Grand Valley State University
B.S. in Physics
Degree Requirements

Name: _____ Advisor: _____

Hope-to-Graduate Date: _____

General Education

Consult General Education Planning Guide	10–13 Courses ($\sim$ 30–40 hrs)

Cognates

CRS NBR	Course Name (*offered*)	Semester[1]	Substitute[2]	Grade	Hrs.
CHM 115	Principles of Chemistry I (F, W, & S)				5
CHM 116	Principles of Chemistry II (F, W, & S)				5
CS 162	Computer Science I (F & W)				4
MTH 201	Calculus I (F & W)				5
MTH 202	Calculus II (F & W)				4
MTH 203	Calculus III (F & W)				4
MTH 227	Linear Algebra (F & W)				3
MTH 300	Applied Analysis I (F)				3
MTH 302	Linear Algebra ... (F & W)				4
MTH 304	Analysis of Differential Equations (W)				3
				Total:	36–37

Required Courses in Physics

PHY 230	Principles of Physics I (F & W)				5
PHY 231	Principles of Physics II (F & W)				5
PHY 302	Intro. to Modern Physics (W)				4
PHY 309[3]	Exp. Methods in Physics (F)				4
PHY 311[3]	Advanced Lab. II (W)				2
PHY 330	Intermediate mechanics (F)				4
PHY 340	Electromagnetic Fields (W)				4
PHY 350	Intermediate Modern Physics (W)				4
PHY 360	Statistical Thermodynamics (F)				4
PHY 485	Senior Physics Project I (F)				1
PHY 486	Senior Physics Project II (W)				2
				Total:	39

[1] Semester in which course was or is to be completed.
[2] Is requirement to be met by a course substitution or a transfer? Yes or no. If yes, which course is to be substituted or transfered.
[3] Supplemental writing skills course.

continued ...

Addition Required Physics Courses for Secondary Teaching Certification

CRS NBR	Course Name (*offered*)	Semester[1]	Substitute[2]	Grade	Hrs.
HSC 201	The Scientific Revolution (*F* & *W*)				3
HSC 202	The Technological Revolution (*F* & *W*)				3
PHY 105	Descriptive Astronomy (*S* & *F*)				3
BIO 120	General Biology I (*F*, *W*, & *S*)				4
BIO 328	Biomedical Ethics (*F*, *W*, & *S*)				3
BIO 338	Environmental Ethics (*F*, *W*, & *S*)				3
—	*Service*		—	—	—
				Total:	13

Elective Physics Courses

PHY 105	Descriptive Astronomy (*S* & *F*)				3
PHY 320	Optics (*W even*)				4
PHY 370	Solid State Physics (*W odd*)				3
PHY 430	Advanced Mechanics (*as needed*)				3
PHY 440	Advanced E & M (*as needed*)				3
PHY 450	Quantum Mechanics (*as needed*)				3

Graduation Requirements in Brief

- A minimum of 120 semester hours.
- A cumulative GPA of at least 2.0.
- Basic skills requirement (see General Education Student Guide).
- General education requirements (see General Education Student Guide).
- Two SWS courses, one not in major.
- Capstone course.
- Last 30 hours earned at GVSU.
- A minimum of 58 semester hours at a senior institution.
- A minimum of 12 semester hours in major (6 for minor) at GVSU.