Florida Institute of Technology

ADDDING A NEW COURSE TO THE CURRICULUM

This course is available for student registration only after the approval process has been completed.

SUBJECT SC
(e.g., CSE)

COURSE NO. 2501
(e.g., 1301)

CREDIT HOURS 3

TERM TO BE ADDED TO THE FILE summer 2010
(e.g., Fall 2010)

CLASS HOURS 70

LECTURE HOURS 35

LAB HOURS 35

CONTACT HOURS (CEU ONLY) 

DEPARTMENT Biological Sciences (Interdepartmental science)
(e.g., Computer Sciences)

SCHEDULE TYPE: lecture/lab/field
(e.g., Lecture, Lab or Special Topics/Project)

☐ COLLEGE OF AERONAUTICS - 23
☐ COLLEGE OF PSYCHOLOGY AND LIBERAL ARTS - 25
☐ NATHAN M. BISK COLLEGE OF BUSINESS - 24
☒ COLLEGE OF SCIENCE - 26
☐ COLLEGE OF ENGINEERING - 1
☐ EXTENDED STUDIES DIVISION / NATHAN M. BISK COLLEGE OF BUSINESS - 90

COMPUTER TITLE Restricted to 25 characters, including spaces
Scientific Diving

CATALOG TITLE Scientific Diving Techniques and Certification

CATALOG DESCRIPTION OF COURSE Restricted to 350 characters, including spaces
Provides training in underwater research techniques and certification by American Academy of Underwater Sciences upon completion. Includes health and safety certifications required by AAUS, lectures and 12 science training dives. (Requirements: Prerequisite course or Basic Open Water Dive certification and AAUS-approved medical examination.)

In addition, please attach a course syllabus and/or more detailed description.

RESTRICTIONS
☒ Prerequisite PED 1054
☐ Corequisite

☐ Prerequisite

☐ Corequisite

☐ Prerequisite

☐ Corequisite

GRADES TO BE ISSUED
☐ A, B, C, D, F
☐ A, B, C, D, F, CEU
☐ CEU
☐ S, U
☒ P, F
☐ Other

ADDITIONAL RESTRICTION
or students must hold recognized dive certification. Must meet all medical/physical requirements

If this course replaces a course currently offered in BANNER, please indicate old course information and the date/term the course may be removed from the system.

SUBJECT Alpha Prod(e.g., CSE) COURSE NO. (e.g., 1301)

APPROVALS: Upon completion of appropriate department approvals, submit form to Chair, Graduate Council, or Chair, Undergraduate Curriculum Committee for approval below and forward to Catalog Director.

Original

Richard B. Gerzon

Date

Chair, Graduate Council

Date

OR

Dean or Associate Dean Chair

Date

Chair, Undergraduate Curriculum Committee

Date

CATALOG DIRECTOR

REGISTRAR'S USE ONLY

SCACRESE SCACFIL SCAPREQ

SCABRES Operator Init. Date

Florida Institute of Technology • Office of the Registrar

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RCR 606-409
Proposed Course: ISC 2501

Scientific Diving Techniques and Certification

Rationale:
The ability to safely and effectively conduct underwater research is a vital component of the careers of marine biologists, oceanographers, ocean engineers and coastal zone managers. Individual training in underwater research techniques is no longer sufficient to prepare Florida Tech students to participate in university research programs or to showcase their diving skills as they develop their careers. To conform with requirements of government agencies and many other research institutions, Florida Tech is joining the American Academy of Underwater Sciences (AAUS). Certification as a Science Diver by AAUS is now a requirement for participation in government research programs, and allows reciprocity of diving certifications among AAUS member organizations. AAUS Science Diver Certification will greatly enhance the ability of Florida Tech students to compete for diving research positions after graduation. Because of the broad appeal of this course to students in many departments, we suggest an Interdisciplinary Science prefix for the course.

Goal:
To provide a 3-week summer course that will enable undergraduate students to earn AAUS Science Diver Certification.

Prerequisites:
Students must already hold at least a Basic Open Water dive certification (which can be obtained through PED 1054 or commercial dive training companies), meet all swimming ability requirements, and pass the AAUS-approved Medical Examination.

Instructors:
Dr. J.M. Shenker, Biological Sciences, and Mr. T. Fletcher, Marine Operations Manager

Syllabus:
Weeks 1 & 2 (on campus):

- Complete required AAUS safety certifications (CPR, First Aid, Emergency O₂ Administration). (12 hours)
- Complete AAUS physical and swimming ability tests (5 hours)
- Lectures on underwater research techniques, data collection, data analysis (13 hours)
- “Dry-land” practice of underwater research techniques (e.g., transect and quadrat analyses, methods of population census estimation, measurement of habitat rugosity, etc.) (10 hours)

Week 3 – at Mote Marine Laboratory in FL Keys

Completion of required 12 science dives (30 hours)

Compilation, analysis and presentation of underwater data (10 hours)
Text:

- AAUS/Florida Tech Dive Manual
- CPR/First Aid/O₂ Administration Manuals
- Supplemental readings from research literature

Evaluation:

Course will be graded on a Pass/Fail basis, with evaluations based on each AAUS safety certification and upon successful completion of science dives.