# **Integrated Science Courses**

## IS 1315 - Integrated Science I

#### Hours: 3

This is a University Studies science course. The interdisciplinary application of scientific principles is emphasized. The scientific principles developed in this course include astronomy, motion, energy, Earth science, and other topics typically covered in physical science courses. Connections and applications of these principles to the other sciences are examined.

## IS 1317 - Integrated Science II

#### Hours: 3

This is a University Studies science course. The interdisciplinary application of scientific principles is emphasized which include heat, energy, the periodic table, chemical bonds and reactions and other topics covered in physical sciences courses. Connections and applications of these principles to the other sciences are examined.

## IS 1415 - Integrated Science I

## Hours: 4

1415 - Integrated Science I. Four semester hours. (3 lecture, 2 lab) This is a University Studies science course. The interdisciplinary application of scientific principles to society is emphasized. The scientific principles developed in this course are motion, energy, chemical changes, and other topics typically covered in physical science courses. Connections and applications of these principles to the other sciences and public issues are examined.

# IS 1417 - Integrated Science II

## Hours: 4

IS 102 Integrated Science II. Four semester hours (3 lecture, 2 lab). This is a University Studies science course. The interdisciplinary application of scientific principles to society is emphasized. The scientific principles developed in this course are cellular structure, genetics, DNA, astronomical and geological issues, and other topics covered in life earth sciences courses. Connections and applications of these principles to the other sciences and public issues are examined.

## IS 351 - Science Inquiry I for Pre-service Educators

#### Hours: 3

Science topics and themes are chosen to emphasize broad concepts highlighted in the Texas and national science standards. Topics will include conservation laws, systems in nature, the nature of scientific inquiry and presentation of scientific information. The course will be taught by an inquiry based method, modeling instructional techniques proved effective by current educational research. This course is designed for interdisciplinary majors. It will not count toward a major or minor in the sciences.

## IS 352 - Science Inquiry II for Pre-service Educators

### Hours: 3

Science topics and themes are chosen to emphasize broad concepts highlighted in the Texas and National Science Standards. Topics include fundamental physical and chemical processes such as the chemistry of the environment, macromolecules of life, systems in nature, and the nature of scientific inquiry. The course will be taught using an inquiry based method, modeling instructional techniques proven effective by current educational research. This course is designed for interdisciplinary majors. It will not count towards a major in the sciences.

# IS 397 - Special Topics

Hours: 1-4

Special Topics. One to four semester hours. Organized class. May be repeated when topics vary.

# IS 451 - Historical Development of Great Ideas in Science for Pre-service Educators

## Hours: 3

Science is a diverse topic that influences the quality of life. This class uses the history of science as a timeline, to explore contributions of major people, discoveries, and the evolution of fundamental concepts and theories through time which are examined through literature, research, and hands-on inquiry based investigations. This class is designed for education majors and by the end of the course, each student should have an understanding of his/her own philosophy of teaching.

# IS 489 - Independent Study

Hours: 1-4 Independent Study. One to four semester hours.

IS 497 - Special Topics

Hours: 3