

M.S. in Engineering Physics

Degree Requirements

The curriculum consists of 15 credits of required coursework, with an additional 15 credits of electives and/or thesis research.

The core courses emphasize the heavily technical nature of the space sciences and require an undergraduate degree in Physics, Engineering, or a related field (such as Mathematics or Chemistry) for preparation.

Master of Science in Engineering Physics

Option	Core Courses	Electives	Thesis	Total
Thesis	15	6	9	30
Non-Thesis	15	15	0	30

Core Courses

EP 501	Numerical Methods for Engineers and Scientists	3
EP 505	Spacecraft Dynamics and Control	3
EP 509	Advanced Space Physics	3
EP 600	Experimental Methods in Space Science	3
EP 605	Spacecraft Power and Thermal Design	3

Electives (others available on a rotating basis)

AE 508	Intermediate Heat Transfer	3
AE 514	Introduction to the Finite Element Method	3
AE 520	Perturbation Methods in Engineering	3
AE 524	Rocket Engine Propulsion Systems	3
BA 511	Operations Research	3
EP 696	Graduate Internship in Engineering Physics	3
EP 699	Special Topics in Engineering Physics	3
MA 502	Boundary Value Problems	3
MA 504	Theory of the Potential	3
MA 506	Probability and Statistical Inference	3
MA 510	Fundamentals of Optimization	3
SE 500	Software Engineering Discipline	3
SE 545	Specification and Design of Real-Time Systems	3
SE 585	Metrics and Statistical Methods for Software Engineering	3
SE 610	Software Systems Architecture and Design	3
SE 655	Performance Analysis of Real-Time Systems	3

Thesis

EP 700	Thesis	1-9
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