

CSC 244: DATABASE SYSTEM DESIGN

In Workflow

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Approval Path

1. Tue, 31 Aug 2021 04:41:15 GMT
Jinsong Ouyang (jouyang): Approved for CSC Committee Chair
2. Tue, 31 Aug 2021 21:52:10 GMT
Nikrouz Faroughi (faroughi): Approved for CSC Chair
3. Fri, 17 Sep 2021 17:20:24 GMT
Mohammed Eltayeb (mohammed.eltayeb): Rollback to CSC Chair for ECS College Committee Chair
4. Mon, 20 Sep 2021 19:45:19 GMT
Nikrouz Faroughi (faroughi): Approved for CSC Chair
5. Fri, 24 Sep 2021 17:28:14 GMT
Mohammed Eltayeb (mohammed.eltayeb): Approved for ECS College Committee Chair
6. Fri, 24 Sep 2021 17:35:59 GMT
Behnam Arad (arad): Approved for ECS Dean

Date Submitted: Tue, 31 Aug 2021 04:37:43 GMT

Viewing: CSC 244 : Database System Design

Last edit: Fri, 24 Sep 2021 17:28:08 GMT

Changes proposed by: Ying Jin (102041392)

Contact(s):

Name (First Last)	Email	Phone 999-999-9999
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Catalog Title:

Database System Design

Class Schedule Title:

Database System Design

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 2022 (2022/2023 Catalog)

Subject Area: (prefix)

CSC - Computer Science

Catalog Number: (course number)

244

Course ID: (For administrative use only.)

112591

Units:

3

Is the primary purpose of this change to update the term typically offered or the enforcement of requisites at registration?

No

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:

To enhance CSC 244 by adding advanced SQL programming techniques and database constraint management

Specifically, the following topics are added:

- SQL views and complex queries
- Integrity constraints and triggers
- Stored procedures and functions

The following topics are removed:

- Cost-based plan selection
- Physical query plan optimization
- Transaction management in distributed database management systems

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

SQL views, integrity constraints and triggers, stored procedures and functions. Advanced topics in database system design: an algebra for queries, query processing algorithms, query compiler, query optimization, transaction management, recovery, concurrency control. Special topics on data management.

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 or Software 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. Develop SQL views, triggers, stored procedures, and functions
2. Explain query processing algorithms
3. Apply query optimization principles at the logical query plan level
4. Explain the fundamentals of transaction management, concurrency control, and recovery

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.

Examinations: (ELOs 1-4)

Project and Assignments ((ELOs 1,2)

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?

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**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:

CSC244_CourseDescription.pdf

Reviewer Comments:

Mohammed Eltayeb (mohammed.eltayeb) (Fri, 17 Sep 2021 17:20:24 GMT): Rollback: -Provide justification for removing EEE 204 from the program. - ELO 4 needs to be revised to reflect changes in the course. - Attach updated From B (program change)

Key: 1097