## 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.

BIO 121 General Biology II w/lab Prerequisite: MTH 110 (may be taken concurrently) Pry 2013 inquiry: The Mechanical and Thermal World MTH 122² College Algebra (required) OR MTH 124 (recommended, not required) Prerequisite: MTH 108-MTH 109, MTH 110, or fulfillment of MTH 110 through Math Placement GEO 203³ Weather and Climate for Pre-Service Teachers  Total 14/16  Spring/Summer  CHM 125 Principles of Chemistry I CHM 125 Principles of Chemistry I Lab Prerequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 201) Prerequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 201) STA 215 Applied Statistics Prerequisites: CHM 125 & 126 and (MTH 120 or MTH 125 or MTH 201) STA 215 Applied Statistics Prerequisite: PHY 203 Frequisite: PHY 203 Fr		Vear	One	
Prerequisite: MTH 110 (may be taken concurrently) PHY 201³ Inquiry: The Mechanical and Thermal World MTH 122² College Algebra (required) OR MTH 124 (recommended, not required) Prerequisite: MTH 108-MTH 109, or CHM 125/126 strongly recommended (CHM 109 or 125/126 may be taken concurrently) PHY 202³ Physics for Teachers: Motion, Energy, Forces EDF 115 Introduction to Education	RIO 121 General Riology II w/lah			4
PHY 201³ Inquiry: The Mechanical and Thermal World MTH 122² College Algebra (required) OR MTH 124 (recommended, not required) OR MTH 124 (recommended, not required) Prerequisite: MTH 108+MTH 109, MTH 110, or fulfillment of MTH 110 through Math Placement GEO 203³ Weather and Climate for Pre-Service Teachers 3 3	· · · · · · · · · · · · · · · · · · ·	-	= :	4
MTH 122² College Algebra (required) OR MTH 124 (recommended, not required) Prerequisite: MTH 108 MTH 119, or fulfillment of MTH 110 through Math Placement GEO 203³ Weather and Climate for Pre-Service Teachers  7 total 14/16  Spring/Summer  Total 125 Principles of Chemistry I		4	_ · ·	4
Set aken concurrently    Prerequisite: MTH 108+MTH 109, MTH 110, or fulfillment of MTH 110 through Math Placement				
PHY 202³ Physics for Teachers: Motion, Energy, Forces EDF 115 Introduction to Education  Total 14/16 Total 1  Spring/Summer  CHM 125 Principles of Chemistry I Lab 1  CHM 127 Principles of Chemistry II Lab 1  Terequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 201)  CHM 128 Principles of Chemistry II Lab 1  Total 128 Principles of Chemistry II Lab 1  Terequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 201)  The Terequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 201)  The Terequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 101)  The Terequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 101)  The Terequisites: CHM 127 Astronomy for Teachers  The Terequisites: PHY 203, CHM 127/128  The T		3/5		
MTH 110 through Math Placement GEO 203³ Weather and Climate for Pre-Service Teachers    Total   14/16	· · ·			
CHM 125 Principles of Chemistry I				4
Total 14/16 Spring/Summer  CHM 125 Principles of Chemistry I CHM 126 Principles of Chemistry I Lab  Perequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 201)  CHM 128 Principles of Chemistry II Lab Prerequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 201)  STA 215 Applied Statistics Prerequisite: MTH 110, MTH 109, or equivalent GEO 111 Exploring the Earth PHY 203 Physics for Teachers: Light, Sound, Electromagnetism Prerequisite: PHY 202  Total  Total  Year Two  SCI 316³ Engineering Design Prerequisite: GEO 111 (preferred) or GEO 100/103/105 SCI 326³ Experimental Methods in physical Science Prerequisite: MTH 110, MTH 109, or equivalent GEO 111 Exploring the Earth PHY 203³ Astronomy for Teachers Prerequisite: PHY 203, CHM 127/128 PHY 205³ Astronomy for Teachers  Year Three  EDF 315 Diverse Perspectives on Education (US Div.) GEO 220 Earth Surface Materials & Systems w/lab Prerequisite: GEO 111, (HM 125/126, GEO 112 Gen Ed (Art) SCI 440³ Physics and Chemistry in Secondary Education Prerequisites: Junior Standing, CHM 127/128, PHY 202, PHY 203 BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121    Material Septiment			EDF 113 IIItroduction to Education	3
CHM 125 Principles of Chemistry I CHM 126 Principles of Chemistry I Lab  Prerequisites: CHM 127 Principles of Chemistry II Prerequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 201) CHM 128 Principles of Chemistry II Lab Prerequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 201) STA 215 Applied Statistics Prerequisites: MTH 110, MTH 109, or equivalent GEO 111 Exploring the Earth PHY 203 Physics for Teachers: Light, Sound, Electromagnetism Prerequisite: PHY 202  Total 16  Year Three  EDF 315 Diverse Perspectives on Education (US Div.) GEO 220 Earth Surface Materials & Systems w/lab Prerequisites: GEO 111, CHM 125/126, GEO 112 Gen Ed (Art) SCI 4403 Physics and Chemistry in Secondary Education Prerequisites: Junior Standing, CHM 127/128, PHY 202, PHY 203 BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121  Spring/Summer  Year Two  4 SCI 3163 Engineering Design Prerequisite: GEO 111 (preferred) or GEO 100/103/105 SCI 3263 Experimental Methods in physical Science Prerequisite: FHY 203 GEO 112 Earth History Prerequisites: PHY 203, CHM 127/128 PHY 2053 Astronomy for Teachers  Year Three  Prerequisites: FHY 203, CHM 127/128 PHY 2053 Astronomy for Teachers  Year Three  Year Three  Year Three  CHM 221 Survey of Analytical Chemistry w/lab Prerequisites: Junior Standing, BiO 120 & 121, GEO 1118.112 CHM 221 Survey of Analytical Chemistry w/lab Prerequisites: CHM 127/128 or one full year of general CHM	GEO 203* Weather and Climate for Pre-Service Teachers	3		
CHM 125 Principles of Chemistry I CHM 127 Principles of Chemistry II Prerequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 201) CHM 128 Principles of Chemistry II Lab Prerequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 201) CHM 128 Principles of Chemistry II Lab Prerequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 201)  STA 215 Applied Statistics Prerequisite: MTH 110, MTH 109, or equivalent GEO 111 Exploring the Earth PHY 203 Physics for Teachers: Light, Sound, Electromagnetism Prerequisite: PHY 202  Total  FEDF 315 Diverse Perspectives on Education (US Div.) GEO 220 Earth Surface Materials & Systems w/lab Prerequisite: GEO 111, CHM 125/126, GEO 112 Gen Ed (Art) SCI 4403 Physics and Chemistry in Secondary Education Prerequisites: Junior Standing, CHM 127/128, PHY 202, PHY 203 BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121  Year Three  SCI 316 ** Engineering Design Prerequisite: PHY 203 GEO 112 Earth History Prerequisite: GEO 111 (preferred) or GEO 100/103/105 SCI 326 ** Experimental Methods in physical Science Prerequisites: PHY 203, CHM 127/128 PHY 205 ** Astronomy for Teachers  ** PSY 101 Introductory Psychology  EDR 225 Intro to Teaching Multilingual Learners (Global Persp)  Gen Ed (Art)  SCI 4403 ** Physics and Chemistry in Secondary Education Prerequisites: Junior Standing, BIO 120 & 121, GEO 1118112 CHM 221 Survey of Analytical Chemistry w/lab Prerequisites: CHM 127/128 or one full year of general CHM  Prerequisites: BIO 120 and BIO 121	Total	14/16	Total	15
CHM 126 Principles of Chemistry I Lab  Vear Two  CHM 127 Principles of Chemistry II Prerequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 201) CHM 128 Principles of Chemistry II Lab Prerequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 201) CHM 128 Principles of Chemistry II Lab Prerequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 201) STA 215 Applied Statistics Prerequisite: MTH 110, MTH 109, or equivalent GEO 111 Exploring the Earth PHY 203³ Physics for Teachers: Light, Sound, Electromagnetism Prerequisite: PHY 202  Total  EDF 315 Diverse Perspectives on Education (US Div.) GEO 220 Earth Surface Materials & Systems w/lab Prerequisite: GEO 111, CHM 125/126, GEO 112 Gen Ed (Art) SCI 326³ Experimental Methods in physical Science Prerequisites: PHY 203, CHM 127/128 PHY 205³ Astronomy for Teachers  Year Three  EDF 315 Diverse Perspectives on Education (US Div.) GEO 220 Earth Surface Materials & Systems w/lab Prerequisite: GEO 111, CHM 125/126, GEO 112 Gen Ed (Art) SCI 440³ Physics and Chemistry in Secondary Education Prerequisites: Junior Standing, CHM 127/128, PHY 202, PHY 203 BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121  Prerequisites: CHM 127/128 or one full year of general CHM Prerequisites: BIO 120 and BIO 121			Summer	
CHM 127 Principles of Chemistry II Prerequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 201)  CHM 128 Principles of Chemistry II Lab Prerequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 201)  STA 215 Applied Statistics Prerequisite: MTH 110, MTH 109, or equivalent GEO 111 Exploring the Earth Prerequisite: PHY 202  Total  EDF 315 Diverse Perspectives on Education (US Div.) GEO 220 Earth Surface Materials & Systems w/lab Prerequisite: GEO 111, CHM 125/126, GEO 112 Gen Ed (Art) SCI 4403 Physics and Chemistry in Secondary Education Prerequisites: Junior Standing, CHM 127/128, PHY 202, PHY 203 BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121  Year Two  SCI 316³ Engineering Design Prerequisite: PHY 203 GEO 112 Earth History Prerequisite: PHY 203 GEO 111 (preferred) or GEO 100/103/105 SCI 326³ Experimental Methods in physical Science Prerequisites: PHY 203, CHM 127/128 PHY 205³ Astronomy for Teachers  Year Three  EDF 315 Diverse Perspectives on Education (US Div.) 3 PSY 101 Introductory Psychology EDR 225 Intro to Teaching Multilingual Learners (Global Persp) Gen Ed (Historical Analysis) SCI 4403 Physics and Chemistry in Secondary Education Prerequisites: Junior Standing, BIO 120 &121, GEO 111&112 CHM 221 Survey of Analytical Chemistry w/lab Prerequisites: BIO 120 and BIO 121				
CHM 127 Principles of Chemistry II Prerequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 201) CHM 128 Principles of Chemistry II Lab Prerequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 201)  STA 215 Applied Statistics Prerequisite: MTH 110, MTH 109, or equivalent GEO 111 Exploring the Earth PHY 203 Physics for Teachers: Light, Sound, Electromagnetism Prerequisite: PHY 202  Total  Total  Total  Total  Total  Total  Total  Total  Fer 315 Diverse Perspectives on Education (US Div.) GEO 220 Earth Surface Materials & Systems w/lab Prerequisite: GEO 111, CHM 125/126, GEO 112 Gen Ed (Art) SCI 326³ Experimental Methods in physical Science Prerequisite: PHY 203, CHM 127/128 PHY 205³ Astronomy for Teachers  Total  Year Three  PSY 101 Introductory Psychology EDR 225 Intro to Teaching Multilingual Learners (Global Persp)  Gen Ed (Historical Analysis) SCI 440³ Physics and Chemistry in Secondary Education Prerequisites: Junior Standing, CHM 127/128, PHY 202, PHY 203 BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121  A SCI 316³ Engineering Design Prerequisite: PHY 203 GEO 112 Earth History Prerequisite: GEO 111 (preferred) or GEO 100/103/105 SCI 326³ Experimental Methods in physical Science Prerequisites: PHY 203, CHM 127/128 PHY 205³ Astronomy for Teachers  PFerequisites: PHY 203, CHM 127/128 PHY 205³ Astronomy for Teachers  For Total  Total  Total  Year Three  SCI 316° Experimental Methods in physical Science Prerequisites: PHY 203, CHM 127/128 PHY 205³ Astronomy for Teachers  For Total  Total  Total  Persp)  Gen Ed (Historical Analysis) SCI 450³ Earth & Life Science in Secondary EDU Prerequisites: Junior standing, BIO 120 &121, GEO 111&112 CHM 221 Survey of Analytical Chemistry w/lab Prerequisites: CHM 127/128 or one full year of general CHM	CHM 126 Principles of Chemistry I Lab	1		
Prerequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 201)  CHM 128 Principles of Chemistry II Lab Prerequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 201)  STA 215 Applied Statistics Prerequisite: MTH 110, MTH 109, or equivalent GEO 111 Exploring the Earth PHY 203³ Physics for Teachers: Light, Sound, Electromagnetism Prerequisite: PHY 202  Total  Total  Total  Total  Total  Total  Total  Total  Total  Fer 225 Intro to Teaching Multilingual Learners (Global Persepuisites: GEO 111, CHM 125/126, GEO 112  Gen Ed (Art)  SCI 326³ Experimental Methods in physical Science Prerequisites: PHY 203, CHM 127/128 PHY 205³ Astronomy for Teachers  PHY 205³ Astronomy for Teachers  Total  Total  Total  Total  Persequisite: PHY 203  PFSY 101 Introductory Psychology  EDR 225 Intro to Teaching Multilingual Learners (Global Persep)  Gen Ed (Art)  SCI 440³ Physics and Chemistry in Secondary Education Prerequisites: Junior Standing, CHM 127/128, PHY 202, PHY 203  BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121  Prerequisites: BIO 120 and BIO 121  Prerequisites: CHM 127/128 or one full year of general CHM  Prerequisite: CHM 127/128 or one full year of general CHM				
MTH 201)  CHM 128 Principles of Chemistry II Lab Perequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 201)  Prerequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 201)  STA 215 Applied Statistics Prerequisite: MTH 110, MTH 109, or equivalent  GEO 111 Exploring the Earth PHY 203³ Physics for Teachers: Light, Sound, Electromagnetism Prerequisite: PHY 202  Total  Total  Fer Three  EDF 315 Diverse Perspectives on Education (US Div.)  GEO 220 Earth Surface Materials & Systems w/lab Prerequisite: GEO 111, CHM 125/126, GEO 112  Gen Ed (Art)  SCI 326³ Experimental Methods in physical Science Prerequisites: PHY 203, CHM 127/128 PHY 205³ Astronomy for Teachers  Year Three  For Three  SPSY 101 Introductory Psychology EDR 225 Intro to Teaching Multilingual Learners (Global Persp)  Gen Ed (Historical Analysis) SCI 440³ Physics and Chemistry in Secondary Education Prerequisites: Junior Standing, CHM 127/128, PHY 202, PHY 203  BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121  General CHM 127/128 or one full year of general CHM  Prerequisite: CHM 127/128 or one full year of general CHM		4		3
CHM 128 Principles of Chemistry II Lab Prerequisites: CHM 125 & 126 and (MTH 122 or MTH 125 or MTH 201)  STA 215 Applied Statistics Prerequisite: MTH 110, MTH 109, or equivalent GEO 111 Exploring the Earth PHY 203³ Physics for Teachers: Light, Sound, Electromagnetism Prerequisite: PHY 202  Total  EDF 315 Diverse Perspectives on Education (US Div.) GEO 220 Earth Surface Materials & Systems w/lab Prerequisite: GEO 111, CHM 125/126, GEO 112  Gen Ed (Art) SCI 326³ Experimental Methods in physical Science Prerequisites: PHY 203, CHM 127/128 PHY 205³ Astronomy for Teachers  PHY 205³ Astronomy for Teachers  Total  4 3 PSY 101 Introductory Psychology EDR 225 Intro to Teaching Multilingual Learners (Global Persp)  Gen Ed (Historical Analysis) SCI 440³ Physics and Chemistry in Secondary Education Prerequisites: Junior Standing, CHM 127/128, PHY 202, PHY 203 BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121  Prerequisites: BIO 120 and BIO 121  Prerequisite: CHM 127/128 or one full year of general CHM  Prerequisite: CHM 127/128 or one full year of general CHM			· ·	
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STA 215 Applied Statistics Prerequisite: MTH 110, MTH 109, or equivalent GEO 111 Exploring the Earth PHY 203³ Physics for Teachers: Light, Sound, Electromagnetism Prerequisite: PHY 202  Total 16  Year Three  EDF 315 Diverse Perspectives on Education (US Div.) GEO 220 Earth Surface Materials & Systems w/lab Prerequisite: GEO 111, CHM 125/126, GEO 112 Gen Ed (Art) SCI 440³ Physics and Chemistry in Secondary Education Prerequisites: Junior Standing, CHM 127/128, PHY 202, PHY 203 BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121  PHY 205³ Astronomy for Teachers  PEDF 315 Diverse Perspectives on Education (US Div.)  SEC 450³ Earth & Life Science in Secondary EDU Prerequisite: Junior standing, BIO 120 &121, GEO 111&112  CHM 221 Survey of Analytical Chemistry w/lab Prerequisite: CHM 127/128 or one full year of general CHM	·	3		3
GEO 111 Exploring the Earth PHY 203³ Physics for Teachers: Light, Sound, Electromagnetism Prerequisite: PHY 202  Total 16  Year Three  EDF 315 Diverse Perspectives on Education (US Div.) GEO 220 Earth Surface Materials & Systems w/lab Prerequisite: GEO 111, CHM 125/126, GEO 112  Gen Ed (Art) SCI 440³ Physics and Chemistry in Secondary Education Prerequisites: Junior Standing, CHM 127/128, PHY 202, PHY 203 BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121  4  BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121			PHY 205 <sup>3</sup> Astronomy for Teachers	
GEO 111 Exploring the Earth PHY 203³ Physics for Teachers: Light, Sound, Electromagnetism Prerequisite: PHY 202  Total 16  Year Three  EDF 315 Diverse Perspectives on Education (US Div.) GEO 220 Earth Surface Materials & Systems w/lab Prerequisite: GEO 111, CHM 125/126, GEO 112 Gen Ed (Art) SCI 440³ Physics and Chemistry in Secondary Education Prerequisites: Junior Standing, CHM 127/128, PHY 202, PHY 203 BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121  3 PSY 101 Introductory Psychology EDR 225 Intro to Teaching Multilingual Learners (Global Persp) 3 Gen Ed (Historical Analysis) 3 SCI 450³ Earth & Life Science in Secondary EDU Prerequisites: Junior standing, BIO 120 &121, GEO 111&112 CHM 221 Survey of Analytical Chemistry w/lab Prerequisite: CHM 127/128 or one full year of general CHM	· · · · · · · · · · · · · · · · · · ·	4		
PHY 203° Physics for Teachers: Light, Sound, Electromagnetism Prerequisite: PHY 202  Total 16  Year Three  EDF 315 Diverse Perspectives on Education (US Div.)  GEO 220 Earth Surface Materials & Systems w/lab Prerequisite: GEO 111, CHM 125/126, GEO 112  Gen Ed (Art)  SCI 440° Physics and Chemistry in Secondary Education Prerequisites: Junior Standing, CHM 127/128, PHY 202, PHY 203  BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121  Total 16  Total 1  Year Three  SPY 101 Introductory Psychology EDR 225 Intro to Teaching Multilingual Learners (Global Persp)  SCI 450° Earth & Life Science in Secondary EDU Prerequisites: Junior standing, BIO 120 &111&112 CHM 221 Survey of Analytical Chemistry w/lab Prerequisites: CHM 127/128 or one full year of general CHM Prerequisites: BIO 120 and BIO 121				
Prerequisite: PHY 202  Total 16  Year Three  EDF 315 Diverse Perspectives on Education (US Div.)  GEO 220 Earth Surface Materials & Systems w/lab Prerequisite: GEO 111, CHM 125/126, GEO 112  Gen Ed (Art)  SCI 440³ Physics and Chemistry in Secondary Education Prerequisites: Junior Standing, CHM 127/128, PHY 202, PHY 203  BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121  Prerequisites: BIO 120 and BIO 121  Total 1  Year Three  EDF 315 Diverse Perspectives on Education (US Div.)  3	PHY 203 <sup>3</sup> Physics for Teachers: Light, Sound, Electromagnetism	3		
EDF 315 Diverse Perspectives on Education (US Div.)  GEO 220 Earth Surface Materials & Systems w/lab Prerequisite: GEO 111, CHM 125/126, GEO 112  Gen Ed (Art)  SCI 440³ Physics and Chemistry in Secondary Education Prerequisites: Junior Standing, CHM 127/128, PHY 202, PHY 203  BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121  Year Three  PSY 101 Introductory Psychology EDR 225 Intro to Teaching Multilingual Learners (Global Persp)  SCI 450³ Earth & Life Science in Secondary EDU Prerequisite: Junior standing, BIO 120 &121, GEO 111&112 CHM 221 Survey of Analytical Chemistry w/lab Prerequisite: CHM 127/128 or one full year of general CHM				
EDF 315 Diverse Perspectives on Education (US Div.)  GEO 220 Earth Surface Materials & Systems w/lab Prerequisite: GEO 111, CHM 125/126, GEO 112  Gen Ed (Art)  SCI 440³ Physics and Chemistry in Secondary Education Prerequisites: Junior Standing, CHM 127/128, PHY 202, PHY 203  BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121  PSY 101 Introductory Psychology EDR 225 Intro to Teaching Multilingual Learners (Global Persp)  SCI 450³ Earth & Life Science in Secondary EDU Prerequisite: Junior standing, BIO 120 &121, GEO 111&112 CHM 221 Survey of Analytical Chemistry w/lab Prerequisite: CHM 127/128 or one full year of general CHM	Total			13
GEO 220 Earth Surface Materials & Systems w/lab Prerequisite: GEO 111, CHM 125/126, GEO 112  Gen Ed (Art) SCI 440³ Physics and Chemistry in Secondary Education Prerequisites: Junior Standing, CHM 127/128, PHY 202, PHY 203 BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121  A EDR 225 Intro to Teaching Multilingual Learners (Global Persp)  SCI 450³ Earth & Life Science in Secondary EDU Prerequisite: Junior standing, BIO 120 &121, GEO 111&112  CHM 221 Survey of Analytical Chemistry w/lab Prerequisite: CHM 127/128 or one full year of general CHM	EDE 215 Diverse Perspectives on Education (US Div.)			3
Persp)  Gen Ed (Art)  SCI 440³ Physics and Chemistry in Secondary Education Prerequisites: Junior Standing, CHM 127/128, PHY 202, PHY 203  BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121  Persp)  Gen Ed (Historical Analysis)  SCI 450³ Earth & Life Science in Secondary EDU Prerequisite: Junior standing, BIO 120 &121, GEO 111&112  CHM 221 Survey of Analytical Chemistry w/lab Prerequisite: CHM 127/128 or one full year of general CHM			1 1 = 1	3
Gen Ed (Art)  SCI 440³ Physics and Chemistry in Secondary Education Prerequisites: Junior Standing, CHM 127/128, PHY 202, PHY 203  BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121  Gen Ed (Historical Analysis) SCI 450³ Earth & Life Science in Secondary EDU Prerequisite: Junior standing, BIO 120 &121, GEO 111&112 CHM 221 Survey of Analytical Chemistry w/lab Prerequisite: CHM 127/128 or one full year of general CHM		4		3
SCI 440 <sup>3</sup> Physics and Chemistry in Secondary Education Prerequisites: Junior Standing, CHM 127/128, PHY 202, PHY 203 BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121  SCI 450 <sup>3</sup> Earth & Life Science in Secondary EDU Prerequisite: Junior standing, BIO 120 &121, GEO 111&112 CHM 221 Survey of Analytical Chemistry w/lab Prerequisite: CHM 127/128 or one full year of general CHM			.,	•
Prerequisites: Junior Standing, CHM 127/128, PHY 202, PHY 203  BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121  3 Prerequisite: Junior standing, BIO 120 &121, GEO 111&112  CHM 221 Survey of Analytical Chemistry w/lab Prerequisites: CHM 127/128 or one full year of general CHM				3
203  BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121  CHM 221 Survey of Analytical Chemistry w/lab Prerequisite: CHM 127/128 or one full year of general CHM			•	
BIO 210 Evolutionary Biology Prerequisites: BIO 120 and BIO 121 Prerequisites: BIO 120 and BIO 121	•	3	· ·	4
Prerequisites: BIO 120 and BIO 121				
Total Total 1			Prerequisite: CHM 127/128 or one full year of general CHM	
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Year Four	Total	Year	2.22	10
		4	BIO 375 Genetics	3
Prerequisites: BIO 120 & 121 (120 may be taken Prerequisite: BIO 120	Prerequisites: BIO 120 & 121 (120 may be taken		Prerequisite: BIO 120	
	concurrently), GEO 203 & 112, PHY 201	4		1
GEO 214 Solid Earth Materials and Systems  Prerequisite: BIO 120, BIO 375 or BIO 355 (375 or 355 may be taken	GEO 214 Solid Earth Materials and Systems			_
Prerequisites: GEO 111, CHM 125/126, GEO 112, and GEO concurrently	•		· · · · ·	3
175\ EDF 260 <sup>4</sup> Educational Research & Assessment (SWS)	•	2	EDF 260 <sup>4</sup> Educational Research & Assessment (SWS)	3
Gen Ed (Issues)  See Set (Issues)  PSY 331 Adolescent Development	•		PSY 331 Adolescent Development	2
Gen Ed (D&I ) Prerequisite: PSY 101	· · · · ·	3	Prerequisite: PSY 101	3
CHM 231 Introductory Organic Chemistry			CHM 231 Introductory Organic Chemistry	4
Prerequisite: CHM 127/128			Prerequisite: CHM 127/128	
	Total			14

Student Assisting Apprenticeship: EDI 331 Methods & Strategies of Secondary Teaching EDI 332 Content Area Seminar EDT 477 Teaching w/Technology: Secondary EDR 321 <sup>4</sup> Content Area Literacy EDS 319 Universal Design for Learning: Secondary  **B- or better required in all Apprenticeship courses	4 2 3 3 3	Student Teaching Internship: EDI 431 Student Teaching: Secondary EDI 432 Student Teaching: Secondary Content EDF 495 The Context of Educational Issues Must be taken with or after EDI 431	7 or 8 2 3
Total	15		12-13

<sup>\*</sup>The block tuition rate is for 12-15 credits. You will pay additional tuition for any credits over 15

<sup>&</sup>lt;sup>5</sup>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, EDF 115	US Diversity: EDF 315		
Issues: EDT 476	Global Perspectives: EDR 225		

## **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

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			
— 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)	Student Internship (13 credits)		
— EDI 331 Teacher Assisting-Secondary (4)	— EDI 431 Student Teaching, Secondary (8)		
— EDR 321 Content Area Literacy (3)	— EDI 432 Student Teaching, Secondary Content (2)		
— EDR 332 Content Area Seminar (2)	— EDF 495 The Context of Educational Issues (3)		
— EDT 477 Teaching w/Technology (3)	Must be taken with or after EDI 431		
Must be taken with or after EDI 331 but before EDI 431			
— EDS 319 Universal Design for Learning: Secondary (3)			

## **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 2<sup>nd</sup> major in "Education" and give you the option to declare a minor.

<sup>\*</sup>This course is recommended to help complete program in timely basis but is not a necessary program requirement.

<sup>&</sup>lt;sup>1</sup> 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.

<sup>&</sup>lt;sup>2</sup> Students who place into MTH 108 + 109 or MTH 110 will likely need to take more summer courses and adjust their schedule based on their placement.

<sup>&</sup>lt;sup>3</sup> Many major courses are offered in alternate years. See your major or CLAS advisor to determine your sequence.

<sup>&</sup>lt;sup>4</sup> Students must complete a total of two courses with an SWS attribute.