

Certificate in Controls

Requirements

The requirements for the Certificate in Controls include the following:

- Acceptance to the program
- Enrollment in a graduate program in a participating department
- Completion of at least four courses (12 units) with a minimum GPA of 3.0 out of 4.0 that are approved by the program director and completion of requirements for a graduate degree in a participating department
- Courses that apply toward the degree must be taken with the credit/letter grade option. The program must be consistent with the residency and other applicable requirements of Washington University and the McKelvey School of Engineering.

Required courses:

Code	Title	Units
ESE 520	Probability and Stochastic Processes	3
ESE 551	Linear Dynamic Systems I	3
ESE 553	Nonlinear Dynamic Systems	3
Total Units		9

One of the following courses:

Code	Title	Units
ESE 415	Optimization	3
ESE 425	Random Processes and Kalman Filtering	3
ESE 543	Control Systems Design by State Space Methods	3
ESE 547	Robust and Adaptive Control	3