

Science & Earth Science

Science & Earth Science Minor - 22 Hours

AS101 Descriptive Astronomy-The Solar System (3) and AS101L (1)

AS102 Descriptive Astronomy-Beyond the Solar System (3) and AS102L (1)

GL105 Exploring Geology (4)

HI205 World Geography (3)

SC101 Concepts in Physical Science (3) and SC101L (1)

SC103 Introduction to Meteorology (3)

Science & Earth Science Courses

SC101 Concepts in Physical Science. 3 hours. A study of the theory, interrelation, and application of concepts from Chemistry, Physics, Astronomy, Geology, and Meteorology presented in an activity format. Also explores teaching strategies for physical science concepts. 3 lectures. Prerequisite: Meet or exceed University policy for College Algebra (3hr course); or MA103 with grade of C or better; or by permission of the Chair. For Education majors, MA224 or completion of MA103 or MA103I.

SC101L Concepts in Physical Science Lab. 1 hour. Lab exercises that accompany SC101. Must be taken concurrently with SC101. 2 lab hours.

SC103 Introduction to Meteorology. 3 hours. A basic survey course of the atmosphere and atmospheric phenomena. Most topics in this Science course are presented descriptively. However, some familiarity with algebra and computers is assumed. Emphasis is placed on understanding and application of meteorological concepts to everyday life.

SC160 Special Problems. 1-5 hours. Independent study or research based on reading and analysis of published sources on a subject of interest to an individual student. A student may take this course any number of times but with a limit of 8 hours on combined SC160, SC190, SC260, SC290, SC360, SC390, and SC460 counting towards graduation. Prerequisite: Instructor's permission. 12/11

SC190 Special Topics. 1-5 hours. Advanced course on a topic not included in the regular curriculum. A student may take this course any number of times but with a limit of 8 hours of combined SC160, SC190, SC260, SC290, SC360, SC390, and SC460 counting towards graduation. Prerequisite: Instructor's permission. 12/11

SC225 Interdisciplinary Science Seminar. 1 hour. For majors, this one hour course must be taken during the Freshman or Sophomore years. Designed to study and discuss research and issues in science and technology and to explore the role of scientists in research, education, and society. The seminar may be repeated each semester, but only 1 hour will count toward the major.

SC260 Special Problems. 1-5 hours. Independent study or research based on reading and analysis of published sources on a subject of interest to an individual student. A student may take this course any number of times but with a limit of 8 hours on combined SC160, SC190, SC260, SC290, SC360, SC390, and SC460 counting towards graduation. Prerequisite: Instructor's permission. 12/11

SC268 Internship and Field Experiences. 1-5 hours. Professional supervised internship and/or field experience. Students must fill out the appropriate forms for course credit and be approved by the division's internship coordinator. Students are expected to spend 40 hours in the internship and/or field experience for each hour of credit. A student may take this course any number of times but with a limit of 5 hours of combined SC268, SC368, and SC468 counting towards graduation. 12/11

SC290 Special Topics. 1-5 hours. Advanced course on a topic not included in the regular curriculum. A student may take this course any number of times but with a limit of 8 hours of combined SC160, SC190, SC260, SC290, SC360, SC390, and SC460 counting towards graduation. Prerequisite: Instructor's permission. 12/11

SC325 Interdisciplinary Science Seminar. 1 hour. Must be taken during the Junior or Senior year. Designed to study and discuss research and issues in science and technology and to explore the role of scientists in research, education, and society. A student may take the seminar any number of times, but only 1 hour will count toward the major.

SC331 Research Methods. 1 hour. An introduction to the process of project design and proposal development for research projects in the Division of Mathematics, Science, and Computer Science.

SC360 Special Problems. 1-5 hours. Independent study or research based on reading and analysis of published sources on a subject of interest to an individual student. A student may take this course any number of times but with a limit of 8 hours on combined SC160, SC190, SC260, SC290, SC360, SC390, and SC460 counting towards graduation. Prerequisite: Instructor's permission. 12/11

SC364 Undergraduate Research. 1-3 hours. Independent research involving the collection and analysis of data that is conducted under the supervision of a faculty member within the Division of Mathematics, Science, and Computer Science. Students are expected to spend 4 hours per week working on the research project for each hour of credit. A student may take SC464 any number of times but with a limit of 5 hours of combined SC364 and SC464 counting towards graduation. Prerequisite: SC331. 12/11

SC368 Internship and Field Experiences. 1-5 hours. Professional supervised internship and/or field experience. Students must fill out the appropriate forms for course credit and be approved by the division's internship coordinator. Students are expected to spend 40 hours in the internship and/or field experience for each hour of credit. A student may take this course any number of times but with a limit of 5 hours of combined SC268, SC368, and SC468 counting towards graduation. 12/11

SC382 History and Philosophy of Science. 3 hours. A study of important discoveries of science and how they influenced our culture. The course entails a broad selection of topics from science and technology. There is emphasis on analyses of science related problems; making decisions about science related problems; and communicating solutions to science related problems. Prerequisites: Any 2 science laboratory courses. Fall

SC390 Special Topics. 1-5 hours. Advanced course on a topic not included in the regular curriculum. A student may take this course any number of times but with a limit of 8 hours of combined SC160, SC190, SC260, SC290, SC360, SC390, and SC460 counting towards graduation. Prerequisite: Instructor's permission. 12/11

SC401 Conceptual Physical Science in the Elementary Classroom. 3 hours. An inquiry based approach to topics in physics, chemistry, astronomy, meteorology and geology. Experiments and activities to teach scientific concepts and to demonstrate teaching strategies are emphasized. Students are required to complete a project to incorporate the new knowledge into their teaching situation. Offered on demand.

SC402 Advanced Conceptual Physical Science in the Elementary Classroom. 3 hours. Students further expand and apply their knowledge base in specific areas of Physics, Astronomy and Chemistry as applies to grade level. Constructivist teaching methods and strategies are explored in relation to personal and children's knowledge growth in the classroom environment. Offered on demand.

SC425 Science Seminar. 1 hour. (Capstone) For majors, this one hour course must be taken during the Senior year for capstone credit. Designed to study and discuss research and issues in science and technology and to explore the role of scientists in research, education, and society. In addition to making a formal presentation, students will be expected to complete the standardized exit exam for their major and participate with the Career Development Center in resume preparation and career planning.

SC460 Special Problems. 1-5 hours. Independent study or research based on reading and analysis of published sources on a subject of interest to an individual student. A student may take this course any number of times but with a limit of 8 hours on combined SC160, SC190, SC260, SC290, SC360, SC390, and SC460 counting towards graduation. Prerequisite: Instructor's permission. 12/11

SC464 Undergraduate Research Capstone. 3 hours. Independent research involving the collection and analysis of data that is conducted under the supervision of a faculty member within the Division of Mathematics, Science, and Computer Science. Students are expected to spend 4 hours per week working on the research project for each hour of credit. A student may take SC464 any number of times but with a limit of 5 hours of combined SC364 and SC464 counting towards graduation. Prerequisite: SC331. 12/11

SC468 Internship and Field Experiences. 1-5 hours. Professional supervised internship and/or field experience. Students must fill out the appropriate forms for course credit and be approved by the division's internship coordinator. Students are expected to spend 40 hours in the internship and/or field experience for each hour of credit. A student may take this course any number of times but with a limit of 5 hours of combined SC268, SC368, and SC468 counting towards graduation. 12/11