



## ENVIRONMENTAL SCIENCE ASSOCIATE OF SCIENCE DEGREE (AS) 2023-2024

ST. CLOUD TECHNICAL &  
COMMUNITY COLLEGE

The field of environmental science educates students to conserve the ecosystem where we obtain natural resources.

A degree in Environmental Science from SCTCC prepares students to obtain a job in a variety of settings from research to clinical labs.

This 60-credit AS degree provides a foundation of skills for students to transfer to a bachelor's degree major. Articulation agreements are in place with St. Cloud State University and Bemidji State University.

### Program Goals /Outcomes

1. Explain the processes of scientific methods and demonstrate the processes during experimental works.
2. Demonstrate and apply environmental science concepts and processes.
3. Perform using instruments and techniques in laboratory and field works.
4. Demonstrate the ability to work independently and also as a team in the laboratory and field works.
5. Understand and apply the technology of GIS and GPS knowledge for virtualization and modeling environmental issues and Interpreting spatial patterns using map concepts.
6. Describe the functions and processes of environmental systems.
7. Explain the effects of anthropogenic on the earth's systems and propose solutions to environmental issues.
8. Analyze quantitative data, critical thinking, ethics, and problem solving.
9. Explore how environmental science is able to develop a sustainable solution to our environmental issues.
10. Understand concepts, effects, and management of renewable and non-renewable energy.

### Developmental Courses

Some courses may require appropriate test scores or may need preparatory courses in the areas of English, mathematics, or reading. Courses numbered below 1000 will not apply toward this degree.

### Program Course Requirements

<b>MnTC GOAL 1 Communications</b>	<b>6 cr</b>
<u>Written (choose one option)</u>	
ENGL 1312 <u>OR</u> (4 cr)	
ENGL 1308 or ENGL 1309 (3 cr)	
<u>Oral (choose one 3-credit course)</u>	
CMST 1320, CMST 2300, CMST 2302, CMST 2310 or CMST 2315	
<b>MnTC GOAL 2 Critical Thinking</b>	<b>3 cr</b>
CRTK 1300 (3 cr)	
<b>MnTC GOAL 3 Natural Resources</b>	<b>27 cr</b>
BLGY 1351, CHEM 1350, ENVR 1305, 1310, 1315, 2305, 2350, 2370	
<b>MnTC GOAL 4 Mathematics/Logical Reasoning</b>	<b>3 cr</b>
MATH 1351 OR MATH 1360	
<b>MnTC GOAL 5 History/Social Behavioral Sciences</b>	<b>3 cr</b>
One 3 credit course	
<b>MnTC GOAL 6 Humanities and Fine Arts</b>	<b>3 cr</b>
PHIL 1320	
<b>MnTC GOAL 7 Human Diversity</b>	<b>3 cr</b>
DVRS 1304	
<b>MnTC GOAL 8 Global Perspective</b>	<b>3 cr</b>
1 Goal 8 course	

### Required Courses

WETT 1506	Intro to Water/Waste Water	3 cr
GEOG 2305	Intro to Geographic Information System (GIS)	3 cr
RNEW 1300	Intro to Trade/Renewable Energy	3 cr

### General Requirements

A minimum:

- of 60 semester credits in courses numbered 1000 or above.
- GPA of 2.0 at SCTCC or courses transferred in courses numbered 1000 or above.
- 15 semester credits applied toward the degree must be taken from SCTCC.

## ENVIRONMENTAL SCIENCE ASSOCIATE OF SCIENCE DEGREE (AS) 2023-2024

### RECOMMENDED 1ST SEMESTER

Course Subject & Title:				MnTC Goal Area 1 Written Communication*	3 cr	
				(Choose one option)		
ENVR	1305	Environmental Science (with lab)	4 cr	ENGL 1308	Stretch Analytical Writing I	3 cr
WETT	1506	Introduction to Water/Waste Water	3 cr	ENGL 1309	Stretch Analytical Writing II	3 cr
CRTK	1300	Introduction to Critical Thinking	3 cr	ENGL 1312	Analytical Writing	4 cr
				*Recommend ENGL 1308 or ENGL 1312		

### RECOMMENDED 2ND SEMESTER

Course Subject & Title:			MnTC Goal Area 1	Oral Communication	3 cr
			(Choose one option)		
ENVR 1310	Environmental Issues	3 cr	CMST 1320	Intro to Communications Studies	3 cr
GEOG 2305	Intro to Geographic Information Systems (GIS)	3 cr	CMST 2300	Intro to Public Speaking	3 cr
BLGY 1351	General Biology (w/lab)	4 cr	CMST 2302	Small Group Communications	3 cr
DVRS 1304	Diversity and Social Justice	3 cr	CMST 2310	Interpersonal Communications	3 cr
			CMST 2315	Persuasion and the Media	3 cr

### RECOMMENDED 3RD SEMESTER

Course Subject & Title:			Mathematics: (Choose one course)		
ENVR 1315	Natural Resource Conservation	3 cr	MATH 1351	Statistics	4 cr
RNEW 1300	Intro to Trade/Renewable Energy	3 cr	MATH 1360	College Algebra	3 cr
CHEM 1350	General Chemistry I (w/lab)	4 cr			
PHIL 1320	Ethics	3 cr			

Students transferring to SCSU should take MATH 1360. Students Transferring to Bemidji State University could replace MATH 1360 with MATH 1351.

### RECOMMENDED 4TH SEMESTER

Course Subject & Title:					
ENVR 2350	Environmental Chemistry (w/lab)	4 cr	Goal Area 5	History and the Social & Behavioral Sciences	3 cr
ENVR 2305	Field Methods in Environmental Science	3 cr		(Recommend SOCI 2305 Environmental Sociology)	
ENVR 2370	Internship in Environmental Science	2 cr	Goal Area 8	Global Perspective	3 cr

For full listing of goal area 5 & 8 courses, please visit the Liberal Arts & Science Planner

### HELPFUL INFORMATION: Graduation and Transfer Steps

#### Graduation Application

After registering for your final semester to earn your degree, apply for graduation. Environmental Science AS Degree.



#### Ready to Transfer

It is recommended to attend 4-year college Transfer Fair. Apply to transfer college 6 -8 months prior to the semester start date.