

SUBJECT MATTER PROGRAM (CHEMISTRY)

In Workflow

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Approval Path

1. Wed, 02 Oct 2019 20:35:47 GMT
Benjamin Gherman (ghermanb): Approved for CHEM Committee Chair
2. Fri, 04 Oct 2019 04:29:42 GMT
Roy Dixon (rdixon): Approved for CHEM Chair
3. Mon, 21 Oct 2019 22:35:49 GMT
Thomas Krabacher (tsk): Approved for NSM College Committee Chair
4. Wed, 23 Oct 2019 18:01:19 GMT
Shannon Datwyler (datwyler): Approved for NSM Dean

History

1. May 1, 2018 by clmig-jwehrheim
2. May 11, 2018 by 212408496
3. May 11, 2018 by 212408496
4. Oct 2, 2018 by 212408496

Date Submitted: Tue, 17 Sep 2019 18:06:23 GMT

Viewing: Subject Matter Program (Chemistry)

Last approved: Tue, 02 Oct 2018 20:34:52 GMT

Last edit: Wed, 16 Oct 2019 22:50:55 GMT

Changes proposed by: Shannon Datwyler (102041314)

Academic Group: (College)

Natural Sciences & Mathematics

Academic Organization: (Department)

Natural Sciences and Mathematics

Catalog Year Effective:

2020-2021 Catalog

Individual(s) primarily responsible for drafting the proposed degree major program:

Name (First Last)	Email	Phone 999-999-9999
Shannon Datwyler	datwyler@csus.edu	916-278-4655

Type of Program Proposal:

Credential

Program Change Type:

Substantive

Title of the Program:

Subject Matter Program (Chemistry)

Designation: (degree terminology)

Credential

Briefly describe the program proposal (new or change) and provide a justification:

The Science Subject Matter Program (in biology, chemistry, physics, or foundational level general science) is designed to meet the Commission on Teacher Credentialing (CTC) subject matter requirement for students to enter a California Single Subject teaching credential program in the area of emphasis (biology, chemistry, physics, or foundational level general science). Meeting the subject matter requirement is a credential program admission requirement, and can be met either through a subject matter program (such as those being proposed here) or by taking a state approved content exam (currently the California Subject Exam for Teachers, the CSET).

Subject matter programs are not degrees or concentrations; instead they are a series of courses that allow a student to meet the requirements for admission to a teaching credential program.

In summer 2018, faculty from the College of Natural Sciences and Mathematics worked with the College of Education on recertification of the science subject matter programs through CTC. In order to ensure the individual programs met the new California K-12 content standards for science (Next Generation Science Standards), changes to the list of courses required to meet the standards were necessary. The Science Subject Matter Programs in biology, chemistry, physics, and foundational science were approved by CTC in fall 2018. This Form B is submitted for the purpose of updating catalog copy and providing accurate information to the campus community through normal approval channels (including CPSP, the Council on the Preparation of School Personnel).

Objectives of the degree program:

To prepare students for application to a single subject teaching credential program in Chemistry.

University Learning Goals

Undergraduate Learning Goals:

Competence in the disciplines
Knowledge of human cultures and the physical and natural world
Integrative learning
Personal and social responsibility
Intellectual and practical skills

Graduate (Masters) Learning Goals:

Disciplinary knowledge

Will this program be required as part of a teaching credential program, a single subject, or multiple subject waiver program (e.g., Liberal Studies, Biology) or other school personnel preparation program (e.g., School of Nursing)?

Yes

For the Council for the Preparation of School Personnel (to be filled out with assistance of your department chair):

Does this program change impact your department's currently written Program Standards Document?

No

Common Standards: In what way does this course or program change impact the currently written Common Standards document? Please include any suggested language changes.

No

Is this change in response to program or unit assessment activities?

No

Will this program introduce any new or changes to program assessments?

No

Catalog Description:

Units required for the Subject Matter Program: 47-57

Program Description

The Science Subject Matter Program (in biology, chemistry, physics, or foundational level general science) is designed to meet the California Commission on Teacher Credentialing (CTC) subject matter requirement for students to enter a California Single Subject teaching credential program. Meeting the subject matter requirement is a credential program admission requirement, and can be met either through a subject matter program (such as those described below) or by taking a state approved content exam (currently

the California Subject Exam for Teachers, the CSET). In order to meet the subject matter obtain a California K-12 Teaching Credential, a program requirement, all courses must be completed with a grade of "C-" or better. In order to teach public school in California, you must also complete a teaching credential program.

Subject matter programs are not degrees or concentrations; instead they are a series of courses that allow a student to meet the requirements for admission to a teaching credential program. Students must also complete a BA or BS degree (with any major) to fulfill the credential requirements.

Science majors who intend to pursue a teaching credential should see a faculty advisor or the department chair in the department of their academic major. It is recommended that they do so early as it is critical that their science coursework be carefully planned and coordinated to include the required subject matter program courses. In addition, students are encouraged to become involved with education related activities like grading, assisting in labs, tutoring K-12 students, and visiting schools; please speak with the subject matter advisors in your area for more information.

Admission Requirements: Course prerequisites and other criteria for admission of students to the degree major program, and for their continuation in it.

None

As defined by policy <http://www.csus.edu/umannual/acadaff/fsm00010.htm>, a change in units constitutes a substantive change to the program. If your changes constitute a substantive change, please refer back to the "Program Change Type" field above to ensure that "Substantive" is selected.

Program Requirements: (If new courses are being created as part of a new program, it will be useful to propose courses first.)

Program Requirements

Code	Title	Units
Required Courses (35 Units)		
ASTR 4A	Introduction to the Solar System	3
ASTR 4B	Introduction to Stars, Galaxies, and Cosmology	3
Choose one of the following:		
BIO 1 & BIO 2	Biodiversity, Evolution and Ecology Cells, Molecules and Genes ¹	
BIO 10 & BIO 15L	Basic Biological Concepts Laboratory Investigations in Biology	
CHEM 1A	General Chemistry I ¹	5
CHEM 1B	General Chemistry II	5
CHEM 24	Organic Chemistry Lecture I	3
CHEM 31	Quantitative Analysis	4
ENVS 10	Introduction to Environmental Science ¹	3
GEOL 10	Physical Geology ¹	3
Choose one of the following		
PHYS 5A & PHYS 5B	General Physics: Mechanics, Heat, Sound General Physics: Light, Electricity and Magnetism, Modern Physics ¹	
PHYS 11A & PHYS 11B & PHYS 11C	General Physics: Mechanics General Physics: Heat, Light, Sound, Modern Physics General Physics: Electricity and Magnetism	
CHEM 140A	Physical Chemistry Lecture I	3
CHEM 160A or CHEM 161	Structure and Function of Biological Molecules General Biochemistry	3
Total Units		35

¹ Course also satisfies General Education (GE)/Graduation Requirement.

For graduate programs, the number of declared undergraduate major and the degree production over the preceding years of the corresponding baccalaureate program:

Not Applicable. This is not a degree program.

Fiscal Impact to Change an Existing Program

Indicate programmatic or fiscal impact which this change will have on other academic units' programs, and describe the consultation that has occurred with affected units:

This change will not have any fiscal impact on other departments. This is an interdisciplinary set of courses required to complete the California Commission on Teacher Credentialing requirements to teach Chemistry.

Provide a fiscal analysis of the proposed changes:

N/A

How will the above changes be accommodated within the department/College existing fiscal resources?

No changes to college resources

Will the proposed changes require additional resources?

No

What additional space, equipment, operating expenses, library, computer, or media resources, clerical/technical support, or other resources will be needed?

N/A

Key: 309