

ES - EARTH SCIENCE (ES)

*Course Fees are Per Credit Hour

ES 521. Applied Paleontology. (4 Credits)

Taxonomic principles, biostratigraphy, paleoecology. Field trips may be required. Independent project and/or term paper required. Prerequisite: ES 132 or departmental approval.
Course Fees: \$60

ES 525. Introduction to Oceanography. (4 Credits)

The physics, chemistry, geology, and biology of the oceans. Prerequisites: BI 112; CH 112; PH 242 or 252.
Course Fees: \$60

ES 528. Oceanology of the Gulf of Mexico. (2 Credits)

A detailed descriptive study of the coastal zone, continental shelf, and deep ocean of the Gulf of Mexico and adjacent waters. Prerequisite: ES 425 or ES 525. (Offered at Dauphin Island)
Course Fees: \$60

ES 531. Structural Geology. (3 Credits)

The nature, classification, origin, and quantification of geologic structures, with emphasis on sedimentary rocks. Field trips may be required. Independent project and/or term paper required. Prerequisites: ES 132.
Course Fees: \$60

ES 531L. Structural Geology Laboratory. (1 Credit)

Laboratory analysis, including computer mapping of folds, faults, and other structural features. Prerequisite: ES 431 or concurrent enrollment in ES 531.
Course Fees: \$60

ES 541. Stratigraphy and Sedimentology. (3 Credits)

Stratified rocks and the processes involved in the formation of sedimentary rocks. Field trips may be required. Independent project and/or term paper required. Prerequisite: ES 132.
Course Fees: \$60

ES 580. Topics in Earth Science. (1-4 Credits)

Field trip and/or term paper required. Departmental approval required. Special fee may be required depending on the topic.
Course Fees: \$60

ES 581. Topics in Earth Science. (1-4 Credits)

Field trip and/or term paper required. Departmental approval required. Special fee may be required depending on the topic.
Course Fees: \$60

ES 588. Hydrogeology. (3 Credits)

The interrelationships between water and geologic materials and processes. Independent project and/or term paper required. Prerequisite: ES 131.
Course Fees: \$60

ES 607. Astronomy for Teachers. (3 Credits)

This course considers popular topics in astronomy. Content includes observational aspects of astronomy including constellations, planets, the Sun, celestial moons, and Earth's seasons with an emphasis on understanding those topics which are known to have common misconceptions. A paper or major project will be completed in partial fulfillment of course requirements. Prerequisite PH 125 or permission of department chair.
Course Fees: \$60

ES 615. Problems in Elementary School Science. (3 Credits)

Considers the problems of elementary school teachers in the area of science. Problems involving applications of both physical and biological science to the elementary school curriculum are considered. Recent programs and curriculum developments are emphasized. Provision is made for individual investigation in new curriculum programs. Prerequisite: 12 semester hours of science.
Course Fees: \$60

ES 616. Problems in Middle School Science. (3 Credits)

Considers the problems of teachers of science in the middle school grades. Emphasis is placed on middle school programs and new curriculum developments in science. Provision is made for investigation of ideas of relevance to middle school programs. Prerequisite: undergraduate major or minor in science.
Course Fees: \$60

ES 617. Problems in Secondary School Science. (3 Credits)

Considers the problems of teachers of science in the secondary grades. Emphasis is placed on recent secondary school programs and new curriculum developments in science. Provision is made for investigation in new curriculum programs. Prerequisite: undergraduate major or minor in science.
Course Fees: \$60

ES 680. Topics in Earth Science. (1-6 Credits)

Topics will be selected for earth science and geology disciplines at the graduate level. Field trip and/or term paper required. Special fees may be required. Course may be repeated twice up to a total of 12 hours. (Fall on sufficient demand, Spring on sufficient demand, Summer on sufficient demand)
Course Fees: \$60

ES 681. Topics in Earth Science. (1-6 Credits)

Topics will be selected for earth science and geology disciplines at the graduate level. Field trip and/or term paper required. Special fees may be required. Course may be repeated twice up to a total of 12 hours. (Fall on sufficient demand, Spring on sufficient demand, Summer on sufficient demand)
Course Fees: \$60