COLLEGE OF LIBERAL ARTS AND SCIENCES (CLAS) ACADEMIC ADVISING CENTER 2017-2018

PHYSICS-GENERAL- BS

THIS IS A **GENERAL** CURRICULUM GUIDE AND IS NOT APPLICABLE TO EVERY STUDENT. IT IS IMPORTANT TO MEET WITH YOUR ADVISOR.

Year One			
[1]MTH 201 Calculus I Prerequisites: MTH 124; or MTH 122 and MTH 123; or proficiency through math placement	4	MTH 202 Calculus II Prerequisite: MTH 201	4
CHM 115 Principles of Chemistry I Prerequisites: High school chemistry, MTH 110 or 122 or 125 or 201	4 (6)	PHY 230 Principles of Physics I Prerequisite: MTH 201, MTH 202 recommended as a corequisite	5 (7)
Gen Ed WRT 098 Writing with a Purpose – Optional[8]	3	WRT 150 Strategies of Writing[8]	4
Gen Ed	3	Gen Ed	3
Numbers noted within (parentheses) are contact hours *Total*	*14*	*Total*	*16**
Year 2			
MTH 203 Calculus III Prerequisite: MTH 202	4	PHY 302 Introduction to Modern Physics Prerequisite: PHY 231	4 (6)
MTH 227 Linear Algebra I (required if taking MTH 304 – see note) Prerequisite: MTH 202	3	[6]MTH 302 Linear Algebra & Differential Equations Prerequisite: MTH 203	4
PHY 231 Principles of Physics II Prerequisites: MTH 202 and PHY 230	5 (7)	[6]***OR*** MTH 304 Analysis of Differential Equations Prerequisites: MTH 203 and MTH 227	3
Gen Ed with SWS	3	[5]CIS 261 Structured Programming in C Prerequisite: MTH 201 or concurrent enrollment	3
		OR CIS 162 Computer Science I Prerequisite: MTH 110	4 3
		Gen Ed	
Total	*15*	*Total*	*13-15*
Year Three			
PHY 309 SWS Experimental Methods in Physics Prerequisites: PHY 302 and one SWS course	4 (6)	[2]PHY 311 SWS Advanced Laboratory II Prerequisites: PHY 309 and one SWS course	2 (6)
PHY 330 Intermediate Mechanics Prerequisites: PHY 230 or permission of instructor, and MTH 302 or 304	4	PHY 340 Electromagnetic Fields Prerequisites: PHY 231, MTH 302 or MTH 304	4
		Gen Ed	3
[7]MTH 401 Mathematics for the Physical Sciences Prerequisites: MTH 302 or 304, PHY 231, or permission of instructor	4	[4]Elective	3
		[4]Elective	3
OR [7]MTH 300 Applied Analysis I Prerequisite: MTH 203	3		
Gen Ed	3		
Total	*14-15*	*Total*	*15**
Year Four			
PHY 350 Introduction to Quantum Mechanics Prerequisites: PHY 302, MTH 302 or 304 (MTH 300 recommended)	4	PHY 360 Statistical Thermodynamics Prerequisite: PHY 231	4
PHY 485 Senior Physics Project (Capstone) Prerequisite: Senior physics students in good academic standing	1	PHY 486 Senior Physics Project (Capstone) Prerequisites: PHY 485	2 (9)
[3]Science Elective		[3]Science Elective Course	
Issue	3	Issue	3
[4]Elective	3	[4]Elective	3
	3		3
Total	*14*	*Total*	*15*

* The block tuition rate is for 12-15 credits. You will pay additional tuition for any credits over 15.

See reverse for footnotes

[1] **Students must take MTH 110, MTH 122, and MTH 123 or waive these courses through Grand Valley math placement in order to take MTH 201. These courses do not count towards the completion of the Physics major.**

[2] Students must complete a total of two courses with an SWS attribute

It is imperative to meet with your faculty advisor and an advisor in the CLAS Academic Advising Center regularly.
The CLAS Academic Advising Center is located in C-1-140 MAK, 616-331-8585.
Online at: http://www.gvsu.edu/clasadvising

[3] Students must complete 6 hours of science electives with a minimum grade of C (2.0) in each. Must be chosen from the following: PHY 105 (requirement for secondary education majors); any 300 or 400 level physics elective (excluding PHY 303, 306, and 307); CHM 351, 352, 356, or 358. *Students who plan to apply to graduate school in physics should take PHY 430, 440, and 450, which are offered alternate years; please confer with your physics faculty advisor for a specific degree plan dependent on when you complete PHY 230.*
[4] Elective refers to any course needed to fulfill the required 120 credits for graduation.
[5] See faculty advisor for additional options for CIS 261.
[6] Physics majors intending to go to graduate school should take MTH 227 and MTH 304 rather than the MTH 302 option. Please see faculty advisor for assistance in choosing appropriate course.
[7] MTH 401 is recommended instead of MTH 300 for students planning to pursue graduate school, please see faculty advisor for assistance in choosing appropriate course.
[8] Students who self-place into WRT 098 should take this course in the fall semester and then take WRT 150 in the winter semester of their first year. Students who self-place into WRT 150 should normally take this course in the winter semester of their first year.
Students will not need to take WRT 150 if they have earned credit for the course through AP/Dual Enrollment. A grade of C or better is required in WRT 150 in order to satisfy the WRT 150 requirement at GVSU.

Declaring the Physics-General Major:

1. Log into myBanner from the GVSU homepage
2. Once logged in select “Student”, “Student Records”, and then, “Change Major”
3. Click on the “Change Major 1/Program” box
4. Click on the down arrow in the box next to “New Major 1/Program,” from here scroll down and choose “Physics-BS”
5. Click “Submit” and then “Change to New Program”

General Education Overlap

General Education Categories fulfilled by the Physics Major:	
Mathematical Sciences: MTH 201	Physical Science with Lab: CHM 115

The CLAS Academic Advising Center is located in C-1-140 MAK, 616-331-8585

http://www.gvsu.edu/clasadvising (Also find us on Orgsync, Facebook, and Twitter!)

Academic Advisors for Physics Majors:

Jo Ann Litton
littonj@gvsu.edu

Julie Amon-Mattox
amonju@gvsu.edu