

M.S. in Engineering Physics

The Master of Science in Engineering Physics is housed in the Department of Physical Sciences in the College of Arts and Sciences. Students are encouraged to take advantage of campus laboratories, including the Atmospheric Physics Research Lab, Control Design Lab, the 1-meter Ritchey-Chrétien Reflecting Telescope, the Space Physics Research Lab and the Laboratory for Exosphere and Near-Space Environment Studies (LENSES).

Throughout the program, students are involved in a wide variety of research, much of which is funded by grants from NASA, the National Science Foundation (NSF) and other agencies. Several faculty members are awardees of the NSF Faculty Early Career Development (CAREER) program, an honor recognizing early-career faculty with strong potential to serve as academic role models in research and education and to lead advances in their departments or organizations.

An accelerated program is also available that allows exceptional students to complete both the bachelor's and master's degrees in Engineering Physics in five years.

Program-Level Student Learning Outcomes

Students will:

- Apply experimental methods in space science.
- Apply advanced numerical methods for engineers and scientists.
- Apply advanced space physics concepts.
- Solve space science and engineering problems.

Daytona Beach Program Requirements

Core Requirements	15
Option	15
Total Credits	30

Core Requirements

ENGP 501	Numerical Methods for Engineers and Scientists	3
ENGP 505	Spacecraft Dynamics and Control	3
ENGP 511	Advanced Space Physics	3
ENGP 601	Experimental Methods in Space Science	3
ENGP 605	Spacecraft Power and Thermal Design	3
Total Credits		15

Option

Option I: Non-Thesis

Technical Electives ASTR, AERO, CESC, CIVE, CPSC, DSCI, ELEC, ENGR, ENGP, MATH, MECH, and SFTW 500 level and above	15
Total Credits	15

Option II: Thesis

ENGP 700	Graduate Thesis	9
Technical Electives ASTR, AERO, CESC, CIVE, CPSC, DSCI, ELEC, ENGR, ENGP, MATH, MECH, and SFTW 500 level and above		6
Total Credits		15

Suggested Plan of Study

Option I: Non-Thesis

Year One

Requirements	Credits
ENGP 501 - Numerical Methods for Engineers and Scientists	3
ENGP 505 - Spacecraft Dynamics and Control	3
ENGP 605 - Spacecraft Power and Thermal Design	3
Semester Hours	9

Requirements	Credits
ENGP 511 - Advanced Space Physics	3
ENGP 601 - Experimental Methods in Space Science	3
Specified Elective	3
Semester Hours	9

Total Credits

Total Hours for All Requirements: 18

Year Two

Requirements	Credits
Specified Elective	3
Specified Elective	3
Semester Hours	6

Requirements	Credits
Specified Elective	3
Specified Elective	3
Semester Hours	6

Total Credits

Total Hours for All Requirements: 12

Option II: Thesis

Year One

Requirements	Credits
ENGP 501 - Numerical Methods for Engineers and Scientists	3
ENGP 505 - Spacecraft Dynamics and Control	3
ENGP 605 - Spacecraft Power and Thermal Design	3
Semester Hours	9

Requirements	Credits
ENGP 511 - Advanced Space Physics	3
ENGP 601 - Experimental Methods in Space Science	3
Specified Elective	3
Semester Hours	9

Total Credits

Total Hours for All Requirements: 18

Year Two

Requirements	Credits
Specified Elective	3
ENGP 700 - Graduate Thesis	3
Semester Hours	6

Requirements	Credits
ENGP 700 - Graduate Thesis	3
ENGP 700 - Graduate Thesis	3
Semester Hours	6

Total Credits

Total Hours for All Requirements: 12