

EARTH SCIENCE

The Earth Science major is a program leading to the bachelor of arts or bachelor of science.

The bachelor of arts emphasizes an interdisciplinary field and prepares the student primarily for a career in secondary education. Apart from the required and supporting coursework listed below, the B.A. program must satisfy the requirements of the Teacher Education Program.

Required courses for the B.A. include:

GEOL 100	The Earth	3
GEOL 100L	The Earth: Laboratory	1
GEOL 102	History of the Earth	3
GEOL 102L	History of the Earth: Laboratory	1
GEOL 302	Summer Field Studies	6
GEOL 315	Mineralogy and Earth Materials	3
GEOL 315L	Laboratory in Mineralogy and Earth Materials	1
GEOL 316	Optical Mineralogy	2
GEOL 356	Structural Geology and Tectonics	4
GEOL 365	Igneous and Metamorphic Petrology	3
GEOL 368	Sedimentary Geology	4
MTEOR 206	Introduction to Weather and Climate	3
ASTRO 120	The Sky and the Solar System	3
ASTRO 150	Stars, Galaxies, and Cosmology (And 3 credits of geology electives)	3
And 3 credits of geology electives		3
Total Credits		43

Required supporting courses include:

CHEM 177	General Chemistry I	4
CHEM 177L	Laboratory in General Chemistry I	1
CHEM 178	General Chemistry II	3
CHEM 178L	Laboratory in College Chemistry II	1
PHYS 111	General Physics	5
PHYS 112	General Physics	5
One of the following		3-4
MATH 151	Calculus for Business and Social Sciences	
MATH 160	Survey of Calculus	
MATH 165	Calculus I	
MATH 181	Calculus and Mathematical Modeling for the Life Sciences I	
One of the following		3-4
COM S 107	Applied Computer Programming	

STAT 101	Principles of Statistics	
STAT 104	Introduction to Statistics	
And one course in Biology, Botany, or Zoology		3
Total Credits		28-30

Communication Proficiency requirement: According to the university-wide Communication Proficiency Grade Requirement, students must demonstrate their communication proficiency by earning a grade of C or better in ENGL 250. The department requires a grade of C or better in ENGL 309 or ENGL 314.

ENGL 150	Critical Thinking and Communication	3
ENGL 250	Written, Oral, Visual, and Electronic Composition	3
or ENGL 250H	Written, Oral, Visual, and Electronic Composition: Honors	
One of the following:		3
ENGL 309	Proposal and Report Writing	
ENGL 314	Technical Communication	
Total Credits		9

Earth Science, B.A.

Freshman

Fall	Credits Spring	Credits Summer	Credits
ENGL 150	3 GEOL 102	3 World Language if needed	8
LIB 160	1 GEOL 102L	1	
GEOL 100	3 CHEM 178	3	
GEOL 100L	1 CHEM 178L	1	
CHEM 177	4 ASTRO 120	3	
CHEM 177L	1 MTEOR 206	3	
MATH 151 or 160 or 165 or 181	3-4 HIST 222 or POL S 215 or C I 219	3	
		16-17	18
			8

Sophomore

Fall	Credits Spring	Credits
ENGL 250	3 GEOL 365	3
GEOL 315	3 GEOL 356	4
GEOL 315L	1 PHYS 112	5
GEOL 316	2 C I 202	3
PHYS 111	5 PSYCH 230 or HD FS 102	3

ASTRO 150	3 C I 280M	2
C I 204	3 **Apply to Teacher Education Program 1st week**	
Take PRAXIS-I by October 15		
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	20	20

Junior

Fall	Credits Spring	Credits Summer	Credits
GEOL 368	4 ENGL 309 or 314	3 GEOL 302	6
C I 333	3 COMST 102 or SP CM 212 or SP CM 313 or THTHR 358	3	
Humanities Choice ¹	3 C I 419	3	
C I 347	3 C I 468K	2	
C I 418	3 Humanities Choice	3	
C I 468J	2 COM S 107 or STAT 101 or STAT 104	3	
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	18	17	6

Senior

Fall	Credits Spring	Credits
C I 406	3 C I 417J	14
Humanities Choice	3	
Geology Choice	3	
Social Science/ Humanities Choice ¹	3	
SP ED 401	3	
Biology Choice ²	3	

**Apply to
Student
Teach.**

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Students in all ISU majors must complete a three-credit course in U.S. diversity and a three-credit course in international perspectives. Check (<http://www.registrar.iastate.edu/courses/div-ip-guide.html>) for a list of approved courses.

LAS majors require a minimum of 120 credits, including a minimum of 45 credits at the 300/400 level in addition to the LAS world language and cultures requirement. At least 8 credits in the major from 300+ courses must earn grade C or better. The average grade of all courses in the major must be 2.0 or higher.

¹ Choice depends on whether American History (humanities) or American Government (Social Science) was chosen earlier.

² Choose from list of approved courses available from an adviser.

Earth Science, B.S.

Freshman

Fall	Credits Spring	Credits
ENGL 150	3 GEOL 102	3
GEOL 100	3 GEOL 102L	1
GEOL 100L	1 CHEM 178	3
CHEM 177	4 CHEM 178L	1
CHEM 177L	1 MATH 166 or 182	4
MATH 165 or 181	4 Arts-and- Humanities Choice	3
LIB 160	1	
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	17	15

Sophomore

Fall	Credits Spring	Credits
ENGL 250	3 GEOL 365	3
GEOL 315	3 Arts-and- Humanities Choice	3
GEOL 315L	1 PHYS 112	5
GEOL 316	2 STAT 101 or 104	3-4
PHYS 111	5 MTEOR 206	3
COM S 107	3	
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	17	17-18

Junior

Fall	Credits Spring	Credits Summer	Credits
GEOL 479	3 GEOL 356	4 GEOL 302	6
GEOL 368	4 Foreign Language	3-4	
Agron/ Astronomy/ EnSci Choice ¹	3 Agron/ Astronomy/ EnSci Choice ¹	3	
Foreign Language	3-4 Social-Science Choice	3	
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	13-14	13-14	6

Senior

Fall	Credits Spring	Credits
Agron/ Astronomy/ EnSci Choice ¹	2 Electives	9
Arts-and-Humanities Choice	3 Arts-and-Humanities Choice	3
Social Science Choice	3 Social-Science Choice	3
ENGL 309 or 302 or 314 or JL MC 347 Elective	3	
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	14-15	15

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LAS majors require a minimum of 120 credits, including a minimum of 45 credits at the 300/400 level. At least 8 credits in the major from 300+ courses must earn grade C or better. The average grade of all courses in the major must be 2.0 or higher. You must also complete the LAS foreign language requirement.

¹ Choose from list of approved courses available from an adviser or departmental office.