

Academic Program Sequence Map

Program Degree Type and Name: SoE Five Year Program - Biology - Adolesc. Education Biology Initi: Catalog Year: 2021-2022

Program Level: Five Year Program **Academic Term Type:** Semester

** Denote core course with an asterisk and (cc) next to the course number*

Year and Term: Year 1, Fall Term					Credits Per Classification	
Course Number & Title	CR	GE	Maj	OE	SM	Co / Prerequisite(s)
MATH 201: Pre-Calculus	3	x			C or better	
ENGL 111: Written Engl and Lit Studies	3	x				
SPCM 110: Oral communication	3	x				
BIO 105: Pathways, Perspectives & Ethics	3	x				Co: ENGL 111
CINQ 101: Critical Inquiry	3	x				
Term Credit Total:	15	15	0	0		

Year and Term: Year 2, Fall Term					Credits Per Classification	
Course Number & Title	CR	GE	Maj	OE	SM	Co / Prerequisite(s)
CHEM 161: General Chem II	3	x			C or better	Pre: CHEM 160/160A; Co: CHEM 161A/160R
CHEM 161A: General Chem II Lab	1	x				Pre: CHEM 160/160A; Co: CHEM 161
CHEM 161R: General Chem II Recitation	0					Co: CHEM 161
BIOL 161: General Bio II	3	x			C or better	Pre: BIOL 160/160A; Co: BIOL 161A
BIOL 161A: General Bio II Lab	1		x			Pre: BIOL 160/160A; Co: BIOL 161
CISC 120: Introduction to Computers	3	x				
Gen Ed	3	x				
Term Credit Total:	14	13	1	0		

Year and Term: Year 3, Fall Term					Credits Per Classification	
Course Number & Title	CR	GE	Maj	OE	SM	Co / Prerequisite(s)
BIOL 360: Genetics	4		X			Pre: BIOL 161/161A; CHEM 161/161A; BIOL 275 or BIOL 265/265A
CHEM 261: Organic Chem II	3		X			Pre: CHEM 260/260A; Co: CHEM 261A/261R
CHEM 261: Organic Chem II Lab	1		X			Pre: CHEM 260/260A; Co: CHEM 261
CHEM 261: Organic Chem II recitation	0					Co: CHEM 261
JRSM 301: Junior Seminar	3	X				
BIOL 244: Ecology	4		x			Pre: BIOL 160/160A; BIOL 161/161A
Term Credit Total:	15	3	12	0		

Year and Term: Year 4, Fall Term					Credits Per Classification	
Course Number & Title	CR	GE	Maj	OE	SM	Co / Prerequisite(s)
BIOL 355: Molecular Biology of the Cell *(cc)	4		X			Pre: BIOL 360; CHEM 160/160A; CHEM 161/161A
Major Elective 2	3		X			

Year and Term: Year 1, Spring Term					Credits Per Classification	
Course Number & Title	CR	GE	Maj	OE	SM	Co / Prerequisite(s)
CHEM 160: General Chemistry I	3	X			C or better	Pre: MATH 116; Co: CHEM 160A/160R
CHEM 160A: General Chemistry I Lab	1	x			C or better	Pre: MATH 116; Co: CHEM 160
CHEM 160R: General Chem I Recitation	0					Co: CHEM 160
BIOL 160: General Bio I	3	x			C or better	Pre: MATH 116; Co: BIOL 160A/160R
BIOL 160A: General Bio I Lab	1	x			C or better	Pre: MATH 116; Co: BIOL 160
BIOL 160R: General Bio I Recitation	0	x				Co: BIOL 160
Gen Ed	3	x				
ENGL 112: Written Engl and Lit Studies II	3	x				
Term Credit Total:	14	14	0	0		

Year and Term: Year 2, Spring Term					Credits Per Classification	
Course Number & Title	CR	GE	Maj	OE	SM	Co / Prerequisite(s)
BIOL 275: Cell Biology	4		x			Pre: BIOL 160/160A; 161/161A; CHEM 160/160A; Pre or Co: CHEM 161, 161A (can be taken prior to or same semester as if necessary)
CHEM 260: Organic Chem I	3		x			Pre: CHEM 160/160A; 161/161A; Co: CHEM 260A/260R
CHEM 260A: Organic Chem I Lab	1		x			Pre: CHEM 160/160A; 161/161A; Co: CHEM 260
CHEM 260R: Organic Chem I recitation	0					Co: CHEM 260
Gen Ed	3	x				
Open Elective	3			x		
Term Credit Total:	14	3	8	3		

Year and Term: Year 3, Spring Term					Credits Per Classification	
Course Number & Title	CR	GE	Maj	OE	SM	Co / Prerequisite(s)
CHEM 354: Biochemistry	4		X			Pre: BIOL 160/160A; 161/161A; CHEM 160/160A; 161/161A; 260/260A; 261/261A.
Major Elective 1	3		X			
Gen Ed	6	X				
EDUC 500 Ed Found Diverse Prsptvs	3			X		
Term Credit Total:	16	6	7	3		

Year and Term: Year 4, Spring Term					Credits Per Classification	
Course Number & Title	CR	GE	Maj	OE	SM	Co / Prerequisite(s)
BIOL 460: Coordinating Seminar	3		X			15 upper level BIO &/or CHEM credits
BIOL 366: Developmental Biol	4		X			Pre: BIOL 360; CHEM 161/161A

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Gen Ed	3	X				
EDUC 505 Tcg Eng as a Scd Lng	3			X		
EDUC 502 (Foundations in Ed for SWD)	3			X		
Term Credit Total:	16	3	7	6		

EDUC 507 Approaches to Lit. Instruc	3			X		
EDUC 517 Educational Psychology	3			X		
Gen Ed		X				
Term Credit Total:	16	3	7	6		

Year and Term: Year 5, Fall Term		Credits Per Classification				
Course Number & Title	CR	GE	Maj	OE	SM	Co / Prerequisite(s)
EDUC 506 Ed Eval and Assessment	3		X			
*EDUC 511B Meth & Mat. Sec Sci (cc)	3		X			12 credits
EDUC 643 (Rdg and Writing in Content Areas)	3		X			EDUC 507
One of the Following:						
SCIE 555 Forensic Science	3		X			
SCIE 556 Oceanography	3		X			
Term Credit Total:	12	0	12	0		

Year and Term: Year 5, Spring Term		Credits Per Classification				
Course Number & Title	CR	GE	Maj	OE	SM	Co / Prerequisite(s)
EDUC 518 Meth and Mat. Midd. Child.	3		X			
EDUC 713 St Tchg Exp	3		X			30 credis, Direct.'s appr.
One of the Following:						
SCIE 557 Bioengineering	3		X			
SCIE 553 Engineering for K-12 Clssrm	3		X			
Term Credit Total:	9	0	9	0		

Program Totals	Credits: 141	General Education: 60	Major & Major Electives: 42	Open Elective: 18
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Legend: CR: Credits GE: General Education Maj: Major / Major Elective OE: Open Elective SM: Success Marker Co/Prerequisite(s): List of co/ prerequisites for noted course