

Natural Sciences Semester to quarter to conversion Summary for students with Catalog rights prior to 2016.

Core Coursework: 70-73 Units (Q); 50-54 Units (Sem)

Quarter System	Semesters	Quarter System	Semesters
Life Science (15 units)	(12 Units)	Chemistry (15 Units)	(11 Units)
BIOL 201(5)	BIOL 2010 (4)	CHEM 211(5)	CHEM 1000 (3)
BIOL 202(5)	BIOL 2110 (4)	CHEM 212(5)	CHEM 1001 (2)
BIOL 203(5)	BIOL 2120 (4)	CHEM 213(5)	CHEM 1600 (2)
			CHEM 2300 (2)
			CHEM 1100 or 2200 or 2300 or 2400 ¹ (2)
Earth and Space Science			
(15 Units)	(11 Units)	Physics (15-18 Units)	(8-12 ² Units)
GEOL 201(5)	GEOL 2010 (4)	PHYS 201 or 221 ² (5/6)	PHYS 2110 (4) &
GEOL 204 (5)	GEOL 2040 (4)	PHYS 202or 222 ² (5/6)	PHYS 2120 (4)
PHYS 110 or GEOL 205 or GEOL 308 (5)	PHYS 1609 (3) or GEOL 3080 (4)	PHYS 203or 223 ² (5/6)	OR
			PHYS 2210 ² (4) &
			PHYS 2220 ² (4) &
			PHYS 2230 ² (4)
Math (10 Units)	(8 Units)		
MATH 190, 191 or 192 or eq.	MATH 1040 or 1050 or 1060 or eq.		
MATH 140 (Foundational) or MATH 201 (GEOL/PHYS) or MATH 211 (BIOL/CHEM)	MATH 2200 (4) or MATH 2510 ² (5)or MATH 2010 ¹ (4)		

¹ Chemistry Concentration & Minor require these courses

² Physics Concentration & Minor require these courses

Disciplinary Concentrations:

Concentration: in addition to Core (29-30 units: Check 1)

Quarter System	Semesters	Quarter System	Semesters
Biology Concentration:		Geology Concentration:	
29 Units	23 Units	30 Units	24 Units
BIOL 301 (5)	BIOL 3120 (4)	No Equivalent	GEOL 3010 (4)
BIOL 304 (4)	BIOL 3010 (3)	GEOL 303 (5)	GEOL 3020 (4)
BIOL 305 (4)	BIOL 3020 (3)	GEOL 306 (5)	GEOL 3030 (4)
BIOL 306 (4)	BIOL 3110 (3)	GEOL 307 (5)	GEOL 3070 (4)
BIOL 318 (4) or 357 (5)	BIOL 3530 (3) or 3550 (4)	GEOL 309 (5)	GEOL 3040 (4)
BIOL 470 (5)	BIOL 4100 (3)	GEOL 475 (5)	UD GEOL Elective (4)
BIOL 490 (3)	BIOL 4910 or 4920 (1)	GEOL 490 (5)	GEOL 4908 (4)
Chemistry Concentration:		Physics Concentration³:	
30 units	23 Units	30 units	23 Units
CHEM 331 (5)	CHEM 3300 (3)	PHYS 207 (5)	PHYS 2070 (4)
Lab	CHEM 3301 (2)	PHYS 307 (5)	PHYS 3070 (3)
CHEM 332 (5)	CHEM 3310 (3)	PHYS 324 (6)	PHYS 3510 (2)
Lab	CHEM 3311 (2)	Lab	PHYS 3010 (3)
CHEM 340 (5)	CHEM 3400 (2)	PHYS 325 (5)	PHYS 3510 (2)
Lab	CHEM 3401 (2)		PHYS 3500 (3)
	CHEM 4400 (2)		PHYS 4900 (2)
CHEM 390 (3)	CHEM 3940 (2)	PHYS 490 (5)	Additional Mathematics
CHEM 490 (3)	CHEM 4948 (2)	≥4 units UD PHYS OR	MATH 2320 or 2520 (5)
CHEM UD Elective (5)	UD CHEM Elective (3)	≥4 units from Chem 361,	MATH 2530 (4)
CHEM 421 or 422 (4)	CHEM 4200(3) or 4210 (2)	362, &/or 363	

³Students in the Physics Concentration **Must** complete Calculus. The Math Minor is strongly encouraged for these students.

Blended Foundational Track

(Middle school science teaching only)

Credential Coursework:

Quarter System

54 Units

EDSE 531 (4)
EDSE 532 (4)
EDSE 533 (4)
EDSE 534 (4)
EDSE 535 (4)
EDSE 599 (10)
EDSE/EDTE 300 (3)
EDSE/EDTE 415 (3)
EDSE/EDTE 416 (3)
EDTE 401 (1)
EDTE 402 (1)
EDTE 403 (1)
EDTE 404 (2)
EDSP 301 (3) + EDSE/EDTE 410 (4)
No Equivalent

Semesters

52 Units

EDSE 5100 (4)
EDSE 5210 (4)
EDSE 5300 (4)
EDSE 5400 (4)
EDSE 5500 (4)
EDSE 5990 (9)
EDTE 3000 (3)
EDTE 4300 (3)
EDTE 4200 (3)
EDTE 4310 (1)
EDTE 4320(1)
EDTE 4330(1)
EDTE 4340 (1)
EDTE 4100 (4)
EDTE 5800 (5) or (9)

Senior Seminar

SCI 490 (3)

SCI 4110 (1)

Please Note: The Foundational science track does not include sufficient upper division coursework in the sciences to qualify for High-school level teaching. The Foundational Science track is intended only for middle school science teacher preparation. To teach High school, add one of the High school science concentrations to this Concentration.

Minors:

Science Minors (Biology, Chemistry, Geology, Physics):

A minor in any of the science disciplines outside the concentration can be obtained by taking 8 upper division units in addition to the core in that subject.

Mathematics and Statistics minors:

Minors in Mathematics and Statistics can also be completed. Appropriate math classes in the core can be counted toward these minors. Please see the Math department for Minor requirements in these areas.