

Physics (2011-2012)

Secondary Teacher Certification

This is a **general curriculum** guide and is not applicable to every student and is not a replacement for meeting with your advisor.

-Student is starting in MTH 201-

Fall Semester – Year One	credits	Winter Semester – Year One	credits
MTH 201: Calculus I (<i>Gen Ed</i>)	5	MTH 202: Calculus II	4
WRT 150: Strategies in Writing	4	PHY 230: Principles of Physics I	5
CHM 115: Principles of Chemistry I (<i>Gen Ed</i>)	5	PSY 101: Introductory Psychology (<i>Gen Ed</i>)	3
Total	14	Total	15
Spring Semester – Year One	credits	Summer Semester – Year One	credits
Minor Elective	3		
Gen Ed.	3		
Fall Semester – Year Two	credits	Winter Semester – Year Two	credits
PHY 231: Principles of Physics II	5	PHY 302: Introduction to Modern Physics	4
MTH 203: Calculus III	4	MTH 304: Analysis of Differential Equations OR	3
MTH 227: Linear Algebra I	3	MTH 302: Linear Algebra & Diff. Equations	4
ED 315: Diverse Perspectives on Education (<i>Gen Ed</i>)*	3	EGR 261: Structured Programming in C	3
Total	15	Total	14-15
Spring Semester – Year Two	credits	Summer Semester – Year Two	credits
HSC 201: The Scientific Revolution (<i>Gen Ed</i>) OR	3	Minor Elective	3
HSC 202: The Technological Revolution (<i>Gen Ed</i>)	3	Gen Ed. or Theme	3
Minor Elective	3		
Fall Semester – Year Three	credits	Winter Semester – Year Three	credits
MTH 401: Math for the Physical Sciences	4	PHY 311: Advanced Laboratory II (SWS)	2
PHY 309: Experimental Methods in Physics	4	PHY 340: Intermediate Electricity and Magnetism	4
PHY 330: Intermediate Mechanics and Dynamics	4	PHY 105: Descriptive Astronomy ²	3
Gen Ed.	3	PSY 301: Child Development*	3
Total	16[#]	Total	15
Spring Semester – Year Three	credits	Summer Semester – Year Three	credits
Minor Elective	3	Minor Elective	3
Gen Ed.	3		
Fall Semester – Year Four	credits	Winter Semester – Year Four	credits
PHY 360: Statistical Thermodynamics	4	PHY 350: Intermediate Modern Physics	4
PHY 485: Senior Project I	1	PHY 486: Senior Project II (Capstone)	2
Ethics in Science Requirement ¹	3	Science Elective ²	3
Minor Elective	3	Minor Elective	3
Gen Ed. or Theme	3	Minor Elective	3
Total	14	Total	15
Fall Semester – Year Five	credits	Winter Semester – Year Five	credits
ED 331: Methods and Strategies for Secondary Teaching	5	ED 431: Student Teaching, Secondary	10
ED 310: Organizing and Managing Classroom Environments	3	ED 485: The Context of Educational Issues	3
ED 321: Content Area Literacy	3		
ED 370: Technology in Education**	3		
ED 379: Universal Design for Learning: Secondary**	3		
Total	17[#]	Total	13

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

Notes:

* These courses are Education Major prerequisites. Student must have a minimum GPA of 2.7 in these classes, and both their major and minor. Classes must be completed prior to applying to the College of Education. A student selecting secondary education must also have a teachable minor. **Consult with your advisor!**

** ED 370 and/or ED 379 may be taken during or after Assisting but must be taken before Student Teaching.

¹ Students must take BIO 328: Biomedical Ethics **OR** BIO 338: Environmental Ethics.

² 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

Special Notes:

A. This is a **general** curriculum guide and will not work for everyone, especially those students who have AP or CLEP credit.

B. Courses that have (*Gen Ed*) written after them are classes that are required in the major and also fulfill a section of the general education program.

C. Complete a total of two courses with an SWS attribute. The two SWS courses may not be taken from the same department or school. One must be from outside the student's major unit.

D. Thirty (30) total hours as lab assistant (setting up and tearing down equipment and/or serving as teaching assistant) are required of students seeking secondary certification. Contact the department for further details.

It is imperative to meet with your faculty advisor or an advisor in the CLAS Academic Advising Center early in your career.

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

Online at: <http://www.gvsu.edu/clasadvising> Prepared by CLAS Academic Advising Center – 3/9/2011