

SCIENCE-BS-SECONDARY EDUCATION(WITH EDUCATION MAJOR)THIS IS A **GENERAL** CURRICULUM GUIDE AND IS NOT APPLICABLE TO EVERY STUDENT. IT IS IMPORTANT TO MEET WITH YOUR ADVISOR.

Year One			
BIO 121 General Biology II w/lab Prerequisite: MTH 110 (may be taken concurrently)	4	BIO 120 General Biology I w/lab Prerequisites: High school chemistry, CHM 109, or CHM 115 strongly recommended (CHM 109 or 115 may be taken concurrently)	4
GEO 111 Exploring the Earth	4		
MTH 122 College Algebra Prerequisite: MTH 110 or assignment through Grand Valley math placement	3	MTH 124 or Gen Ed Prerequisite: MTH 110, MTH 109, or equivalent	3
WRT 150 Strategies in Writing ¹ (or WRT 120)	4	GEO 112 Earth History Prerequisite: GEO 111 (preferred) or GEO 100/103/105	4
		EDF 115 Introduction to Education	3
<i>Total</i>	<i>15</i>	<i>Total</i>	<i>14</i>
Spring/Summer			
CHM 115 Principles of Chemistry I w/lab	4		
PSY 101 Introductory Psychology (SBS)	3		
Gen ed (Arts)	3		
Year Two			
CHM 116 Principles of Chemistry II w/lab Prerequisites: CHM 115 and (MTH 122 or MTH 125 or MTH 201)	5	BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121	3
GEO 203³ Weather and Climate for Pre-Service Teachers	3	CHM 231 Introductory Organic Chemistry Prerequisite: CHM 116	4
PHY 201³ Inquiry: The Mechanical and Thermal World	4	EDR 225 Intro to Teaching Multilingual Learners	3
EDF 315 Diverse Perspectives on Education (US Div.)	3	PHY 202³ Physics for Teachers: Motion, Energy, Forces	4
<i>Total</i>	<i>15</i>	<i>Total</i>	<i>14</i>
Spring/Summer			
Gen Ed (Issues)	3		
Gen Ed (P&L)	3		
Gen Ed (HA/GP)	3		
<i>Total</i>	<i>9</i>		
Year Three			
PHY 203³ Physics for Teachers: Light, Sound, Electromagnetism Prerequisite: PHY 202	4	PSY 331 Adolescent Development Prerequisite: PSY 101	3
CHM 221 Survey of Analytical Chemistry w/lab Prerequisite: CHM 116 or one full year of general CHM	4	SCI 326³ Experimental Methods in physical Science Prerequisites: PHY 203, CHM 116	3
BIO 375 Genetics Prerequisite: BIO 120	3	PHY 205³ Astronomy for Teachers	3
BIO 376 Genetics Laboratory Prerequisite: BIO 120, BIO 375 or BIO 355 (375 or 355 may be taken concurrently)	1	SCI 450³ Earth & Life Science in Secondary EDU Prerequisite: Junior standing, BIO 120 &121, GEO 111&112	3
GEO 220 Earth Surface Materials & Systems w/lab Prerequisite: GEO 111, CHM 115, GEO 112	3	SCI 316³ Engineering Design Prerequisite: PHY 203	3
<i>Total</i>	<i>15</i>	<i>Total</i>	<i>15</i>
Year Four			
SCI 336^{2,3} Ecology for Secondary Teachers (SWS) Prerequisites: BIO 120 & 121 (120 may be taken concurrently), GEO 203 & 112, PHY 201	4	Student Assisting Apprenticeship: EDI 331 Methods & Strategies of Secondary Teaching	4
SCI 440³ Physics and Chemistry in Secondary Education Prerequisites: Junior Standing, CHM 116, PHY 202, PHY 203	3	EDI 332 Content Area Seminar	2
EDF 260² Educational Research & Assessment (SWS)	3	EDT 477 Teaching w/Technology: Secondary Must be taken with or after EDI 331 but before EDI 431	3
GEO 214 Solid Earth Materials and Systems Prerequisites: GEO 111, CHM 115, GEO 112, and GEO 175)	4	EDS 319 Prerequisites: Sophomore standing, EDF 315, and EDI 339. **B- or better required in all Apprenticeship courses	3
<i>Total</i>	<i>14</i>	<i>Total</i>	<i>15</i>
Year Five			
Student Teaching Internship: EDI 431 Student Teaching: Secondary	7 or 8		
EDI 432 Student Teaching: Secondary Content	2		
EDF 495 The Context of Educational Issues Must be taken with or after EDI 431	3		

Total	12-13	
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*The block tuition rate is for 12-15 credits. You will pay additional tuition for any credits over 15

*This course is recommended to help complete program in timely basis but is not a necessary program requirement.

¹ Students who self-place into WRT120 should take this course in the fall semester and then take WRT 130 in the winter semester of the first year. Students who self-place into WRT 150 should take this course in either semester of the first year. A grade of C or higher is required to fulfill these requirements.

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

³ SCI and PHY courses are offered in alternate years. See your major or CLAS advisor to determine your sequence.

⁴ Admission into the apprenticeship and internship semesters is a secondary application process. Plan to apply the semester before the semester you plan on starting teacher assisting.

General Education Categories fulfilled by the Integrated Science major:

Life Science and Physical Science: BIO 120 and CHM 115 (both fulfill lab requirement)	
Mathematical Sciences: MTH 122, STA 215	
Social and Behavioral Sciences: PSY 101	US Diversity: EDF 315
Issues: EDT 476	Global Perspectives: EDR 225

Second Major in Education

Education Major Prerequisites (12 credits)

A 2.7 cumulative GPA in the Education Major Prerequisites is required with no grade lower than a C

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| — EDF 315 Diverse Perspectives on Education (3) | — PSY 331 Adolescent Development (3) |
| — EDF 260 Educational Research and Assessment (3) | Prerequisite: PSY 101 |
| — EDF 115 Intro to Education (3) | — EDR 225 Intro to Teaching Multilingual Learners (3) |

Teacher Apprenticeship (15 credits)

- EDI 331 Teacher Assisting-Secondary (4)
- EDI 310 Organizing and Managing Classroom Environments (3)
- EDR 332 Content Area Seminar (2)
- EDT 477 Teaching w/Technology (3)
- Must be taken with or after EDI 331 but before EDI 431
- EDS 319 Universal Design for Learning: Secondary (3)

Student Internship (13 credits)

- EDI 431 Student Teaching, Secondary (8)
- EDI 432 Student Teaching, Secondary Content (2)
- EDF 495 The Context of Educational Issues (3)
- Must be taken with or after EDI 431

Guide for Declaring Majors

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
Click on the down arrow in the box next to "New Major 1/Program," from here scroll down and choose:
"Science BS-Secondary"
Click "Submit." The system will automatically declare your 2nd major in "Education" and give you the option to declare a minor.

Courses offered in alternating Years

PHY 201 F25, F27	PHY 202 W26, W28
PHY 203 F26, F28	PHY 205 W27, W29
GEO 203 F25, F27	SCI 316 W27, W29
SCI 336 S/S26 or F26, S/S28 or F28	SCI 326 W27, W29
SCI 440 W 25, F26	SCI 450 W26, W28