

COURSE APPROVAL DOCUMENT
Southeast Missouri State University

Department: Computer Science

Course No. CS 499

Title of Course: Capstone Experience

Date: Spring 2019

Please check: New
 Revision

I. **Catalog Description** (Credit Hours of Course): Application of techniques and tools to deliver the artifacts pertaining to requirements, analysis, design, software plan and implementation. (3)

II. **Prerequisite(s)**: CS 445 with a minimum grade of 'C'; permission of chair
Co-requisite(s):

III. **Purposes or Objectives of the Course**
(optional):

IV. **Course Learning Outcomes (Minimum of 3):**

A. Oral communication:

1. Students will use effective oral communication skills to communicate with group members.
2. Students will make presentations appropriate to a general audience regarding their progress and proposed solutions to problems.
3. Students will orally present design alternatives or questions to a general audience and solicit necessary input.

B. Written communication:

1. Students will compose written progress reports that are suitable to a general audience.
2. Students will use written memos to record progress, solicit information, and suggest approaches within their groups.

C. Natural systems:

1. Students will apply background knowledge from their major disciplines to identify issues pertinent to the problem.
2. Students will apply content and methods from their major disciplines to propose possible solutions to the problem.
3. Students will apply content and methods from their major disciplines to develop a solution for the problem.
4. Students will devise experimental, modeling, application, or verification approaches and test the efficacy of proposed solutions.

D. Professional Ethics (Major related objective)

1. Identify, synthesize evidence from different sources and describe a conclusion to current professional ethical scenario. (Note: This may be different for each participant (group). Groups will gather evidence that can be used to support their claim or conclusion. These conclusions will be presented in the form PowerPoint Presentation.)

V. **Names of Faculty Qualified to Teach the Proposed**

Course:

- A. Sumanth Yenduri
- B. Suhair Amer

VI. **Course Content or Outline (Indicate number of class hours per unit or section):**

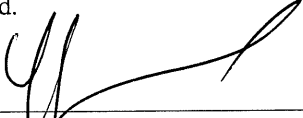
TOPIC	HOURS
A. Introduction	3
1. Introduction of problem	
2. Clarification of expectations and processes	
3. Survey of information resources	
B. Communications	3
1. Introduction to writing styles and audiences	
2. Oral communication within and outside the group	
3. Group organization and project management	
C. Case study or studies with emphasis on problem-solving strategies, group dynamics, oral and written communications	6
D. Group work on main project, including periodic meetings with instructor, oral and written progress reports	30
1. At the beginning of the project, task assignments and a schedule will be	

- established
 - 2. Weekly group meetings will be held with the instructor. Copies of notes and action items from all meetings will be submitted and discussed.
 - 3. Formal written progress reports will be submitted every three weeks.
 - 4. Formal oral progress reports will be presented every three weeks.
- E. Oral Final Reports
- Total

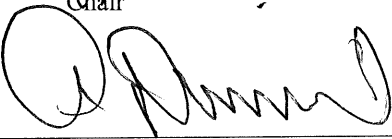
3
45

Attach the following:

- copy of example class syllabus and course schedule.
- memo from Library Dean assessing available and needed library holdings and resources.
- memo(s) from Department Chairs in affected departments stating possible issues and/or conflicts are resolved.

Signature:  _____
Chair

Date: 11/12/18

Signature:  _____
Dean

Date: 11/13/18

I. COURSE INFORMATION

Course Number: CS 499

Course Title: Capstone Experience

Course Description: Application of techniques and tools to deliver the artifacts pertaining to requirements, analysis, design, software plan and implementation. (3)

Prerequisites: CS 445 with a minimum grade of 'C'; permission of chair

Credit Hours: 3 hours

Semester: Spring 19

II. CLASS MEETING TIME AND PLACE

Class meeting time: MWF 10:00 am – 10:50 am

Class meeting place: DH22.

III. INSTRUCTOR INFORMATION

Instructor: Dr. Sumanth Yenduri

Email: syenduri@semo.edu

Office Phone: 573-651-2368

Office Location: DH21B

Office Hours: MWF 11am -12noon

IV. COURSE-SPECIFIC REQUIRED MATERIALS

Object-Oriented and Classical Software Engineering, 8th Ed, by Stephen Schach, 2010, ISBN 10: 0073376183, ISBN 13: 9780073376189

V. COURSE LEARNING OUTCOMES

A. Oral communication:

4. Students will use effective oral communication skills to communicate with group members.
5. Students will make presentations appropriate to a general audience regarding their progress and proposed solutions to problems.
6. Students will orally present design alternatives or questions to a general audience and solicit necessary input.

B. Written communication:

3. Students will compose written progress reports that are suitable to a general audience.
4. Students will use written memos to record progress, solicit information, and suggest approaches within their groups.

C. Natural systems:

5. Students will apply background knowledge from their major disciplines to identify issues pertinent to the problem.
6. Students will apply content and methods from their major disciplines to propose possible solutions to the problem.
7. Students will apply content and methods from their major disciplines to develop a solution for the problem.
8. Students will devise experimental, modeling, application, or verification approaches and test the efficacy of proposed solutions.

D. Professional Ethics (Major related objective)

2. Identify, synthesize evidence from different sources and describe a conclusion to current professional ethical scenario. (Note: This may be different for each participant (group). Groups will gather evidence that can be used to support their claim or conclusion. These conclusions will be presented in the form PowerPoint Presentation.)

VI. STUDENT RESPONSIBILITIES

As a student in this course, you are responsible for:

- A. managing your time and maintaining the discipline required to meet the course requirements
- B. completing all readings and assignments
- C. completing and submit exams on time
- D. attending class regularly and on time
- E. checking for any e-mail sent by your Instructor and respond accordingly

VII. COURSE CONTENT

TOPIC	HOURS
F. Introduction	3
1. Introduction of problem	
2. Clarification of expectations and processes	
3. Survey of information resources	
G. Communications	3
1. Introduction to writing styles and audiences	
2. Oral communication within and outside the group	
3. Group organization and project management	
H. Case study or studies with emphasis on problem-solving strategies, group dynamics, oral and written communications	6
I. Group work on main project, including periodic meetings with instructor, oral and written progress reports	30
5. At the beginning of the project, task assignments and a schedule will be established	
6. Weekly group meetings will be held with the instructor. Copies of notes and action items from all meetings will be submitted and discussed.	
7. Formal written progress reports will be submitted every three weeks.	
8. Formal oral progress reports will be presented every three weeks.	
J. Oral Final Reports	3
Total	45

VIII. GRADING SCALE AND POLICIES

Activity	Percentage
Ethics presentation and report	10%
Requirements Report	15%
Analysis Report & Presentation	20%
Software Plan	10%
Design	15%
Final presentation for peers	10%
Final presentation for Advisory Board	10%
Final Project Folder	10%
Total	100%

Grading Scale

The following is a general guide on grades for undergraduate course:

A: 90% -- 100% B: 80% -- 89% C: 70% -- 79% D: 60% -- 69% F: 0% -- 59%

IX. FINAL EXAM SCHEDULE

No Exam

X. WHOM TO CONTACT WITH CONCERNS

Questions, comments or requests regarding this course or program should be taken to your instructor Dr. Sumanth Yenduri, Computer Science Department Chair at: (573-651-2368) (syenduri@semo.edu). Unanswered questions or unresolved issues involving this class may be directed to Dr. Alberto Dávila (, Dean of the Harrison College of Business and Computing.

XI. DROP POLICY

We hope that you will complete the course and benefit from it. If it is necessary for you to withdraw from the course during the semester, you must follow all official SEMO procedures for withdrawing. It is not sufficient to notify the instructor; you must withdraw officially. The instructor would appreciate it if you would first consult with him/her. For information regarding incomplete, withdrawal, etc. please visit the universities polices which can be found at:

<http://www.semo.edu/facultysenate/handbook/3c.html>

XII. ATTENDANCE

It is important for students to attend class regularly. If you find it necessary to miss one or more classes, you are still responsible for all material covered in the class, and for submitting the homework on time. University policy regarding attendance may be found here: <http://www.semo.edu/bulletin/>.

XIII. SUBMISSION AND DEADLINES

If circumstances prevent the timely submission, please notify the instructor by e-mail. Unless you make prior arrangements with him/her, any activity submitted after its assigned due date will be considered late. If the instructor considers your excuse to be appropriate, he/she will give you extra time to submit your activity, but you will lose 20% credit.

XIV. INSTRUCTOR RESPONSE TO EMAILS

Please use your Southeast Email to contact me. I will not respond to any other email type, and it will be ignored.

XV. ACCESIBILITY STATEMENT

Any student who believes that they may need an academic accommodation based on the impact of a disability should contact the instructor to arrange an appointment and inform him/her before the beginning of classes to discuss their individual needs. Instructors rely on Disability Support Services for assistance in verifying the need for academic accommodations and developing accommodation strategies. Students are encouraged to visit the web site of the Learning Assistance and Disability Support Services website located at: <http://www.semo.edu/ds/> to learn more about their available policies and services. It is very important that if you think you may need to utilize this service you need to contact me within the first couple of weeks of the semester.

XVI. ACADEMIC HONESTY

No cheating in any form will be tolerated. Please be aware that anyone caught cheating or plagiarizing in this class will receive a "0" for the assignment/exam/activity. Students are encouraged to visit the website for academic honesty for complete list of regulations (From Faculty Senate Bill 11-A-16 <http://www.semo.edu/facultysenate/handbook/5d.html>).

XVII. CIVILITY AND HARASSMENT

A major determinant of a successful educational experience is a shared sense of respect among and between

the students and their instructor. Some of the texts and issues we will discuss may cause disagreements among members of the class. Multiple viewpoints are an essential component of any college course, and disagreeing with someone is fine. However, rude, disrespectful, aggressive, offensive, harassing, or demeaning behavior—either face-to-face or in an online discussion—toward anyone in the class will not be tolerated; students are expected to abide by the Code of Student Conduct (<http://www.semo.edu/stuconduct/>). Should a student feel someone has acted inappropriately toward them in class, please speak with the instructor at once so the situation can be addressed. The instructor for the course reserves the right to ask a student to leave the classroom or the online discussion for any inappropriate behavior, and if the situation warrants, may call campus security to remove the offending student from class.