic of voice, presence and power in a democracy. As debates of race, class, citizenship, power and the role of government play out in how we exercise our political voice, this course will look at the timely and dynamic debates on voting and the underlying legal, historic, policy and political movements surrounding them. Many find it hard to believe that there is no explicit “right to vote” in the U.S. Constitution - part of a compromise inextricably tied to the history of race in America. Yet there are more constitutional amendments governing the right to vote than any other, prohibiting the abridgment of voting based on race, gender, property ownership, age and other qualifications. Legislative enactments have also established rights with respect to voting. Each extension of voting rights has been a product of and brought about, social and political change. Today there are more laws conditioning access to the ballot than at any other time since the post-reconstruction era, and many states will be facing new rules heading into upcoming mid-term elections and in anticipation of redistricting following the 2020 census. This course will examine the interplay of law and politics, history and political movements in the right to vote. The course will begin with a historical look at the development of voting rights from the founding of our country to the present. What factors have caused us to redefine who gets to participate in the electoral process and how? We will then apply these principles to current controversies in voting rights, through examination of current litigation and policy debates, and by assessing proposed solutions for voting rights going forward. The course involves study of fundamental court cases, interactive discussion of contemporary debates, and review of current litigation and legislative proposals. The course will be supplemented by occasional media and guest visits by election officials, lawyers, lawmakers, advocates or others.
Credit 3 units. UColl: PSA

U25 PolSci 4131 Directed Research in Political Science
Research activities or project in political science under the supervision of an instructor in the department.
Credit variable, maximum 3 units.

U25 PolSci 414 Directed Fieldwork
A fieldwork project carried out under the direction of the department. Must be taken pass/fail.
Credit variable, maximum 9 units.

U25 PolSci 422 Topics in American Politics
The topic of this course varies by semester, dependent on faculty and student interests.
Credit 3 units. UColl: PSA

Theory and practice of mercantilism, capitalism, and socialism. Historical and contemporary examples considered, with contemporary focus on Latin America, Eastern Europe, and Hong Kong. Primary emphasis on choices open to individuals; pecuniary and non-pecuniary prices paid to exercise those choices. Statistical evidence and case studies will be used. Course requirements include weekly written critique.
Prerequisite: U07 Econ 1011 or 1021.
Same as U07 Econ 427
Credit 3 units. UColl: OLI

U25 PolSci 4552 Comparative Political Economy
This seminar will introduce the student to aspects of social choice theory, applied to themes to do with the economic origins of democracy, democratization and the stability of social orders. We shall read and discuss a number of recent books: Acemoglu and Robinson on Economic Origins; North, Weingast and Wallis on Violence and Social Orders; Przeworski on Democracy and Development; Ferguson on Money; Collier on Wars, Guns, and Votes. If time permits we also hope to discuss recent work by Stern on the Economics of Climate Change. Students will be expected to work on two short research papers, either empirically or theoretically based, and make a presentation of their work near the end of the semester.
Same as L32 Pol Sci 4552
Credit 3 units. A&S IQ: SSC Arch: S: SSC Art: SSC EN: S

U25 PolSci 482 Public Policy Internship
Internships in such places as legislators’ offices, public interest groups, regional or community organizations, or private businesses with active public policy research interests. Prerequisites: 12 hours of political science course work; advanced standing; permission of University College, the instructor, and the department chair. Must be taken for letter grade. Must be taken concurrently with U25-414.
Credit variable, maximum 3 units.

U25 PolSci 483 Legal Internships
The legal internship program is designed to allow advanced undergraduates the opportunity to undertake an internship in one of a variety of public and private law offices. Must be taken for letter grade. Must be taken concurrently with U25-414.
Credit variable, maximum 3 units.

Psychological & Brain Sciences
As the science concerned with the study of behavior, Psychological & Brain Sciences includes such areas as learning and memory, motivation, sensory processes and perception, biological bases of behavior, social interactions, aging and development, personality, and clinical and affective psychology.

Undergraduate study in Psychological & Brain Sciences provides a sound basis for later professional graduate training at the master's or PhD level in Psychological & Brain Sciences. The psychological and brain sciences major may also provide important intellectual tools for those considering careers in management, law, education, social work, public relations and health-related professions. We also offer a psychological and brain sciences minor for students who are interested in psychological and brain sciences but are pursuing other subjects.
Degree Requirements
Bachelor of Science in Psychological & Brain Sciences

All University College undergraduate students must satisfy the same general-education requirements (p. 90).

Students majoring in psychological and brain sciences in University College must complete a minimum of 33 units in psychology, including the following:

Introductory Psychology Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psych 100</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Psych 300</td>
<td>Introductory Psychological Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Psych 3015</td>
<td>Research Methods</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

Psychology Area Courses

Five upper-level (300-400) psychological and brain sciences courses as indicated below:

- **Group A - Social/Personality** (at least one course):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psych 315</td>
<td>Introduction to Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Psych 353</td>
<td>Psychology of Personality</td>
<td>3</td>
</tr>
<tr>
<td>Psych 381</td>
<td>Cross-Cultural Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

- **Group B - Clinical/Affective** (at least one course):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psych 3195</td>
<td>Abnormal Child Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Psych 330</td>
<td>Perspectives on Counseling</td>
<td>3</td>
</tr>
<tr>
<td>Psych 368</td>
<td>Introduction to Psychopathology and Clinical Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Psych 488</td>
<td>Addiction and Treatment</td>
<td>3</td>
</tr>
</tbody>
</table>

- **Group C - Biological/Neurological** (at least one course):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psych 3401</td>
<td>Biological Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Psych 3604</td>
<td>Cognitive Neuroscience</td>
<td>3</td>
</tr>
</tbody>
</table>

- **Group E - Lifespan Development** (at least one course):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psych 308</td>
<td>Social Gerontology</td>
<td>3</td>
</tr>
<tr>
<td>Psych 322</td>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Psych 325</td>
<td>Psychology of Adolescence</td>
<td>3</td>
</tr>
<tr>
<td>Psych 3261</td>
<td>Psychology of Aging</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional Electives

To complete the psychological and brain sciences major, students must complete three additional electives in psychology at the 300 or 400 level. A maximum of 3 units of independent study may apply to the major.

The Minor in Psychological & Brain Sciences

The requirements for the minor are a minimum of 15 units in psychology, with at least 9 units of upper-level (300-400) courses; there are no specific course requirements other than Introduction to Psychology (Psych 100). Students interested in a general background might take courses in several areas, including social, sensation and perception, physiological, and personality. Those who wish to concentrate in a specialized area (e.g., the “helping professions” or counseling) should take such courses as personality, clinical psychology, developmental psychology or perspectives on counseling.

Courses


U09 Psych 100 Introduction to Psychology
This course covers current concepts and theories of learning, motivation, emotion, perception, thought, intelligence, and personality, emphasizing both biological and philosophical aspects. This course is a prerequisite for all 300-level and above psychology courses.
Credit 3 units. UColl: OLH, OLI

U09 Psych 122 Applying Psychological Science to the COVID-19 Pandemic
Psychological science is highly relevant to daily life. In this course, we will use introductory-level psychology concepts to explore aspects of the current COVID-19 pandemic. We will cover concepts from psychological subfields, including health psychology, community psychology, industrial-organizational psychology, and others. Our inquiry will be focused around four questions: (1) How have work, education, and socializing
changed during COVID-19? (2) How do you encourage people to act in ways that promote public health? (3) What are the psychological consequences of COVID-19? (4) What is the impact of the pandemic across groups?
Credit 1 unit. UColl: OLI

U09 Psych 214 Introduction to Industrial and Organizational Psychology
This course explores the application of research findings in psychology and other behavioral sciences to issues and problems in the workplace, including both theory and methodology. Includes motivation, communication, learning, decision making, leadership, power and influence, and personnel selection.
Credit 3 units. UColl: OLI

U09 Psych 230 Human Growth and Development
This course provides an overview of emotional, psychological, physical, and social development through the life span. We will emphasize the developmental tasks, characteristics, and typical behaviors of each developmental era (infancy, childhood, adolescence, adulthood, later life). We will study major developmental theorists including Freud, Erickson, Piaget, Millet, Gilligan, and Kohlberg. Prerequisite: U09-100.
Credit 3 units. UColl: OLI

U09 Psych 235 Life Stories: Personal Approaches to Adult Development, Learning, and Life Planning
This course examines adult development and adult learning as points of reference for analyzing the major decisions, changes, and opportunities that influence our own lives — at work, at school, at home, and in the larger community. We will also examine the sustaining role of liberal education in our personal and professional growth. We will read a combination of personal memoir, autobiography, and other nonfiction to illustrate how other people have responded to life's challenges and transitions, and to help us construct our own life stories, educational and professional plans. Selected readings from psychology, education, literature, anthropology, sociology, leadership and career development, include Composing a Life, Tuesdays with Morrie, Habits of the Heart, The Leadership Challenge, Journey in the Middle of the Road, and A River Runs Through It. Cannot count toward requirements for the psychological and brain sciences major or minor for day students. Prerequisite: Psych 100.
Credit 3 units.

U09 Psych 240 Internship in Psychology
Participation under supervision in an applied, non-academic community agency for course credit. Signed Internship Learning Agreement required prior to enrollment. Open only to University College Psychology majors. Must be taken pass/fail.
Credit variable, maximum 3 units.

U09 Psych 270 Positive Psychology and Happiness
Positive psychology is the study of the positive elements of human nature, behavior, and experiences, as well as the practices that facilitate these positive elements. In the first part of this course, we review the history of positive psychology, examine the meaning and measurement of happiness and well-being, explore the role of genetics and circumstances on happiness, and review the myriad benefits of happiness. In the second part of the course, we review the research detailing who is happy and why, and we explore the research on the practices and habits that facilitate happiness. Specific practice and habit topics include gratitude, mindfulness, optimism, strengths identification, meaning and purpose in life, meaningful social connections, compassion, forgiveness, positive relationships, sleep, and more. Throughout the course, we will participate in experiential learning from assessing our own happiness and strengths to engaging in practices found to facilitate happiness. This course will not count toward the major in Psychological and Brain Sciences for day students.
Credit 3 units.

U09 Psych 300 Introductory Psychological Statistics
This course introduces descriptive statistics, including correlation and regression. Other topics include inferential statistics, including non-parametric and parametric tests of significance through two-way analysis of variance. The course emphasizes underlying logic and is not primarily mathematical, although knowledge of elementary algebra is essential. Prerequisite: Psych 100.
Credit 3 units. UColl: OLI

U09 Psych 3011 Experimental Psychology
Psych 3011 is limited to students who have not taken Psych 300 and want to enroll in Psych 300 and Experimental Psychology concurrently. Therefore, students who enroll in Psych 3011 must also register for Psychology 300. Psych 3011 fulfills the Psychology 301 requirement for the major. Topics in the two courses (i.e., Psych 300 and Psych 3011) will be coordinated in order to integrate the concepts from Statistics with those from Experimental Psychology. Experimental Psychology provides training in the logic and techniques of psychological research so as to provide students with experience in the design of psychology experiments and interpretation of results. Topics include experimental design and control, library research, quantitative treatment of data, graphical presentation of results, and clarity of scientific writing. Lectures focus on general principles of experimentation while the laboratory component provides an introduction to a range of psychological phenomena through hands-on experience in experimentation. Each student also completes an independent research project of his or her own design under supervision of a faculty member. Enrollment limited to 15 students. Declared P&BS majors will have priority. PREREQ: Psych 100 B and concurrent enrollment in Psy 300. Same as L33 Psych 3011
Credit 4 units. A&S IQ: NSM Arch: NSM Art: NSM BU: BA, SCI

U09 Psych 3015 Research Methods
This course provides training in the logic and techniques of psychological research so as to provide students with experience in the design of psychology experiments and interpretation of results. Topics include experimental design and control, library research, quantitative treatment of data, graphical presentation of results, and clarity of scientific writing. Not open to day students. Prerequisites: U09-100, U09-300.
Credit 3 units. UColl: OLI

U09 Psych 308 Social Gerontology
This course provides an introduction to aging and growing old from an interdisciplinary perspective. Specific attention is paid to demographics, physical health and illness, mental health, interpersonal relations, work issues, living arrangements,
ethics, and death and dying. Prerequisite: U09 100. This course satisfies the Lifespan Development (Area E) requirement for the University College Bachelor of Science in Psychological and Brain Sciences degree. Credit 3 units.

**U09 Psych 309 Evolutionary Psychology**
This course will explore the extent to which an understanding of biological evolution is relevant to an understanding of human psychology. Fundamental evolutionary principles will be introduced and their application to psychological theory and research carefully evaluated. Individual topics include romantic relationships, family dynamics, cooperation, clinical pathology, judgment and decision-making, religious belief, and more. Prerequisite: U09-100. Credit 3 units. UColl: OLI

**U09 Psych 310 History and Modern Systems of Psychology**
An introduction to the history of psychology. This course begins with a brief consideration of forces leading to the development of psychology in the mid-1800s. It then examines the birth of modern psychology in Germany, and the schools of psychology that emerged early in the 20th century. Newer orientations and ideas are considered in the final segment of the course. We also consider the impact of psychology on American public life during the 20th century. Prerequisite: U09 100. Credit 3 units. UColl: OLI

**U09 Psych 311 Sport Psychology**
Overview of theoretical and applied principles of sport and exercise psychology. Special emphasis on psychological factors that effect sport performance, including personality, motivation, attention, anxiety, self-regulation of arousal, group dynamics, leaderships, causal attributions, and performance enhancement. Prerequisite: Psych 100. Credit 3 units.

**U09 Psych 312 Industrial and Organizational Psychology**
Interactions of individuals and organizations in measures of human performance, motivation, leadership, job satisfaction, training, ability testing, and stress. Skill-building in the techniques of psychology that are applied to the solution of business and industrial problems. Prerequisite: U09-214 or 300, or permission of instructor. Credit 3 units. UColl: OLI

**U09 Psych 315 Introduction to Social Psychology**
Interaction of biological, cultural, situational, and technological factors on who we are and how we interact with others: person perception, motivation, attitudes, and communication. Credit 3 units. UColl: OLI

**U09 Psych 317 Psychology of War, Terrorism, and Peace**
This course will promote understanding and critical thinking on war, terrorism, and peace from a psychosocial perspective. Intrapersonal, interpersonal and socio-cultural sources of geopolitical conflict will be examined in both historical and contemporary contexts. Emphasis will be placed on understanding the psychosocial dimensions involved in a multi-disciplined approach for the integration of political, economic, religious, and military interventions in resolving conflict and pursuing peace. PREREQ: U09 100. Introduction to Social Psychology (U09-315) is also recommended. Credit 3 units.

**U09 Psych 3195 Abnormal Child Psychology**
This course will familiarize students with current perspectives on the nature, causes, assessment, treatment, and prevention of child psychiatric disorders and related family dysfunction. Theoretical perspectives and research findings will be discussed pertaining to anxiety, depression, conduct disorder, attention-deficit/hyperactivity disorder, autism, learning impairments, and parent-child conflict. Prerequisite: U09 322 or U09 354. Credit 3 units. Arch: SSC Art: SSC BU: BA EN: S

**U09 Psych 3200 Child Health Psychology**
This course examines the field of child health psychology, which focuses on the impact of health and illness on the physical and psychological development of children and adolescents. We will explore the relations among psychological and physical health and the welfare of children within a developmental perspective, considered within the contexts of families, health care systems, schools, peers, and community. Topics such as chronic illness (e.g., cystic fibrosis, sickle cell disease, organ transplant, asthma), adherence to medically prescribed regimens, and neuropsychological aspects of chronic illness will be addressed. Previous course work in Developmental Psychology (e.g., U09 230, U09 322) would be helpful but not required. Credit 3 units.

**U09 Psych 322 Developmental Psychology**
In this course we will study behavior in children including developmental methodology, prenatal development, memory, cognition, attention, perception, language, sex roles, morality, emotions, aggression, and intelligence testing. Prerequisite: U09-100. Credit 3 units. UColl: OLI

**U09 Psych 325 Psychology of Adolescence**
Psychology of the period from puberty to adulthood; the major developmental tasks such as identity formation and the influence of differential parental style upon the development of adolescents. Prerequisite: U09-100. Credit 3 units. UColl: OLI

**U09 Psych 3251 Juvenile Delinquency**
This course explores the nature of juvenile delinquency, including its root causes and influences, as well as the various strategies currently being employed to reduce and prevent delinquent behavior. The course discusses how delinquency begins, persists, and is overcome. Delinquency will be looked at from both a sociological and developmental-psychological perspective. We will discuss the criminal justice response to delinquency and evaluate programs and models that have met with varying degrees of success, as well as those that have had the opposite effect on reducing delinquent behavior. Credit 3 units. UColl: OLI

**U09 Psych 3261 Psychology of Aging**
Study of the processes of aging in the individual in terms of their behavioral effects. Age changes in biological functions, sensation, perception, intelligence, learning, memory, and creativity studied to understand the capacities and potential of the mature and older person. Credit 3 units. UColl: OLI
U09 Psych 330 Perspectives on Counseling
This is an experiential course teaching skills in the counseling process. We will examine awareness and listening, attending and reflecting, questioning and summarizing, empathy, concreteness, problem definition, probing, and detailing. Role-playing and group work supplement didactic material. Prerequisite: U09-100. Credit 3 units. UColl: OLI

U09 Psych 3401 Biological Psychology
This course presents an introduction to biological mechanisms underlying behavior. Topics will include the physiology of nerve cells, the anatomy of the nervous system, the control of sensory and motor activity, arousal and sleep, and motivation and higher mental processes. Prerequisite: Psych 100B. Credit 3 units. Art: NSM BU: SCI

U09 Psych 353 Psychology of Personality
This course covers basic theories of personality and complex human behavior. We study related techniques, procedures, and findings of personality assessment and personality research, and examine critical issues in the evaluation of personality theories. PREREQ: Psych 100. Credit 3 units. UColl: OLI

U09 Psych 358 Health Psychology
This course examines the history of health psychology and its place in general health care. We will examine relevant theory as applied to specific topics including stress, coping, weight loss, chronic illness in general (diabetes in particular), adherence to medically prescribed regimens, Type A personality and cardiac risk factors. Prerequisite: U09-100. Credit 3 units. UColl: OLI

U09 Psych 359 Cognitive Psychology
Thought processing from an information processing approach. Includes pattern recognition, attention, memory, reasoning, language processes, decision making, and problem solving. Credit 3 units. UColl: OLI

U09 Psych 3604 Cognitive Neuroscience
This course provides a general introduction to the underlying principles and mechanisms of brain function that give rise to complex human cognitive behavior. Emphasis will be placed on how emerging methods and approaches from both neuroscience and cognitive psychology have been integrated to yield new insights into the organization and structure of higher mental processes. Topics include perception, attention, memory, language, and executive control. Prerequisite: Psych 100B. Credit 3 units. Arch: NSM Art: NSM BU: SCI

U09 Psych 361 Psychology of Learning
The experimental analysis of behavior is presented with examination of Operant and Pavlovian conditioning, aversive control, theories of reinforcement, choice behavior, behavioral economics, etc. Theoretical and experimental approaches to the study of behavior as developed in the laboratory are emphasized. Consideration is given to applications from the laboratory to everyday behavior. PREREQ: Psych 100B. Enrollment limited to 30. Same as L33 Psych 361

U09 Psych 365 Learning and Memory
In this course we focus on the major theories of human learning and memory. We review several behavioral-associationist theories, including classical conditioning and behavior modification. The course emphasis is on cognitive-organizational theories, human information processing, current perspectives on knowledge representation, and their implication for understanding and recall. Credit 3 units. UColl: OLI

U09 Psych 367 Seminar in Positive Psychology
Reviews the relatively recent development in the field known as "Positive Psychology." Topics may include: happiness and life-satisfaction, positive self-esteem, creativity, caring relationships, love-passionate and otherwise, empathy, optimism, ambition, moral character development, attachment, compassion, forgiveness, helping, work ethics, and successful aging. Designed to take a sampling of those aspects of psychology that emphasize the positive side of human nature. Prerequisite: Psych 100B and at least one 300 level course. Credit 3 units.

U09 Psych 368 Introduction to Psychopathology and Clinical Psychology
This course will cover affective, cognitive, and behavioral abnormalities that create patterns disruptive to mental health comprised of psychiatric symptoms, personal distress, and/or functional impairments. Topics will include biological, psychological, social, and cultural determinants of mental health and illness as well as the diagnosis, etiology, and treatment of clinical-level concerns. This course is the same as Abnormal Psychology in both Arts & Sciences and University College (L33 Psych 354/U09 Psych 354), and thus students may not take both. Prerequisite: Psych 100. Credit 3 units. UColl: OLIH

U09 Psych 371 Investigative Psychology
This course will expose students to a variety of methods and techniques for identifying and apprehending an unknown criminal suspect. Investigative techniques including effective information collection, detecting deception, and the development of decision support systems will be discussed. Empirically tested models such as multidimensional scaling and social network analysis will be covered, with attention given to the psychological processes underlying these decision support tools. Credit 3 units. UColl: OLI

U09 Psych 373 Psychology in the Courtroom
This course studies ways in which principles of psychology are used in the courtroom, looking at how the principles influence and are used by lawyers, judges, witnesses, defendants, and jurors. We will consider issues of persuasion and prejudice in influencing jurors' decisions, and the role and tactics of expert witnesses and jury consultants, including the ethical guidelines under which they operate. Finally, the course will discuss the danger of violent behavior inside the courtroom, and how this behavior can be anticipated and prepared for through the development of security profiles. Credit 3 units. UColl: OLI
U09 Psych 374 Psychology of Policing
This course will expose students to the discipline of police psychology, which is broadly defined as the application of psychological principles and methods to law enforcement. Subjects addressed will include the screening and hiring of police officers; conducting screening for special squads (e.g., SWAT); fitness-for-duty evaluations; training and consultation; and stress counseling, among others. The course examines the evolution of police psychology and early influences on the profession such as the experimental investigation of psychological testing on police attitude and performance. Influential figures in the field of police psychology are discussed, including the work of Dr. Martin Reiser of the Los Angeles Police Department, the nation's first full-time police psychologist. This course is fully online. Only University College students receive credit for online courses.
Credit 3 units. UColl: OLI

U09 Psych 376 Introduction to Criminology
A general introduction to the study of crime from an interdisciplinary perspective. Classical and contemporary sociological theories to explain and predict criminal behavior will be studied, as well as psychological theories from the psychoanalytic, behavioral, and cognitive traditions that attempt to account for criminality and the psychosocial development of a criminal personality type. Other topics include the measurement and extent of crime, the role of age, race, gender, social class in the causation of and reaction to crime, and the criminal justice response to crime, as well as recent trends in policing, corrections, and community-based interventions.
Credit 3 units. UColl: OLI

U09 Psych 376M Introduction to Criminology
Online version of the course U09 376. This course is a general introduction to the study of crime from an interdisciplinary perspective. Classical and contemporary sociological theories to explain and predict criminal behavior will be studied, and we will also review psychological theories from the psychoanalytic, behavioral, and cognitive traditions that attempt to account for criminality and the psychosocial development of a criminal personality type. Other topics include the measurement and extent of crime, the role of age, race, gender, social class in the causation of and reaction to crime; the criminal justice response to crime; and recent trends in policing, corrections, and community-based interventions.
Credit 3 units. UColl: OLI

U09 Psych 377 Introduction to Forensic Psychology
Forensic psychology is the application of scientific psychological knowledge to matters that come before the judge or jury. This course will focus on criminal cases such as homicide and sex offender commitment and on personal injury cases. Topics will include consultation with attorneys, psychological tests used and recommended by forensic psychologists, and sex offender risk assessment. Other topics will include keys to being a dangerous expert on the witness stand. Numerous actual case studies will be presented.
Credit 3 units. UColl: OLI

U09 Psych 378 Crisis Intervention: The Criminal Justice Response to Chaos, Mayhem, and Disorder
This course explores the nature and psychology of the major types of crises criminal justice professionals confront on a daily basis, including domestic violence, terrorism, riots and post-disaster panic, cults, threatened suicide, and active shooters, among others. Students will explore these topics against the backdrop of actual case examples like hurricane Katrina, the attacks of 9/11, the shooting at Columbine High School, and the Branch Davidian standoff at Waco. Major theories and typology schemes that attempt to account for these behaviors will be explored, as well as the emotional impact of crisis response on police, correctional officers, and other first responders. The course may be used as an elective in the University College Psychology major, but it will not apply to the distribution areas in the major.
Credit 3 units. UColl: OLI

U09 Psych 379 Correctional Psychology
This course will introduce students to the correctional environment, and the many psychological considerations involved in the detention, rehabilitation, and reintegration of prison inmates. We will focus heavily on the psychological impact of incarceration, as well as the various treatment issues related to inmate rehabilitation. Topics include the dynamics of power and oppression, gang affiliation, inmate management and control, and the problems of sexual assault and suicide among the inmate population. We also will discuss various legal decisions affecting the correctional environment, especially in relation to mental health treatment. Recommended: Abnormal Psychology.
Credit 3 units. UColl: OLI

U09 Psych 380 Psychology and Religion
This course offers an examination of the empirical literature on the psychological study of religion. Students will explore whether psychology can offer a scientifically valid examination of religion. We will use psycho-physiology research to examine religious and mystical experiences that are induced by methods ranging from breath control to meditation to use of hallucinogenic drugs. We will then look at social psychology research to investigate the relationship between religion and a host of issues such as fundamentalism, altruism, social and emotional adjustment, physical health, and satisfaction in life. Prerequisite: Introduction to Psychology. Note: Accelerated (ACTRAC) option: University College students have the option of taking this class for 4 units.
Credit 3 units.

U09 Psych 381 Cross-Cultural Psychology
An overview of social, developmental, and organizational forces from a cross-cultural perspective, with a focus on culture as a variable and its relationship to attitudes and behavior. A review of historical biases in the discipline of psychology will precede the study of research methodologies best suited to cross-cultural work. Also emphasized is the manner in which social and cultural forces shape the human experience. Prerequisite: Psych 100.
Credit 3 units. UColl: CD, OLI
U09 Psych 382 Moral Psychology
This course presents an overview of scientific approaches to moral psychology. The issues to be studied include how morality evolved, whether nonhuman animals or human infants have morality, how morality developed through the lifespan and across cultures, the roles of psychological mechanisms in morality, how morality is affected by psychological disorders, and altruism. Credit 3 units.

U09 Psych 383 Correctional Theory & Practice
In this course we will explore every aspect of correctional theory and practice in America. We will look at the structure of the correctional system, both jails and prisons, the demographics of the inmate population, and the experience of those working in a correctional setting, especially correctional officers. We will look at inmate psychology, and the personality changes (prisonization) that often take place in an inmate during their period of incarceration. We will look at the special problems that must be addressed by correctional systems relating to juvenile, female, mentally ill, and aged inmates. Finally, we will discuss the death penalty and the ongoing debate in America about this type of punishment. Credit 3 units. UColl: OLI

U09 Psych 384M Principles of Forensic Assessment
This course addresses a breadth of topics in forensic assessment through an examination of the methods utilized in this endeavor, particularly in the criminal arena. Students will become familiar with the administration, scoring, and interpretation of instruments used to assess competence to stand trial, criminal responsibility, malingering, and dangerousness, among other domains. Factors surrounding ethics in forensic evaluation, the dilemmas encountered in dealing with the diverse criminal population, and recent social and ethical criticisms of forensic assessment processes themselves constitute pivotal course content. Students will have the opportunity to observe and take a role in forensic evaluations through the use of critical examinations of forensic assessment instruments, the observation of case materials, and the completion of assigned course activities. Credit 3 units. UColl: OLI

U09 Psych 385 Criminal Typologies
This course examines a wide range of delinquent and criminal behavior, with special emphasis on the developmental, biological, learning and situational, and cognitive-behavioral factors that form the origins of criminal behavior.Deriving from the perspective that juvenile and adult criminal behaviors are continually influenced by multiple systems, we will also examine the social, economic, political, and ecological factors that interact to influence such behaviors. This course will consider the precursors to and typologies of delinquency: criminal psychopathy; homicide, assault, and intimate partner and family violence; multiple murder, school, and workplace violence; modern terrorism; sexual assault; sexual abuse of children and youth; burglary, home invasions, thefts and “white-collar” offenses; violent economic crime, cybercrime, and crimes of intimidation; and substance abuse crimes. Credit 3 units.

U09 Psych 389 Psychology of Consumer Behavior
Examination of consumer preferences and purchasing decisions in relation to psychological needs, sociological and multicultural influences, economic considerations, and advertising impact. The roles of attention, perception, emotion, learning, and cognition in attitude formation, change, and ultimately in consumer choices. The marketing concepts of segmentation, product positioning, brand image, and brand loyalty are examined, as well as ethical considerations pertaining to product quality and safety, and to the advertising message. An overview of consumer research methodology, including questionnaire design, sampling and surveys, focus groups, observations, recall and recognition techniques, and physiological measures. Prerequisite: Psych 100. Credit 3 units.

U09 Psych 400 Independent Study
Students register for this course to perform reading or research in a special area of psychology. Approval of a specific plan of reading or research by the supervising faculty member and the departmental coordinator is required prior to registration. Prerequisite: 15 hours of psychology course work, advanced standing, permission of instructor, and permission of departmental coordinator. This course is open only to University College psychology majors with a minimum grade-point average of 3.00. Credit variable, maximum 3 units.

U09 Psych 404 Psychological Tests and Measurements
This course is an introduction to psychological tests and measurements. We will cover basic principles of test construction, including reliability, validity, item analysis, and the development of normative data. We will examine major types of tests (e.g., intelligence, personality, interests, attitudes) as well as their application to career counseling, clinical diagnosis, employee selection, performance appraisal, and organizational assessment. Prerequisite: One course in statistics. Credit 3 units. UColl: OLI

U09 Psych 406 Verbal Behavior
This course will offer a comprehensive study of language from a behavioral perspective. Structural differences between types of verbal behavior will be examined as will empirical literature demonstrating verbal behavior interventions for individuals with deficits in language. Critiques of the behavioral perspective will be considered in terms of their impact on conceptual advances in the analysis of verbal behavior. Prerequisite: U09-100. Credit 3 units.

U09 Psych 409 Introduction to Behavior Analysis
This course is an introduction to principles of learning and behavior analysis and how they relate to the profession of applied behavior analysis. Topics to be covered include reinforcement, punishment, extinction, discrimination training, generalization, shaping, conditioned reinforcement, and schedules of reinforcement. The primary focus of the course will be on basic principles derived from laboratory research, but we also will examine applications of these principles to areas such as developmental disabilities (e.g., autism), academic skills, and oppositional behaviors. Philosophical and historical antecedents of behaviorism also will be covered. Credit 3 units.
U09 Psych 414 Current Issues in Human Resources Management
This course examines current challenges and problems of managing people at work to meet individual, organizational, and societal needs. Prerequisites: U09-214 and 314. Credit 3 units. UColl: OLI

U09 Psych 444 Applied Behavior Analysis I
This course focuses on behavioral principles and procedures as related to the acquisition of new behavior and the modification of existing behavior. Topics to be covered include: reinforcement, punishment, extinction, discrimination training, generalization, shaping, classical conditioning, conditioned reinforcement, and schedules of reinforcement. Although the focus is on basic principles derived from laboratory research, applications of these principles to areas such as developmental disabilities (e.g., autism), academic skills, and oppositional behaviors are discussed. Philosophical and historical antecedents of behaviorism are also explored. This class is part of a sequence of courses that the Behavior Analyst Certification Board, Inc. TM has approved for eligibility to take the Board Certified Associate Behavior Analyst Examination. Credit 3 units.

U09 Psych 445 Applied Behavior Analysis II: Procedures for Behavior Change
This course focuses on the complex behavioral principles and issues surrounding their application in the analysis and modification of behavior. In addition, students learn to identify behavior and environment relations that constitute behavioral deficits or excesses. Behavioral change procedures to be explored include: functional analysis, reinforcement, shaping, chaining, discrete trials, contingency contracting, reinforcement, and maintenance of behavior change. Ethical considerations are also addressed. This class is part of a sequence of courses that the Behavior Analyst Certification Board, Inc. TM has approved for eligibility to take the Board Certified Associate Behavior Analyst Examination. Prerequisite: U09-444. Credit 3 units.

U09 Psych 446 Applied Behavior Analysis: Research Methods and Evaluation
This course focuses on research design and methodology in behavior analytic research, with a focus on single-subject experimental designs. Various behavior-assessment and behavior-intervention evaluation strategies will be examined. In addition, the course explores techniques for direct observation, and measurement of behavior, as well as methods of summarizing data, data analyses, and the ethics of research. Prerequisite: ABA I: Basic Principles of Behavior. Credit 3 units.

U09 Psych 449 Applied Behavior Analysis Practicum
This practicum provides experience in applied behavior analysis and is designed for individuals who intend to pursue certification through the Behavior Analysis Certification Board (BCBA) examination at the Associate level (Board Certified Associate Behavior Analyst; BCABA). Students will work in community-based agencies and be supervised by the community agency and the Practicum faculty. Prerequisites: Admission to the Washington University Applied Behavior Analysis Certificate Program, and ABA I: Basic Principles of Behavior and ABA II: Procedures for Behavior Change and permission of instructor. Credit 2 units.

U09 Psych 460 Behavioral Medicine
The role of behavior in the prevention and treatment of significant medical problems will be studied. The history of the field of behavioral medicine will be reviewed, with applications to medical problems and its complementary role in preventative medicine in the context of a number of medical disorders and risky behaviors, including obesity, chronic pain, cancer, and smoking. Effective stress management practices to help ameliorate common results of stress such as tension headache and high blood pressure also will be studied. Prerequisite: Psych 100. Credit 3 units.

U09 Psych 468 Applied Psychology of Learning: Training in Industry
Overview of the foundations of industrial training and the "tools of the trade." Review of learning and memory and recent findings on cognition. Study of methods and techniques used for analysis, design, development, and evaluation of training. Impact of recent advances in computing and instructional technologies. Prerequisites: U09-100 required and U09-214 or U09-314 recommended. Same as U87-468. Credit 3 units.

U09 Psych 476 I/O Psychology from a Behaviorist Perspective
The material in this course is intended to provide an initial overview of the field of organizational behavior management (OBM). OBM involves the application of principles of behavior in order to improve individual or group performance within an organizational setting such as a business or human service setting. Some of the pioneers in the field will be reviewed along with applications to different types of issues that both large and small organizations face on a daily basis. The role of OBM in the prevention of significant organizational problems, its role in building better management practices as well as service delivery issues will be presented. Credit 3 units.

U09 Psych 480 Introduction to Group Dynamics
Various aspects of group process including group decision making and problem solving, group influence processes, communication, power, and leadership. Small group behavior and its application to organizations. Prerequisites: U09 214 or 315 or permission of the instructor. Credit 3 units. UColl: OLH

U09 Psych 488 Addiction and Treatment
This course examines the motivation and behavior patterns of the drug/alcohol user. This examination takes place in the wider context of deviance. A portion of the course is devoted to a survey and evaluation of the services and programs available to the drug/alcohol user from the point of view of the user, the user's family, and society. Topics include: the history of psychotropic substances and their purpose and use in human society to the present; the history and philosophy of counseling interventions for psychotropic substance abuse and dependence; the ethnic, environmental, and socioeconomic factors affecting which substances are used, receptivity to
treatment, and attitudes toward intervention; various treatment modalities such as 12-step groups, therapy groups, and in-patient treatment for both self-referred and court ordered clients. Prerequisite: U09-100. Credit 3 units.

U09 Psych 4891 Study for Honors in Psychology
Part 2 of Honors Thesis work in Psychology for students admitted to the Honors Program. Requires signed proposal and permission from psychology coordinator and dean in University College. Credit 3 units.

U09 Psych 492 Research in Psychology
The planning, execution, and written reporting of an original empirical research work within the area of psychology. Approval of the project or experiment by a supervising faculty member and the departmental coordinator required prior to registration. Prerequisites: advanced standing, 12 hours of psychology course work including U09-300 and 301, permission of the instructor, and permission of the departmental coordinator. Open only to University College psychology majors. Petition forms for enrollment are available online (http://ucollege.wustl.edu/forms/). Petition must include the formal written research proposal. A student may enroll in this course only once. Credit 3 units.

U09 Psych 494 Behavioral Psychology Readings Group
This weekly journal-style readings class provides the opportunity to read and discuss seminal as well as current papers on the conceptual aspects of behavioral psychology and relevant research. Points of contact among behaviorism, cognitivism, and neuroscience and the natural lines of fracture will be examined. Prerequisites: Psych 100B and one of the following: Psych 361, Psych 360, or a Philosophy course. Same as L33 Psych 494 Credit 1 unit. A&S IQ: SSC Arch: SSC Art: SSC EN: S

U09 Psych 495 Directed Readings in Psychology
Prescribed readings in a special area of psychology. Approval of a specific reading list by the supervising faculty member and the departmental coordinator is required prior to registration. Prerequisite: 12 hours of psychology course work, advanced standing, permission of the instructor, and permission of the departmental coordinator. Open only to University College psychology majors. Petition forms for enrollment are available online (http://ucollege.wustl.edu/forms/). A student may enroll in this course only once. Credit 3 units.

Degree Requirements
Bachelor of Science in Sustainability

Required Core Courses: 18 units

All University College undergraduate students must satisfy the same general education requirements (p. 90). Requirements specific to the BS in Sustainability include the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUST 205</td>
<td>Foundations and Practice of Sustainability</td>
<td>3</td>
</tr>
<tr>
<td>SUST 306</td>
<td>Translating Sustainable Business Practices</td>
<td>3</td>
</tr>
<tr>
<td>or SUST 368</td>
<td>Sustainability as Transformative Agent in Business and Public Policy</td>
<td>3</td>
</tr>
<tr>
<td>SUST 328</td>
<td>Environmental Law: Applications Toward Sustainability</td>
<td>3</td>
</tr>
</tbody>
</table>

Sustainability

Sustainability seeks a way for human and natural systems to work together so that all species can survive and thrive over the long term, both locally and globally. The Bachelor of Science in Sustainability provides the broad fundamental knowledge, skills and competencies needed to drive sustainable outcomes that address today’s urgent environmental, economic and social challenges. This degree can be applied across a wide range of fields, from management, design and planning to environmental services in business, nonprofit and public institutions.

Required core courses provide a foundation in sustainability principles and strategies, applications in practice, environmental science, environmental law and policy, sustainability businesses, and systems thinking, culminating in an independent capstone project. Electives are drawn from a range of courses across disciplines that reflect the breadth of sustainability applications. Faculty are educators and practitioners with deep knowledge of and experience applying sustainability. The program addresses the collaborative and integrative nature of sustainability with an emphasis on applied learning, which takes these lessons from the classroom into St. Louis.

In addition to 18 units of core requirements, students complete their degree with 18 additional units and may choose from three concentrations or select electives tailored to their interests. The concentrations include the following:

- **Sustainable Environment and Science:** a focus on the environmental aspects of sustainability
- **Sustainable Management and Organizations:** a focus on understanding and applying sustainability in corporate and institutional management
- **Urban Sustainability:** a focus on urban-scale sustainability policies and programs

Contact: Mary Ann Lazarus
Email: lazarus9876@wustl.edu
Website: http://ucollege.wustl.edu/programs/undergraduate/bachelors-sustainability
Sustainable Environment and Science Concentration

Required Courses: 18 units

A concentration in sustainable environment and science is a good foundation for careers in environmental fields such as environmental manager, landscape manager or waste manager. It is also useful for those wanting to pursue an advanced degree in a related field of interest.

Students will select among electives based on approved available course offerings in consultation with their advisor. Examples of elective options include the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUST 337</td>
<td>Sustainable Food Systems Thinking</td>
<td>3</td>
</tr>
<tr>
<td>Anthro 3795</td>
<td>Anthropology and Climate Change: Past, Present, and Future</td>
<td>3</td>
</tr>
<tr>
<td>Bio 419</td>
<td>Ecology</td>
<td>3</td>
</tr>
<tr>
<td>Bio 4631</td>
<td>Urban Agriculture and Sustainable Food Systems</td>
<td>3</td>
</tr>
<tr>
<td>GIS 200</td>
<td>Introduction to GIS</td>
<td>3</td>
</tr>
<tr>
<td>or GIS 303</td>
<td>Digital Cartography</td>
<td></td>
</tr>
<tr>
<td>PolSci 3312</td>
<td>Environmental and Energy Issues</td>
<td>3</td>
</tr>
</tbody>
</table>

Urban Sustainability Concentration

Required Courses: 18 units

A concentration in urban sustainability is a good foundation for careers in urban-scale public policy and programs such as community manager, planning consultant or nonprofit manager. It is also useful for those wanting to pursue an advanced degree in a related field of interest.

Students will select among electives based on approved available course offerings in consultation with their advisor. Examples of elective options include the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUST 317</td>
<td>Urban Ecology: Principles and Practice</td>
<td>3</td>
</tr>
<tr>
<td>SUST 319</td>
<td>Planning Sustainable &amp; Racially Equitable Urban Communities</td>
<td>3</td>
</tr>
<tr>
<td>SUST 325</td>
<td>Introduction to Resilience</td>
<td>3</td>
</tr>
<tr>
<td>SUST 337</td>
<td>Sustainable Food Systems Thinking</td>
<td>3</td>
</tr>
<tr>
<td>GIS 200</td>
<td>Introduction to GIS</td>
<td>3</td>
</tr>
</tbody>
</table>

Degree in Sustainability (No Concentration)

Required Courses: 18 units

Students will select among sustainability electives, including all courses offered in the concentrations.

Additional Information

Undergraduate and graduate degree and certificate programs offered through University College are not offered by the Olin Business School at Washington University and do not come under the accreditation responsibility of the Association to Advance Collegiate Schools of Business (AACSB). No more than 25% of course work applied to a Bachelor of Science in University College may be in business disciplines.

Courses


U19 SUST 107 Environmental Geology and Energy

Environmental impact of current energy sources and potential for alternative energy sources. Energy production effects on global climate change. Interplay of natural and human-induced climate change. Fossil fuel sources and uses. Nuclear power generation and problems with nuclear waste disposal. Examination of
U19 SUST 200 Introduction to GIS
This course introduces students to the fundamental principles and applications of geographic information systems (GIS), their underlying geospatial science and spatial thinking. This problem-based course explores applications of GIS to spatial questions in the areas of social science, business, the humanities and earth sciences. Example topics include understanding spatial data types; map coordinate systems and projections; basic spatial data analysis; acquiring, editing, creating and managing geospatial data; and processing and visualizing data using GIS. This hands-on course works through problems using ESRI ArcGIS software (primarily ArcGIS Pro), but other open source tools will also be introduced. Students who complete this course should be able to apply skills to think through a spatial problem and employ GIS tools to address it.
Same as U90 GIS 200
Credit 3 units. UColl: OLH, OLI

U19 SUST 203 Topics in Politics: Introduction to Global Climate Change in the 21st Century
The topic of this course varies by semester, dependent on faculty and student interests.
Same as U25 PolSci 203
Credit 3 units. UColl: OLI

U19 SUST 205 Foundations and Practice of Sustainability
This interdisciplinary course serves as an introduction to sustainability concepts, sustainability practice, and systems thinking. Students in this course will develop and articulate a common understanding of foundational sustainability concepts, including definitions, global challenges, human impacts, and approaches to sustainability solutions. Students will also start to understand and develop the competencies (knowledge, skills, attitudes) needed for success as a sustainability advocate or practitioner in professional settings, including systems thinking, strategic planning, group collaboration, and communicating the case for sustainability to various and specific audiences.
Credit 3 units. UColl: OLH

U19 SUST 209 Introduction to Environmental Studies
This course examines the physical, chemical, and biological components of the environment. We will focus on the ecological principles that are the basis of environmental science. We will then explore how environmental studies incorporate concepts from politics, social sciences, economics, ethics, and philosophy. A central theme of the course is the effect of human societies on the environment, and how individual human and societal behavior can be modified to minimize the deleterious effects on the environment.
Same as U29 Bio 209
Credit 3 units. UColl: OLI

U19 SUST 2352 Environmental Ethics: Ecological Sustainability and Justice
This is a general survey of environmental ethics, an investigation of controversies about whether, how much, and how we ought to take the natural environment into account when making decisions about how to act and live, and in making political decisions. The first part of the course investigates what the natural (as opposed to human-made) environment is, and what value, if any, it has for human beings. The second part turns to considerations of environmental justice, or what is the fair way to distribute environmental goods (such as access to clean air and green spaces) and environmental burdens (such as exposure to industrial pollution or the financial cost of protecting nature) among people generally. The final part of the course will focus on sustainability, in particular on what sustainability is, whether it is achievable, and what, if anything, we should do in pursuit of it. Parts of the course will focus on the problem of environmental racism and related ecological crises in the greater St. Louis area, and students will have the opportunity to do their own research on local environmental problems, or others that impact them directly.
Same as U22 Phil 2352
Credit 3 units. UColl: ML, OLI

U19 SUST 303 Digital Cartography
In today’s world, it is imperative that students develop the necessary skills to communicate their ideas to a large audience in an efficient manner. Graphics and visual representations are one of the most effective ways to neatly convey complex data sets to readers. This course presents both theoretical and hands-on mapping and graphical problems to students. Students will learn to solve these problems with self-created solutions. The course teaches students the basics of GIS-based mapping for producing publishable work. Students will develop basic skills in computer-aided mapping and computer drafting primarily using the ArcGIS Suite of desktop software, ArcGIS and Google online web mapping, and other tools. Students will also be introduced to other mapping or statistical programs as needed.
Same as U90 GIS 303
Credit 3 units. UColl: OLI, OLI

U19 SUST 3030 Introduction to Human Ecology
Human ecology investigates the complex relationships between humans and their environment. The discipline is typically divided into two primary fields of research: cultural ecology (the study of cultural solutions to environmental challenges) and human biological ecology (the study of physical changes that occur in response to environmental stressors). This course examines both biological and cultural human adaptation to Earth’s major ecosystems and surveys human subsistence strategies within these environments. Students will investigate the consequences of population growth, modernization, nutritional disparities, medical ethics, and environmental stewardship in a globalized world. The final section of the course will focus on world globalization, modernization, inequality, and health.
Same as U69 Anthro 3030
Credit 3 units. UColl: ML

U19 SUST 3032 Global Energy Policy: From Israel to Iran
This course examines how the global energy markets operate and how energy policy is formulated, with a special focus on the Middle East. Students interested in working in the energy and/or policy world will gain a deeper understanding of the complexities involved in energy policy formulation and its profound impact.
on national security, the economy, and foreign policy. Students will deal with issues such as securing energy markets and suppliers, managing oil revenue, deciding on the country's fuel mix for electricity, promoting nuclear energy in the Middle East, engaging with environmental concerns, using energy resources as a "weapon" in foreign policy, subsidizing renewable energy, and the role of energy in war. After learning the basics of the energy market, students will focus on the major players in the Middle East and examine their energy markets – from Israel to Saudi Arabia and Iran -- including the involvement of foreign actors such as the United States and Russia. They will then be tasked with writing their own op-eds and policy papers to try and influence the process of energy policymaking and to gain experience writing for different audiences. The course will include a guest lecture by an executive from a major coal producer operating in St. Louis (depending on availability) and an optional class visit to a renewable energy project near St. Louis.

Same as U94 JME 303
Credit 3 units. UColl: CD, OLI, PSI

**U19 SUST 303M Introduction to Supply Chain Management**

Online version of the course U44 303; fulfills the same program requirements. This introductory course is designed to familiarize the student with the subject matter of procurement, forecasting, inventory management, enterprise resource planning, quality management, location selection, and supply chain integration and performance measurement. By the end of this course, students will have a foundation in supply chain management and be prepared to determine if they want to pursue a career in the field.

Same as U44 Bus 303M
Credit 3 units. UColl: OLI

**U19 SUST 306 Translating Sustainable Business Practices**

The current opportunities for creating stakeholder value by embracing sustainable business practices may be the largest since the industrial revolution. In this course, students will learn about those opportunities, as well as the risks of inaction on generations to come. The goal of this course is to empower students with an understanding of how to validate the evolving and increasingly vital concepts within sustainability and resiliency, and to then direct that understanding towards business regeneration. Students will learn what it means for a business to prioritize planetary limits and nurture their social license to operate. The class will translate often less-familiar key performance indicators into the languages of the many participants who create the global economy. The times are changing—"sustainable business" is fast becoming "just business." We will be the change makers. This class does not expect any prior knowledge of business concepts or experience with traditional business skills.

Credit 3 units.

**U19 SUST 3068 An Inconvenient Truth: The Human History of Climate Change**

Although global warming is unprecedented in its origin and potential consequences for human beings, climate change itself is actually nothing new. For thousands of years, entirely natural influences have altered Earth's climate in ways that shaped human history. The 18th-century advisors to the king of France were warning that deforestation would have an adverse effect on rainfall. The Little Ice Age that began in the 16th century altered settlement patterns, forced new trade networks, and encouraged innovations in agriculture. In this course, we will examine the longer history of climate change and how it has been addressed as a scientific, political, and environmental issue. We will look at such climate phenomena as the discovery of the Green House Effect, El Niño events in the late 19th century, and glacial melting in the 20th century. This course will also introduce students to the field of environmental history and explore how the methods of this field of inquiry challenge traditional historical categories. We will consider the following questions: What happens when time is no longer bound by the written word and is understood in geological terms? How does history play out when the actors driving the action of the story are non-human? How might historians geographically frame their narratives when the subject matter is rarely bound by the political borders of human communities?

Same as U16 Hist 3068
Credit 3 units. UColl: HSM, HTR

**U19 SUST 315 Introduction to Historic Preservation**

This course explores the history and practice of historic preservation with an emphasis on regional urban issues and the way in which historic preservation contributes toward the development of sustainable communities. Students are exposed to a diverse range of preservation topics that will enable them to apply sound historic preservation principles in professional practice. Course topics include: evaluation and recording of historic properties and districts; Secretary of the Interior's standards in the process of planning or designing a project; historic preservation in community planning; application process for state and federal tax credit programs; conservation of historic building materials; historic preservation vs. modern building codes and user requirements. We examine case studies of completed projects or projects in progress.

Credit 3 units.

**U19 SUST 317 Urban Ecology: Principles and Practice**

More than half of the world's population now lives in an urban environment. Studies have shown that connecting to nature can benefit people, and savvy municipalities are attuned to the positive role that ecology can play in the urban core. How can people and nature co-exist in ways that are mutually beneficial? In this intensive course, students will examine multiple techniques and applications of urban ecology. Class time will be used to review and discuss urban ecology principles from the readings and visuals. Local excursions — such as to Forest Park, Citygarden and Cortex — will present opportunities to personally experience urban ecology practices. Students will be expected to make their own field trip arrangements, but assistance will be provided with public transportation options. As their final course project, students will develop an urban ecology project proposal and design. The course is designed as an urban ecology overview and foundation — (1) What urban ecology is: underpinning and forerunners in the field, (2) Why urban ecology is important: potential benefits (social, economic, environmental), (3) How urban ecology is being applied: implementation techniques and approaches.

Credit 3 units.

**U19 SUST 319 Planning Sustainable & Racially Equitable Urban Communities**

This course explores principles, ethics and practice for planning sustainable and equitable urban communities. Learning how to manage resources for both current and future generations, students will gain greater understanding of the importance of
integrating environmental, economic, social and institutional efficiency. With a focus on communities in the St. Louis region, students in this course will focus on equity and community capitalism aimed at ensuring that fairness and well-being are inclusive for all people in providing for health, safety and the built environment. You will learn to integrate and utilize a racial equity lens, trauma-informed approaches, cultural competence and Anti-Bias/Anti-Racism practices to help lead to better decision-making and creating solutions aimed at reducing adverse impacts on the environment, preventing gentrification, improving the welfare of people, and shaping urban areas and neighborhoods into healthier, robust and more equitable communities. This course will prepare the student to be a leader-advocate for sustainable urban planning and community development, whether as an elected or public official, a professional staff person, or a citizen volunteer.

Credit 3 units. UColl: ML, OLH, OLI

U19 SUST 324H Principles of Project Management
Online hybrid version of the course U44 324. This course provides students with a foundation in project management centered on developing their skills and capabilities. Students will gain competencies in planning, controlling, scheduling, resource allocation, budgeting, and performance measurements, utilizing tools and techniques to manage challenges throughout the project life cycle. Students will also examine the roles of the project manager, project teams, and stakeholders in the development of the project scope, up to and until project closure. A hands-on group project will provide students with the experience of managing a project. Same as U44 Bus 324H
Credit 3 units. UColl: OLH

U19 SUST 325 Introduction to Resilience
Resilience signifies the capacity to adapt to changing conditions and to maintain or regain functionality and vitality in the face of disturbances whether natural (such as tornadoes, hurricanes, earthquakes) or man-made (such as civil unrest, economic downturn, aging infrastructure). This course will explore multiple aspects of resilience from social, environmental and infrastructure perspectives. Social resilience reinforces the role of communities in building resilience, environmental resilience examines the role of natural systems to serve as mentors for resilience, and infrastructure resilience looks at the role of built structures and systems in fostering resilience. We will examine common attributes that build resilience across different perspectives (social, environmental, infrastructure) and settings (e.g., city, neighborhood, building). Resilience and related course themes apply to a wide range of disciplines and experiences — environmental studies, history, urban planning, business, political science, design, to name a few — and students will be guided to apply course skills and strategies to their own interests and goals.
Credit 3 units.

U19 SUST 328 Environmental Law: Applications Toward Sustainability
This course provides an overview of significant environmental legal and policy issues. It will be taught from a sustainability practitioner's perspective, linking environmental law to sustainability applications. The content touches on both environmental hazards and natural resource issues, and they will be discussed within the scope of both a legal and sustainability framework. The goal of the course is to provide the students with a general understanding of numerous environmental issues — such as they might encounter in the field of sustainability — and to help them develop the knowledge and tools that will be useful in addressing those environmental issues.
Credit 3 units. UColl: OLH, OLI

U19 SUST 3312 Environmental and Energy Issues
This course considers the major issues in these increasingly important areas of public policy. We discuss the importance of political processes and actors on such phenomena as global warming, endangered species, and public lands. This course emphasizes the American experience but also considers international implications.
Same as U25 PolSci 3312
Credit 3 units. UColl: OLH, PSA

U19 SUST 332 Conservation Biology and Biodiversity
This overview of the fields of conservation biology and biodiversity covers topics such as species preservation, habitat restoration, refuge design and management, and human population growth. This course does not count for day students or toward the undergraduate biology major. Prerequisite: General Biology I or permission of instructor.
Same as U29 Bio 432
Credit 3 units. UColl: OLI

U19 SUST 3322 Sustainability Policy
Same as U25 PolSci 3322
Credit 3 units.

U19 SUST 337 Sustainable Food Systems Thinking
Planning a more sustainable future and an equitable and healthy present requires us to critically examine the current food system and to understand the key challenges it faces in a world of rapid urbanization, population growth, and climate change. What does the future of food look like, and how are food visionaries working to change that future now? In this course, students will learn to articulate the multiple facets of the food system and how they intersect with frameworks of sustainability, history, health and nutrition, policy, technology, culture, food activism, and biodiversity. We examine our own personal food behaviors to illuminate challenges at the individual level so that we can begin to scale up solutions. We will study the approach of change makers in this field and look at ways to integrate food-systems thinking into multiple aspects of both personal life and professional practice. This course fulfills the Social Science General Education requirement for University College undergraduate students.
Credit 3 units. UColl: SSC

U19 SUST 344 Global Development and Sustainability
This course examines those activities, public and private, designed to bring a greater quality of life to an area, region or country and the people living there. While broad in scope, the discipline of Development can be focused in four ways. The first and broadest is economic development and in particular foreign aid, economic interventions, and the rise of the multinationals. The second focus looks at the cultural dimensions of development and in particular globalization, indigenous cultures, and the development of the new localism. The third explores the political dimensions of development with a particular attention to the systems and models of local, national and regional politics. The fourth analyzes the technological
dimension of development with special emphasis on agricultural and communications technologies. By looking at how the field of global development has shifted toward sustainability, we will study principles and practices of sustainable development, particularly in the context of global challenges, exploring these economic, cultural, political, and technological dimensions. We will apply models and methods to contemporary cases in first, third, and second world cultures that involve business, government, nonprofit organizations, and NGOs. Credit 3 units.

U19 SUST 3463 Global Health Issues
This course is designed to inform and challenge participants to observe and solve problems relating to world health issues while teaching basic biology concepts. Participants will investigate barriers to solving problems of Nutrition, Infectious disease and Environmental factors that prevent progress of global communities. They will also research new technologies being developed that could potentially provide solutions as well as create an ideal lesson using global health issues the focus. Open to Post-Bacc Students. Prerequisite: General Biology I or permission from the instructor.
Same as U29 Bio 463
Credit 3 units. UColl: OLI

U19 SUST 355 Environmental Economics
Environmental economics is a subfield of economics concerned with environmental issues, both theoretical as well as applied and public-policy oriented. Central to environmental economics is the concept of market failure, particularly the existence of externalities. Correcting for externalities and crafting acceptable public-policy responses will be a central focus of this course. Topics explored will include consumer theory and valuation; pollution and production theory; environmental protection and welfare; the Coase Theorem; resource management; and economic growth and environmental sustainability. Prerequisite: U07 1011 or equivalent.
Same as U07 Econ 355
Credit 3 units.

U19 SUST 3610 Culture and Environment
An introduction to the ecology of human culture, especially how "traditional" cultural ecosystems are organized and how they change with population density. Topics include foragers, extensive and intensive farming, industrial agriculture, the ecology of conflict, and problems in sustainability.
Same as U69 Anthro 361
Credit 3 units. Arch: SSC Art; SSC BU: ETH EN: S

U19 SUST 364 Global Sustainability
Global Sustainability explores our relationship with planet earth. Taking an ecological systems perspective, this course provides students with the knowledge and understanding of the scientific, cultural, social, political, economic, and technological conditions that affect the quality of life on our planet. Due to the cross-disciplinary nature of these conditions and issues, the course will touch on many different subject areas, including ecology, conservation biology, economics, and political science. The overarching theme of environmental sustainability will be interwoven throughout the course. Topics covered include an overview of the global commons, ecosystem integrity and health, the human footprint, biodiversity and human health, the pollution and degradation of the global commons, ecological economics, the international system and environmental politics, resource management, and sustainable development.
Same as U29 Bio 364
Credit 3 units. UColl: OLI

U19 SUST 3641 Strategic Planning
All successful businesses have a strategy--this course will teach you how to create one. Whether you are a student who wants to understand how business works, an entrepreneur developing a business, or an experienced manager who would like to implement practical approaches to strategic planning and critical thinking, this course will help you on your journey. Leading-edge strategic planning tools and templates will help you tackle the tough issues of today and the future. The course will emphasize how to create, implement, and manage successful change within organizations. Using case studies and examples from industry leaders, you will build critical thinking skills and use fundamental principles and tools that relate to successful strategic planning and decision making. You will develop written and oral presentation skills in the context of strategic planning; understand how to motivate the organization; and design and receive feedback on a draft strategic plan that can fit almost any situation.
Same as U44 Bus 364
Credit 3 units.

U19 SUST 368 Sustainability as Transformative Agent in Business and Public Policy
This course examines how sustainability drives and is driven by public policy and business. Participants will acquire skills and techniques to apply sustainability in the marketplace, concentrating on public and business organizations. We will explore how profit drives sustainability as a business practice and whether it assists or interferes with public policy objectives around environment, public health, jobs, social mobility, and economic development. As a culminating project, students will develop a sustainability proposal either for government or the private sector.
Credit 3 units.

U19 SUST 3795 Anthropology and Climate Change: Past, Present and Future
This course provides an overview for interplay between humanity and global climate change that encompasses three-field anthropological subjects. Course material includes the role of climate change in shaping human evolution, human solutions to climatic challenges through time, the impact of human activities on the climate, and modern sociocultural examinations of how climate change is affecting the lives of people around the world.
Same as U69 Anthro 3795
Credit 3 units. UColl: OLI

U19 SUST 380 Environmental Justice in the Anthropocene
In recent years, the impacts of the Anthropocene -- the era of human disruption of the global environment -- are becoming increasingly apparent. The news is full of reports of massive wildfires, devastating hurricanes, floods, droughts, extinctions, and more. However, not all humans share the same risks or experience equivalent burdens from hazards associated with the Anthropocene. In this course, we will explore these unequal experiences of environmental hazards through the lens of environmental justice (EJ). EJ is both a field of scholarship
U19 SUST 381 Evolutionary Medicine
Evolutionary Medicine examines how human evolution relates to a broad range of contemporary health problems including infectious, chronic, nutritional, and mental diseases and disorders. The primary goal of the course is to compare modern human environments and behaviors with the conditions under which humans evolved to determine the extent to which medical conditions of the present may be a consequence of adaptation to different conditions of the past. Hybrid online.
Same as U29 Bio 481
Credit 3 units.

U19 SUST 398 Honors Research in Sustainability
Part I of the Honors Thesis. Requires admission to the Honors Program in University College and a signed proposal.
Credit 3 units.

U19 SUST 411 Tropical Ecology
This course examines the terrestrial and marine ecosystems of the tropics, focusing predominantly on the Neotropics. We examine the biological and ecological processes that influence ecosystem dynamics and biodiversity within representative communities. We discuss issues of conservation, sustainable development and resource use, and the human impact on these fragile ecosystems. Prerequisite: General Biology I or permission of instructor.
Same as U29 Bio 411
Credit 3 units. UColl: OLH, OLI

U19 SUST 413 Environmental Science: Regional and Global Perspectives
This course examines the interrelationships between humans and their environment, moving from local and regional views up to a global perspective. Taking an ecosystem approach, the course starts with the basic ecological principles necessary for understanding our environment. We will then explore how environmental science incorporates concepts from politics, social sciences, economics, ethics, and philosophy; physical and biological resources; conservation, management, sustainability, and restoration; population principles; environmental economics; human impacts (especially pollution and disturbance); environmental health and toxicology; and environmental policy. Lectures and discussions will focus on the major issues involved in environmental challenges, drawing on current, carefully selected articles from some of the most respected magazines, newspapers, and journals published today. Prerequisite: General Biology I or permission of the instructor.
Same as U29 Bio 413
Credit 3 units.

U19 SUST 4140 Sustainable Development and Conservation: Madagascar
This course focuses on sustainable development in rural subsistence economies, using Madagascar as case study. Students from diverse disciplines are challenged to develop and assess the feasibility of projects that can have a positive impact on communities constrained by poverty traps. The span of projects includes topics such as forest conservation and use, nutrition, health, food security, clean water, education, and bottom-up economic growth. Students in humanities, social sciences, business, design, engineering, physical sciences, law, social work, economics, political science, public health and others use their different perspectives to search for answers. Teamwork and peer teaching are central to the course. Competitively evaluated projects will be field-tested in Madagascar. Selected teams will travel to Madagascar in May and work with the Missouri Botanical Garden Community Conservation Program to adapt projects to conflicting environmental, cultural, economic, and political factors. Poster board sessions for students taking the trip occur in the fall term. Project teams selected to go to Madagascar will be assessed a lab fee at the time their participation in the trip is confirmed. The lab fee covers the cost of airfare, in-country transportation, and approximately three weeks of in-country lodging and food. Undergraduate students should register for the course using one of the undergraduate cross-listed course numbers.
Same as U85 IA 5142
Credit 3 units.

U19 SUST 419 Ecology
Community ecology is an interdisciplinary field that bridges concepts in biodiversity science, biogeography, evolution and conservation. This course provides an introduction to the study of pattern and process in ecological communities with an emphasis on theoretical, statistical and experimental approaches. Topics include: ecological and evolutionary processes that create and maintain patterns of biodiversity; biodiversity and ecosystem function; island biogeography; metacommunity dynamics, niche and neutral theory; species interactions (competition, predation, food webs), species coexistence and environmental change. The class format includes lectures, discussions, and computer labs focused on analysis, modeling and presentation of ecological data using the statistical program R. Prereq: Bio 2970 required, Bio 381 recommended, or permission of instructor.
Same as U29 Bio 419
Credit 3 units. UColl: OLI

U19 SUST 450 Sustainability Capstone
This is the required capstone/practicum course for the Bachelor of Science in Sustainability, Certificate in Sustainable Environment and Science, Certificate in Sustainable Management and Organizations, and Certificate in Sustainable Communities and Development. This is a 3-unit experiential course, faculty supervised and tailored to each student’s professional goals, that applies concepts and skills from earlier courses to a hands-on sustainability project in a work or studio setting.
Credit 3 units.
Associate in Arts Degree

The Associate in Arts (AA) degree provides a framework for understanding the disciplines and skills of a liberal arts degree, a foundation for further study at the bachelor's degree level, and an initial academic credential required for career advancement. The degree is awarded to students who successfully complete the equivalent of two years of undergraduate study.

The courses completed for the degree count toward all Bachelor of Science degree programs at University College. Students preparing for a career in nursing are encouraged to meet with an advisor to select courses that meet admission requirements for Bachelor of Science nursing degree programs.

University College offers the Associate in Arts degree with concentrations in the following areas:

- **Natural Sciences and Mathematics**: Biology, Chemistry, Physics, Earth and Planetary Sciences, Mathematics, others with authorization
- **Social Sciences**: Anthropology, Economics, Political Science, Psychology, Sociology, Women and Gender Studies, others with authorization
- **Humanities**: Classics, History, Literature, Philosophy, Religious Studies, Art History, others with authorization
- **Professional Studies**: Business, Communications, Journalism, Health Care, Clinical Research Management, Sustainability, others with authorization

* The Business and Forensic Psychology certificates could be used to complete the majority of the Professional Studies area (i.e., as 15 of the 18 required units).

Fully Online Option

Adult students may require more flexibility to work around their schedules. University College offers the Associate in Arts degree 100% online, fully in-person, or through a combination of both formats to provide options for busy professionals. Students who decide to complete the Associate in Arts program online will select a concentration in Social Sciences, Humanities, or Professional Studies. Students interested in the Natural Sciences and Mathematics concentration will need to take some courses on campus.

For more information about Associate in Arts degree requirements and policies:

- **Phone**: 314-935-6700
- **Website**: [http://ucollege.wustl.edu/programs/undergraduate/associate-arts](http://ucollege.wustl.edu/programs/undergraduate/associate-arts)

Degree Requirements

### Associate in Arts Degree

To receive an Associate in Arts degree from University College, students must be admitted to degree candidacy; complete a minimum of 60 units of college-level work with a cumulative grade-point average of 2.0 or higher in all courses taken; and satisfy specific writing, course distribution and residency requirements. In addition, students must complete an 18-unit concentration with grades of C- or better in all courses. No more than 24 units may be transferred to the degree. The final 36 units of the degree program must be completed at Washington University. The courses completed for the Associate in Arts degree count toward all Bachelor of Science degree programs in University College.

### General Education Requirements*

#### Basic Requirements: 15 units

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EComp 111</td>
<td>Analytical Writing</td>
<td>3</td>
</tr>
<tr>
<td>EComp 203</td>
<td>Critical and Researched Writing</td>
<td>3</td>
</tr>
<tr>
<td>One course in cultural diversity</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>One course in moral reasoning</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>One course in numerical applications</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

#### Distribution Requirements: 18 units

Students must complete 6 units in each distribution area noted below. Each distribution area must include course work from at least two disciplines. (Courses that satisfy the numerical applications, moral reasoning and cultural diversity Basic Requirements may also count toward the Distribution Requirements.)

- **Natural Sciences and Mathematics**
- **Social Sciences**
- **Humanities**

#### Concentration Requirements: 18 units

- **Natural Sciences and Mathematics**: Biology, Chemistry, Physics, Earth and Planetary Sciences, Mathematics, others with authorization
- **Social Sciences**: Anthropology, Economics, Political Science, Psychology, Sociology, Women and Gender Studies, others with authorization
- **Humanities**: Classics, History, Literature, Philosophy, Religious Studies, Art History, others with authorization
- **Professional Studies**: Business, Communications, Journalism, Health Care, Clinical Research Management, Sustainability, others with authorization

#### Electives: 9 units
These requirements are effective as of Spring 2019. Students admitted to University College programs prior to Spring 2019 are expected to fulfill the requirements in place at the time of their admission.

Additional Information
Visit the University College website (http://ucollege.wustl.edu) for additional details about requirements.

Pre-Nursing Program
Nursing is a fulfilling and vital career with enormous growth potential. Nurses are key members of health-care delivery teams, often serving as the most direct link to the patient while orchestrating the best possible care. They are in a position to advocate for patients and families, especially those who cannot advocate for themselves. Nurses improve patients’ quality of life and support people at their most vulnerable moments. They serve as essential members of health-care teams, working together with physicians, pharmacists, social workers, and other providers to coordinate care. Nurses benefit from opportunities for continuous learning throughout their careers, and they may gain greater responsibility and autonomy through increased education and experience. They serve in a variety of settings and specialties, and they also may opt to pursue research or teaching opportunities.

The Pre-Nursing Program at University College is intended for students who wish to complete prerequisites before continuing on to a bachelor of science in nursing (BSN) program. Students receive individual advising in order to create a course plan that fulfills the prerequisites for their future nursing programs of choice. The pre-nursing curriculum provides students with the ideal foundation for their professional studies: strong communication skills, practical analytical and problem-solving abilities, an appreciation for complex ethical questions, and an introduction to human sciences. Students who complete this course sequence will be well equipped to continue on to a variety of clinical nursing (BSN) programs.

Students who complete 54 units of nursing prerequisites with University College may, with an additional 6 units, earn an Associate in Arts degree (https://ucollege.wustl.edu/programs/undergraduate/associate-arts/). Students interested in the associate degree should speak with an academic advisor about applying to that program and fulfilling degree requirements.

Examples of Common BSN Prerequisites* and Their University College Equivalents

<table>
<thead>
<tr>
<th>General Elective</th>
<th>Select from a variety of introductory and upper-level courses; Quantitative Reasoning (Sci 117 or Sci 117M) is highly recommended.</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Algebra</td>
<td>Algebra (Math 140)</td>
</tr>
<tr>
<td>Statistics</td>
<td>Introduction to Statistics (Math 1011) or Applied Statistics (Math 205)</td>
</tr>
<tr>
<td>Introduction to Sociology</td>
<td>Introduction to Sociology (SOC 220) or other courses in Sociology with approval</td>
</tr>
<tr>
<td>English Composition I</td>
<td>Analytical Writing (EComp 111 or EComp 111M)</td>
</tr>
<tr>
<td>English Composition II</td>
<td>Critical and Researched Writing (EComp 203 or EComp 203M)</td>
</tr>
<tr>
<td>History or Political Science</td>
<td>Select from a variety of introductory and upper-level courses in these departments.</td>
</tr>
<tr>
<td>Social Science Elective</td>
<td>Select from a variety of introductory and upper-level courses in the departments of Anthropology, Economics, History, Political Science, and Psychology.</td>
</tr>
<tr>
<td>Humanities Elective</td>
<td>Select from a variety of introductory and upper-level courses in the departments of Art History, Classics, History, Literature, Philosophy, and Religious Studies.</td>
</tr>
<tr>
<td>Ethics</td>
<td>Biomedical Ethics (Phil 233)</td>
</tr>
<tr>
<td>Select courses in Biology, Chemistry, Genetics, or Physics</td>
<td>Concepts in Chemistry (Chem 1001), General Biology I (Bio 101), or other courses with approval</td>
</tr>
<tr>
<td>Nutrition</td>
<td>Nutrition (Bio 204)</td>
</tr>
<tr>
<td>Anatomy and Physiology I</td>
<td>Anatomy and Physiology I (Bio 220)</td>
</tr>
<tr>
<td>Anatomy and Physiology II</td>
<td>Anatomy and Physiology II (Bio 240)</td>
</tr>
<tr>
<td>Microbiology with lab</td>
<td>Microbiology for Health Professions (Bio 280)</td>
</tr>
</tbody>
</table>
Undergraduate Certificates
University College awards undergraduate certificates in many specialized areas of professional and personal development. Undergraduate certificate programs are credit-bearing and vary in length and requirements. All course work must be completed at University College. To receive an undergraduate certificate, students must have earned a cumulative grade-point average of 2.0 or higher for all courses taken.

Students may pursue an undergraduate certificate on a stand-alone basis or as part of a bachelor's degree. Courses taken toward an undergraduate certificate program may be applied to a University College Bachelor of Science degree. If a student is pursuing a bachelor's degree and a certificate, the student must complete a minimum of 9 units beyond the requirements for the major. The exception to this restriction on certificates applies to sequential programs of the same name, in which case all certificate courses may apply to the next-level program.

Please visit the individual certificate pages for more detailed information, requirements and policies.

<table>
<thead>
<tr>
<th>General Psychology</th>
<th>Introduction to Psychology (Psych 100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Growth and Development</td>
<td>Human Growth and Development (Psych 230)</td>
</tr>
</tbody>
</table>

* Denotes a certificate that is eligible for financial aid.

Business
The Certificate in Business (15 units) provides the information, skills and resources needed to function effectively in a business setting. The course work addresses core competencies including accounting, marketing and management as well as in-demand skills such as budgeting, business analysis, business process, procurement and operations management.

The Certificate in Business is a strong complement to any undergraduate degree program in University College, emphasizing the applied value of a liberal arts education. The Certificate in Business may also be pursued on a stand-alone basis for individuals seeking professional development.

Clinical Research Management
The Certificate in Clinical Research Management is designed primarily for individuals with clinical research responsibilities who want the formal course work to complement their skills and experience in the field.

The 21-unit certificate program targets key processes for managing research protocols that develop and use drugs, devices and treatments for patient care. The program focuses on the scientific methods of clinical research, good clinical practice, research ethics and the regulatory guidelines that protect human subjects, all of which are integral components of clinical trial management in academic research and pharmaceutical industry settings.
Requirements

Certificate in Clinical Research Management

Required Courses: 21 units

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRM 250</td>
<td>Fundamentals of Clinical Research Management I</td>
<td>3</td>
</tr>
<tr>
<td>CRM 251</td>
<td>Fundamentals of Clinical Research Management II</td>
<td>3</td>
</tr>
<tr>
<td>CRM 318</td>
<td>Introduction to Data &amp; Information Management in Health Sciences</td>
<td>3</td>
</tr>
<tr>
<td>CRM 325</td>
<td>Research Ethics and Regulatory Affairs</td>
<td>3</td>
</tr>
<tr>
<td>CRM 330</td>
<td>The Business of Clinical Research</td>
<td>3</td>
</tr>
<tr>
<td>CRM 350</td>
<td>Practicum/Capstone</td>
<td>3</td>
</tr>
<tr>
<td>CRM 353</td>
<td>Pharmacology for Clinical Research</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td></td>
<td>21</td>
</tr>
</tbody>
</table>

Creative Writing

University College offers a 16-unit Certificate in Creative Writing for those who want to explore in depth and achieve significant mastery of the art of writing poetry, fiction or creative nonfiction.

Instructors in this program are experienced professional writers, most of whom are associated with the Washington University Graduate Writing Program and the Department of English. All of the craft courses are taught using the workshop model, with open discussion and detailed, constructive criticism of each student's writing.

Contact: Victoria Thomas
Phone: 314-935-5190
Email: english@wustl.edu
Website: https://ucollege.wustl.edu/programs/certificates/creative-writing

Requirements

Certificate in Creative Writing

Students may specialize in any one of three genres: poetry, fiction or creative nonfiction. Each student will take five 3-credit, advanced-level (300 or higher) courses, including three courses devoted to mastering the craft of writing in the chosen specialty genre, one course primarily in the reading and analysis of the literature in that genre, and one course in a second genre.

The student's final course in the program will be taken for 4 credits rather than the usual 3, and it will include a 1-credit meta-commentary assignment. This assignment requires students to step back from the particular course and describe (in 1500 words) what they have learned about the differences and similarities among the genres investigated and how these have affected their choice of genre. Students should look at the strategies they have chosen in their writing and explain why they chose them for a particular purpose. The goals of this assignment are for students to demonstrate the skills that they have learned during the course of their certificate studies as they think about the genres they have examined and to show how these skills govern their approach to creative writing.

Students with little previous experience in creative writing are encouraged to begin with a 200-level writing course or workshop as a foundation for the more advanced courses that will count toward the certificate.

Sample Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EComp 316</td>
<td>Poetry Writing</td>
<td>3</td>
</tr>
<tr>
<td>EComp 317</td>
<td>Fiction Writing: The Moral of the Story: Writing Fiction about Ethics, Philosophy, and Morality</td>
<td>3</td>
</tr>
<tr>
<td>EComp 318</td>
<td>Fiction Seminar (Prerequisite: EComp 317 or one published work)</td>
<td>3</td>
</tr>
<tr>
<td>EComp 3151</td>
<td>Nonfiction: Reading and Writing the Memoir</td>
<td>3</td>
</tr>
<tr>
<td>EComp 3153</td>
<td>Creative Nonfiction: Writing Ourselves, Writing the World</td>
<td>3</td>
</tr>
<tr>
<td>EComp 323</td>
<td>The Art of the Personal Essay</td>
<td>3</td>
</tr>
</tbody>
</table>

Courses


U11 EComp 310 Genre Writing

This course is a creative writing workshop dedicated to genre fiction. With a primary focus on the contemporary genre story, the course will cover new and classic science fiction, fantasy, crime writing, and much more. Through a series of readings and writing workshops, we will discuss the craft of genre writing from...
the traditional to the contemporary, including long-standing genre conventions, recent cross-genre trends, and the current role of genre fiction in the literary landscape. This course can count toward the major in English for day students.
Credit 3 units. UColl: OLI

U11 EComp 313 Creative Nonfiction
This is a workshop for students interested in writing creative nonfiction and the personal essay. We examine the narrative techniques that writers use to shape their life experiences and observations. Students experiment with different approaches to writing process and have opportunities to complete work in various modes, such as memoir and the lyrical essay. We will also read published nonfiction essays that illuminate various aspects of style and craft.
Credit 3 units. UColl: OLI

U11 EComp 3151 Nonfiction: Reading and Writing the Memoir
This is a workshop for students interested in writing a memoir. We examine the narrative techniques that memoir writers use to craft stories based on life experience. Students gain practice in the form by completing a series of assigned short exercises and by writing two longer pieces that are read and discussed by the class. We also read several published memoirs chosen to illuminate various aspects of style and craft.
Credit 3 units.

U11 EComp 3153 Creative Nonfiction: Writing Ourselves, Writing the World
In this course, we will explore memoirs, essay collections, and individual articles in which the writers have merged their observations and research of the natural world with their own personal experiences or philosophical inquiries. We will consider biologist David George Haskell's The Forest Unseen alongside essay collections by nonfiction writer Amy Leach (Things that Are), fiction writer Michael Martone (The Flatness and Other Landscapes), and poet Mary Oliver (Long Life), as well as excerpts from books by Eula Biss, Bill Holm, Barbara Hurd, Robin Wall Kimmerer, and Lawrence Weschler. From these works-in-progress, and they will make their own compositions and by writing two longer pieces that are read and discussed by the class. We also read several published memoirs chosen to illuminate various aspects of style and craft.
Credit 3 units.

U11 EComp 316 Poetry Writing
This course is an open-level poetry workshop for writers interested in exploring the craft of poetry. We will discuss uses of imagery, language, and rhythm in the context of creating experience and meaning in poetic form. Students will share original work--often generated from class activities and exercises--for discussion with the class. This course can count toward the major in English for day students.
Credit 3 units. UColl: OLI

U11 EComp 317 Fiction Writing: The Moral of the Story: Writing Fiction about Ethics, Philosophy, and Morality
Why do stories matter? How do stories help us grow? How do they challenge us? And how do they help us explore issues and ideas both new and old? This course is a fiction writing workshop with a focus on stories that deal in complex and meaningful ways with the world we live in. We read, write, and discuss stories that complicate the way we think and open new doors for considering what we believe, value, desire, and fear. In addition to reading a diverse group of authors with varying perspectives and styles, including queer writers, Latinx writers, and writers of color, our main goals are to write and share new original fiction writing and to discuss how elements of craft can help reveal the issues and ideas that our stories explore.
Credit 3 units. UColl: OLI

U11 EComp 3171 Long-Form Fiction Writing: The Short Novel and the Long Short Story
This course will explore the process of writing longer-form narratives, building on the knowledge of the craft and structure of the short story gained in Fiction Writing. We will introduce and practice strategies for plotting, researching, and developing story ideas into feasible long-term projects, rather than producing a finished full-length manuscript. We will read and analyze short novels and long short stories across multiple genres and styles. The diverse range of texts include novels by Michael Ondaatje, Jenny Offill, James Baldwin, Anne Carson, and Danielle Dutton, as well as short stories by Kelly Link, Leo Tolstoy, Alice Munro, and Franz Kafka. Prerequisite: U11 317 Fiction Writing.
Credit 3 units.

U11 EComp 317K Fiction Writing: Young Adult Fiction
This is a workshop for students interested in writing creative nonadult (YA) fiction. Through readings in a variety of recent YA novels, we will discover how the pros negotiate the particular challenges and joys of writing for this age group. Through a series of coordinated writing exercises, we will practice crafting the building blocks of the solid YA story/novel (e.g., plot, character, setting). Through workshop discussions, students will draft and submit their own YA stories or novel sample chapters for constructive response and critique. Writers of all (or no!) levels of prior practice or accomplishment are invited.
Credit 3 units.

U11 EComp 317M Fiction Writing
Online version of the course U11 317. In this course, students will write, learn how to read like a writer, and write some more. Our focus will be on short fiction, and our approach will be to explore the stages linking inspiration to the final (or nearly final) draft -- in other words, we will explore how to find a story idea and how to grow it. The course will be run as a virtual workshop, which means that students will be actively engaged in meaningful online discussions about their classmates' original works-in-progress, and they will make their own compositions available for such discussions. Students will also be prompted -- via regular weekly reading responses and writing exercises -- to examine common craft-of-fiction elements, from the basic building blocks of stories such as details, characters, and dialogue to more slippery units of narrative design such as scene, summary, point of view, and theme. Along the way, we will also read a range of published short stories, from classics to works by contemporary masters.
Credit 3 units. UColl: OLI

U11 EComp 318 Fiction Seminar
This is an advanced writing seminar for students familiar with the process of writing fiction. We will address individual writing problems, and use specific exercises for sharpening skills in the separate elements of fiction, including dialogue, plot, and character development. We will also study prominent authors for voice, style, and craft. Topic varies by semester.
U11 EComp 321 Advanced Writing
Credit 3 units. UColl: OLI

U11 EComp 322 Writing Historical Fiction
This course is for writers working on short stories or novels of all genres. We will focus on preparing fiction for publication, presentation to an agent, or as part of an application portfolio for an MFA program or grant. Through assigned readings, craft discussions, and workshopping, we will hone the writer's craft. Additionally, we learn about the current literary marketplace, including magazines, small presses, self-publication and literary agencies. Each student will receive evaluation from the instructor as well as critique from fellow students.
Credit 3 units. UColl: OLI

U11 EComp 323 The Art of the Personal Essay
In this course we will study the structures, techniques and boundaries of the personal essay in which the writer is both observer and participant. Students will read and analyze classic and new examples in this genre. They will also draft and polish their own personal essays and share them with classmates in a discussion/workshop format. The emphasis is on developing a writer’s critical faculties, capacity for self-scrutiny, and literary skills. Prerequisites: U11 101 and 203 and one course in literature, or instructor permission.
Credit 3 units. UColl: OLI

U11 EComp 324 Writing for Public Speaking
A course in organizational communications drawing upon the "means of persuasion" from classical rhetoric to PowerPoint. Practice in writing, speaking, and listening in the various formats: paper, oral presentations, and Internet. Comparative analysis of what works best with varying topics, situations, audiences, and purposes. Prerequisite: U11 203 or 203M. This course will count toward major in English for day students.
Credit 3 units. UColl: OLI

U11 EComp 327 Writing the Short-Short Story and 10-Minute Play
In this class we will concentrate on the short forms of microfiction and ten-minute plays, exploring what kinds of stories we can tell in a short space. We will examine a variety of creative writing techniques, including character development, conflict, voice, story arc, setting, images, and especially dialogue. The heart of this class is workshop, but we will read aloud and study models and examples in each genre.
Credit 3 units.

U11 EComp 330 The Art of Nature and Travel Writing
In this creative nonfiction course, students will discover the art of the essay in the realm of nature and travel writing and will write their own personally voiced narratives in which "place" plays a central role. Whether your journeys take you up the road, around the world, or more deeply into an environment you have experienced over time, attending to the sensory details, landscape, culture, and history of a place provides rich material for exploration. We will read and discuss essays by some of the many great writers who have worked in this genre, including traditionally underrepresented voices. Through an active learning approach, students will generate and share new work and provide each other feedback in a supportive, collaborative workshop setting. The writers we will focus on range from Rebecca Solnit, James Baldwin, Rahawa Haile, Barry Lopez, Annie Dillard, Terry Tempest Williams, and Pico Iyer, to Colson Whitehead, Leslie Jamison, John Jeremiah Sullivan, Patricia Hampl, and Ryan Knighton.
Credit 3 units. UColl: OLI

U11 EComp 331 Technical Writing
For those whose professions require them to present complex information precisely, logically, and efficiently. Examination of the audiences for technical writing and effective methods of organizing information to meet their needs. Variety of formats: letters, memos, trip reports, progress reports, proposals, and informal reports. Prerequisite: U11 203 or 203M.
Credit 3 units.

U11 EComp 332 Introduction to Screenwriting
In this screenwriting course, students will learn the various components necessary for writing a motion picture screenplay. Students will conceive and write the first act of a full-length screenplay (30 pages), complete a full-length story synopsis, and complete a number of in-class and take-home exercises. Students will read and critique each other's work. We also will view and evaluate films and analyze excerpts from successful movie screenplays, looking closely at the elements of plot and structure, character, dialogue, theme, genre, style, and format. Previous screenwriting experience is not required.
Credit 3 units.
Same as U18 Film 332

U11 EComp 3321 Advanced Screenwriting
This course is intended for students who have already taken FMS 332 Introduction to Screenwriting at University College (or a comparable introductory course elsewhere). Building on past experiences, students will continue their work in the craft of screenwriting by expanding their knowledge about screenwriting techniques. Students will complete Act II (approx. 45-50 pages) & Act III (approx. 20 pages) of the feature-length script they began in the introductory course. Topics and reading will include advanced plot structure, genre conventions, story archetypes, sequencing, POVs, adaptations, short & independent film, query letters, and script pitches. In particular, script rewriting will be explored. This course will not count toward requirements in the FMS major or minor.
Same as U18 Film 3321
Credit 3 units.

U11 EComp 333 The Long Form
This course is a seminar and workshop for students interested in writing novels, memoirs, reportage, or collections (short stories, essays, or poems). We will study published works for techniques used to create a narrative, thematic, and/or technical arc. We will workshop our own writings, with the goal of understanding their places within a larger work, from proposing and outlining a full-length manuscript to sculpting an anchor piece for the larger work. Prerequisite: a 300-level writing course or instructor's permission.
Credit 3 units.
**U11 EComp 338 Writing Adventure and Creating Action**

This course will study and practice the techniques necessary to write active and adventurous prose, both fiction and nonfiction. Topics include writing mechanics and style with the goal of mastering the diction and syntax of action while avoiding cliché or melodrama. We will also examine broader craft elements such as pacing, scenes, setting, character development, adventure archetypes, suspense, and voice. Readings include adventure writers such as Elizabeth Gilbert, Ernest Hemingway, Pam Houston, Jon Krakauer, Herman Melville, Kira Salak, Gary Shteyngart, Cheryl Strayed, Mark Twain, and Jules Verne. Students will complete exercises and three stories of varying lengths, with at least one in each mode, to be shared in a workshop setting.

Credit 3 units.

**U11 EComp 339 Masters of Fantasy Writing**

As one of the most commonly read genres of literature, fantasy offers its readers an escape from the everyday mundane into worlds where anything is possible. For writers of fantasy, the genre is a space where no topic is off limits and where they can let their imaginations run wild. This course explores the craft of fantasy writing and the many worlds an author can create, with a focus on the short story and novella form. Weekly readings of novellas and short stories will span the masters of fantasy literature, including Stephen King, Terry Pratchett, Ursula K. LeGuin, Anne McCaffrey and many more. Academic texts and writing exercises will build on students' "writing toolboxes," with a focus on emotion, dialogue, and description. Our goals are to explore the modern trends in fantasy and what makes successful fantasy literature; to understand the different process and style of writing a short story versus a novella; to be able to develop an idea into a polished draft of a fantasy short story or the beginnings of a novella; and to improve the workshop skills crucial to the development and revision process in creative writing.

Credit 3 units. UColl: OLI

**U11 EComp 340 The Magazine Feature: Idea to Finished Product**

This course will explore the process of conceiving, reporting, drafting, revising, and placing a magazine feature story. We will read exemplary long-form magazine journalism — sometimes called literary journalism or narrative nonfiction — with an eye to process and craft. How do we find stories? What is the relationship between reporting and the published piece? How do we shed new light on common themes and approach storytelling in innovative ways? During the term, each student will develop a feature profile: securing a subject, devising a reporting strategy, incorporating research, and ultimately, exploring voice, theme, and structure through multiple drafts. The course will include literary analysis and discussion, writing exercises, workshop-style discussion of student work, and will prepare interested students to pitch their stories for publication.

Credit 3 units.

**U11 EComp 357 Writing Creatively for Magazine and Online Publication**

This course is a writing workshop focused on a wide variety of nonfiction for both print and online venues. We will read and discuss forms of writing such as magazine feature stories, short- and long-form narrative reporting, informative personal and opinion writing, and much more. Our goal will be to produce smart, entertaining writing that can gain a reader's interest and inform readers at the same time. Whether you are interested in publishing magazine features or more informal, personal writing online, we will study and practice how to use research, storytelling, and your own original voice to make topics both fascinating and easy to read. Students will design and write their own projects, write and share a variety of short exercises, and workshop material from the class. We will also read a wide variety of published writing from different publishing venues and platforms. The course will provide a positive, engaging space for you to improve your writing skills and produce polished, high quality writing of your own.

Credit 3 units.

**U11 EComp 358 Multimedia Storytelling for Creative Writers**

Storytelling in the 21st century is increasingly a digitized endeavor, with creators adapting their work to engage readers who seek material via electronic devices. These complementary formats may include embedded images, graphics, maps, audio or music recordings, videos, animations, twitter feeds, blog posts, and social media profiles. With an emphasis on writing fiction or nonfiction prose that can be accompanied by such media, this hybrid online course will explore and practice the many forms and techniques of transmedia storytelling. Students will propose, design, draft, and present a single transmedia narrative spanning a variety of formats. Advanced computer skills, equipment, or software are required.

Credit 3 units.

**U11 EComp 371 Narrative Structure and Story Development**

Credit 3 units.

**U11 EComp 400 Independent Study**

Credit variable, maximum 3 units.

**U11 EComp 4012 Workshop in Composition: Adapting Writing Center Pedagogy to Elementary School**

A collaborative workshop for elementary school teachers, facilitated by the Director of Washington University's Writing Center. Members will learn the art of one-to-one writing instruction and explore ways of adapting this pedagogical model to their elementary school setting. Biweekly journal, literary memoir and theory-into-practice project required. By permission only.

Credit 1 unit.

**U11 EComp 494 Voices in Action**

What sparks and sustains people's movements for social justice? This history and creative-writing course explores the contexts and expressions of 20th century and contemporary protest movements, ranging from labor, civil rights, the Vietnam War, ethnic people and women's movements, to contemporary social and environmental justice movements. We will explore speeches, manifestos, visual and oral texts, songs, and poetry to consider how dissent is voiced in response to specific social contexts and historic events. We will consider the role of personal expression in enacting democracy, focusing on poetry that helps articulate what is at stake in the protest movements of the 20th and 21st centuries. We will examine how language moves people, raising awareness of the facts and felt experiences of injustice, helping to fuel social movements and "call forth a public" to make change. Assignments include a mix of historical analysis, ethnographic and participatory work, creative writing, and reflection.
Forensic Psychology

Forensic psychology examines the intersection of human behavior and criminal justice, and it applies theories and skills from psychology to the legal system, including areas such as law enforcement, corrections, victim services, and the treatment of offenders. Forensic psychology includes five major subdisciplines — police psychology, investigative psychology, criminal psychology, correctional psychology and legal psychology — all of which are covered in the course work comprising the 15-unit Certificate in Forensic Psychology.

Forensic psychologists are growing in numbers in judicial systems and law enforcement, working in correctional facilities, law enforcement agencies, police offices, school and university settings, community service agencies, and private practices. In addition to being a springboard for graduate study in Psychology, Sociology, Criminal Justice, and Criminology, the Certificate in Forensic Psychology complements undergraduate degrees in Psychology, Political Science, Sociology, Anthropology, Urban Studies, Biology and Chemistry.

Contact: Jennifer Siciliani, PhD
Phone: 314-935-6700
Email: sicilianij@wustl.edu
Website: https://ucollege.wustl.edu/programs/certificates/forensic-psychology

Requirements
Certificate in Forensic Psychology

Required Courses: 12 units

The following two courses are required to complete the certificate:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psych 376</td>
<td>Introduction to Criminology</td>
<td>3</td>
</tr>
<tr>
<td>Psych 377</td>
<td>Introduction to Forensic Psychology</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

At least two additional forensic psychology courses must be chosen from the following list:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psych 368</td>
<td>Introduction to Psychopathology and Clinical Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Psych 385</td>
<td>Crisis Typologies</td>
<td>3</td>
</tr>
<tr>
<td>Psych 378</td>
<td>Crisis Intervention: The Criminal Justice Response to Chaos, Mayhem, and Disorder</td>
<td>3</td>
</tr>
<tr>
<td>Psych 371</td>
<td>Investigative Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Geographic Information Systems

Geographic information systems (GIS) display and manage all types of data over time, usually in the form of maps, charts and reports that help with the analysis of patterns and trends.

GIS technology, which is easily integrated into any organization's information system, provides a quick and effective method for sharing data visually and for solving spatial problems. GIS is widely used in many fields and industries, including environmental science, architecture, engineering, medicine, municipal government, public health, social work, business, and a variety of research enterprises.

The 18-unit Certificate in Geographic Information Systems offered through University College teaches both fundamental and advanced concepts and skills, including the design of GIS projects, the operation of GIS software, cartographic output, spatial analysis, and industry-specific applications of GIS. The certificate targets working professionals seeking course work and skill enhancement in the field as well as students wishing to complement their academic interests with additional training in GIS.

Contact: Mollie Webb
Phone: 314-935-9700
Email: molliewebb@wustl.edu
Website: http://ucollege.wustl.edu/programs/certificates/geographic-information-systems

Requirements
Certificate in Geographic Information Systems

Required Courses: 15 units
Courses


U90 GIS 200 Introduction to GIS
This course introduces students to the fundamental principles and applications of geographic information systems (GIS), their underlying geospatial science and spatial thinking. This problem-based course explores applications of GIS to spatial questions in the areas of social science, business, the humanities and earth sciences. Example topics include understanding spatial data types; map coordinate systems and projections; basic spatial data analysis; acquiring, editing, creating and managing geospatial data; and processing and visualizing data using GIS. This hands-on course works through problems using ESRI ArcGIS software (primarily ArcGIS Pro), but other open source tools will also be introduced. Students who complete this course should be able to apply skills to think through a spatial problem and employ GIS tools to address it. Credit 3 units. UColl: OLH, OLI

U90 GIS 300 Advanced GIS
This course is designed to move beyond tools and skills learned in Applications in GIS (EnSt 380/580). Classes will feature hands-on exercises selected to help you master advanced GIS analysis tools and techniques, while providing experience in the planning and execution of real-world projects. Primary emphasis will be on applying fundamental GIS concepts, performing spatial analysis, developing proficiency with core ArcGIS software (e.g., Network Analyst extension), resolution of problems, and efficient delivery of results. Readings from books and scientific literature will introduce key concepts and provide real-world examples that will be reinforced in the hands-on exercises, assignments, and projects. As the semester develops, you will gain a variety of new tools and techniques that will allow you to complete a final independent project that integrates the material learned during the course. Same as L82 EnSt 481 Credit 3 units. A&S IQ: NSM Arch: NSM Art: NSM

U90 GIS 303 Digital Cartography
In today’s world, it is imperative that students develop the necessary skills to communicate their ideas to a large audience in an efficient manner. Graphics and visual representations are one of the most effective ways to neatly convey complex data sets to readers. This course presents both theoretical and hands-on mapping and graphical problems to students. Students will learn to solve these problems with self-created solutions. The course teaches students the basics of GIS-based mapping for producing publishable work. Students will develop basic skills in computer-aided mapping and computer drafting primarily using the ArcGIS Suite of desktop software, ArcGIS and Google online web mapping, and other tools. Students will also be introduced to other mapping or statistical programs as needed. Credit 3 units. UColl: OLH, OLI

U90 GIS 310 GIS Programming
This course introduces students to the use of programming in desktop and web geographic information systems (GIS). The course will be divided into two units: the first unit will focus on scripting for task automation, while the focus of the second unit will be web development. Topics include general programming concepts, using spatial libraries for both Python and R, the ArcGIS API for JavaScript, Leaflet, and consuming and publishing map services. Prerequisite: Introduction to GIS (U90 GIS 200) or Applications of GIS (EnSt 380/580). Credit 3 units. UColl: OLH

U90 GIS 310M GIS Programming
Online version of U90 310. This course introduces students to the use of programming in desktop and web geographic information systems. The course will be divided into two units: the first will focus on scripting for task automation, while the focus of the second unit will be web development. Topics include general programming concepts using spatial libraries for both Python and R, the ArcGIS API for JavaScript, Leaflet, and consuming and publishing map services. Prerequisite: U90 GIS 200 or EnSt 380/580. Credit 3 units. UColl: OLH

U90 GIS 313H Open Source GIS
Online hybrid version of the course U90 313. This course explores the open source options available for GIS users. Most students learn GIS on ESRI’s ArcGIS platform. While robust, ArcGIS comes with a heavy price tag and may not be feasible for all GIS users. In this course, we will not only learn about how to find open source (free) GIS software, we will also learn how to use four of the major platforms available. We will start by learning QGIS, which is comparable to ESRI’s ArcMap/ArcGIS Pro. Students will become intermediate users of QGIS. During the second half of the semester, we will spend time learning R, GeoDa and GRASS GIS. Prerequisite: an introductory GIS course or permission of the instructor. Credit 3 units. UColl: OLH, OLI

U90 GIS 410 Applications in Geospatial Intelligence
This course introduces the concept of geospatial intelligence (GEOINT) and demonstrates how location can be used to identify patterns, visualize connections, and define relationships to ultimately “see what others can’t.” Learn about the Intelligence Cycle, the mission of the National Geospatial-Intelligence Agency (NGA) and other members of the Intelligence Community (IC), as well as potential career pathways in

Elective Courses: 3 units

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GIS 310</td>
<td>GIS Programming</td>
<td>3</td>
</tr>
<tr>
<td>GIS 313H</td>
<td>Open Source GIS</td>
<td>3</td>
</tr>
<tr>
<td>GIS 410</td>
<td>Applications in Geospatial Intelligence</td>
<td>3</td>
</tr>
<tr>
<td>GIS 425</td>
<td>Public Health Applications of GIS</td>
<td>3</td>
</tr>
<tr>
<td>GIS 427</td>
<td>Public Sector Applications of GIS</td>
<td>3</td>
</tr>
</tbody>
</table>

Other courses with approval

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GIS 310M</td>
<td>GIS Programming</td>
<td>3</td>
</tr>
<tr>
<td>GIS 313H</td>
<td>Open Source GIS</td>
<td>3</td>
</tr>
</tbody>
</table>
U90 GIS 420 Using GIS in International Affairs
This course studies the concept of spatial thinking, which will help students determine why and when to use GIS to address a problem. Students will explore some tools available for visualizing and analyzing data, primarily using primarily using ArcGIS and QGIS. The class will be divided into sections based on different kinds of problems (e.g., demography, microeconomics, history, environment) with an international affairs focus. Each class will have an online prompt, to which students are expected to respond. Students will learn skills that may help address the problem, work together in pairs on the problem, and with the class explore ways to improve their solution.
Same as U85IA 420
Credit 3 units.

U90 GIS 421 Spatial Data Modeling and Design
This course expands on the fundamental principles of geographic information systems (GIS) and introduces advanced spatial database concepts and a visual programming environment for automating geoprocessing tasks. The course is divided into two parts: the first exploring spatial database design with emphasis on the ESRI Geodatabase, and the second focusing on automating workflows using ESRI ModelBuilder. Topics include data needs assessment; conceptual modeling, logical design, and physical implementation; using models to perform multi-step spatial analyses; and the automation of repetitive processes with iteration tools. Lectures are supplemented with lab exercises to develop proficiency and problem-solving skills using ArcGIS software and associated tools. Prerequisite: the course should be taken after or concurrently with Advanced GIS (U90 GIS 300).
Credit 3 units.

U90 GIS 421H Spatial Data Modeling and Design
Online hybrid version of the course U90 421; fulfills the same program requirements. This course expands on the fundamental principles of geographic information systems (GIS) and introduces advanced spatial database concepts and a visual programming environment for automating geoprocessing tasks. The course is divided into two parts: the first exploring spatial database design with emphasis on the ESRI Geodatabase and the second focusing on automating workflows using ESRI ModelBuilder. Topics include data needs assessment; conceptual modeling, logical design, and physical implementation; using models to perform multistep spatial analyses; and the automation of repetitive processes with iteration tools. Lectures are supplemented with lab exercises to develop proficiency and problem-solving skills using ArcGIS software and associated tools. Prerequisite/Corequisite: Advanced GIS (U90 GIS 300).
Credit 3 units.

U90 GIS 422 GIS Clinic
The GIS Clinic is the culminating experience in the GIS Certificate Program. Students complete a project in a real work setting to provide direct expertise. The course involves a progression of tasks and this course will incorporate a project model to illustrate the workflow (steps required) to move from an idea to a finished product. Prerequisite: Introduction to GIS (U90 GIS 200) or Applications of GIS (EnSt 380/580).
Credit 3 units.

U90 GIS 425 Public Health Applications of GIS
This course is designed to strengthen data preparation, presentation, analysis, and map production skills within the context of public health. The goal is to help the student understand advanced GIS analysis tools and techniques while providing experience in the planning and execution of real-world projects. Primary emphasis will be on applying fundamental GIS concepts, performing spatial analysis, developing proficiency with popular GIS software applications, resolution of problems, and effective delivery of results. Project work will be collaboratively designed and managed by the class. GIS projects typically involve a progression of tasks and this course will incorporate a project model to illustrate the workflow (steps required) to move from an idea to a finished product. Prerequisite: Introduction to GIS (U90 GIS 200) or Applications of GIS (EnSt 380/580).
Credit 3 units.

U90 GIS 427 Public Sector Applications of GIS
This course examines the use of geographic information systems (GIS) and geographic information science in the public sector, with a focus on GIS applications in local government and municipality services. The course requires an understanding of fundamental GIS principles, and will address practical application of fundamental and advanced GIS concepts and practices. Topics addressed include GIS implementation at the organization and department levels, problem solving with GIS, and geospatial project management. Lectures are integrated with lab sessions using GIS software including ArcGIS, Google Earth, and Open Street Map. Prerequisite: Introduction to GIS (U90 GIS 200) or Applications of GIS (EnSt 380/580).
Credit 3 units.

Marketing
The Certificate in Marketing provides undergraduate students with a marketing-specific set of in-demand skills. Students will be introduced to key marketing concepts and competencies, including competitive analysis, market research, communications
strategy, product marketing, branding, editing and social media marketing. The certificate can be customized to fit a student’s unique interests in design thinking, creative writing, video editing, podcasting or two-dimensional design.

According to a recent Burning Glass report (PDF) (http://bulletin.wustl.edu/undergrad/ucollege/cert-marketing/BGTReportLiberalArts.pdf), adding technical field-specific skills to a liberal arts program of study doubles the jobs available to recent graduates.

The Certificate in Marketing may also be pursued on a stand-alone basis for individuals seeking professional development in their current role.

Contact: University College Advisers
Phone: 314-935-6700
Email: ucollege@wustl.edu
Website: https://ucollege.wustl.edu/programs/certificates/marketing

Requirements
Certificate in Marketing

The undergraduate Certificate in Marketing is earned by completing five courses (13 credit units total), including four core courses and one additional course to be selected from a short list.

Required Courses: 10 units

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus 270</td>
<td>Marketing Concepts</td>
<td>3</td>
</tr>
<tr>
<td>Comm 305</td>
<td>Market Research and Communications Strategies</td>
<td>3</td>
</tr>
<tr>
<td>Comm 3451</td>
<td>Effective Editing</td>
<td>3</td>
</tr>
<tr>
<td>Comm 3090</td>
<td>Social Media for Public Relations</td>
<td>1</td>
</tr>
<tr>
<td>Total Units</td>
<td></td>
<td>10</td>
</tr>
</tbody>
</table>

Choose one from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 109</td>
<td>Design Concepts</td>
<td>3</td>
</tr>
<tr>
<td>Bus 290</td>
<td>Design Thinking: Human-Centered Approaches to Making the World</td>
<td>3</td>
</tr>
<tr>
<td>Comm 308</td>
<td>Making the Cut: Editing Digital Video</td>
<td>3</td>
</tr>
<tr>
<td>JRN 327</td>
<td>Audio Storytelling: From Podcasts to Newscasts</td>
<td>3</td>
</tr>
<tr>
<td>Any Creative Writing course from the U11 English Composition department</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Somatic Studies

Somatic practices promote integrated personal development by training students in processes for mindful, embodied living; they complement disciplines of inquiry and knowledge related to the human body and mind. Although these disciplines are relatively new to Western thought, somatic practices are recognized in numerous ancient and contemporary cultures not only as beneficial to physical health but also as methods for the cultivation of the mind and the discovery of knowledge. Such experience may inform and complement knowledge in such areas as biology, neuroscience, physics, psychology, philosophy, anthropology and religious studies. Somatic practices also have applied value in professions such as education, performing arts, athletics, medicine and physical therapy.

The Certificate in Somatic Studies offers a diverse spectrum of established movement processes aimed at self-development, with courses taught by certified instructors in their respective disciplines. With the coordinator’s approval, a maximum of 3 units of course work from other disciplines may be applied to the Certificate in Somatic Studies.

Contact: David Marchant
Phone: 314-935-4476
Email: marchant@wustl.edu
Website: http://ucollege.wustl.edu/programs/certificates/somatic-studies

Requirements
Certificate in Somatic Studies

The Certificate in Somatic Studies is composed of a minimum of 15 credit units of course work. This includes the required 2-unit course Dance 285 Introduction to Somatic Practices, which is an introductory survey of a variety of practices offered in the program that is complemented by lectures on related disciplines such as biology, philosophy and psychology. Students choose an additional 13 units from the courses noted below according to their individual interests and goals. With the coordinator’s approval, a maximum of 3 units of course work from related disciplines may be applied toward the Certificate in Somatic Studies.

Note: Courses that apply to the Certificate in Somatic Studies must be taken for a letter grade. If a course is offered as pass/fail only, certificate candidates should inform the instructor and contact the registrar to verify that they are registered for graded credit.
This program provides in-depth instruction in writing, editing and presentation along with the analysis of critical concepts in communications research, management, marketing, advertising, public relations, technology and media (traditional and new) and how these functions relate to each other to create effective organizational communications.

Contact: Justin Lopinot
Phone: 314-935-6700
Email: justin.lopinot@wustl.edu
Website: https://ucollege.wustl.edu/programs/certificates/strategic-communication

### Requirements

**Certificate in Strategic Communication**

*Required Course Work:* 15 units

Choose five of the following seven courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comm 234</td>
<td>Foundations of Communications</td>
<td>3</td>
</tr>
<tr>
<td>Comm 262</td>
<td>Integrated Strategic Communications</td>
<td>3</td>
</tr>
<tr>
<td>Comm 305</td>
<td>Market Research and Communications Strategies</td>
<td>3</td>
</tr>
<tr>
<td>Comm 350</td>
<td>Public Relations Principles and Social Media</td>
<td>3</td>
</tr>
<tr>
<td>EComp 324</td>
<td>Writing for Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>Comm 378</td>
<td>Communications Technology and New Media</td>
<td>3</td>
</tr>
<tr>
<td>Comm 385</td>
<td>Digital Communications Analytics</td>
<td>3</td>
</tr>
</tbody>
</table>

### Sustainability

The **Certificate in Sustainability** provides an interdisciplinary foundation for understanding and addressing today’s most pressing and complex social, environmental and economic challenges.

This certificate covers the broad sustainability knowledge, skills and competencies needed for those interested in either advancing within their current field or seeking a new direction. It can apply across a wide range of fields, from management, design and planning to environmental services in business, nonprofit and public institutions. The program addresses the collaborative and integrative nature of sustainability with an emphasis on applied learning — taking the lessons from the classroom into St. Louis.
Contact: Mary Ann Lazarus  
Phone: 314-935-6700  
Email: lazarus9876@wustl.edu  
Website: http://ucollege.wustl.edu/programs/certificates/sustainability

**Requirements**

**Certificate in Sustainability**

**Required Courses:** 15 units

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUST 205</td>
<td>Foundations and Practice of Sustainability</td>
<td>3</td>
</tr>
<tr>
<td>SUST 306</td>
<td>Translating Sustainable Business Practices</td>
<td>3</td>
</tr>
<tr>
<td>SUST 328</td>
<td>Environmental Law: Applications Toward Sustainability</td>
<td>3</td>
</tr>
<tr>
<td>Bus 364</td>
<td>Strategic Planning</td>
<td>3</td>
</tr>
<tr>
<td>SUST 413</td>
<td>Environmental Science: Regional and Global Perspectives</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units:** 15

---

**Additional Programs**

University College offers the following additional undergraduate programs:

- Accelerated Programs (p. 167)
- Combined Bachelor's/Master's Program (p. 168)
- Minors (p. 168)
- Special Audit and Day Audit Programs (p. 169)
- Undergraduate Honors Program (p. 169)

---

**Accelerated Programs**

**Get Your Degree Faster.**

University College has a range of courses and programs shaped to fit each student’s schedule and goals. Students may choose from the options below, and, as they browse the semester’s course listings (https://acadinfo.wustl.edu/ucollege/), they can also search under “8-Week” courses and “Weekend Only.”

**Accelerated Master's Degree Program**

The Accelerated Master's Degree Program (https://ucollege.wustl.edu/programs/accelerated/masters-degree/) allows Arts & Sciences day students to count their graduate-level course work (completed as an undergraduate) toward a master's degree. With careful planning, some of this course work can be incorporated into a student’s undergraduate course of study, be covered by their regular undergraduate tuition, and lead to an AB earned in normal time with an accompanying master's in an additional one or two extra semesters of study.

Only current Arts & Sciences undergraduates who are earning an AB are eligible for this Accelerated Master's Degree program. The accelerated master's program option applies to the following master's degree programs:

- Biology (https://ucollege.wustl.edu/programs/graduate/masters-biology/)
- Clinical Research Management (https://ucollege.wustl.edu/programs/graduate/masters-clinical-research-management/)
- Human Resources Management (https://ucollege.wustl.edu/programs/graduate/masters-human-resources-management/)
- International Affairs (https://ucollege.wustl.edu/programs/graduate/masters-international-affairs/)
- Master of Liberal Arts (https://ucollege.wustl.edu/programs/graduate/masters-liberal-arts/)
- Nonprofit Management (https://ucollege.wustl.edu/programs/graduate/masters-nonprofit-management/)
- Statistics (https://ucollege.wustl.edu/programs/graduate/masters-statistics/)

**ACTRAC**

Students wanting to advance more quickly toward their degree can do so with the Accelerated Track program (ACTRAC) (https://ucollege.wustl.edu/programs/accelerated/actrac/).

Eligible University College students may enroll in courses that carry the ACTRAC option (noted in the course listings (https://acadinfo.wustl.edu/ucollege/)). By completing additional course work prescribed by the instructor, students earn 4 credits for each ACTRAC course rather than the usual 3 credits. By taking ACTRAC courses, students can reduce the total number of courses they must take before they graduate.

Eligible students must meet the following qualifications:

- Be admitted to a University College undergraduate degree program
- Have successfully completed at least 12 credits in University College
- Have completed an English composition course at University College with a grade of B or better
- Have a 3.0 minimum grade-point average
- Have written approval from a University College advisor

Once approved, students register and pay for 4 credits for each ACTRAC course. The ACTRAC option must be chosen at the beginning of the semester, and it is not available to Washington University day students.
The "extra credit" work is determined by the instructor and will normally include extra reading, writing and research.

**Combined Bachelor's & Master's Degree**

The Combined Bachelor's & Master's Degree Program (https://ucollege.wustl.edu/programs/accelerated/combined-bachelors-masters/) in University College is designed for students who wish to pursue rigorous and accelerated study that will lead to both a Bachelor of Science and either a Master of Arts or Master of Science in areas of study for which there are degree programs in University College.

**Eligibility Requirements**

Eligibility requirements for the Combined Bachelor's/Master's Degree Program in University College include the following:

- Admission to a Bachelor of Science degree program in University College
- Completion of a minimum of 60 units toward the Bachelor of Science degree, including transfer credit, with a 3.0 or higher cumulative grade-point average; only in exceptional cases will candidates be authorized to pursue the Bachelor's/Master's Program after completing 84 units
- Completion of a minimum of 12 units of undergraduate course work in University College, at least 9 of which must be at the advanced level (300- and 400-level courses), with a 3.0 or higher cumulative GPA
- Completion of a Combined Bachelor's/Master's Program Preliminary Authorization Request
- Two academic writing samples, at least one of which must be research-based, to be submitted to University College
- Personal interview with the Director of Advising and/or the Associate Dean for Academics

**Admission Requirements**

Students who meet the eligibility requirements noted above should meet with their undergraduate advisor and complete the Combined Bachelor's/Master's Preliminary Authorization Request. Two academic writing samples, one of which must be research-based, and a personal interview are also required for preliminary authorization. After a review of the writing samples and the personal interview, applicants will be informed whether or not they have been authorized to pursue the Combined Bachelor's/Master's Degree Program, which includes the authorization to register for graduate course work that will count toward both the undergraduate degree and the appropriate master's degree.

Students receiving this preliminary authorization are required to submit the Application for Graduate Admission (http://ucollege.wustl.edu/apply/) in University College during their final 30 to 36 units of undergraduate study, at which time their academic performance and potential for continued graduate study will be re-evaluated. If approved, students will be formally admitted to a graduate program of study.

**Program Requirements**

- Formal admission to the Office of Graduate Studies, Arts & Sciences, or University College
- Completion of a minimum of 135 units of course work, undergraduate and graduate, including all residency requirements for the Bachelor of Science degree
- Completion of all requirements of the student's graduate program, including a final written project where required, and in accordance with all academic policies and procedures for undergraduate and graduate study in University College and/or the Office of Graduate Studies, Arts & Sciences
- A maximum of 15 to 18 units of graduate course work (depending on the specific master's program) at the 400 and 500 levels may count toward requirements for the graduate degree and as unrestricted electives for the undergraduate degree.
- Students will receive both the Bachelor of Science and Master of Arts or Master of Science at the completion of the entire program.

For more information or to schedule an appointment to discuss the program, please call 314-935-6759.

**Minors**

Students seeking a bachelor's degree at University College can pursue a minor in one of nine subjects.

Course work taken as part of the minor also may fulfill distribution requirements or major requirements. If there is overlap between a major and a minor, the minor must include at least 9 distinct credit units that do not apply to the major. Only courses receiving a grade of C- or higher will be applied to the
minor. In order to be awarded the minor, students must earn a minimum cumulative grade-point average of 2.0 in all courses taken toward the minor. Students may complement their major with a certificate instead of (or in addition to) a minor.

At least 9 units must be advanced-level course work (300 level or above), and at least 6 of the 9 units in advanced course work must be completed at University College. A maximum of 3 units of transfer credit may be applied to the minor.

A minor can be declared when a student has met with an academic advisor at University College and completed a Minor Application form before beginning the final semester of study toward a Bachelor of Science.

Minors are offered in the following subjects:

- Anthropology (p. 92)
- Communications (p. 101)
- Economics (p. 106)
- Global Leadership and Management (p. 109)
- Health Care (p. 110)
- History (p. 117)
- Industrial and Organizational Psychology (p. 127)
- Political Science (p. 135)
- Psychological & Brain Sciences (p. 141)

Website: http://ucollege.wustl.edu/programs/undergraduate/minors

Special Audit and Day Audit Programs

Special Audit Program

Students may audit a wide selection of undergraduate courses in University College for $350 per course. The Special Audit option in University College makes it easier than ever for students to challenge themselves with high-quality continuing education at Washington University in St. Louis.

All University College courses available on the Special Audit basis are noted as “SA” in the course listings (https://acadinfo.wustl.edu/ucollege/). Courses taken as Special Audit do not appear on a Washington University transcript. Courses taken on a Special Audit basis do not carry academic credit and do not apply to degree requirements in a University College program of study.

Day Audit Program

In addition to the Special Audit option for evening courses in University College, adult students may audit select undergraduate day courses in the College of Arts & Sciences for $350 per course on a noncredit, space-available basis. The Arts & Sciences Day Audit Program is designed for personal enrichment, and courses taken on a Special Audit basis do not receive a grade or credit toward a degree or certificate program. Courses taken as Special Audit do not appear on a Washington University transcript.

Day Special Audit Courses

To view the Day Special Audit Courses, please visit our course listings (https://acadinfo.wustl.edu/ucollege/).

Contact: Amanda Mueller
Phone: 314-935-6720
Email: amanda.mueller@wustl.edu
Website: http://ucollege.wustl.edu/programs/non-degree/special-day-audit

Undergraduate Honors Program

The University College Honors program provides students with multiple opportunities to deepen and extend their knowledge, earn scholarships and academic awards, and join a community of intellectually and socially engaged adults.

The most prestigious distinction is Latin Honors: students do research in their field of study and graduate summa cum laude, magna cum laude or cum laude. Students should speak with an academic advisor about tailoring an honors experience that meets their learning goals.

For more information about the Undergraduate Honors program:

Contact: Elisa Wang
Email: elisa.wang@wustl.edu
Website: https://ucollege.wustl.edu/resources/student/academic-honors
Summer Programs

University College offers summer courses and programs that meet the goals and interests of a variety of populations, including current and visiting students. Summer courses are scheduled over five separate sessions, and many are offered in flexible hybrid or online formats.

Master of Science in Biology for Science Teachers

Note: As of Fall 2022, this program is no longer accepting new students.

This two-year program is designed to fit the schedules of working teachers. It consists of two summer institutes, three weeks each, in residence at Washington University. The remaining course work during the academic years is completed online. For more information, visit our MS in Biology for Science Teachers webpage (https://ucollege.wustl.edu/programs/graduate/masters-biology-science-teachers/) or call 314-935-8974.

Summer Writers Institute

The Summer Writers Institute brings together writers of all levels from St. Louis and beyond. The program features workshops in various genres as well as panels, readings, craft talks, individual conferences with instructors, and a final open mic. Small class sizes encourage dynamic discussions and allow students to hone their craft and explore new approaches. Workshops are led by professional published writers who are experts in their fields and accomplished in providing constructive critique. For more information, visit our Summer Writers Institute webpage (https://ucollege.wustl.edu/programs/summer/summer-writers-institute/).

Additional Information

For more information about the summer programs described above, please visit the University College website (https://ucollege.wustl.edu/).
Online Learning

University College offers two fully online degrees, a selection of online certificates, and a variety of fully online and online hybrid courses. Online hybrid courses combine on-campus class meetings with online activities and resources.

University College online courses are distinguished by small class sizes, and students engage directly with faculty. Many of these courses are offered asynchronously and can be accessed at convenient times; instructors assign weekly deadlines to keep students motivated and on pace. Instructors may also offer live online office hours, lectures, or discussion sessions.

For information about online learning in University College, including course and degree program options, visit our Online Degrees, Certificates, and Courses (http://ucollege.wustl.edu/programs/online/) webpage.
Noncredit Programs

In addition to earning academic credit through University College, there are opportunities for personal enrichment and professional development through a number of noncredit options. For more information, please call 314-935-6700 or visit the University College website (http://ucollege.wustl.edu).

Special Audit & Day Audit Programs

Special Audit Program

Students may audit a wide selection of undergraduate courses in University College for $350 per course. The Special Audit option makes it easier than ever for students to challenge themselves with high-quality continuing education at Washington University in St. Louis.

All University College courses available through the Special Audit program are noted as “SA” in the course listings. Courses taken as Special Audit do not appear on a Washington University transcript, do not carry academic credit, and do not apply to degree requirements in a University College program of study.

Day Audit Program

Adult students may audit selected undergraduate day courses in the College of Arts & Sciences for $350 per course on a noncredit, space-available basis. The Arts & Sciences Day Audit Program is designed for personal enrichment, and courses taken through this program do not receive a grade, do not receive credit toward a degree or certificate program, and do not appear on a Washington University transcript.

MLA Saturday Seminar Series

The MLA Saturday Seminars, which are held each spring and sponsored by the Master of Liberal Arts Program in University College, showcase university faculty who explore a common theme from different perspectives and academic disciplines. The seminars are offered free of charge to the public.

Osher Lifelong Learning Institute

The Osher Lifelong Learning Institute (OLLI) at Washington University in St. Louis offers a variety of intellectually challenging courses in the liberal arts and sciences for students 50 years old and older. Courses are noncredit, and there are no exams or grades. Nevertheless, all members of this learning community take their responsibilities seriously; student participation is an essential element of the OLLI’s continuing vitality. The OLLI features offerings in art and architecture, contemporary issues, creative writing, economics, film studies, history, literature, math/science/technology, music, and philosophy. Knowledgeable members plan, develop, and present the courses and related field trips, workshops, and cultural and social events. Most subjects are offered in three eight-week regular terms (fall, winter and spring) and one four-week summer session. A few special-interest group courses continue year-round. There are a variety of membership options available; visit the OLLI website (https://osher.wustl.edu/membership/) to learn more. Classes meet at Washington University’s West Campus in the building on the northwest corner of Forsyth and Jackson streets (9 North Jackson) in Clayton. There are elevators between the upper garage floors and the classroom floor at street level. For more information and to be put on the mailing list, visit the OLLI website (https://ucollege.wustl.edu/programs/non-degree/lifelong-learning-institute/) or call 314-935-4237.
Academic Policies

Students are required to satisfy all degree, major and other program requirements as published in the Bulletin and on the University College website at the date of admission to a University College program of study, with a 10-year statute of limitations. If any changes are made to degree, major or other program requirements prior to June 29, 2022, and noted on the University College website, students who have been admitted to a program of study prior to these changes being made may retain the requirements associated with the original program as printed in the Bulletin or, with University College authorization, may make appropriate changes to their original program of study in order to adapt to newer requirements. Students admitted to a program of study after program changes are made are required to meet the new requirements and not the original requirements as posted in the Bulletin.

If a student has been away from University College for 10 or more years and the original degree or major is no longer offered, the student must select a new, currently offered major and program of study. If a student has been away from University College for 10 or more years and the original degree or major is currently offered but has changed, University College will first review the requirements associated with the original program and, in consultation with the student and relevant academic departments, select degree and major requirements, including appropriate course substitutions from either the original or current program.

Courses and Credits

The number of units assigned to each course is noted in the semester Course Schedule. Courses numbered 100(0)-399(9) carry credit toward an undergraduate degree. Courses numbered 400(0)-499(9) normally carry undergraduate or graduate credit. Graduate-level courses numbered 500(0) and above are open only to students admitted to a graduate program or by permission of the instructor and the program director.

Grades

University College's grading system is based on a rated 4.0 scale. The scale and grade points per unit of academic credit for each letter grade are as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points per Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>4.0</td>
</tr>
<tr>
<td>A</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
</tr>
</tbody>
</table>

These grading policies apply to all University College courses. Only courses taken for a letter grade may be applied toward a graduate program of study. Courses taken as Pass/Fail or Audit will not count toward a graduate program of study. Grades below C- will not count toward a graduate program of study. Students are responsible for knowing the specific grading criteria and course requirements set by individual instructors. Grades are posted online at the end of the semester. No grades are given by telephone or orally in the office.

Students usually may choose among four grading options at the time of registration: a letter grade, Credit/No Credit (also referred to as Pass/Fail), Audit, or Special Audit. Changes from one option to another must be made by the dates indicated on our online academic calendar (http://ucollege.wustl.edu/events/academic-calendar/). Students must select a grade option at the time of registration, and any changes must be made according to the dates published in the semester Course Schedule. Grade option changes are not permitted after a semester is over.

The Credit/No Credit option, which is available for certain courses, allows students to enroll in courses on a pass/fail basis. Under this option, students receive credit for courses satisfactorily completed, but a grade is not assigned or calculated in the student's cumulative grade-point average. The standards for receiving credit are at the discretion of each individual instructor. Undergraduate degree candidates may take no more than 10% of credits at Washington University under this option. Courses intended to satisfy the basic and advanced writing requirements for the Associate in Arts and Bachelor of Science degrees, courses in the major and minor,
and courses specific to a graduate degree or any certificate are excluded from the Credit/No Credit option. Graduate schools and current employers may require specific letter grades rather than Credit/No Credit only. A specific grade may also be required as a prerequisite for more advanced course work in that subject area. A few courses particularly designated by departments may require enrollment on a Credit/No Credit basis, in which case the course would not be included in the 10% limit.

The Audit grade may be chosen if a student wishes to have the registration and grade for a course recorded on an official transcript but does not seek academic credit for the course. Students must meet the requirements established by the instructor to successfully audit a course. As an auditor, normally the student is required to attend and participate in the course but not required to complete all written assignments and examinations.

The Special Audit is offered only for a select number of University College courses. Courses taken as Special Audit will not appear on a Washington University transcript, and a grade report is not issued. Courses taken on a Special Audit basis do not carry academic credit and do not apply to degree requirements in a University College program of study. Special auditors attend lectures and discussions but are not required to complete written work.

A grade of I (Incomplete) indicates that the instructor has agreed to withhold a final grade pending the completion of a small portion of required work normally due at the end of a semester. Students experiencing a medical or personal problem that makes the timely completion of course work difficult or unlikely may request a grade of Incomplete from the instructor prior to the end of the semester. If the instructor consents, an Incomplete Agreement form (https://ucollege.formstack.com/forms/incomplete_agreement_student/) must be completed. Sixty days after the end of a semester, a grade of Incomplete without an Incomplete Agreement form will be converted to an F. For undergraduate students, if the work is not completed within a period of one calendar year, the grade of I will be changed to F. For graduate students, if the work is not completed within a period of one calendar year, the grade of I will remain a permanent grade. Future enrollment may be withheld for University College students who have accumulated more than 9 units of incomplete work within the previous two years.

A grade of N indicates that no grade has been received by the Registrar’s Office by the grading deadline. Sixty days after the end of a semester, a grade of N will be converted to an F. Continuing master’s research is the only exception to the above policy, in which case the permanent grade is N.

Transfer Credit

University College has a generous transfer credit policy for course work completed at other accredited institutions. Transfer credit is awarded toward all categories of course work in University College: General Education, Major, Advanced, and Elective.

A maximum of 84 units overall may be transferred for the Bachelor of Science degree; a maximum of 66 units will be accepted from a junior or community college. A maximum of 24 units may be transferred for the Associate in Arts degree.

No more than 6 units may be transferred into a graduate degree program in University College. Transfer credit is not awarded for internships, independent study, courses associated with vocational and technical training, or study for trade certification. Courses with grades of C- or higher are eligible for transfer credit. (Courses equivalent to Principles of Writing I require a grade of B or higher in order to be eligible for transfer credit.)

To receive transfer credit, a student must be admitted to a University College degree or certificate program and submit official transcripts from all institutions previously attended. All records must be in English. International records must be evaluated for transfer credit by an accredited transcript evaluation agency. Advisors will evaluate transcripts to determine transfer credit and remaining course requirements toward a University College degree or certificate.

A maximum of 30 units may be awarded for College Level Examination Program (CLEP) (https://ucollege.formstack.com/forms/clep/), DANTES Subject Standardization Tests (DSST), Advanced Placement, and International Baccalaureate examination scores.

Transfer credit for study abroad must be preapproved by University College and the Office for International Students and Scholars.

Students who have completed English composition courses at another college or university should be well prepared for the required writing courses at University College, and transfer credit will be awarded for this work according to our regular transfer credit policies. However, new students will begin with EComp 111 in University College. Students who feel they have a strong writing background may petition to take a placement test to demonstrate the skills needed to begin with EComp 203 instead. All students will complete EComp 203 and a 300-level writing course at University College. If a student has any questions about the writing evaluation process or requirements, they should contact their advisor (https://ucollege.wustl.edu/resources/advising/).
Advanced Courses

In order to receive the Bachelor of Science degree, students must complete a minimum of 30 units of advanced courses (equivalent to 300- and 400-level course numbers at Washington University), and at least 18 units of advanced courses must be taken in the major. Transfer credit may be awarded for additional advanced courses.

Overlap Policy

If a student has two majors, each major’s upper-level units of credit must be independent of the other’s. Prerequisite courses at the 100 and 200 levels may count for both majors. Should the same upper-level course satisfy a requirement in more than one of a student’s major programs, a departmentally sanctioned upper-level elective must be chosen to replace the course in one of the programs. If a student has a major and a minor, overlap is allowed provided there are at least 9 unique units in the minor. Major or minor course work may be applied to distribution requirements for general education. If a student is pursuing a minor and a certificate, no overlap is allowed between the minor and the certificate. If a student is pursuing two certificates, no overlap is allowed between the certificates. Should the same course satisfy a requirement in more than one of a student’s certificates or minors, a departmentally sanctioned elective must be chosen to replace the course in one of the programs. If a student is pursuing a bachelor’s degree and a certificate, overlap is allowed between the major and the certificate provided there are at least 9 unique units in the certificate. (The exception to this restriction on certificates applies to sequential programs of the same name, in which case all certificate courses may apply to the next-level program.)

Residency Requirement

The final 36 units of course work toward the Bachelor of Science degree must be completed at Washington University. At least half of the credits for the major and at least 18 units of advanced courses must be completed at Washington University. Students with a gap in their studies at University College of more than 10 years are required to meet the 36-unit residency requirement upon their return.

Retaking a Course

Students may retake a course, in which case only the highest grade will be included when calculating the student's GPA. All enrollments will appear on the student's transcript, but the symbol "R" will replace the grade for the enrollment with the lower grade. If the attempts result in the same grade, the grade for the original attempt will be replaced with an "R." Unless a course is designated as repeatable, credit may only be earned once for a course.

Satisfactory Academic Progress, Academic Probation and Suspension

The minimum GPA requirements needed to maintain eligibility for Satisfactory Academic Progress are dictated by the specific program of study. In each case, per the requirements of 34 C.F.R. 668.34(a)(4(ii), the federal student aid program requires a minimum of a C average to maintain eligibility for aid, but an individual degree or certificate program may have a higher minimum GPA for federal Satisfactory Academic Progress. To remain in good academic standing, an undergraduate student must maintain a 2.0 GPA and not be placed on academic probation or suspension; a graduate student must maintain a 3.0 GPA and not be placed on academic probation or suspension. A student whose previous semester’s work is unsatisfactory (below a 2.0 for undergraduate students or below 3.0 for graduate students), whose cumulative record is unsatisfactory (below 2.0 for undergraduate students or below 3.0 for graduate students), or who has a history of failure to complete course work without adequate reason may be placed on academic probation. Probationary status serves to warn a student who is not making satisfactory progress. Unless the quality of work improves during the next semester, a student may be suspended or dismissed from the program, and future enrollment may not be allowed. University College reserves the right to cancel the registration of students who have been placed on academic suspension or dismissed. Subsequent readmission will be determined on an individual basis.

Intent to Graduate and Commencement

All degree and certificate candidates must complete the Intent to Graduate form before their last semester. Candidates may file online or on paper. Forms and instructions with deadline dates are available on the University College Website (https://ucollege.wustl.edu/resources/forms/) or in the University College office. Students are responsible for meeting the deadline for filing the Intent to Graduate. All graduates are invited to Commencement and recognition ceremonies in May, when degrees are conferred and certificates presented.

Independent Study, Directed Research and Internships

Through independent study or directed research, students may pursue topics of special interest under the supervision of a member of the faculty. Internships offer opportunities to apply classroom theory and concepts to practical work situations and to explore possible career directions. Students must submit a completed Independent Study form or Internship Learning Agreement (https://ucollege.wustl.edu/resources/forms/) to the University College office before registering. A maximum of 6 units of credit in independent work, including internships
and study abroad, may count toward the Associate in Arts and Bachelor of Science degrees for students who complete 60 units or less at Washington University; students who earn more than 60 units at Washington University may do up to 9 units of independent work. No more than 6 units of independent study, including internships and study abroad, may be applied toward the major, and no more than 6 units of independent study may be attempted in a single semester.

No more than 6 units of independent study may be applied toward a Master of Arts or Master of Science. No more than 6 credits of independent study may be applied toward a certificate program that requires 19 units of credit or more. No more than 3 credits of independent study may be applied toward a certificate program that requires 18 units of credit or less.

### ACTRAC Accelerated Option

ACTRAC, the accelerated study option in University College, is available in most undergraduate majors and selected other courses for qualified students. Students choosing ACTRAC may receive 1 additional credit unit in a designated 300- or 400-level course by arranging with the instructor to do additional reading, research and writing. ACTRAC requirements include admission to a University College undergraduate degree program, successful completion of at least 12 units of credit in University College, completion of a University College English composition course with a grade of B or better, a 3.0 minimum GPA, and written approval from a University College advisor. Students are charged tuition for 4 credits for an ACTRAC course.

### Minor

A minor in University College consists of a minimum of 15 units of authorized course work in select academic disciplines or interdisciplinary programs in University College. The course requirements for a minor are determined by each department or program. At least 9 units must be advanced course work (300 level or above), and at least 6 of the 9 units in advanced course work must be completed at University College. A maximum of 3 units of transfer credit may be applied to the minor. A minor is available only to students admitted to a University College Bachelor of Science degree program. Course work taken as part of the minor may fulfill distribution requirements, but at least 9 units must be distinct from the major. Only courses receiving a grade of C- or higher will be applied to the minor. In order to be awarded the minor, students must earn a cumulative GPA of 2.0 or higher in all courses taken toward the minor. To declare a minor, students must submit a completed Minor Application form (https://ucollege.formstack.com/workflows/major_minor_declare_change_workflow/) to an academic advisor in University College before beginning the final semester.

### College-Level Examination Program (CLEP)

University College will grant credit to students for the successful completion of select College-Level Examination Program (CLEP) tests. University College does not award academic credit for experiential learning or community and business activities other than through CLEP examinations. For more detailed information about eligibility, selected exams, exam administration, minimum scores and all other CLEP matters, contact University College at 314-935-6700 or visit the University College website (http://ucollege.wustl.edu).

### Advanced Placement Credit

Students may receive a total of 15 units of advanced placement credit from standardized placement tests that were completed prior to being admitted to a University College undergraduate degree program. Units earned through advanced placement may apply toward University College distribution requirements. In order to receive advanced placement credit, students should submit official score reports from Advanced Placement Examinations, College Board Achievement and Aptitude Tests, the International Baccalaureate (higher levels), and British A-level examinations. The combined total number of units accepted in transfer credit for the College-Level Examination Program (CLEP), Advanced Placement courses, DANTES Subject Standardization Tests (DSST), and International Baccalaureate courses may not exceed 30.

### Student Academic Records

A permanent record of courses, grades and credit for each student is maintained in the Office of Student Records, which will issue official transcripts upon written authorization by the student. Transcript requests must include the student's name, student number, date of birth and approximate dates of attendance. Student records may be reviewed online on WebSTAC (https://acadinfo.wustl.edu). The Family Educational Rights and Privacy Act of 1974 (FERPA) provides current and former students of the university with specific rights of access to and control over their student record information. A copy of the university policies and procedures regarding educational records and the release of student record information may be obtained from the Office of Student Records.

### Academic Integrity

All University College students are governed by the University Student Conduct Code (https://wustl.edu/about/compliance-policies/academic-policies/university-student-judicial-code/) to “foster an environment conducive to learning and inquiry.” Among the forms of misconduct covered in the University Student Conduct Code is academic misconduct “including, but not limited to, cheating, plagiarism, fabrication of data or records, impermissible collaboration on assignments,
misrepresentation of student status or identity, resume or credential falsification, unauthorized use of prescription medication to enhance academic performance, unauthorized use of electronic resources, violation of test-taking conditions or rules, or otherwise violating the applicable Academic and/or Professional Integrity Policy. Knowingly making false allegations of academic misconduct against any student will itself be considered a form of academic misconduct.” In addition to the University Student Conduct Code (https://wustl.edu/policies/judicial.html), all University College students are expected to follow principles and practices of academic integrity as defined by the applicable Academic and Professional Integrity Policy, which is based upon student status and further described below.

All University College undergraduate students — part-time, full-time, degree-seeking and non-degree — are governed by the Undergraduate Student Academic Integrity Policy (https://wustl.edu/about/compliance-policies/academic-policies/undergraduate-student-academic-integrity-policy/) and the University College Undergraduate Student Academic Integrity Policy (https://ucollege.wustl.edu/resources/student/academic-integrity-policy/). If a student subject to the Washington University Undergraduate Student Academic Integrity Policy is alleged to have committed a violation of academic integrity, the case will generally be reviewed by the school or college in which the course is listed and taught and not by the school in which the student is enrolled, although all violations and sanctions will also be reported to the student’s college of enrollment.

All University College graduate students are subject to the Office of Graduate Studies, Arts & Sciences, Academic and Professional Integrity Policy for Graduate Students and the University College Graduate Student Academic and Professional Integrity Policy (https://ucollege.wustl.edu/resources/student/academic-integrity-policy/). If a student enrolled in a graduate program administered through University College takes a course through University College and is accused of an academic integrity violation in that course, the student will be subject to the University College Graduate Student Academic and Professional Integrity Policy. Note that those students enrolled in another graduate or professional school at Washington University will be subject to the academic and professional integrity policies and procedures applicable to the respective school. For example, if a student enrolled in a graduate program in Arts & Sciences also takes a course through University College and is accused of an academic integrity violation in that course, the student will be subject to the Office of Graduate Studies, Arts & Sciences, Academic and Professional Integrity Policy for Graduate Students. Violations of the Graduate Student Academic and Professional Integrity Policy include plagiarism and other misappropriation of the work of another, cheating, copying or collaborating on assignments without permission, fabrication or falsification of data or records, research misconduct, obstruction of the academic activities of another, abuse of confidentiality, and other forms of deceit, dishonesty, and inappropriate conduct. Professional integrity violations consist of behavior that is inconsistent with ethical standards in the professional roles for which the student is being trained that are not covered by policies governing academic integrity. Please refer to the detailed Academic and Professional Integrity Policy for Graduate Students (https://wustl.app.box.com/s/7p84v07ly47rz2gf02xy0vrqdfpiks/) of the Office of Graduate Studies, Arts & Sciences, for definitions and examples of each of these categories.

All violations of academic integrity will be reported to and investigated by the academic integrity officer in University College. If it is determined that a student has acted dishonestly or if a student has admitted the charges prior to a formal investigation or hearing, an appropriate sanction will be imposed; this may include but is not limited to automatic failure of the assignment or course or, in the case of serious or repeat violations, suspension or expulsion from the university. Withdrawing from a course will not prevent the dean from imposing or recommending sanctions.

**Academic Advising and Academic Support Services**

University College recognizes the rich array of backgrounds and experiences adult learners bring to the classroom, and it is aware that adults entering or returning to higher education may need academic counseling, guidance and special services. Information about University College degree and certificate programs and courses is available on the University College website (http://ucollege.wustl.edu). Students are encouraged to meet with an academic advisor to discuss academic goals and interests prior to submitting an application for admission. Advisors are available to provide guidance and information about admissions, transfer and registration procedures, academic and degree requirements, course selection, special programs, student services and other facets of Washington University. After being admitted to a degree or certificate program, students should consult with the advisor on a regular basis to discuss course sequences, degree requirements, policies and other important information related to the particular program of study.

It is the responsibility of the student to arrange for these periodic conferences. For information about advising and all student services, call the University College Office of Admissions and Student Services at 314-935-6777 or visit the University College website (http://ucollege.wustl.edu).

**Honors & Awards**

**Undergraduate Honors Program**

The University College Honors program provides students with multiple opportunities to deepen and extend their knowledge, earn scholarships and academic awards, and join a community of intellectually and socially engaged adults. The most prestigious distinction is Latin Honors, which allows students do
research in their field of study and graduate summa cum laude, magna cum laude or cum laude. Students should speak with an academic advisor about tailoring an honors experience that meets their learning goals.

**Alpha Sigma Lambda**

Alpha Sigma Lambda, the national honorary society for part-time evening students, is available to qualified University College students. To be eligible for membership, a student must have earned a GPA of at least 3.5 in a minimum of 24 units of course work in residence toward a degree in University College, with at least 12 units in liberal arts and sciences.

**Phi Beta Kappa**

For more than 200 years, election to Phi Beta Kappa has been a distinctive recognition of intellectual accomplishment in the liberal arts and sciences. Candidates for Phi Beta Kappa should have demonstrated superior scholarship as well as breadth and depth of interest in the liberal arts. Study of a foreign language and of mathematics, while not required, strongly enhance candidacy. In addition, at least 112 credits must be completed by the end of the fall semester, at least 45 of which must be earned at Washington University.

**Dean's List**

Recognition on the Dean's List is given to students who are undergraduate degree or certificate candidates in University College who have completed a minimum of 6 units of course work at Washington University during the preceding fall or spring semester with a GPA of at least 3.6.

**Final Honors**

Undergraduate degree recipients with superior records will be recognized with Final Honors at the time of graduation. Final Honors are calculated by a formula based on the number of credits and grades earned in University College.

**Dean's Award for Academic Excellence**

The Dean's Award for Academic Excellence is given to one or more graduating undergraduate students with outstanding academic records as measured by (but not limited to) the GPA.

**Dean's Award for University Service**

The Dean's Award for University Service is awarded to one or more graduating students who have made a significant contribution to University College and Washington University in areas beyond academic performance.

**Dean's Faculty Award**

The Dean's Faculty Award is normally given to a University College instructor with many years of service to recognize excellence in teaching and dedication to University College students.
Tuition and Financial Information

University College provides access to an affordable world-class education. University College courses and programs are designed for individuals who are seeking to expand their professional knowledge, who wish to earn a degree or certificate, or who are lifelong learners wanting to explore new fields and interests.

Tuition and Fees
Tuition rates for University College undergraduate and graduate courses can be found online on the Tuition & Financial Aid webpage (http://ucollege.wustl.edu/tuition-aid/). Tuition and lab or materials fees vary according to course and program.

Tuition Payment
All tuition and fees must be paid in full at the time of registration. Acceptable methods of payment include cash, check, credit card, approved financial aid, and approved employer tuition reimbursement plans.

Refunds
All refunds are calculated from the date on which the student completes an online course change form (https://ucollege.formstack.com/workflows/course_change_workflow/). If the original payment was made by credit card, a refund will be applied to the student’s credit card. Otherwise, a check will be generated for the refund amount. Check refunds can be picked up at the Student Financial Services office (https://sfs.wustl.edu/Pages/default.aspx) in the Sumers Welcome Center. Checks not picked up within two weeks are mailed to the student’s local address.

University College grants full refunds to individuals called to active military duty.

More information can be found on the Refund Policies & Deadlines webpage (http://ucollege.wustl.edu/tuition-aid/tuition/refunds/).

Financial Assistance
Both part-time and full-time University College students who are enrolled in a degree or certificate program may be eligible for financial assistance in the form of grants, loans and scholarships. Students can learn more about financial assistance options and obtain the appropriate forms by visiting the Financial Aid webpage (http://ucollege.wustl.edu/tuition-aid/financial-aid/) or by sending an email to the financial aid coordinator (cuucfinancialaid@wustl.edu) in University College. If students receive any type of financial assistance through University College, they must meet the academic standing and satisfactory progress requirements as defined by the particular assistance program and Student Financial Services.

Satisfactory Academic Progress
Federal and state regulations require that educational institutions measure students’ academic progress toward a declared educational objective. To remain eligible and retain disbursed federal and state financial aid, students must maintain satisfactory academic progress. To remain in good standing, students must satisfy the following requirements:

• Undergraduate students must complete a minimum of 6 units of course work during each of the fall, spring, and summer semesters, with a C (2.0) minimum grade-point average.
• Graduate students must complete a minimum of 4.5 units of course work during each of the fall and spring semesters (3 credit units during the summer), with a B (3.0) minimum GPA.

In addition, all students receiving financial aid are reviewed on a case-by-case basis to ensure that a significant portion of the courses in which the students are enrolled have been successfully completed.

Other Financial Assistance and Payment Options
Half Tuition for Individuals 60 Years Old and Older: People 60 years old and older may enroll for credit in most University College courses at half of the regular tuition rate. Exceptions include courses in applied music, independent courses (i.e., independent study, directed research, master’s thesis), and special programs; courses in which enrollment is limited are also excluded. This discount cannot be combined with the WashU Tuition Assistance benefit, University College scholarships or military benefits. A birth certificate, driver’s license, or other official verification of age must be provided at the time of registration.

Washington University Employees: Washington University provides its employees with tuition assistance to foster their continuing education. Full-time employees with one year of service are eligible for 100% tuition remission on for-credit undergraduate courses and 50% tuition remission on for-credit graduate courses. Remission covers a maximum of 7 credits per semester, and the student must obtain a passing grade to retain the tuition remission. For more information, visit the Employee Tuition Assistance webpage (https://ucollege.wustl.edu/tuition-aid/financial-aid/assistance-remissions/washu-employees/).

Postdoctoral Appointees: Postdoctoral appointees appointed under the Postdoctoral Education Policy (effective July 1, 2004) having the titles of Postdoctoral Research Associate or Scholar are eligible for the Postdoctoral Tuition Plan. Remission covers a maximum of 4 credits per semester for undergraduate-level
courses (400 and below) for career development purposes only. A passing grade in the course is required for the student to retain the tuition remission. For more information, visit the Employee Tuition Assistance webpage (https://ucollege.wustl.edu/tuition-aid/financial-aid/assistance-remissions/washu-employees/).

Company-Sponsored Tuition Payment Plans: Many companies in the St. Louis area pay all or part of their employees' tuition. Individuals should contact their supervisor or the human resources department at their place of employment to determine if a tuition reimbursement plan is available. If their employer agrees to pay all or part of their tuition, they should submit their company's tuition reimbursement policy, their company's written statement agreeing to pay all or part of the tuition charges, and the University College Intent to Pay form (https://ucollege.formstack.com/forms/intent_to_pay_2/). Payment is due approximately 30 days after the end of the semester. This payment option is not available during the summer. For more information, visit the Tuition & Fee Information webpage (http://ucollege.wustl.edu/tuition-aid/tuition/).

St. Louis Area Civic & School District Tuition Assistance: Individuals working in full-time positions in government departments or school districts for the City of Clayton, University City, St. Louis City, and St. Louis County are eligible to take courses at a substantially reduced rate after six months of service with their employers. St. Louis City charter school employees are also eligible. Learn more about the St. Louis Area City & School District Tuition Assistance program (https://ucollege.wustl.edu/tuition-aid/financial-aid/assistance-remissions/stl-city-school-district/).

Veterans: Individuals attending under the VA program must submit a Certificate of Eligibility, and those using Post-9/11 benefits must apply or be accepted to a degree or certificate program. University College participates in the Yellow Ribbon GI Education Enhancement Program, which was established in 2008. Those who qualify for the Yellow Ribbon benefits can attend University College full time with no out-of-pocket expenses for tuition and mandatory fees. For more information, visit the Veterans Benefits webpage (http://ucollege.wustl.edu/tuition-aid/financial-aid/veterans-benefits/).

Dependent Child Benefits: After seven years of full-time service (or its equivalent if one works part-time), eligible dependent children may receive up to eight semesters of tuition assistance for undergraduate studies. The level of benefit paid is determined by the date of hire and full- or part-time status at the time the employee utilizes the benefit. Tuition assistance benefits are tax-free for birth, adopted and stepchildren. Benefits for children of domestic partners are a taxable benefit to the employee. Note: Prior full-time service at another accredited university may count toward the service requirement for this benefit. Washington University provides two forms of tuition assistance benefits for dependent children of its full- and part-time employees who meet certain eligibility requirements: (1) a full tuition remission benefit at Washington University and a partial tuition remission benefit at other accredited institutions for the dependent children of full-time employees; and (2) a partial tuition remission benefit at Washington University and other accredited institutions for the dependent children of part-time employees. For more information, visit the Dependent Child Tuition Assistance webpage (http://hr.wustl.edu/benefits/Pages/Dependent-Child-Tuition-Assistance.aspx).
Administration

Sean Armstrong
Dean

Patricia Matthews (http://ucollege.wustl.edu/about/faculty-staff/pat-matthews/)
Associate Dean for Academics

Karen Novak (http://ucollege.wustl.edu/about/faculty-staff/karen-novak/)
Senior Director of Administration & Finance

Maria Hunter (http://ucollege.wustl.edu/about/faculty-staff/maria-hunter/)
Registrar

Andy Thorp (https://ucollege.wustl.edu/faculty-staff/andy-thorp/)
Senior Director of Student Engagement & Communications

George Winston (https://ucollege.wustl.edu/about/faculty-staff/george-winston/)
Director of Admissions

Elizabeth Fogt (http://ucollege.wustl.edu/about/faculty-staff/elizabeth-fogt/)
Director of Advising & Student Services

Elisa Wang (http://ucollege.wustl.edu/about/faculty-staff/elisa-wang/)
Academic Advisor & Coordinator of Student Services

Rebecca O’Laughlin (https://ucollege.wustl.edu/faculty-staff/rebecca-olaughlin/)
Academic Advisor & Recruitment Coordinator

Lily M. Dollan (https://ucollege.wustl.edu/about/faculty-staff/lily-m-dollan/)
Academic Advisor & Recruitment Coordinator
Index

A
About This Bulletin .................................................. 4
About Washington University in St. Louis ..................... 13
Academic Calendar ...................................................... 13
Academic Policies, University College .......................... 173
Accelerated Programs, University College ......................... 167
Additional Programs, University College, Graduate .......... 87
Additional Programs, University College, Undergraduate .... 167
Administration, University College ................................ 181
Anthropology, University College, Undergraduate ............ 91
Associate in Arts Degree, University College .................... 155

B
Bachelor's Degrees, University College .......................... 90
Biology for Science Teachers, University College, Graduate ... 35
Biology, University College, Graduate ............................ 29
Business, University College, Undergraduate Certificate ..... 157

C
Campus Resources ...................................................... 14
Catalog Editions ....................................................... 8
Certificate Programs, University College, Graduate and Advanced .................................................... 83
Certificate Programs, University College, Undergraduate .... 157
Clinical Research Management, University College, Graduate 36
Clinical Research Management, University College, Graduate Certificate .............................................. 83
Clinical Research Management, University College, Undergraduate .................................................. 99
Clinical Research Management, University College, Undergraduate Certificate .................................. 157
Combined Bachelor's/Master's Program, University College, Graduate ................................................. 87
Combined Bachelor's/Master's Program, University College, Undergraduate .................................... 168
Communications, University College, Undergraduate ........ 100
Course Numbering ....................................................... 5
Creative Writing, University College, Undergraduate Certificate ......................................................... 158

Curriculum Designators .................................................. 5

E
Economics, University College, Undergraduate ................ 105
Education, University College, Graduate ........................ 38

F
Forensic Psychology, University College, Undergraduate Certificate .......................................................... 162

G
Geographic Information Systems, University College, Undergraduate Certificate ...................................... 162
Global Leadership and Management, University College, Undergraduate ................................................. 108
Graduate Student-at-Large, University College .................. 88

H
Health Care, University College, Undergraduate .............. 109
History, University College, Undergraduate ...................... 116
Honors Program, University College, Undergraduate ....... 169
Human Resources Management, University College, Graduate ............................................................... 50
Human Resources Management, University College, Graduate Certificate .............................................. 84

I
Industrial and Organizational Psychology, University College, Undergraduate ........................................... 126
Integrated Studies, University College, Undergraduate ....... 133
International Affairs, University College, Graduate ............. 53
International Affairs, University College, Graduate Certificate ................................................................. 84

M
Marketing, University College, Undergraduate Certificate ... 164
Master of Liberal Arts, University College ......................... 62
Master's Degrees, University College .............................. 29
Minors, University College ............................................ 168

N
Noncredit Programs, University College .......................... 172
Nonprofit Management, University College, Graduate .......... 72
Nonprofit Management, University College, Graduate Certificate ............................................................. 84
O
Online Learning, University College ........................................... 171

P
Policies, Bulletin ........................................................................ 4
Policies, Washington University ................................................... 17
Political Science, University College, Undergraduate ................. 135
Post-Baccalaureate Teacher Certification, University College,
Graduate Certificate ................................................................ 85
Pre-Nursing Program, University College, Undergraduate ....... 156
Prior Bulletins ............................................................................. 9
Psychological & Brain Sciences, University College,
Undergraduate ........................................................................ 140

S
SHRM, University College, Graduate Certificate ......................... 86
Somatic Studies, University College, Undergraduate Certificate
................................................................................................. 165
Special Audit and Day Audit Programs, University College,
Undergraduate .......................................................................... 169
Statistics, University College, Graduate ................................ 75
Statistics, University College, Graduate Certificate ......... 86
STEM+C, Math, and Science Education, University College,
Graduate Certificate ................................................................ 86
Strategic Communication, University College, Undergraduate
Certificate ................................................................................ 166
Summer Programs, University College ..................................... 170
Sustainability, University College, Undergraduate ................. 148
Sustainability, University College, Undergraduate Certificate ... 166

T
Teaching and Learning, University College, Graduate .......... 78
Trustees & Administration ............................................................. 13
Tuition and Financial Information, University College .......... 179

U
University Affiliations .................................................................. 22
University College, Graduate ..................................................... 28
University College, Undergraduate ........................................... 90
University PhD Policies & Requirements .................................... 24