Sample Curriculum Plan: Environmental Science: Environmental Molecular Science

First Year

Autumn				Spring				Summer
Course	Credit Hrs	Offered	*Prerequisite*	Course	Credit Hrs	Offered	*Prerequisite*	Course
ENR 1100	1	AU/SP		ENR 2300	3	AU/SP/SU		
ENR 2100	3	AU/SP/SU		CHEM 1220	5	AU/SP/SU	*CHEM 1210*	
CHEM 1210	5	AU/SP/SU	*C- or better in MATH 1130, 1131, 1148, 1150 or above, or Math placement L or M*	ENGLISH 1110	3	AU/SP/SU		Internship or Study Abroad (recommended)
MATH 1151 or MATH 1156	5	AU/SP/SU; AU	*dependent on math placement*	GE ¥	3	-	*dependent on category and course*	
Total Credit Hours	**14**			**Total Credit Hours**	**14**			

Second Year

Autumn				Spring				Summer
Course	Credit Hrs	Offered	*Prerequisite*	Course	Credit Hrs	Offered	*Prerequisite*	Course
BIOLOGY 1113	4	AU/SP/SU	*CHEM 1210; MATH 1130, 1148, 1150 or higher CHEM 1220, or 1250*	ENR 3700	3	AU/SP		
CHEM 2310	4	AU/SP		ENR 3000	3	AU/SP		
ENR 3280	2	AU/SP		ENR 3001	1	AU/SP	*prereq or concur: ENR 3000*	
ENR 3300	3	AU/SP	*ENR 2100*	BIOLOGY 1114	4	AU/SP/SU	*CHEM 1210; MATH 1130, 1148, 1150 or higher*	Internship or Study Abroad (recommended)
GE ¥	3	-	*dependent on category and course*	ENR 2000; or STAT 1450	3	AU/SP; AU/SP/SU	*MATH 1116 or 1130 or above; or placement L or M*	
				ENR 2367 or GE Writing & Comms lvl 2	3	AU/SP	*ENGLISH 1110*	
Total Credit Hours	**16**			**Total Credit Hours**	**17**			

Third Year

Autumn				Spring				Summer
Course	Credit Hrs	Offered	*Prerequisite*	Course	Credit Hrs	Offered	*Prerequisite*	Course
ENR 5262	3	AU	*CHEM 1210*	ENR 3200	3	AU/SP	*ENR 2100 and 2300*	
Specialization Course	3-4	*	*	EEOB 3410	4	AU/SP/SU	*BIOLOGY 1114*	
PHYSICS 1200	5	AU/SP/SU	*C- or better in MATH 1148 or Math placement M*	AEDECON 2001; or ECON 2001.01	3	AU/SP; AU/SP/SU		Internship or Study Abroad (recommended)
				EARTHSC 1121 & EARTHSC 1200‡	4	AU/SP/SU	*MATH 1075 or above*	
ENR 3400 or ENR 3500	3	AU; AU/SP	*ENR 2300 or PSYCH 1100; ENR 2300 or RURLSOC 1500 or SOCIOL 1101*	GE ¥	3	-	*dependent on category and course*	
Total Credit Hours	**14-15**			**Total Credit Hours**	**17**			

Fourth Year

Autumn				Spring				Summer
Course	Credit Hrs	Offered	*Prerequisite*	Course	Credit Hrs	Offered	*Prerequisite*	Course
Specialization Course	3-4	*	*	Specialization Course	3	*	*	
EARTHSC 4421 or EARTHSC 5621	3	AU	*pre-req or concur: CHEM 1210, CHEM 1220 or above*	Specialization Course	3-4	*	*	
GE ¥	3	-	-	Specialization Course	3-4	*	*	Internship or Study Abroad (recommended)
ENR 4900	3	AU/SP	*permission of instructor*	Specialization Directed Electives	0-5	–	–	
Specialization Course	2-5	AU/SP*	*Take during either AU or SP* →	GE ¥	3	-	*dependent on category and course*	
				Specialization Course	2-5	AU/SP*		
Total Credit Hours	**14-18**			**Total Credit Hours**	**14-17**			

*see other side

¥ Plan to overlap the GE Diversity requirement with courses in the GE Social Science and/or GE Humanities courses: Of the five courses in these categories, one course should also meet the Social Diversity in the US (dot) requirement, and two courses should also meet the Global Studies (triangle) requirement. Not overlapping the three GE Diversity requirements with the other GE categories means you will need to take additional courses in order to graduate.

‡ Starting AU21, EARTHSC 1200 must be taken with EARTHSC 1121 to satisfy the lab component

Degree Total: 121 hours

Revised: 8/31/2023

Entering as a transfer student:

Students joining the major as a new transfer student or transferring from another OSU major will need to modify the curriculum roadmap to meet their needs. Courses to focus on during the first year in the major include:

1st Semester: **ENR 2100, MATH 1151/1156,** and **CHEM 1210**
2nd Semester: **CHEM 1220,** and **BIOLOGY 1113**

PLEASE NOTE: course offering dates and prerequisites may have changed. For the most up-to-date information, check the University's online course search and course catalog through BuckeyeLink.

For a personalized report on degree progress, you can run a degree audit. You may access your degree audit through BuckeyeLink.

*Environmental Molecular Sciences Specialization Course Options

BIOLOGICAL SCIENCES REQUIRED: choose 1

Course	Credit Hrs	Offered	Prerequisites
MICRBIO 4000	4	AU/SP	3 credit hrs. in Biology
MOLGEN 5630	3	AU	MOLGEN 3300, 4500, 4606, or Biology 1114

BIOLOGICAL SCIENCES ELECTIVES: choose 1

Course	Credit Hrs	Offered	Prerequisites
MICRBIO 4100	5	AU/SP	Biology 1114; prereq or concur: Chem 2510
MICRBIO 5155	3	AU	MICRBIOL 4000 or 4100
MICRBIO 5169	3	AU	6 credit hrs. in Biology
MICRBIO 5161H	3	TBD	Honors standing; MICRBIOL 4130 or MOLGEN 4500, & BIOCHEM 4511
MOLGEN 5630	3	Irregular - ask	MOLGEN 3300, 4500, 4606, or Biology 1114
PLNTPTH 3001	3	AU	Biology 1101, 1113, 1115H, or ENTMLGY 1101
PLNTPTH 5010	2	SP	PLNTPTH 3001 & 3002, or 6001
PLNTPTH 5040 & 5041	4	AU	a course in biol. Sciences; (5041 concur with 5040)

ENVIRONMENTAL SCIENCE ELECTIVES: choose 1

Course	Credit Hrs	Offered	Prerequisites
ENR 5263	3	SP	ENR 3000
ENR 5273	3	SP	2 semesters of chemistry

GEOCHEMISTRY & MINERALOGY REQUIRED: choose 1

Course	Credit Hrs	Offered	Prerequisites
EARTHSC 4421	3	AU	Prereq or concur: Chem 1210
EARTHSC 5621	3	AU	Chem 1220 or above

GEOCHEMISTRY & MINERALOGY ELECTIVE: choose 1

Course	Credit Hrs	Offered	Prerequisites
EARTHSC 5628	3	Unknown	EarthSc 5621
EARTHSC 5651	4	AU	EarthSc 1121, Math 1152 or above
EARTHSC 5680	3	AU	Math 1152; Physics 1251 or above

MOLECULAR BIOLOGY REQUIRED: choose 1

Course	Credit Hrs	Offered	Prerequisites
BIOCHEM 4511	4	AU/SP	Chem 1220 or 1250, and 2510 or 2310, and 1 semester of biological sciences
BIOCHEM 5613	3	SP	Chem 2510; rereq or concur: hem 2520, 2620, or 2920H
MOLGEN 4500	3	AU/SP/SU	Biology 1101, 1113, 1113H, and 3 addl. semester hrs. in Biological Sciences

MOLECULAR BIOLOGY ELECTIVES choose 1

Course	Credit Hrs	Offered	Prerequisites
BIOCHEM 5614	3	AU	BIOCHEM 5613
MICROBIO 4130	3	SP	MICRBIO 4100 or MOLGEN 4500
MICROBIO 4140	3	AU/SP	prereq or concur: MICRBIO 4130
MOLGEN 4606	4	AU/SP	Biology 1113, 1114, or Chem 1210 or equiv.
MOLGEN 5607/MOLGEN 5607E	3	AU	MOLGEN 4500 or 4606/ Honors standing; MOLGEN 4500 or 4606
MOLGEN 5623	2	SP	MOLGEN 4500, 4606, 5607, or 5608

Additional courses may be used with faculty mentor approval.