

**MICHIGAN STATE BOARD OF EDUCATION
PERIODIC REVIEW/PROGRAM EVALUATION**

SUMMARY OF COURSE REQUIREMENTS FOR SPECIALTY STUDIES PROGRAM

Institution: Eastern Michigan University

Date: 7/7/03

Specialty Studies Program: Biology Major with Secondary Teacher Certification

Program Standards: Biology – Secondary, DA

Standards Date: August 8, 2002

Program Contact Person(s): Peggy Liggitt, Dept. of Biology

DIRECTIONS: On the matrix below, list the required courses for this specialty studies program. Also, indicate the number of electives and any special considerations that apply. In addition to listing the course title, course number, and course semester hours, please indicate whether the course is required for the secondary major or minor, elementary major or minor, the K-12 major or minor, and/or an endorsement.

Course Title	Course Number	Sem. Hours *	Elementary		Secondary		K-12		Endors.
			Maj.	Min.	Maj.	Min.	Maj.	Min.	
Introductory Biology I	BIOL 110	5			5				
Introductory Biology II	BIOL 120	5			5				
Genetics	BIOL 301	3			3				
Cell and Molecular Biology	BIOL 305	3			3				
Ecology	BIOL 310	3			3				
Evolution	BIOL 315	3			3				
Human Physiology	ZOOL 326	3			3				
One of either lab: Cell-Mol. & Genetics Lab, or Laboratory in Ecology	BIOL 306 or BIOL 311	2 or 2			2				
Electives: 3 additional hours in biology at the 300 level or higher.		3			3				
Total Number of SEMESTER HOURS <u>required</u> for each option offered: * If the institution assigns a different type of credit, please convert to semester hours.					30 for the major				

**MICHIGAN STATE BOARD OF EDUCATION
PERIODIC REVIEW/PROGRAM EVALUATION**

SUMMARY OF COURSE REQUIREMENTS FOR SPECIALTY STUDIES PROGRAM

Institution: Eastern Michigan University

Date: 7/7/03

Specialty Studies Program: Biology Major with Secondary Teacher Certification

Program Standards: Biology – Secondary, DA

Standards Date: August 8, 2002

Program Contact Person(s): Peggy Liggitt, Dept. of Biology

DIRECTIONS: On the matrix below, list the required courses for this specialty studies program. Also, indicate the number of electives and any special considerations that apply. In addition to listing the course title, course number, and course semester hours, please indicate whether the course is required for the secondary major or minor, elementary major or minor, the K-12 major or minor, and/or an endorsement.

Course Title	Course Number	Sem. Hours *	Elementary		Secondary		K-12		Endors.
			Maj.	Min.	Maj.	Min.	Maj.	Min.	
<u>Required Chemistry</u> General Chemistry I	CHEM 121	3			3				
General Chemistry I Lab	CHEM 122	1			1				
General Chemistry II	CHEM 123	3			3				
General Chemistry II Lab	CHEM 124	4			4				
One of the following Sequences either: Organic Chem I Organic Chem II Organic Chem Lab Or Organic Chem Organic Chem Lab Biochemistry	CHEM 371 CHEM 372 CHEM 373 CHEM 270 CHEM 271	3 3 2 or 4 2 3			3 3 2 or 4 2 3				
<u>Required Physics</u> Mech. of Heat & Sound	PHYS 221	4			4				
Electricity and Light	PHYS 222	4			4				
<u>Required Math either</u> Calculus I or Elementary Statistics	MATH 120 MATH 170	4 3			4 or 3				
Total Number of SEMESTER HOURS <u>required</u> for each option offered: * If the institution assigns a different type of credit, please convert to semester hours.					27- 28 required in other sciences and math				

**MICHIGAN STATE BOARD OF EDUCATION
PERIODIC REVIEW/PROGRAM EVALUATION**

SUMMARY OF COURSE REQUIREMENTS FOR SPECIALTY STUDIES PROGRAM

Institution: Eastern Michigan University

Date: 7/7/03

Specialty Studies Program: Biology Minor with Secondary Teacher Certification

Program Standards: Biology – Secondary, DA

Standards Date: August 8, 2002

Program Contact Person(s): Peggy Liggitt, Dept. of Biology

DIRECTIONS: On the matrix below, list the required courses for this specialty studies program. Also, indicate the number of electives and any special considerations that apply. In addition to listing the course title, course number, and course semester hours, please indicate whether the course is required for the secondary major or minor, elementary major or minor, the K-12 major or minor, and/or an endorsement.

Course Title	Course Number	Sem. Hours *	Elementary		Secondary		K-12		Endors.
			Maj.	Min.	Maj.	Min.	Maj.	Min.	
Introductory Biology I	BIOL 110	5				5			
Introductory Biology II	BIOL 120	5				5			
Genetics	BIOL 301	3				3			
Ecology	BIOL 310	3				3			
Human Physiology	ZOOL 326	3				3			
One of the following: Cell and Molecular Biology or Evolution	BIOL 305 BIOL 315	3 <u>or</u> 3				3			
One of either lab: Cell-Mol. & Genetics Lab, <u>or</u> Laboratory in Ecology	BIOL 306 BIOL 311	2 <u>or</u> 2				2			
Total Number of SEMESTER HOURS <u>required</u> for each option offered: * If the institution assigns a different type of credit, please convert to semester hours.						24 credits in Minor			

**MICHIGAN STATE BOARD OF EDUCATION
PERIODIC REVIEW/PROGRAM EVALUATION**

SUMMARY OF COURSE REQUIREMENTS FOR SPECIALTY STUDIES PROGRAM

Institution: Eastern Michigan University

Date: 7/7/03

Specialty Studies Program: Biology Major with Secondary Teacher Certification

Program Standards: Biology – Secondary, DA

Standards Date: August 8, 2002

Program Contact Person(s): Peggy Liggitt, Dept. of Biology

DIRECTIONS: On the matrix below, list the required courses for this specialty studies program. Also, indicate the number of electives and any special considerations that apply. In addition to listing the course title, course number, and course semester hours, please indicate whether the course is required for the secondary major or minor, elementary major or minor, the K-12 major or minor, and/or an endorsement.

Course Title	Course Number	Sem. Hours *	Elementary		Secondary		K-12		Endors.
			Maj.	Min.	Maj.	Min.	Maj.	Min.	
<u>Pre-Requisite Chemistry for students who choose to take BIOL 305</u>									
General Chemistry I	<u>CHEM 121</u>	3				3			
General Chemistry I Lab	<u>CHEM 122</u>	1				1			
General Chemistry II	<u>CHEM 123</u>	3				3			
General Chemistry II Lab	<u>CHEM 124</u>	1				1			
Total Number of SEMESTER HOURS <u>required</u> for each option offered: * If the institution assigns a different type of credit, please convert to semester hours.						8 credits required in chem..			