

CSC 239: ADVANCED OPERATING SYSTEMS PRINCIPLES AND DESIGN

In Workflow

1. CSC Committee Chair (tdk@csus.edu;%20jouyang@csus.edu)
2. CSC Chair (faroughi@csus.edu)
3. ECS College Committee Chair (troy.topping@csus.edu)
4. ECS Dean (kevan@csus.edu)
5. Academic Services (torsetj@csus.edu;%20212408496@csus.edu;%20cnewsome@skymail.csus.edu)
6. Senate Curriculum Subcommittee Chair (curriculum@csus.edu)
7. Dean of Undergraduate (james.german@csus.edu;%20celena.showers@csus.edu)
8. Dean of Graduate (cnewsome@skymail.csus.edu)
9. Catalog Editor (212408496@csus.edu;%20torsetj@csus.edu;%20cnewsome@skymail.csus.edu)
10. Registrar's Office (wwd22@csus.edu)
11. PeopleSoft (PeopleSoft@csus.edu)

Approval Path

1. Fri, 18 Oct 2019 04:45:41 GMT
Jinsong Ouyang (jouyang): Approved for CSC Committee Chair
2. Fri, 18 Oct 2019 18:28:45 GMT
Nikrouz Faroughi (faroughi): Approved for CSC Chair
3. Fri, 25 Oct 2019 16:50:43 GMT
Troy Topping (troy.topping): Rollback to Initiator
4. Fri, 25 Oct 2019 18:53:49 GMT
Jinsong Ouyang (jouyang): Approved for CSC Committee Chair
5. Fri, 01 Nov 2019 00:25:47 GMT
Nikrouz Faroughi (faroughi): Approved for CSC Chair
6. Fri, 08 Nov 2019 17:32:28 GMT
Troy Topping (troy.topping): Approved for ECS College Committee Chair
7. Thu, 21 Nov 2019 19:05:52 GMT
Kevan Shafizadeh (kevan): Approved for ECS Dean

Date Submitted: Fri, 25 Oct 2019 18:47:51 GMT

Viewing: CSC 239 : Advanced Operating Systems Principles and Design

Last edit: Fri, 25 Oct 2019 18:47:50 GMT

Changes proposed by: Jinsong Ouyang (101068561)

Contact(s):

Name (First Last)	Email	Phone 999-999-9999
Jinsong Ouyang	jouyang@csus.edu	916-278-7096

Catalog Title:

Advanced Operating Systems Principles and Design

Class Schedule Title:

Adv Oper Syst Prncpl+Dsgn

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 2020 (2020/2021 Catalog)

Subject Area: (prefix)

CSC - Computer Science

Catalog Number: (course number)

239

Course ID: (For administrative use only.)

112576

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:

The course doesn't require CSC 205 as a prerequisite. The course doesn't depend on advanced knowledge of computer architecture taught at CSC 205. The topics taught at CSC 137 are sufficient for CSC 239, and CSC 137 is required for fully classified graduate status in computer science, software engineering, or computer engineering.

Course Description: (Not to exceed 80 words and language should conform to catalog copy.)

Advanced concepts of concurrent processes, concurrent programming and operating systems. Virtual memory management systems, deadlock, file systems, operating system performance measurement and evaluation, device driver development.

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:

Fully classified graduate status in Computer Science, Software Engineering, or Computer Engineering.

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):

Seminar

Seminar Classification

CS#05 - Seminar (K-factor=1 WTU per unit)

Seminar 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."

Students will be able to:

- (1) Describe the advanced concepts in operating systems.
- (2) Apply in-depth knowledge of Linux operating system, e.g., process management, scheduling, kernel synchronization, signal handling, memory management, file systems, IPC, loadable modules.
- (3) Develop system and performance management solutions, which builds hands-on Linux and/or Windows system programming experience.
- (4) Design and implement Linux device drivers.

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.

- (1) Term project: Expected Learning Outcomes (1-4)
- (2) Midterm and Final Exams Expected Learning Outcomes (1-4)

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

No

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?

Yes

Indicate which department(s) will be affected by the proposed course:**Department(s)**

Computer Science

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**Graduate (Masters) Learning Goals:**

Critical thinking/analysis
 Communication
 Information literacy
 Disciplinary knowledge

Professionalism

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

Is this a Graduate Writing Intensive (GWI) course?

No

Please attach any additional files not requested above:

CSc 239 Syllabus.pdf

Reviewer Comments:

Troy Topping (troy.topping) (Fri, 25 Oct 2019 16:50:43 GMT):Rollback: Please update ELOs with verbs from Bloom's taxonomy on the proposal and your syllabus.

Key: 1095