CSC 133: OBJECT-ORIENTED COMPUTER GRAPHICS PROGRAMMING

In Workflow

1. CSC Committee Chair (shaverdian@csus.edu;%20jouyang@csus.edu)
2. CSC Chair (faroughi@csus.edu)
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9. Catalog Editor (torsetj@csus.edu)
10. Registrar's Office (wlindsey@csus.edu)
11. PeopleSoft (PeopleSoft@csus.edu)

Approval Path

1. Fri, 25 Sep 2020 22:42:20 GMT
   Anna Baynes (shaverdian): Approved for CSC Committee Chair
2. Wed, 30 Sep 2020 18:11:26 GMT
   Nikrouz Faroughi (faroughi): Approved for CSC Chair
3. Mon, 12 Oct 2020 21:51:27 GMT
   Gareth Figgess (figgess): Rollback to CSC Committee Chair for ECS College Committee Chair
4. Mon, 12 Oct 2020 22:31:24 GMT
   Anna Baynes (shaverdian): Approved for CSC Committee Chair
5. Mon, 12 Oct 2020 23:22:17 GMT
   Nikrouz Faroughi (faroughi): Rollback to CSC Committee Chair for CSC Chair
6. Tue, 13 Oct 2020 05:00:05 GMT
   Anna Baynes (shaverdian): Approved for CSC Committee Chair
7. Tue, 13 Oct 2020 15:31:10 GMT
   Nikrouz Faroughi (faroughi): Approved for CSC Chair
8. Fri, 23 Oct 2020 17:53:56 GMT
   Gareth Figgess (figgess): Approved for ECS College Committee Chair
9. Fri, 23 Oct 2020 18:17:25 GMT
   Kevan Shafizadeh (kevan): Approved for ECS Dean

Date Submitted: Fri, 25 Sep 2020 18:47:44 GMT

Viewing: CSC 133 : Object-Oriented Computer Graphics Programming
Last edit: Fri, 23 Oct 2020 17:52:43 GMT

Changes proposed by: Pinar Muyan-Ozcelik (217381828)

Contact(s):

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Catalog Title:

Object-Oriented Computer Graphics Programming

Class Schedule Title:

Obj-Oriented Cmptr Graph

Academic Group: (College)

ECS - Engineering & Computer Science

Academic Organization: (Department)

Computer Science

Will this course be offered through the College of Continuing Education (CCE)?

No

Catalog Year Effective:
Fall 2021 (2021/2022 Catalog)

Subject Area: (prefix)
CSC - Computer Science

Catalog Number: (course number)
133

Course ID: (For administrative use only.)
111996

Units:
3

In what term(s) will this course typically be offered?
Fall, Spring

Does this course require a room for its final exam?
Yes, final exam requires a room

Does this course replace an existing experimental course?
No

This course complies with the credit hour policy:
Yes

Justification for course proposal:
1. The prerequisite change is to avoid students worried about failing their current course from occupying enrollment. Our current course waitlists are filled.
2. The Computer Science department reviewed our courses based on current teaching practice and professional organization recommendations. This update is required for Computer Science program external accreditation.

Course Description: (Not to exceed 80 words and language should conform to catalog copy.)
Introduction to computer graphics and to advanced topics in object-oriented programming. Mobile application development; implementation of event-driven systems; advanced object-oriented concepts such as inheritance and polymorphism; implementation of software design patterns; graphical user interface development; fundamentals of 2D graphics systems. Application of these topics to mobile programming.

Are one or more field trips required with this course?
No

Fee Course?
No

Is this course designated as Service Learning?
No

Does this course require safety training?
No

Does this course require personal protective equipment (PPE)?
No

Does this course have prerequisites?
Yes

Prerequisite:
CSC 130, CSC 131, not currently enrolled in CSC 133.

Prerequisites Enforced at Registration?
Yes

Does this course have corequisites?

No

Graded:

Letter

Approval required for enrollment?

No Approval Required

Course Component(s) and Classification(s):

Lecture

Lecture Classification

CS#02 - Lecture/Discussion (K-factor=1WTU per unit)

Lecture Units

3

Is this a paired course?

No

Is this course crosslisted?

No

Can this course be repeated for credit?

No

Can the course be taken for credit more than once during the same term?

No

Description of the Expected Learning Outcomes: Describe outcomes using the following format: 'Students will be able to: 1), 2), etc.'

1. Apply the fundamental components of the object-oriented paradigm including abstraction, encapsulation, inheritance, polymorphism, and specify and use interfaces.
2. Explain the concept of design patterns, and implement several commonly-used design patterns.
3. Apply elements of graphics systems including display devices, graphical user interface (GUI) components, color representation, interactive techniques, and simple animation.
4. Apply event-driven programming in the implementation of graphics and mobile programs.
5. Construct GUIs.
6. Apply appropriate affine transforms in a 2D graphics system.
7. Develop simple mobile applications.

Attach a list of the required/recommended course readings and activities:

133ABETOutline_v3.docx

Assessment Strategies: A description of the assessment strategies (e.g., portfolios, examinations, performances, pre-and post-tests, conferences with students, student papers) which will be used by the instructor to determine the extent to which students have achieved the learning outcomes noted above.

ELOs 1-7 are assessed with homework assignments and examinations.

Is this course required in a degree program (major, minor, graduate degree, certificate?)

Yes

Has a corresponding Program Change been submitted to Workflow?

No

Identify the program(s) in which this course is required:

Programs:
BS in Computer Science

Does the proposed change or addition cause a significant increase in the use of College or University resources (lab room, computer)?

No

Will there be any departments affected by this proposed course?
No

I/we as the author(s) of this course proposal agree to provide a new or updated accessibility checklist to the Dean's office prior to the semester when this course is taught utilizing the changes proposed here.
I/we agree

University Learning Goals

Undergraduate Learning Goals:
Competence in the disciplines

Is this course 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

GE Course and GE Goal(s)

Is this a General Education (GE) course or is it being considered for GE?
No

Reviewer Comments:
Gareth Figgess (figgess) (Mon, 12 Oct 2020 21:51:27 GMT): Rollback: As requested
Nikrouz Faroughi (faroughi) (Mon, 12 Oct 2020 23:22:17 GMT): Rollback: update

Key: 1036