COSUMNES RIVER COLLEGE

Environmental Studies & Sustainability A.S. Degree

The Environmental Studies & Sustainability Program is an interdisciplinary and multidisciplinary course of study that presents a broad overview of ecological issues from a variety of perspectives in the natural, physical, and social sciences. The coursework examines the interplay between natural and social systems and the ideological foundations of humankind's attitudes and behaviors with respect to their ever-changing environment.

Total Units: 56-65

First Year

Semester 1				15-17 Units
COURSE	UNITS	PRE-REQS^	SEMESTERS OFFERED*	GE AREA
GEOG 302 C Environmental Studies & Sustainability	3		F, S	CRC Area V(b)
GEOG 310 C Human Geography: Exploring Earth's Cultural Landscapes	3		F(O), S(O)	CRC Area V(b) or VI
GEOG 331¹ Exploring Maps and Geographic Technologies	3		F(P)	CRC Area IV
PSYC 330 Introductory Statistics for the Behavioral Sciences or	3	MATH 120	F, S	CRC Area II(b)
STAT 300 Introduction to Probability and Statistics or	4	MATH 120, 125 or STAT 100	F, S, Su	CRC Area II(b)
ECON 310 Statistics for Business and Economics or	3	MATH 120 or 125	F, S, Su	CRC Area II(b)
MATH 355 2 Calculus for Biology and Medicine I or	4	MATH 335	Check Class Schedule for offering	CRC Area II(b)
MATH 400 Calculus I	5	MATH 370	F, S	CRC Area II(b)
CRC Area II(a)- Written Communication	3	Recommend meeting with a counselor	F, S, Su	CRC Area II(a)

At least one section of this course is offered with free textbooks and is labeled as zero textbook costs (ZTC). If it is a GE area class or elective, there

Career Options/Outlook:

Environmental Scientists and Specialists conduct research or perform investigations to identify, abate, or eliminate sources of pollutants or hazards that affect the environment or the population's health. Using knowledge of various scientific disciplines, may collect, synthesize, study, report, and recommend action based on data derived from measurements or observations of air, food, soil, water, and other sources. **Career opportunities require more than two years of college study.**

A sample of reported job titles:

Environmental Analyst, Environmental Health and Safety Specialist, Environmental Programs Specialist, Environmental Protection Specialist, Environmental Scientist, Environmental Specialist, Hazardous Substances Scientist, Registered Environmental Health Specialist (REHS), Research Environmental Scientist, Senior Environmental Scientist

Projected job openings in California (2021-2031):

1,400

Projected growth in California (2021-

may be several ZTC offerings to fulfill the GE requirement. Use the Free Textbook filter to find these courses. Learn more on the <u>ZTC page of the college website</u>.

¹ Suggested GEOG 331-meets requirement for Field/Applied Course and for AS in GEOG. See Field/Applied Course List below for other course options available to meet this requirement.

Semester 2

16 Units

COURSE	UNITS	PRE-REQS [^]	SEMESTERS OFFERED*	GE AREA
BIOL 350 Environmental Biology or	3	Advisory: ENGRD 312 & ENGWR 101	Check Class Schedule for offering	CRC Area IV
BIOL 352 Conservation Biology	3		Check Class Schedule for offering	CRC Area IV
GEOG 300 ¹ C Physical Geography: Exploring Earth's Environmental Systems	3	Advisory: Co-req: GEOG 301	F, S	CRC Area IV
GEOG 301 ¹ C Physical Geography Laboratory	1	Pre or co- req: GEOG 300	F, S	
ECON 304 Principles of Microeconomics	3	MATH 100 or 102 or 1 yr of high school Elem All; Advisory: MATH 120 or 125	F(O), S(O), Su(O)	CRC Area V(b)
CRC Area III(b)-Life Development Skills	3		F, S, Su	CRC Area III(b)
CRC Area V(a)- American Institutions	3		F, S, Su	CRC Area V(a)

At least one section of this course is offered with free textbooks and is labeled as zero textbook costs (ZTC). If it is a GE area class or elective, there may be several ZTC offerings to fulfill the GE requirement. Use the Free Textbook filter to find these courses. Learn more on the <u>ZTC page of the college website</u>.

¹ Suggested GEOG 300 & 301 to meet Earth Science and AS in GEOG Requirements. See Earth Science Course List below for other course options available to meet this requirement.

		Year 2		
Semester 3				15-17 Units
COURSE	UNITS	PRE-REQS [^]	SEMESTERS OFFERED*	GE AREA

2031):

12% growth

Median Salary in California with advanced degree (2021):

\$88,800/yr

Source:

https://www.onetonline.org/link/summary/19 -2041.00

Transfer notes:

Please meet with a counselor for specific transfer course evaluation or transferring to a specific 4-year institution.

With the inclusion of all the suggested courses noted

This map will meet the requirement for the Certificate of Achievement in Sustainability and the AS degree in Geography.

Honors option:

The CRC Honors Program is designed specifically for academically accomplished students and for students with the potential for high achievement. Students who complete 15 units or more in honorsdesignated courses will earn special recognition as an Honors Scholar, a distinction that may entitle the student to guaranteed transfer and scholarship opportunities at select transfer colleges and universities.

About this program map:

This program map represents one possible pathway to complete the program. Please see a counselor to create an education

COURSE	UNITS	PRE-REQS^	SEMESTERS OFFERED*	GE AREA
ECON 306 Environmental Economics	3	Advisory: MATH 120 or 125 or 1 yr of high school Algebra II	F	CRC Area V(b)
CHEM 305 C Introduction to Chemistry or	5	Elementary Algebra or higher	F, S, Su	CRC Area IV
CHEM 400 C General Chemistry I	5	Elementary Algebra and CHEM 300, 305 or 309 or 1 year of high school CHEM with lab	F, S, Su	CRC Area IV
BIOL 308 Contemporary Biology or	3	Advisory: ESLR 320 & ESLW 310 or ESL 325 or eligible for ENGRD 310 & ENGWR 101	F, S, Su	CRC Area IV
BIOL 400 C Principles of Biology	5	Advisory: Eligibility for ENGWR 300	F, S	CRC Area IV
CRC Area III(a)- Physical Edu Activity	1		F, S, Su	CRC Area III(a)
Elective ²	3		F, S, Su	

At least one section of this course is offered with free textbooks and is labeled as zero textbook costs (ZTC). If it is a GE area class or elective, there may be several ZTC offerings to fulfill the GE requirement. Use the Free Textbook filter to find these courses. Learn more on the <u>ZTC page of the college website</u>.

¹ CHEM 321 & 322 should be taken together to satisfy the minimum of 4 units required for Chemistry Courses.

 2 Suggestion-ANTH 310 Cultural Anthropology (3 units); Advisory: Eligible for ENGWR 300; F(O), S(O), Su(O); CRC Area V(b) or VI. Units needed to total 60 units for graduation. Refer to <u>Course</u> <u>Number</u> for the appropriate course level necessary for the degree.

Semester 4

1()-1	5	U	n	its

COURSE	UNITS	PRE-REQS [^]	SEMESTERS OFFERED*	GE AREA
CRC Area I- Humanities Z	3		F, S, Su	CRC Area I
CRC Area V(a)- American Institutions	3		F, S, Su	CRC Area V(a)
Elective ¹	3		F, S, Su	
Elective ²	1-3		F, S, Su	
Elective ³	0-3		F, S, Su	

plan customized to meet your needs. This map is not a guarantee of course availability or financial aid applicability.

Zero Textbook Costs (ZTC):

The Zero Textbook Costs designation and logo are added to any course that provides free access to all required instructional materials. These are typically shared with students through Canvas. Courses that are designated as ZTC may still require students to purchase supplemental materials such as lab coats, a calculator, art supplies, etc. See full definitions and searching tips on the <u>Zero Textbook Costs</u> <u>page</u> of the college website. At least one section of this course is offered with free textbooks and is labeled as zero textbook costs (ZTC). If it is a GE area class or elective, there may be several ZTC offerings to fulfill the GE requirement. Use the Free Textbook filter to find these courses. Learn more on the <u>ZTC page of the college website</u>.

^You must have passed the prerequisite course(s) with a "C" or better; Corequisite must be taken during the same semester; Advisory means it is recommended but not required to enroll in the course.

*(O) = online available (P) = partially online

¹ Suggestion-GEOG 335 to meet the requirement for the Certificate in Field Data Mapping & GIS. Units needed to total 60 units for graduation. Refer to <u>Course Number</u> for the appropriate course level necessary for the degree.

 2 Suggestion-GEOG 390. Units needed to total 60 units for graduation. Refer to <u>Course Number</u> for the appropriate course level necessary for the degree.

 3 Units required are determined by the number of units needed to total 60 units for graduation. Refer to <u>Course Number</u> for the appropriate course level necessary for the degree.

Field/Applied Course List-a minimum of 3 units from the following:

COURSE	UNITS	PRE-REQS^	SEMESTERS OFFERED*	GE AREA
GEOG 331¹ Exploring Maps and Geographic Technologies	3		F(P)	CRC Area IV
GEOG 335 Introduction to Geographic Information Systems Applications	3	Advisory: CISC 302	S	
GEOG 391 Field Studies in Geography: Mountain Landscapes	1-4		Check Class Schedule for offering	
GEOG 392 Field Studies in Geography: Coastal Landscapes	1-4		Check Class Schedule for offering	
GEOG 393 Field Studies in Geography: Arid Landscapes	1-4		Check Class Schedule for offering	
GEOG 394 Field Studies in Geography: Volcanic Landscapes	1-4		Check Class Schedule for offering	
GEOL 390 Field Studies in Geology	1-4		Check Class Schedule for offering	

¹ Suggested course.

Earth Science List-a minimum of 3 units from the following:

COURSE

COURSE	UNITS	PRE-REQS^	SEMESTERS OFFERED*	GE AREA
GEOG 300 ¹ C Physical Geography: Exploring Earth's Environmental Systems	3	Advisory: co-req of GEOG 301	F, S	CRC Area IV
GEOG 301 ¹ C Physical Geography Laboratory	1	Pre or co- req: GEOG 300	F, S	
GEOG 305 C Global Climate Change	3		F(P), S(P)	CRC Area IV
GEOL 300 2 Physical Geology	3	Advisory: co-req GEOL 301	F, S	CRC Area IV
GEOL 301 2 Physical Geology Laboratory	1	Co-req: GEOL 300	F, S	
2 At least one section of this course is offered with free textbooks and is				

A heast one section of this course is onered with nee textbooks and is labeled as zero textbook costs (ZTC). If it is a GE area class or elective, there may be several ZTC offerings to fulfill the GE requirement. Use the Free Textbook filter to find these courses. Learn more on the <u>ZTC page of the college website</u>.

¹ Suggested courses.

Catalog Year: 2023-2024 Published August 25, 2023 Counselor Contact: Ray Mapeso or Anna Davtian | Faculty Contact: Scott Crosier