BS Earth and Space Science/General Science 5-12 Teaching

Suggested Plan of Study

Department of Atmospheric and Hydrologic Sciences, Phone 320-308-3260, Email ahs@stcloudstate.edu

Earth and Space Science Teaching Advisors

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First Semester	Second Semester
ASTR 106 (3cr)	AHS 205 (5cr) or AHS 220 (4cr)
CHEM 210 (4cr)	² BIOL 152 [Goal 10] (4cr)
¹ MATH (3-5cr)	CHEM 211 (4cr)
ENGL 191 [Goal 1] (4cr)	ED 300 (3cr)
Total semester credits = 14 to 16	Total semester credits = 15-16
Third Semester	Fourth Semester
AHS 307 or 305 (3cr)	AHS 230 (4 cr)
² BIOL 151 (4cr)	AHS 260 (4 cr)
PHYS 231 (4cr)	³ AHS 325 (4 cr) or ESST Elective (3-4cr)
CSPY 262 [Goal 5] (3cr)	PHYS 232 (4cr)
CMST 192 [Goal 1] (3cr)	
Total semester credits = 17	Total semester credits = 15-16
Fifth Semester	Sixth Semester
AHS 380 (2 cr)—NOW renumbered as AHS 285	AHS 325 (4 cr) or ESST Elective (3-4cr)
AHS 307 or 305 (3cr)	HURL 497 [DIV] (3 cr)
ASTR 107 [Goal 2] (3cr)	SCI ED Spring Block 4.5SCI 430 (3cr)
CSPY 361 (3cr)	⁴ STEM 421 (1cr)
SPED 203 [Goal 5] (3cr)	ED 431 (2cr)
DIV/RIS Course in Goal 6 AND Goal 7 (3 cr)	ED 451 (2cr)
Total semester credits = 17	Total semester credits = 14-15
Seventh Semester	Eighth Semester
Course in Goal 6 AND Goal 8 (3 cr)	⁷ SCI 440 (3cr)
DIV Course in Goal 8 AND Goal 9 (3 cr)	ED 466 (9cr)
SCI ED Fall Block 4,5,6SCI 420 (3cr)	
⁴ STEM 420 (1cr)	
ENGL 460 or ED 460 (2cr)	
ED 421 (2cr)	
IM 422 (2cr)	
Total semester credits = 16	Total semester credits = 12
Motos:	

Notes:

This program meets the Minnesota Professional Education Licensing and Standards Board tier-three licensure requirements for beginning teachers of any science at the 5-12 grade levels and of earth and space science at the 9-12 grade levels. If students in this major intend to graduate in four years they must:

- Not complete the core or liberal education in the first two years they need take the introductory science courses.
- 2. Not need remedial work in high school math (i.e., not need MATH 070, 072).
- 3. Take AHS 205, 305 and 307 when indicated--these are only offered one time per year. (If students find these courses closed at the time of registration they should contact the department before looking for an alternative course.)

Taking some courses during summer session makes finishing the program in four years easier and may improve a student's GPA.

Courses in the Earth and Space Science Education major fulfil Goal Areas 2,3,4, 5 and 10 of the Liberal Education program.

¹Recomended MATH courses are MATH 112, MATH 115, or MATH 221. MATH 112 or MATH 115 is a prerequisite for some introductory courses in the major.

²BIOL 151 and 152 may be taken in any order; 151 is not a pre-requisite for 152.

³See an Earth and Space Science Teaching Advisor for a list of recommended AHS electives.

⁴ The former 4 credit SCI 420 has been split into the current 3 credit SCI 420 and 1 credit STEM 420. The former 4 credit SCI 430 has been split into the current 3 credit SCI 430 and 1 credit STEM 421.

⁵SCI 430, STEM 421, ED 421 and ED 451 must be taken concurrently (spring semester), as must SCI 420, STEM 420, IM 422 and ED 431 (fall semester), but the sets of courses can be taken in either order. They should be completed the last two semesters prior to student teaching. ENGL/ED 460 and SPED 203 must be taken prior to or during these two semesters.

⁶Earth and Space Science Teaching majors must present the results of research done during SCI 420 during a seminar the following semester.

⁷SCI 440 must be concurrent with ED 466 (student teaching). No other courses may be taken during the student teaching semester.

Science Course Offering Schedule	
Fall, Spring, & Summer	AHS 230, 260, 280; ASTR 106, 107; BIOL 151,152; CHEM 210, CHEM 211; PHYS 231, PHYS 232
Every Fall	AHS 368 (approved ESST elective)
Every Spring	AHS 205 or AHS 220
Spring (Even Years)	AHS 423 (approved ESST elective)
Spring (Odd Years)	AHS 325
Fall (Even Years)	AHS 305, 322 (approved ESST elective)
Fall (Odd Years)	AHS 307