

**CALIFORNIA STATE UNIVERSITY, EAST BAY**

Designation Code: **2010-11 CAPR 17**

Date Submitted: April 27, 2011

TO: The Academic Senate

FROM: Committee on Academic Planning & Review (CAPR)

SUBJECT: New Certificate in Foundational Level General Science.

PURPOSE: For Action by the Academic Senate

**ACTION**

**REQUESTED:** That the Academic Senate approve the request of the College of Science to establish the following: Certificate in Foundational Level General Science, to begin in Fall 2012.

**BACKGROUND**

**INFORMATION:** At its meeting on April 21, 2011, CAPR discussed the proposal by the College of Science to establish a new Certificate in Foundational Level General Science. The goal of this new certificate is to aid students who would like to teach middle school science and who currently have or plan to obtain their Multiple Subject teaching credential or a Single Subject teaching credential in a related field who need this certificate to comply with the Added Authorization in Foundational Level General Science established by the State of California. Teachers who complete this program and pass the Science CSET I and II exams qualify for this added authorization.

The eight courses listed for the certificate are currently being taught and have been approved for online instruction. The development and delivery of these courses in 2010-11 has been paid for by a grant that runs through 2011-12, which was designed to both develop the courses and stimulate demand from students to get the courses established. It is expected that the formal offering of a certificate and its linkage to the State Authorization will be sufficient incentive to make the course offerings sustainable once the current financing expires. The certificate is coordinated by a group of faculty from Science and Engineering, Mathematics and Teacher Education who advise on course content and offerings. Courses at the 3000 level are considered more than adequate to meet the content needs of middle school science teachers.

The CAPR vote was unanimous to approve this new option.

**REQUEST FOR APPROVAL OF NEW CERTIFICATE IN  
FOUNDATIONAL LEVEL GENERAL SCIENCE**

1. Departments: Biological Sciences, Chemistry & Biochemistry, Earth and Environmental Science, and Physics
2. Full and exact **title** of Certificate: Certificate in Foundational Level General Science
3. **Purpose** of the proposed aggregate of courses: This certificate program is designed for students who would like to teach middle school science and who currently have or plan to obtain their Multiple Subject teaching credential or a Single Subject teaching credential in a related field. This certificate program is being developed in response to the state's new Added Authorization in Foundational Level General Science.
3. List of all **requirements** including the **courses**, by catalog prefix number, title, and units of credit, as well as **total units** to be required under the proposed Certificate:

**Foundational Level General Science Certificate**

The Foundational Level General Science certificate program is designed for students who would like to teach middle school science or would like to become K-5 science specialists. Credentialed teachers who complete this program and pass the Science CSET I and II exams qualify for the Foundational-level Added Authorization in Science.

Candidates for this program should have or plan to obtain their Multiple Subject teaching credential or a Single Subject teaching credential in a subject other than a science discipline. Students who complete this program will be well prepared to teach science at the K-8 level, will have completed the State required Methods Courses in Single Subject Science and will have the content knowledge required to pass the Science CSET I and II exams. The certificate consists of 20 units.

**Required Courses**

BIOL 3011 Foundational Biology (4)  
BIOL 3012 Foundational Biology Laboratory (1)  
CHEM 3011 Foundational Chemistry (4)  
CHEM 3012 Foundational Chemistry Laboratory (1)  
GEOL 3011 Foundational Earth Science (4)  
GEOL 3012 Foundational Earth Science (1)  
PHYS 3011 Foundational Physics (4)  
PHYS 3012 Foundational Physics Laboratory (1)

4. List of **new courses** that were developed and existing **courses** that needed **modification** as a result of this new Certificate, if any, submitted along with this proposal:  
None
5. **RESOURCE IMPLICATIONS** of the proposed new Certificate, if any: Additional funds may be needed in the Departments of Biological Sciences, Chemistry & Biochemistry, Earth & Environmental Science, and Physics each year in order to offer these courses. These

courses can be taught by our current faculty, so no additional office space will be required. Classroom space needs are limited as the lecture courses are online, and the labs meet only one evening per week. Grant money will be available to cover these costs for the 2011–2012 academic year.

6. Relationship of proposed program to requirements for **teaching credentials, accreditation, and/or licensing**. This coursework is part of the California Teaching Commission's requirements for the Added Authorization in Foundational Level General Science. It does not include the required Methods in the Single Subject Classroom. It is designed to help teachers learn the content covered on the CSET 118 and 119 exams. Note that students who complete the Foundational Level General Science Certificate program will still need to pass the Foundational Level General Science CSET exams to establish subject matter competency for the credential.

7. **CONSULTATION** with other affected departments and program committee:

- a) The following **department(s)** has (have) been consulted and raise **no objections**:  
Biological Sciences, Chemistry, Earth and Environmental Science, Engineering, Mathematics, Physics, Teacher Education

The CSCI Curricular Committee and All Academic Departments and Programs at CSUEB were consulted using the Sharepoint Curriculum site and there were no objections.

- b) The following **department(s)** has (have) been consulted and **raised concerns**: None

8. Certification of **DEPARTMENT APPROVAL** by the chair and faculty.

Chair: Original signed by Michael Hedrick, Biological Sciences Date: 2/11/11

Chair: Original signed by Ann McPartland, Chemistry & Biochemistry Date: 2/8/11

Chair: Original signed by Jeffery Seitz, Geological Sciences Date: 2/11/11

Chair: Original signed by Jason Singley, Physics Date: 2/8/11

9. Certification of **COLLEGE APPROVAL** by the dean and college curriculum committee.

Dean/Associate Dean: Original signed by Alan Monat Date: 3/18/2011