

BS in Engineering Physics

2024-2025 Catalog

		Freshman Year		Sophomore Year		Junior Year		Senior Year	
		Semester 1	Semester 2	Semester 1	Semester 2	Semester 1	Semester 2	Semester 1	Semester 2
Florida Poly Experience Sequence		EGN 1006 Career Design for STEM Disciplines (1)	EGN 1007 Concepts and Methods for Eng. & CS (1)	EGN 2001C Skills and Design I (2)	PHY 3840L Experimental Techniques in Eng. Physics Lab (2)	EGN 3150C Engineering Physics Design 1 (3)	EGN 3151C Engineering Physics Design 2 (3)	EML 4950C Engineering Design Senior Capstone 1 (3)	EML 4951C Engineering Design Senior Capstone 2 (3)
		CHM 2045 Chemistry I (3)	PHY 2048 Physics 1 (3)	PHY 2049 Physics 2 (3)	PHY 3101 Intro to Modern Physics (3)	PHY 4221 Classical Mechanics (3)	PHY 4513 Thermal and Statistical Physics (3)	PHZ 3151C Computational Physics with Lab (3)	Physics Elective (3)
		CHM 2045L Chemistry I Lab (1)	PHY 2048L Physics 1 Lab (1)	PHY 2049L Physics 2 Lab (1)	MAS 3105 Linear Algebra (3)	PHY 4602 Quantum Mechanics (3)	PHY 4320 Electricity and Magnetism (3)	EGN 3343 Engineering Thermodynamics (3)	Engineering Elective (3)
	IB or C in MAC 1147 or higher, AP for MAC 2311	MAC 2311 Analytic Geometry and Calculus 1 (4)	MAC 2312 Analytic Geometry and Calculus 2 (4)	MAC 2313 Analytic Geometry and Calculus 3 (4)	MAP 2302 Differential Equations (3)	EGN 3365 Structure and Properties of Materials (3)	EEL 3110 Principles of Electrical Engineering (3)	Engineering Elective (3)	Engineering Elective (3)
		IDS 1721 Computing and Problem Solving for STEM (3)	IDS 1380 Foundational Lessons in Applications of MathEmatics (3)	EGN 3311 Statics (3)	Social Science Gen Ed Course (3)	Arts and Humanities Gen Ed Course (3)	Physics Elective (3)	Social Science or Arts and Humanities Gen Ed Course (3)	Social Science or Arts and Humanities Gen Ed Course (3)
		ENC 1101 English Composition I (3,W)	ENC 2210 Technical Writing (3,W)	COP 3337 Object Oriented Programming (3)		IDS 4941 Professional Exp. Internship (0)	➔		



Legend:

Grade of C or higher pre-req or minimum course grade	General Education (38)	Professional Foundation (8)	Science and Math Foundation (10)	Engineering Core & Capstone (29)	Physics Core (20)	Physics Elective (6) Engineering Elective (9)
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Program Electives

Engineering Electives

- EAS 4200 - Introduction to Aero Structures Credits: 3
- EAS 4505 - Orbital Mechanics Credits: 3
- EEL 3287 - Renewable Energy and Sustainability Credits: 3
- EEL 3702 - Digital Logic Design Credits: 3
- EEL 4283 - Renewable Energy Systems Credits: 3
- EEL 4660 - Autonomous Robotic Systems Credits: 3
- EGN 3321 - Dynamics Credits: 3
- EGN 3331 - Strength of Materials Credits: 3
- EGN 4334 - Mechanics of Composite Materials Credits: 3
- EIN 3390 - Manufacturing Processes Credits: 3
- EML 3015 - Fluid Mechanics Credits: 3
- EML 4140 - Heat Transfer Credits: 3
- EML 4541 - Fatigue and Fracture Mechanics Credits: 3
- EML 4833 - Human Robotics Credits: 3

Physics Electives

- AST 4217 Stellar Astrophysics Credits: 3
- AST 4414 Cosmology and Relativity Credits: 3
- PHZ 3442 Semiconductor Physics Credits: 3
- PHZ 4444 - Solid State Physics Credits: 3
- PHZ 3308 Nuclear and Subatomic Physics Credits: 3

Arts, Humanities, and Social Sciences

Arts & Humanities

A total of 12 credit hours must be completed in the arts, humanities, and social sciences. Select 3 to 9 credits from the following courses:

At least one course (3 credits) from the following state required list:

- ARH 2000 - Art Appreciation Credits: 3
- HUM 2020 - Introduction to the Humanities Credits: 3
- LIT 2000 - Introduction to Literature Credits: 3
- PHI 2010 - Introduction to Philosophy Credits: 3
- MUL 2010 - Music Appreciation Credits: 3

Optional additional course elective:

- IDS 2144 - Legal, Ethical, and Management Issues in Technology Credits: 3
- HUM 2022 - Explorations in the Humanities Credits: 3

Social Sciences

A total of 12 credit hours must be completed in the arts, humanities, and social sciences. Select 3 to 9 credits from the following courses.

At least one course (3 credits) from the following state required list:

- AMH 2010 - American History to 1877 Credits: 3
- AMH 2020 - American History Since 1877 Credits: 3
- ECO 2013 - Principles of Macroeconomics Credits: 3
- POS 2041 - American Government Credits: 3
- PSY 2012 - General Psychology Credits: 3

Optional additional course elective:

- ECO 2023 - Principles of Microeconomics Credits: 3

