INTRODUCTORY SUPPLEMENTARY AUTHORIZATION IN COMPUTER SCIENCE

In Workflow

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Approval Path

1. Thu, 26 Mar 2020 23:30:21 GMT
   Janett Torset (torsetj): Approved for Academic Services
2. Fri, 10 Apr 2020 16:50:15 GMT
   Troy Topping (troy.topping): Approved for ECS College Committee Chair
3. Fri, 10 Apr 2020 17:06:04 GMT
   Kevan Shafizadeh (kevan): Approved for ECS Dean
4. Fri, 10 Apr 2020 17:54:27 GMT
   Janett Torset (torsetj): Rollback to ECS College Committee Chair for Academic Services
5. Fri, 24 Apr 2020 20:12:58 GMT
   Troy Topping (troy.topping): Approved for ECS College Committee Chair
6. Sat, 04 Jul 2020 16:07:56 GMT
   Kevan Shafizadeh (kevan): Approved for ECS Dean

New Program Proposal

Date Submitted:Thu, 26 Mar 2020 23:25:00 GMT

Viewing:Introductory Supplementary Authorization in Computer Science

Last edit:Fri, 10 Apr 2020 17:54:26 GMT

Changes proposed by: Anna Baynes (219700742)

Academic Group: (College)

Engineering & Computer Science

Academic Organization: (Department)

College of Engineering & Computer Science

Catalog Year Effective:

2021-2022 Catalog

NOTE: This degree major program will be subject to program review evaluation within six years after implementation.

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

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Type of Program Proposal:

Credential

Is this a pilot program?

No

Is this a Fast Track program?

No

Title of the Program:

Introductory Supplementary Authorization in Computer Science

Designation: (degree terminology)

Credential

Abstract of the proposal:

The Introductory Supplementary Authorization in Computer Science allows holders of a Multiple Subject (Elementary) Teaching Credential to teach computer science content to students in grades 9 and below. In addition, the authorization may be added to the Single Subject Teaching Credential to teach computer science subject matter that is normally found in grades 9 and below, but the students in the class may be in grades K-12.

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

The state of California does not have a Single Subject teaching credential in computer science that would be similar to teaching credentials in math, English, Spanish, etc. Instead, the state has an "Introductory Supplementary Authorization" that can be used to authorize holders of other teaching credentials to teach computer science. Therefore, this supplementary authorization is simply a set of courses that, when successfully completed, allow someone with a teaching credential to "add" the authorization to teach computer science in grades K-12. Adding this authorization enables CSUS teaching credential graduates to be more competitive for teaching jobs. The authorization is not a major, minor, or any type of university-recognized credential (or other) program. We were told to select "credential" as it is the closest to the intent of the authorization.

Objectives of the degree program:

This is not a degree program.

University Learning Goals

Undergraduate Learning Goals:

Intellectual and practical skills

Graduate (Masters) Learning Goals:

Critical thinking/analysis
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)?

No

Please attach a Comprehensive Program Assessment Plan (required)

Program-Assessment-Plan-Template (1).docx

Please attach a Curriculum Map Matrix (required)

CurriculumMapMatrixTemplate (1).docx

Please attach a five-year budget projection (required)

5-year-budget-template-sample (1).xls

Catalog Description:

The Introductory Supplementary Authorization in Computer Science allows holders of a Multiple Subject (Elementary) Teaching Credential to teach computer science content to students in grades 9 and below. In addition, the authorization may be added to the Single Subject Teaching Credential to teach computer science content that is normally found in grades 9 and below, to students in grades K-12.

To earn this Introductory Supplementary Authorization, students must complete 20 semester units or 10 upper division semester units of coursework which covers the following four areas: computational thinking, computing practice and programming, computers and communication devices, and impacts of computing. At least one course must cover each of the first three listed areas; impacts of computing may be part of other completed courses. The balance of the ten or twenty units may be in any course related to computer science.

Courses in computing and computers topics not offered by the Computer Science department do not automatically meet the requirements without submission of transcripts to the department pre-teaching advisor(s), to verify all the required content areas have been fulfilled. This listing of courses will assist future teachers who are interested in teaching computer science in K-12 settings. Please see a Computer Science department pre-teaching advisor (or inquire at the department office) for more information or for a transcript evaluation.

Please view the Example Course Completion Pathways for suggestions on efficient ways to complete the following criteria.

Computational thinking: involves solving problems and designing systems, using fundamental computing concepts such as decomposition, data representation, generalization/abstraction, and algorithms. Recommended courses that meet this requirement include CSC 10, CSC 15, CSC 20, CSC 25, CSC 28, CSC 60, or CSC 130.

Computing practice and programming: includes expertise in at least one block-based, visual (drag#and#drop) programming language (e.g., Alice, Blockly, Kodu, Logo, Scratch, Snap!) or a modern, high#level programming language. Recommended courses that meet this requirement include CSC 15, CSC 20, CSC 25, CSC 60, or CSC 130.

Computer and communications devices: covers the major components and functions of digital devices and the computing systems they compose. Courses that meet this requirement include CSC 35.

Impacts of computing: includes the social, ethical, and legal issues and impacts of computing, as well as the contributions of computer science to current and future innovations in the arts, business, humanities, medicine, and science. Courses that meet this requirement include PHIL 103, EDSS 373 A&B, or EDMS 330 A&B (EDSS and EDMS are required teaching credential courses), as well as other approved courses with a subject matter focus on impacts of computing.

Example Course Completion Pathways:

Computational thinking: CSC 10 (3)

Computing practice and programming: CSC 15 (3), CSC 20 (3)

Computer and communications devices: CSC 35 (3)

Impacts of computing: PHIL 103 (3), EDMS 330A (1), EDMS 330B (1)

Any other 3-credit CSC course

Computational thinking: CSC 10 (3)

Computing practice and programming: CSC 15 (3), CSC 20 (3)

Computer and communications devices: CSC 35 (3)

Impacts of computing: PHIL 103 (3), EDSS 373A (1), EDSS 373B (1)

Any other 3-credit CSC course

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

N/A

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

N/A

Attach the results of a formal survey in the geographical area to be served indicating demand for individuals who have earned the proposed degree and evidence of serious student interest in majoring in the proposed program:

GeographicNeeds.docx

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

N/A

Professional uses of the proposed degree major program:

N/A

The expected number of majors in:

1st Year Enrollment:
5
3rd Year Enrollment:
5
5th Year Enrollment:
10

1st Year Graduates:
0
3rd Year Graduates:
5
5th Year Graduates:
10

Reviewer Comments:
Kevan Shafizadeh (kevan) (Fri, 10 Apr 2020 17:05:50 GMT): This proposal probably needs to go through Council on Preparation of School Personnel (CPSP).
Janett Torset (torsetj) (Fri, 10 Apr 2020 17:54:28 GMT): Rollback: Rolled back to College Committee chair for edits to CPSP section

Key: 482