

# BS MAJOR IN EARTH SYSTEMS SUSTAINABILITY

## Requirements for a Bachelor of Science Degree with a Major in Earth Systems Sustainability

Additional Graduation Requirements (<https://catalog.una.edu/undergraduate/academic-procedures-requirements/graduation-requirements>)

Code	Title	Hours
<b>General Education Component</b> ( <a href="https://catalog.una.edu/undergraduate/academic-procedures-requirements/general-education-component">https://catalog.una.edu/undergraduate/academic-procedures-requirements/general-education-component</a> )		
Area I (Written Composition) <sup>1</sup>		6
Area II (Humanities and Fine Arts)		12
Area III (Natural Sciences and Mathematics)		11
BI 111	Principles of Biology ((includes 1 hour lab))	
BI 112	Principles of Biology ((includes 1 hour lab))	
MA 112	Pre-Calculus Algebra	
Area IV (History, Social and Behavioral Sciences) <sup>2</sup>		12
EC 251	Principles of Macroeconomics	
EC 252	Principles of Microeconomics	
Area V ( <a href="https://www.una.edu/areav">https://www.una.edu/areav</a> )		
<b>Major Core Requirements in Earth Systems Sustainability</b>		
ES 131	Earth Science/Physical Geology	4
or ES 133	Earth Science/Earth Systems	
ES 247	Sustainable Earth	4
ES 251	Environmental Systems	4
ES 348	Earth: Sustainable Resources	4
ES 375	Technology and the Environment	3
ES 480W	Topics in Earth Science <sup>3</sup>	1-4
or ES 481; ES 4		
ES 488	Hydrogeology	3
ES 489	Senior Capstone Research	3
<b>Prescribed Supporting Courses</b>		
BI 421	Ecology	4
BI 423	Aquatic Ecology	4
CH 465	Environmental Regulations	3
GE 184	Digital Earth	3
or GE 323	Image Interpretation and Analysis	
GE/EC 321	Economic Geography	3
GE 384	Geographic Information Systems	4
IH 301	Occupational Safety and Health	3
Select one block of courses:		8
PH 241 & PH 242	General Physics I and General Physics II	
CH 111 & 111L	General Chemistry and General Chemistry Laboratory	
& CH 112 & CH 112L	and General Chemistry and General Chemistry Laboratory	
Select two courses from the following:		6

PS 302	Comparative Government and Politics
PS 303	World Politics
PS 412	Introduction to Public Policy

### Minor

A minor is not required for a major in Earth Systems Sustainability

### General Elective

If required, to bring total to 120.

**Total Hours** <sup>4</sup> 70-73

- <sup>1</sup> For Bachelor of Arts degree, select six hours of a required foreign language at the introductory level
- <sup>2</sup> These courses are required in the major if not completed as part of the General Education component.
- <sup>3</sup> Required
- <sup>4</sup> A laboratory is included in science courses that carry 4-5 credit hours (Physics and Earth Science Department).