

Degree Progression Plan

Freshman Year							
1 st term				2 nd term			
CENE 150	Introduction to Environmental Engineering	3		CENE 180 ☀	Computer Aided Drafting/Lab	3	
CENE 150L	Environmental Engineering Computations Lab	1		ENG 105 ☀	Critical Reading and Writing (FNRO)	4	
CHM 151 ☀	General Chemistry I (SCI: LAB)	4		MAT 137 ☀	Calculus II (FNRO)	4	
CHM 151L ☀	General Chemistry I Lab (SCI: LAB)	1		BIO 100 or 181 ☀	Principles of Biology or Unity of Life I	3	
EGR 186 ☀	Introduction to Engineering Design/Lab	3		CHM 152 ☀	General Chemistry II (SCI: SAS)	3	
MAT 136 ☀	Calculus I (SCI: SAS)	4					
NAU 100	Transition to College	1					
		Total units	17			Total units	17

Sophomore Year							
3 rd term				4 th term			
CENE 225 ☀	Engineering Analysis	3		CENE 281L	Environmental Engineering Lab 1	1	
CENE 280	Environmental Engineering Fundamentals	3		CENE 251 ☀	Applied Mechanics: Statics	3	
MAT 238 ☀	Calculus III	4		CENE 286	Engineering Design: The Process	3	
PHY 161 ☀	University Physics I (SCI: SAS)	4		MAT 239 ☀	Differential Equations	3	
CHM 230 or 235	Fundamentals of Organic Chemistry or General Organic Chemistry I	3 o r 4		PHI 105 ☀ or PHI 331	Intro to Ethics or Environmental Ethics (AHI)	3	
				PHY 262 ☀	University Physics (SCI: SAS)	3	
		Total units	17/18			Total units	16

Junior Year							
5 th term				6 th term			
CENE 270 ☀	Surveying/Lab FALL ONLY	3		CENE 332	Solid/Hazardous Waste Management SPRING ONLY	3	
CENE 282	Environmental Engineering Lab 2	2		CENE 333L	Water Resources 1 Lab	1	
CENE 330	Air Quality Engineering FALL ONLY	3		CENE 335	Environmental Biotechnology SPRING ONLY	3	
CENE 333	Water Resources 1	3		CENE 336	Water Resources 2	3	
CENE 386W	Engineering Design: The Methods	3		ME 291 ☀	Thermodynamics I	3	
				LS/DIV ☀	Liberal Studies /Diversity *	3	
		Total units	14			Total units	16

Senior Year							
7 th term				8 th term			
TE	Technical Elective **	3		CENE 486C	Engineering Design: Capstone/Lab	3	
CENE 434	Water/Wastewater Engineering FALL ONLY	3		TE	Technical Elective **	3	
CENE 476	Engineering Design: Capstone Preparation	1		TE	Technical Elective **	3	
CENE 480	Environmental Transport Process FALL ONLY	3		LS ☀	Liberal Studies	3	
LS ☀	Liberal Studies	3		LS ☀	Liberal Studies	3	

LS/DIV 	Liberal Studies/Diversity *	3		CENE 410L	Unit Options in Environmental Engineering Lab	1	
CENE 431L	Water Resources 2 Lab	1					
Total units		17		Total units		16	

 Typically offered in Summer

Liberal Studies Distribution blocks:		DIVERSITY: Global		Ethnic	
AHI (6 units)	SPW (6 units)	CU (6 units)	Science (7 units)	Additional 3 units to reach 35 total	
PHI 105 or PHI 331 (3)			CHM 151 & L (5)		
			CHM 152 (3)	BIO 100 or 181 (3)	

PROGRAM INFORMATION

129 units are required for this degree.

You can not have more than one grade of D in your engineering, mathematics and science courses. All prerequisite courses for any engineering course must be completed with a grade of C or higher.

*Take a Liberal Studies course that also satisfies a Diversity requirement.

** Technical electives include 9 units from the following lists.

- 6-9 units from: CENE 253, 253L, 383, 383L, 376, 418, 420, 430, 437, 438, 440, 450, 457, 460, 462, 485, 497, 499, 540, 543, 550, 551, 560, 562, 568, 599
- 0-3 units from: CHM 320, CHM 341; CM 329, CM 388, CM 391, CM 425, CM 460, CM 403; GLG 451; ME 340, ME 435, ME 450, ME 451, ME 455; CS 122

Program Objectives:

Our overarching learning goals are stated as our Program Objectives; within three to five years of obtaining a bachelor's degree, a graduate is expected to achieve the following:

- Be employed in the engineering field or a professional field consistent with one's career goals, or pursuing a graduate degree;
- Participate in continuing education or professional development activities;
- Be a registered professional engineer or be pursuing registration if consistent with one's career goals;
- Demonstrate a career path that shows development as a leader; and
- Engage in activities that benefit society.

Student Learning Outcomes:

Our specific learning goals are stated as our Student Learning Outcomes; upon graduation, students will have developed the following:

- An ability to apply knowledge of mathematics, science, and engineering.
- An ability to design and conduct experiments, as well as to analyze and interpret data.
- An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
- An ability to function on multidisciplinary teams.
- An ability to identify, formulate, and solve engineering problems.
- An understanding of professional and ethical responsibility.
- An ability to communicate effectively.
- The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and society context.
- A recognition of the need for, and an ability to engage in life-long learning.
- A knowledge of contemporary issues.
- An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Upon the successful completion of our Environmental Engineering curricula, you will be able to work within all the major recognized areas of environmental engineering. These areas include:

- Air
- Water
- Land
- Environmental Health

GENERAL INFORMATION

- This degree progression plan is to be used in conjunction with the academic catalog and academic requirement report (found in student's LOUIE account).
- Students are encouraged see an academic advisor regularly to confirm their academic progress.
- Many courses have pre-requisites. Please check the academic catalog for pre-requisite and placement information.
- **Some courses are only offered once a year (Fall term only or Spring term only). Some of these courses may be pre-requisites for future courses. Please check with your department for current course rotations.**
- Honors students complete different requirements to meet NAU's liberal studies program. Students should consult an Honors Program advisor for complete information on fulfilling Honors Liberal Studies requirements.
- All students are required to complete a minimum of 120 total units which includes:
 - 35 units of liberal studies courses: <http://www4.nau.edu/aio/LScourcelist.htm>
 - 6 units of diversity courses: (3 units in Global & 3 units in Ethnic): <http://www4.nau.edu/aio/DiversityCourseList.htm>
 - 30 units of upper division courses (300-400 level), 18 of these units must be taken at NAU
- Enrollment in the English foundations course for liberal studies is based off of student SAT/ACT scores or incoming transfer/test credit, otherwise the student must take the English Placement Exam: <http://testing.nau.edu/exams/placement.html>

- Enrollment in the Math foundations course for liberal studies requires students to take the ALEKS Math Placement Exam:
<http://www.cefns.nau.edu/Academic/Math/studentInformation/Placement/Placement.shtml>

CONTACT INFORMATION

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