TO: The Executive Committee
FROM: The Committee on Instruction and Curriculum (CIC)
SUBJECT: 17-18 CIC 7: Foundational Level General Science Certificate

ACTION REQUESTED: That the Senate accept the information that the revision request for the Foundational Level General Science Certificate has been approved

BACKGROUND INFORMATION:
The Senate process for approving transformed programs for the semester calendar is defined by 14-15 CIC 36. CIC discussed the Foundational Level General Science Certificate in its October 16 meeting, where it was unanimously approved. The proposal may be viewed within Curriculog; the summary is attached.
## General Catalog Information

Select Program unless otherwise instructed by APGS

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<th>Type of Program</th>
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<td>Program</td>
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**Year:** Fall 2018  
**Catalog:** 2018-2019

**Notes:** If you want to move an existing degree program to online (i.e. 50% or more of the program can be completed online (a hybrid course counts as .50 online), elevate an option to a degree, or change the degree type, please e-mail Donna Wiley, Interim Associate Vice President, Academic Programs and Graduate Studies; and copy Tamra Donnelly, Academic Programs and Accreditation Specialist, Academic Programs and Graduate Studies, for additional instructions as soon as possible.

### Department:

- College of Science
- Department of Biological Sciences
- Department of Chemistry and Biochemistry
- Department of Earth and Environmental Sciences
- Department of Physics

### Full and exact title of Certificate, Credential or Subject Matter Preparation:

Foundational Level General Science Certificate

### Has your program received transformation funding?

- Yes
- No

### If the program received transformation funding, please

Two primary changes were made in the courses that constitute the certificate program. Firstly, since the certificate program was approved, the
State of California has adopted the Next Generation Science Standards for educating its K-12 students. Since the program’s goal is to prepare teachers to confidently and competently teach science, the curriculum will be adapted to support these new standards. Secondly, the Next Generation Science Standards emphasize the importance of three dimensional learning – disciplinary core ideas, science and engineering practices, and cross-cutting concepts. The transformed courses reflect this by making explicit connections to the other natural sciences and engineering in the lectures and in the laboratory exercises through examination of real world problems and applications.

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.

Candidates 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.

**Curriculum Requirements**

- BIOL 301 Biology Connections
- BIOL 302 Biology Connections Laboratory
- CHEM 301 Chemistry Connections
- CHEM 302 Chemistry Connections Laboratory
- GEOL 301 Earth Science Connections
- GEOL 302 Earth Science Connections Laboratory
- PHYS 301 Physics Connections
- PHYS 302 Physics Connections Laboratory
Total number of units: * 16

Any additional program information

Is this program approved as an online program? *  Yes  No

If no, is there any pathway in the revised degree that is more than 50% online? *  Yes  No

Resource implications of the proposed revision, if any: N/A

Relationship of Revised Program to requirements for teaching credentials, accreditation, and/ or licensing, if any: These courses cover the content knowledge required to pass the Science CSET I and II exams. Passing these exams is required to qualify for the Foundational Level Added Authorization in Science.

Consultation with other affected departments and programs:
The following department(s) has (have) been consulted and raised no objections:* Biology, Chemistry and Biochemistry, Earth and Environmental Science, Physics

The following department(s) has (have) been consulted and raised concerns:* none

Catalog Item Types

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<tr>
<th>Degree Type*</th>
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