

## MSE in Electrical Engineering with Nuclear Power Generation graduate certificate

The MSE is a professional degree that requires 10 classes of coursework (30 hours minimum), without a thesis, but with a final comprehensive exam in the area of specialization. MSE students in electrical engineering have the following course requirement stipulations:

- At least 5 EEE courses
- At most 2 400-level (EEE 591) courses
- At least 3 EEE 500-level courses
- At least 2 courses outside the area of specialization
- At most 1 Independent Study (EEE590)

A student who wishes to complete the Nuclear Power Generation (NPG) graduate certificate program while pursuing a MSE degree in electrical engineering would likely choose the specialization area of Electric Power and Energy Systems (note: online students are not required to enroll in the EEE 691 Electric Power Seminar).

For such a student, the program of study (POS) might resemble

Class	Course Number	Course Title	Semester Hours
1	EEE 460	Nuclear Power Engineering	3
2	EEE 562	Nuclear Reactor Theory and Design	3
3	EEE 563	Nuclear Reactor System Dynamics and Diagnostics	3
4	EEE 564	Interdisciplinary Nuclear Power Operations	3
5	MSE 565	Structural Materials in Nuclear Power Systems	3
6	MAE 598	Sustainable Energy and Material Use	3
7	EEE 471	Power System Analysis	3
8	EEE 579	Power Transmission and Distribution	3
9	EEE 573	Electric Power Quality	3
10	EEE 550	Transform Theory and Applications	3
Total :			30

Or another example POS is

Class	Course Number	Course Title	Semester Hours
1	EEE 562	Nuclear Reactor Theory and Design	3
2	EEE 563	Nuclear Reactor System Dynamics and Diagnostics	3
3	EEE 564	Interdisciplinary Nuclear Power Operations	3
4	MSE 565	Structural Materials in Nuclear Power Systems	3
5	IEE 547	Human Factors Engineering	3
6	EEE 463	Electrical Power Plants	3
7	EEE 481	Computer Controlled Systems	3
8	EEE 585	Digital Control Systems	3
9	EEE 579	Power Transmission and Distribution	3
10	EEE 572	Advanced Power Electronics	3
Total :			30

Note that for each POS above that the course requirement stipulations are met by the seventh class.