



## Science Courses

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### **SCI 1110 Exploring Science (4 credits)**

An interdisciplinary course incorporating the areas of biology, chemistry, earth science, and physics. Connections to everyday life and environmental issues will be emphasized. Includes a laboratory component. (LC) [Core Curriculum Goal Area 3 & 10.]

### **SCI 1910 Directed Independent Study (3 credits)**

Arranged individual study.

### **SCI 1920 Directed Group Study (3 credits)**

Arranged group study.

### **SCI 1930 Experimental Course (3 credits)**

A course proposed for inclusion in the University curriculum. May not be offered more than two times as an experimental course.

### **SCI 1940 In-Service Course (3 credits)**

A course for practitioners seeking additional training or expertise in their current vocation or profession. The in-service format typically includes an educational experience in which a University faculty member and a group of students concentrate on working toward the resolution of a specific problem.

### **SCI 1950 Workshop, Institute, Tour (3 credits)**

An intense, credit-granting academic experience of short duration (usually from two days to two weeks) that is not listed in the current University curriculum. Provides for the practical application of theoretical learning within a group setting, and may include the development of methods and skills and the discussion of ideas and principles.

### **SCI 1960 Special Purpose Instruction (3 credits)**

A course intended for specific groups or organizations outside the University community.

### **SCI 1970 Internship (3 credits)**

Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

### **SCI 1980 Research (3 credits)**

Research carried out by the student that is based on appropriate methodology and scholarship.

### **SCI 1990 Thesis (3 credits)**

A thesis written by the student that reports extensive original research carried out by the student and demonstrates appropriate methodology and scholarship.

### **SCI 2200 Meteorology (3 credits)**

A one-semester survey course, with emphasis on the science of the atmospheric dynamics of weather and climate, precipitation, storms, and forecasting. Includes laboratory simulations and field exercises.

### **SCI 2910 Directed Independent Study (3 credits)**

Arranged individual study.

### **SCI 2920 Directed Group Study (3 credits)**

Arranged group study.

### **SCI 2925 People of the Environment: Science Perspective (3 credits)**

The discussions of this section will include the specific relation between air, water, and solid waste pollution and the effect on the environment, including the following: acid rain, smog, global warming, measurement of environmental pollutants, and the role of science in solving pollution problems.

### **SCI 2930 Experimental Course (3 credits)**

A course proposed for inclusion in the University curriculum. May not be offered more than two times as an experimental course.

### **SCI 2940 In-Service Course (3 credits)**

A course for practitioners seeking additional training or expertise in their current vocation or profession. The in-service format typically includes an educational experience in which a University faculty member and a group of students concentrate on working toward the resolution of a specific problem.

### **SCI 2950 Workshop, Institute, Tour (3 credits)**

An intense, credit-granting academic experience of short duration (usually from two days to two weeks) that is not listed in the current University curriculum. Provides for the practical application of theoretical learning within a group setting, and may include the development of methods and skills and the discussion of ideas and principles.

### **SCI 2951 Study-Travel Natural Science (1-6 credits)**

Study Travel course in Science.

### **SCI 2960 Special Purpose Instruction (3 credits)**

A course intended for specific groups or organizations outside the University community.

### **SCI 2970 Internship (3 credits)**

Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

### **SCI 2980 Research (3 credits)**

Research carried out by the student that is based on appropriate methodology and scholarship.

### **SCI 2990 Thesis (3 credits)**

A thesis written by the student that reports extensive original research carried out by the student and demonstrates appropriate methodology and scholarship.

### **SCI 3100 Integrative Science for Teachers (4 credits)**

An interdisciplinary laboratory-based course incorporating the areas of biology, chemistry, earth science, and physics. Focuses on conducting a series of investigations by Science Inquiry and demonstrating the connection between the various disciplines. Prerequisites: 2 courses each in the life sciences and physical sciences.

### **SCI 3450 Science Methods For Grades 5-8 (4 credits)**

Strategies for implementation of the Minnesota Graduation Standards in the areas of Science and Inquiry for grades 5-8. Strategies include laboratory activities, discussions, the development of classroom activities, and the adaptation of these strategies for use in the elementary and high school science classroom. Prerequisite: Senior status or consent of instructor.

### **SCI 3910 Directed Independent Study (3 credits)**

Arranged individual study.

### **SCI 3920 Directed Group Study (3 credits)**

Arranged group study.

### **SCI 3930 Experimental Course (3 credits)**

A course proposed for inclusion in the University curriculum. May not be offered more than two times as an experimental course.

### **SCI 3940 In-Service Course (3 credits)**

A course for practitioners seeking additional training or expertise in their current vocation or profession. The in-service format typically includes an educational experience in which a University faculty member and a group of students concentrate on working toward the resolution of a specific problem.

### **SCI 3950 Workshop, Institute, Tour (3 credits)**

An intense, credit-granting academic experience of short duration (usually from two days to two weeks) that is not listed in the current University curriculum. Provides for the practical application of theoretical learning within a group setting, and may include the development of methods and skills and the discussion of ideas and principles.

**SCI 3960 Special Purpose Instruction (3 credits)**

A course intended for specific groups or organizations outside the University community.

**SCI 3970 Internship (3 credits)**

Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

**SCI 3980 Research (3 credits)**

Research carried out by the student that is based on appropriate methodology and scholarship.

**SCI 3990 Thesis (3 credits)**

A thesis written by the student that reports extensive original research carried out by the student and demonstrates appropriate methodology and scholarship.

**SCI 4910 Directed Independent Study (3 credits)**

Arranged individual study.

**SCI 4917 DIS Tchg Assoc | (1-2 credits)**

Directed Independent Study | Teaching Associate

**SCI 4920 Directed Group Study (3 credits)**

Arranged group study.

**SCI 4930 Experimental Course (3 credits)**

A course proposed for inclusion in the University curriculum. May not be offered more than two times as an experimental course.

**SCI 4940 In-Service Course (3 credits)**

A course for practitioners seeking additional training or expertise in their current vocation or profession. The in-service format typically includes an educational experience in which a University faculty member and a group of students concentrate on working toward the resolution of a specific problem.

**SCI 4950 Workshop, Institute, Tour (3 credits)**

An intense, credit-granting academic experience of short duration (usually from two days to two weeks) that is not listed in the current University curriculum. Provides for the practical application of theoretical learning within a group setting, and may include the development of methods and skills and the discussion of ideas and principles.

**SCI 4960 Special Purpose Instruction (3 credits)**

A course intended for specific groups or organizations outside the University community.

**SCI 4970 Internship (3 credits)**

Graded Satisfactory/Unsatisfactory only. Student internships may be either full-time or part-time in a public or private agency appropriate to the degree objective. Internships consist of closely supervised periods of service that are arranged in advance of the course registration. Students should consult their advisor concerning prerequisites.

**SCI 4980 Research (3 credits)**

Research carried out by the student that is based on appropriate methodology and scholarship.

**SCI 4990 Thesis (3 credits)**

A thesis written by the student that reports extensive original research carried out by the student and demonstrates appropriate methodology and scholarship.

**All-University Courses**

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY

1920, 2920, 3920, 4920 DIRECTED GROUP STUDY

1930, 2930, 3930, 4930 EXPERIMENTAL COURSE

1940, 2940, 3940, 4940 IN-SERVICE COURSE

1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR

1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION

1970, 2970, 3970, 4970 INTERNSHIP

1980, 2980, 3980, 4980 RESEARCH

1990, 2990, 3990, 4990 THESIS