CSC 173: DATA VISUALIZATION

In Workflow

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Approval Path

1. Fri, 10 Apr 2020 16:09:29 GMT
   Anna Baynes (shaverdian): Approved for CSC Committee Chair
2. Fri, 10 Apr 2020 16:12:11 GMT
   Nikrouz Faroughi (faroughi): Approved for CSC Chair
3. Fri, 10 Apr 2020 17:03:27 GMT
   Troy Topping (troy.topping): Approved for ECS College Committee Chair
4. Fri, 10 Apr 2020 17:09:39 GMT
   Kevan Shafizadeh (kevan): Approved for ECS Dean

New Course Proposal

Date Submitted:Thu, 09 Apr 2020 22:15:24 GMT

Viewing:CSC 173 : Data Visualization

Last edit:Thu, 09 Apr 2020 22:15:22 GMT

Changes proposed by: Anna Baynes (219700742)

Contact(s):

Name (First Last)	Email	Phone 999-999-9999
Anna Baynes	shaverdian@csus.edu	206-790-2957

Catalog Title:
Data Visualization

Class Schedule Title:
Data Visualization

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:
Spring 2021 (2021/2022 Catalog)

Subject Area: (prefix)
CSC - Computer Science

Catalog Number: (course number)
173

Course ID: (For administrative use only.)
202943

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?
Yes

This course replaces the following experimental course:
CSC 196V - Data Visualization

This course complies with the credit hour policy:
Yes

Justification for course proposal:
The experimental run of this course was successful and we would like it to be permanent.

Course Description: (Not to exceed 80 words and language should conform to catalog copy.)
Design principles and concepts for visualizing data; current visualization systems and languages, exploratory data analysis, interaction techniques, high-dimensional data, network visualization, and text visualization.

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 134, and STAT 50 or ENGR 115.

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#04 - Lecture /Recitation (K-factor=1 WTU 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) Interpret visualization principles and pipeline;
2) Identify common data domains and corresponding analysis tasks, including multivariate data, networks, and text;
3) Produce web-based interactive visualizations using current visualization tools and languages;
4) Identify key visualization techniques and theory, including data models, and methods for visual encoding and interaction;
5) Compare and contrast visualizations and identify needed improvements based on data models, graphical perception, and methods for visual encoding and interaction; and
6) Apply a structured design process to create effective visualizations

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 (ELO 1, 2, 4) , projects (ELO 1-6), homework assignments (ELO 1-6), and in class presentations (ELO 5-6)

For whom is this course being developed?

Majors in the Dept

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

Undergraduate Learning Goals:

Intellectual and practical skills

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

Please attach any additional files not requested above:

Syllabus_173.docx

Key: 14240