

SYLLABUS

CEN 3913 - Computer & Information Science & Engineering Design 1

CEN3913 Credits: 3

Class Periods: Tuesday Period 8-9, Thursday Period 9

Location: CSE/E121

Academic Term: Fall 2019

Instructor – Dr. Mark Schmalz

- a. Office location: CSE/E446
- b. Telephone: 352-294-6668
- c. E-mail address: mssz@cise.ufl.edu
- d. Office hours: Posted on Instructor Website: <http://www.cise.ufl.edu/~mssz/>

Peer Mentors – TBA

Course Description – (3 credits) Preparatory skills are developed for Senior Design (CEN 4914). Student teams design, produce and report on a software prototype, meeting defined specifications and using a structured design methodology and project management.

Course Pre-Requisites / Co-Requisites – CEN 3031

Course Objectives – Students will reinforce basic software design methodology to support design and initial development of a software project or software-mostly project. At the middle of the semester, a design project is selected by students working in groups of two to five, which uses the modules taught earlier in the semester. Students will work collaboratively with instructor to register for CEN4914. Students will learn basic project management and project / software design skills.

Materials and Supply Fees – Students are responsible for defraying costs of their project, beyond availability of such software as may be provided by the CISE Department or University of Florida.

Required Textbooks and Software – No textbook required. Instructor will provide all course materials at no additional charge via Canvas or the Internet. For other materials, see *Materials and Supply Fees*, above.

Relation to Program Outcomes (ABET) – TBD

Course Schedule

Week	Topic
1	Introduction to Design I – Coverage, Requirements, Evaluation, Overview of Project Selection Protocol

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2	Review of Tools: Java and JavaScript, C++, Web Programming Languages, How to Integrate Audio and Video with Webpages
3	Review of Tools: SQL, MySQL, Flash, OpenGL, Other graphics protocols and languages
4	Overview: Software Engineering Principles – Agile Development, Rapid Prototyping and Version Control
5	Overview: Testing and Analysis of Software and Experimental Prototypes – Correctness of Operation, Complexity Analysis and Performance Profiling
6	Project Selection: Choosing or Originating a Project and Recruiting a Project Advisor
7	Project Design: Preparing a Project Plan with Task/Subtask Decomposition and Preliminary GANTT Chart
8	Project Registration for Senior Design (CEN4924): Preparing the Registration Form, Preparing a more Detailed Project Plan
9	Project Initiation: Literature Research, Marshalling and Formatting your Citations, Preparing a Literature Summary
10	Documentation: Preparation of a Design Report and Concept Presentation
11	Documentation: Preparation of an Interim Report, Design Presentation, and Performance Analysis Report
12	Documentation: Preparation of a Final Report and Presentation Preliminary Design Presentation (10 min, individual presentation)
13	Time Management: What to Do when Things Go Wrong – Modifying your GANTT and PERT Charts
14	Time Management and Reporting: Refining Your GANTT Chart with MS-Project and Integrating your GANTT Chart with Microsoft Office Products
15	Resource Management: Resource Leveling and Optimization

Attendance Policy, Class Expectations, and Make-Up Policy – Attendance for class meetings is expected. Failure in regular attendance may result in deductions to grade. Contact your instructor if you have an excused absence to work out a plan to make up the work. Excused absences must be consistent with university policies in the undergraduate catalog (<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>) and require appropriate documentation.

Evaluation of Grades

Grades are determined by the quality of work with the following items. In order to **pass** the class, students **must finish** their project designs and present these designs in a video design report and Final Design Report. Therefore the last two items on the below list will be emphasized.

- Project Documentation (25% of Final Grade)
 - Project Abstract and Planning Document
 - GANTT and PERT Charts

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- Preliminary Design Presentation
- Ongoing Project Documentation (Abstract, Design)
- Experimental Plans/Prototype Test Plan
- Video Design Report (YouTube, live demo, or .avi file played back during Final Presentation) (25% of Final Grade)
- Final Design Presentation with Video Design Report (25% of Final Grade)
- Final Design Report (25% of Final Grade)

Grading Policy

Percent	Grade	Grade Points
93.4 - 100	A	4.00
90.0 - 93.3	A-	3.67
86.7 - 89.9	B+	3.33
83.4 - 86.6	B	3.00
80.0 - 83.3	B-	2.67
76.7 - 79.9	C+	2.33
73.4 - 76.6	C	2.00
70.0 - 73.3	C-	1.67
66.7 - 69.9	D+	1.33
63.4 - 66.6	D	1.00
60.0 - 63.3	D-	0.67
0 - 59.9	E	0.00

More information on UF grading policy may be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Students Requiring Accommodations

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://www.dso.ufl.edu/drc>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Course Evaluation

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu/evals>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

University Honesty Policy

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

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Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: <http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html>

Campus Resources:

Health and Wellness

U Matter, We Care:

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or <http://www.police.ufl.edu/>.

Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.
<https://lss.at.ufl.edu/help.shtml>.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling. <https://www.crc.ufl.edu/>.

Library Support, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.
<https://teachingcenter.ufl.edu/>.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.
<https://writing.ufl.edu/writing-studio/>.

Student Complaints Campus: https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf.

On-Line Students Complaints: <http://www.distance.ufl.edu/student-complaint-process>.