

ACADEMIC ROADMAP

Physics BS

Fall 2024 (rev 4/12/24)

Freshman Year (30 credits)

FIRST SEMESTER

Course Title	Catalog Number	Prerequisite(s)
College Writing I 3cr	CWP 101	
University Physics I 5cr	PHY 111	Co-req is MAT 161 or 126
Calculus I 4cr	MAT 161	
Physics Freshman Seminar 1cr	PHY 189	

SECOND SEMESTER

Course Title	Catalog Number	Prerequisite(s)
College Writing II 3cr	CWP 102	CWP 101
University Physics II 5cr	PHY 112	PHY 111
Calculus II 4cr	MAT 162	MAT 161
Fund. Chemistry I + lab (3+1)cr	CHE 111 + CHE 113	

Notes and recommendations:

Attend at least one faculty office hour; visit Academic Commons (Math & Writing Centers, tutoring); meet with your Physics advisor and view your degree audit sheet in Degree Works.

Sophomore Year (60 credits)

THIRD SEMESTER

Course Title	Catalog Number	Prerequisite(s)
Univ Physics III + Lab (3+1)cr	PHY 213 + PHY 214	PHY 108 or PHY112
Calc III 4cr	MAT 263	MAT 162
Fund. Chemistry II + L (3+1)cr	CHE 112 + CHE 114	CHE 111

FOURTH SEMESTER

Course Title	Catalog Number	Prerequisite(s)
Modern Physics I 3cr	PHY 305	PHY 213 + CHE 112
Computational Physics 3cr*	PHY 310*	PHY 107 or PHY 111
Intro to Theoretical Physics 3cr	PHY 320	PHY108 or 112; MAT127 or 162

Notes and recommendations:

Form a study group; consider enrolling in a minor or certificate program; meet with your Physics advisor and view your degree audit sheet in Degree Works. Consider undergraduate research. PHY310 could also be taken 6th semester.

Junior Year (90 credits)

FIFTH SEMESTER

Course Title	Catalog Number	Prerequisite(s)
Modern Physics II + Lab (3+1)cr	PHY 306 + PHY 307	PHY 305
Electric Circuit Analysis 3cr	PHY 324	PHY 108 or PHY 112
Classical Mechanics 3cr OR	PHY 425	PHY 310 + PHY320
Electricity & Magnetism 3cr	PHY 440	PHY 320

SIXTH SEMESTER

Course Title	Catalog Number	Prerequisite(s)
Differential Equations 3cr	MAT 315	MAT 263
Quantum Mechanics 3cr OR	PHY 435	PHY 305 + 310 + 320
Classical Mechanics 3cr OR	PHY 425	PHY 310 + PHY320
Electricity & Magnetism 3cr	PHY 440	PHY 320

Notes and recommendations:

Visit the Career and Professional Education Center; meet with your Physics advisor and view your degree audit sheet in Degree Works; talk to your faculty advisor about graduate school options. PHY 410 could also be taken 8th semester.

Senior Year (120 credits)

SEVENTH SEMESTER

Course Title	Catalog Number	Prerequisite(s)
Quantum Mechanics 3cr OR	PHY 435	PHY 305 + 310 + 320
Classical Mechanics 3cr OR	PHY 425	PHY 310 + PHY320
Electricity & Magnetism 3cr	PHY 440	PHY 320

EIGHTH SEMESTER

Course Title	Catalog Number	Prerequisite(s)
Advanced Physics Lab* 3cr	PHY 410*	PHY 305
Quantum Mechanics 3cr OR	PHY 435	PHY 305 + 310 + 320
Classical Mechanics 3cr OR	PHY 425	PHY 310 + PHY320
Electricity & Magnetism 3cr	PHY 440	PHY 320

Notes and recommendations:

Final meeting with your Physics advisor and view your degree audit sheet in Degree Works for graduation. Apply for graduation; apply to graduate school, if applicable; visit the Career and Professional Education Center to have your resume reviewed. PHY 410 could also be taken 6th semester.