

B.S. Ed. Secondary Education: Earth and Space Science Requirements

The BSED Secondary Education Earth & Space Science Program provides course preparation in education and Earth and space science and includes clinical experience. The program leads to a bachelor's degree and teaching certification in 7-12 Secondary Earth and Space Science.

Note that all students must achieve 120 undergraduate credits and a minimum 3.0 overall GPA to graduate. The final GPA requirement for Secondary Education Earth & Space Science is 3.0.

Required Science Courses – 38 credits

See also Directed General Education below.

ASTR 140 Planetary Science (3 credits)
ASTR 142 Stellar and Galactic Astronomy (3 credits)
CHEM 102 General Chemistry II (4 credits)
EVSC 100 Intro to Environmental Science (3 credits)
EVSC 210 Environmental Geology (3 credits)
GEOG 204 Meteorology (3 credits)
GEOL 100 Physical Geology (4 credits)
GEOL 102 Elements of Historical Geography (4 credits)
GEOL 110 Introduction to Oceanography (3 credits)
PHYS 040 General Physics I or PHYS 100 Physics I (4 credits)
PHYS 042 General Physics II or PHYS 102 Physics II (4 credits)

Science Course Electives – 6 to 8 credits

Select two courses from ASTR, GEOL, MRSC, or EVSC with lab above the 100 level (6-8 credits)

Required Mathematics Courses – 6 credits

See also Directed General Education below.

MATH 140 Applied Statistical Mathematics (3 credits)
MATH 106 Trigonometry (3 credits) or MATH 115 Precalculus Mathematics (3 credits)

Education Professional Courses – 15 credits

Students must achieve a B or better in professional coursework.

SEED 312 Principles of Learning (3 credits)
SEED 313 Principles of Learning Lab (3 credits)
SEED 342 Principles of Teaching (3 credits)
SEED 343 Principles of Teaching Lab (3 credits)
SEED 410 Science Methods for Middle & High School (3 credits)

Clinical Experience Courses – 12 credits

SEED 390 Clinical Experience I (6 credits)
SEED 391 Clinical Experience II (6 credits)

Directed General Education Courses – 27 credits

While counting toward General Education fulfillment, these courses are required for completion of the major.

Required before candidacy:

The following courses must be taken before a student can take their education professional coursework. Additionally, to achieve candidacy, a student must pass the state's basic skills requirement, earn a 3.0 GPA or higher and complete pre-candidacy field hours.

COMP 100-level course – Category A1 (3 credits) *Final grade of C or better is required.*

ENGL Literature course – Category D (3 credits) *Final grade of C or better is required.*

EDUC 100 Perspectives on American Education – Category B (3 credits)

SPEE 201 Cognitive Development of Diverse Learners – Category B (3 credits)

SPEE 314 Effective Instructional Strategies – Category B (3 credits)

Not required before candidacy:

MATH 181 Calculus I – Category C2 (4 credits)

CHEM 100 General Chemistry I – Category C1 (4 credits)

BIOL 104 Principles of Biology – Category C3 (4 credits)

University Elective Course – 0 to 3 credits

Depending upon course selections in General education and the major, students may require an additional elective course to reach 120 credit hours.

Select a course from any department

Program Plan Code: BSSED_SCED_ESPC

Effective Date: Fall 2018

KU Secondary Education Earth and Space Science Major Check Sheet

Student Name:

Student ID Number:

This checksheet provides a mechanism for students and advisors to keep track of a student's progress in the program. Please refer to the program requirements for more details regarding options.

Note that all students must achieve 120 undergraduate credits and a minimum 3.0 overall GPA to graduate. Most students will graduate with 122 credits in this major. The final GPA requirement for Earth and Space Science is 3.0.

Required Science Courses – 38 credits

ASTR 140 Planetary Science	3 credits	Grade:
ASTR 142 Stellar and Galactic Astronomy	3 credits	Grade:
CHEM 102 General Chemistry II	4 credits	Grade:
EVSC 100 Intro to Environmental Science	3 credits	Grade:
EVSC 210 Environmental Geology	3 credits	Grade:
GEOG 204 Meteorology	3 credits	Grade:
GEOL 100 Physical Geology	4 credits	Grade:
GEOL 102 Historical Geology	4 credits	Grade:
GEOL 110 Introduction to Oceanography	3 credits	Grade:
PHYS 040 General Physics I or PHYS 100 Physics I	4 credits	Grade:
PHYS 042 General Physics II or PHYS 102 Physics II	4 credits	Grade:
Total Credits	38 total credits	

Elective Science Courses – 6 to 8 credits

Students can choose any course with a lab beyond the 100 level of courses in ASTR, GEOL, MRSC, or EVSC for 2 electives.

Course 1:	3 or 4 credits	Grade:
Course 2:	3 or 4 credits	Grade:
Total Credits	6 to 8 credits	Grade:

Required Mathematics Courses – 6 credits

MATH 106 Trigonometry or MATH 115 Precalculus Mathematics	3 credits	Grade:
MATH 140 Applied Statistical Mathematics	3 credits	Grade:
Total Credits	6 total credits	

Education Professional Courses – 15 credits

These Teacher Candidacy courses also require a final grade of B or better.

SEED 312 Principles of Learning	3 credits	Grade:
SEED 313 Principles of Learning Lab	3 credits	Grade:
SEED 342 Principles of Teaching	3 credits	Grade:
SEED 343 Principles of Teaching Lab	3 credits	Grade:
SEED 410 Science Methods for Middle & High School	3 credits	Grade:
Total Credits	15 total credits	

Clinical Experience Courses – 12 credits

SEED 390 Clinical Experience I	6 credits	Grade:
SEED 391 Clinical Experience II	6 credits	Grade:
Total Credits	12 total credits	

Directed General Education Courses

While counting toward General Education fulfillment, these courses are required for completion of the major.

COMP 100-level (Category A1) <i>Final grade of C or better is required.</i>	3 credits	Grade:
EDUC 100 Perspectives on American Education (Cat B)	3 credits	Grade:
SPEE 201 Cognitive Development of Diverse Learners (Category B)	3 credits	Grade:
SPEE 314 Effective Instructional Strategies (Category B)	3 credits	Grade:
BIOL 104 Principles of Biology (Category C1)	4 credits	Grade:
MATH 181 Calculus I (Category C2) <i>Final grade of C or better is required.</i>	4 credits	Grade:
CHEM 100 General Chemistry I (Category C3)	4 credits	Grade:
ENGL Literature Course (Category D) <i>Final grade of C or better is required.</i>	3 credits	Grade:

University Elective Course – 0 to 3 credits

Course 1:	3 credits	Grade:
Total Credits	3 total credits	

Summary of Graduation Requirements

Total credits from major courses	77-79
Total credits from general education program	42-45
Total credits from electives	0-3
Minimum total credits to graduate	120
Minimum overall GPA	3.0
Minimum GPA in major program	3.0

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KU Secondary Education Earth and Space Science 8-Semester Planner

Student Name:

Student ID Number:

Each semester listed below provides information including course categories, typical credit hours (CH.), and space to add specific course selections. This planner is a suggested path. Consult with your advisor regarding your unique plans and interests as you make choices about your schedule.

First Semester Plan

Gen Ed	COMP 100 (Category A1)	3 CH.	Selection:
Major	GEOL 100 <i>or</i> PHYS 040	3 or 4 CH.	Selection:
Gen Ed	FYSM 100	3 CH.	Selection: FYSM 100 -
Gen Ed	EDUC 100 (Category B)	3 CH.	Selection:
Major	MATH 140	3 CH.	Selection:
Total		15-16 CH.	

Second Semester Plan

Gen Ed	Category A2	3 CH.	Selection:
Gen Ed	SPEE 201 (Category B)	3 CH.	Selection:
Gen Ed	CHEM 100 (Category C1)	4 CH.	Selection:
Major	MATH 106 <i>or</i> MATH 115	3 CH.	Selection:
Major	GEOL 100 <i>or</i> PHYS 040	3 or 4 CH.	Selection:
Total		16-17 CH.	

Third Semester Plan

Gen Ed	Category A3	3 CH.	Selection:
Gen Ed	ENGL Literature Course (Cat D)	3 CH.	Selection:
Gen Ed	MATH 181 (Category C2)	3 or 4 CH.	Selection:
Major	BIOL 104 (Category C3)	3 or 4 CH.	Selection:
Major	Required Content Area Course	3 or 4 CH.	Selection:
Total		15-18 CH.	

Fourth Semester Plan

Gen Ed	SPEE 314 (Category B)	3 CH.	Selection:
Gen Ed	Category A4	3 CH.	Selection:
Gen Ed	Category D	3 CH.	Selection:
Major	Required Content Area Course	3 or 4 CH.	Selection:
Major	Required Content Area Course	3 or 4 CH.	Selection:
Total		15-17 CH.	

Fifth Semester Plan

Gen Ed	Category D	3 CH.	Selection:
Major	SEED 312	3 CH.	Selection:
Major	SEED 313	3 CH.	Selection:
Major	Required Content Area Course	3 or 4 CH.	Selection:
Major	Required Content Area Course	3 or 4 CH.	Selection:
Total		15-17 CH.	

Sixth Semester Plan

Major	SEED 342	3 CH.	Selection:
Major	SEED 343	3 CH.	Selection:
Major	Required Content Area Course	3 or 4 CH.	Selection:
Major	Required Content Area Course	3 or 4 CH.	Selection:
Major	Required Content Area Course	3 or 4 CH.	Selection:
Total		15-18 CH.	

Seventh Semester Plan

Major	SEED 410	3 CH.	Selection:
Major	Required Content Area Course	3 or 4 CH.	Selection:
Major	Required Content Area Course	3 or 4 CH.	Selection:
Major	Required Content Area Course	3 or 4 CH.	Selection:
Elective	University Elective	0-3 CH.	Selection:
Total		12-18 CH.	

Eighth Semester Plan

Major	SEED 390	6 CH.	Selection:
Major	SEED 391	6 CH.	Selection:
Total		12 CH.	

Additional Notes:

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