

CITRUS COMMUNITY COLLEGE DISTRICT

Natural History Program Review 2003-2004

Full-time Faculty

Robert Goodman, Lead Faculty

Eric Rabbitoy

Dave Ryba

Dana Hester

Steve Hartman

Program Description:

The courses in this program are designed to meet the needs of three distinct audiences:

- These courses serve a diverse segment of the community as well as our own student population for general interest as a component of life-long learning.
- They are appropriate for students majoring in a natural science where an exposure to a field-oriented learning experience complements the traditional lecture/lab experience which is common to the science transfer program.
- Career teaching professionals who are improving their knowledge in preparation for new state teacher recertification examinations. This is in response to a growing national concern regarding the level of scientific literacy among elementary and secondary school teachers.

Mission:

Commendation:

- This program conforms with the District's mission to provide transfer and associate degree courses.
- This program serves as a community resource for non-traditional life-long learners.
- Expanding this program into the evenings has increased the opportunities for life-long learners to participate. *Recommendation from 1997-98 Program Review.*

Recommendations:

- Some elements of existing courses in the series should be evaluated for possible inclusion in the Study Abroad program or, possibly, some new courses could be developed.

- This program incorporates a cross-discipline approach to learning using field-centered instruction, but could be enhanced by inclusion of course content from areas outside of the natural sciences, areas such as photography and fine arts.

Need:

Commendations:

- This program currently meets the needs of the students as stated in the mission statement.
- The courses in this program have undergone extensive review to afford a unique educational experience to students from diverse cultural backgrounds.
- Specific efforts have been made to accommodate students with disabilities in the field program.
- The program was evaluated for inclusion in the Distance Education or hybrid Distance Education instructional delivery system. ***Recommendation from 1997-98 Program Review.*** It was determined that the alternative delivery systems were not appropriate for this audience in this type of course.
- The program should be evaluated for addition to the Weekend College program. ***Recommendation from 1997-98 Program Review.*** Upon review, the College administration determined that the current Saturday student population was not sufficient to sustain such an offering.

Recommendations:

- The science faculty should be encouraged to link these courses to appropriate courses in biology, forestry, astronomy, GIS and geology in order to offer students an opportunity to participate in a discipline-specific field experience.
- An advisory committee that reflects the breadth of occupational opportunities should be created to give input on the need for a Natural History certificate program.

Feasibility:

Commendations:

- The members of the science faculty who teach in this program spend many hours in the field with their students. Much of this time is beyond the hours for which they receive compensation.
- The courses in this program are often conducted during non-traditional instruction times such as weekends. The faculty members give up their own free time in order to work with their students during these non-traditional class times.
- The courses in this program have been restructured to more accurately portray the manner in which the instruction is actually provided.
- Natural History faculty members have experimented with alternative delivery methods for the lecture portion of the courses in this program. This included web-

- based instruction and activities prior to field trips where hands-on application of knowledge was employed. **Recommendation in 1997-98 Program Review.** This has proved not to be an appropriate means of delivery for this program.
- Since these courses are field oriented, it is imperative that the District provides safe, well-maintained vehicles in sufficient numbers to support this and other “field” programs. It is essential that the District have in place a vehicle use plan that allows all departments to have equal access to vehicles. **Recommendation in 1997-98 Program Review.** The District has taken steps to ensure that an adequate pool of vehicles is available for all sectors of the college.
 - A Natural History webpage has been constructed and linked to the Science and Engineering Homepage. **Recommendation in 1997-98 Program Review.**
 - The program’s design relies on instructional technology but does not require a significant allocation of instructional classroom space.

Recommendations:

- The science faculty should explore the feasibility of adding a basic field Natural History course that would serve as a techniques prerequisite to be taken before enrolling in specific Natural History courses.
- The science faculty should explore the feasibility of adding a course designed for students that are seeking to fulfill teacher credentialing breadth prior to taking the new CSET credentialing exam.
- The science faculty should explore the feasibility of offering a Natural History Certificate with completion of 18-20 units of both Life Science and Physical Science courses. A defined audience for the certificate must first be identified.
- Faculty should consider creating a field techniques/principles course as a capstone for the program if a certificate is offered.
- Because the program is not a part of the core transfer curriculum in the sciences, courses have not been offered during the State budget crisis. When funding returns to normal levels, the courses should be reinstated.

Quality:

Commendations:

- Transfer credits for the courses in this program are accepted by all CSU campuses.
- The courses in this series have a strong component of cross-discipline instruction.
- Considerable efforts have been made by the science faculty to make these courses relevant to students already taking other traditional natural science courses.
- A faculty member was hired whose ability to conduct field-centered instruction was a major consideration during the screening process. **Recommendation in 1997-98 Program Review.**
- The science faculty has incorporated considerable instructional technology into the program, particularly the use of presentation software and web-based resources. **Recommendation in 1997-98 Program Review.**

Recommendations:

- A survey of the surrounding school districts should be conducted to explore the idea of these courses being offered as continuing education courses.
Recommendation in 1997-98 Program Review. In light of the changes in the statewide teacher credentialing procedures, this should remain a recommendation.
- Contact should be established with the Los Angeles County Office of Education to determine if the program might be an asset to train outdoor education specialists.

Progress in Prior Recommendations

- Expanding this program into the evenings has increased the opportunities for life-long learners to participate. ***Recommendation from 1997-98 Program Review.***
- The program was evaluated for inclusion in the Distance Education or hybrid Distance Education instructional delivery system. ***Recommendation from 1997-98 Program Review.*** It was determined that the alternative delivery systems were not appropriate for this audience in this type of course.
- The program should be evaluated for addition to the Weekend College program. ***Recommendation from 1997-98 Program Review.*** Upon review, the College administration determined that the current Saturday student population was not sufficient to sustain such an offering.
- Natural History faculty members have experimented with alternative delivery methods for the lecture portion of the courses in this program. This included web-based instruction and activities prior to field trips where hands-on application of knowledge was employed. ***Recommendation in 1997-98 Program Review.*** This has proved not to be an appropriate means of delivery for this program.
- Since these courses are field oriented, it is imperative that the District provides safe, well-maintained vehicles in sufficient numbers to support this and other “field” programs. It is essential that the District have in place a vehicle use plan that allows all departments to have equal access to vehicles. ***Recommendation in 1997-98 Program Review.*** The District has taken steps to ensure that an adequate pool of vehicles is available for all sectors of the college.
- A Natural History webpage has been constructed and linked to the Science and Engineering Homepage. ***Recommendation in 1997-98 Program Review.***
- The science faculty is exploring the feasibility of offering a Natural History Certificate with completion of 18-20 units of both Life Science and Physical Science courses.
- A faculty member was hired whose ability to conduct field-centered instruction was a major consideration during the screening process. ***Recommendation in 1997-98 Program Review.***
- The science faculty has incorporated considerable instructional technology into the program, particularly the use of presentation software and web-based resources. ***Recommendation in 1997-98 Program Review.***

- A survey of the surrounding school districts should be conducted to explore the idea of these courses being offered as continuing education courses.
Recommendation in 1997-98 Program Review. In light of the changes in the statewide teacher credentialing procedures, this should remain a recommendation.

Compliance

All requisites have been reviewed and updated.

The Chancellor's Office has raised questions about a potential certificate without a specific vocational or transfer need.

There are no regulatory or licensing mandates for this program.