

Master of Science in Biomedical Informatics

The Institute for Informatics, Data Science and Biostatistics (I²DB) is pleased to offer a Master of Science in Biomedical Informatics. The master's degree program is administered through I²DB, and the degree is conferred through Washington University School of Medicine.

More information about our programs can be found on the Graduate Programs in Biomedical Informatics webpage.

Master of Science

- 36 units
- Internship/Mentored Research
- Two to five years for program completion
- Full-time and part-time options

Core Courses

All students in this program will be expected to take the core courses listed below:

Code	Title	Units
BMI 5302	Introduction to Biomedical Informatics I	3
BMI 5303	Introduction to Biomedical Informatics II	3
BMI 5304	Introduction to Biomedical Data Science I	3
BMI 5305	Introduction to Biomedical Data Science II	3
BMI 5200	Biomedical Informatics Journal Club	1
CLNV 510	Ethical and Legal Issues in Clinical Research	2
or MSB 512	Ethics in Biostatistics and Data Science	
MSB 507	R and Python For Biomedical Sciences	2
Up to 6 units of mentored research or internship		3-6

Scientific Writing and Grantsmanship

Students in the MS program will be expected to demonstrate completion of a scientific writing or grantsmanship course by the time of graduation. Students who have taken the equivalent at other institutions may be excused from this course with permission of the Program Director.

Code	Title	Units
CLNV 529	Scientific Writing and Publishing	2
or CLNV 528	Grantsmanship	

Suggested Electives

Students can tailor their course work in areas including translational bioinformatics, applied clinical informatics, and public health informatics. Suggested electives for these areas are below.

Code	Title	Units
Biol 5488	Genomics	max. 4
Biol 5491	Advanced Genetics	3
CLNV 513	Designing Outcomes and Clinical Research	3
CSE 511A	Introduction to Artificial Intelligence	3
CSE 514A	Data Mining	3
CSE 517A	Machine Learning	3
CSE 530S	Database Management Systems	3
CSE 556A	Human-Computer Interaction Methods	3
CSE 584A	Algorithms for Biosequence Comparison	3
CSE 587A	Algorithms for Computational Biology	3
MSB 503	Statistical Computing with SAS	2
MSB 506	Introduction to R For Data Science	2
MSB 550	Introduction to Bioinformatics	3
MSB 560	Biostatistics I	3
MSB 570	Biostatistics II	3
PHS 501	Introduction to Epidemiology	3
PHS 5252	Comparative Effectiveness Research	2
PHS 5254	Using Administrative Data for Health Services Research	3
PHS 526	Patient Safety, Quality Management, and Quality Improvement	3
PHS 532	Applied Qualitative Methods for Health Research	3
PHS 560	Principles of Shared Decision Making and Health Literacy in the Clinical Setting	3

Prospective Students

Those interested in applying or who would like more information may contact the program recruiter (gsertl@wustl.edu).