Wentworth Institute of Technology

College of Engineering and Computer Science

Summer 2019 - Capstone Project for Students Oversea

Course Number: COMP3800

Class Schedule:

Lecture: TBD

Instructor Name: Prof. Chen-Hsiang (Jones) Yu, Prof. Hongsheng Wu

Office Location: Dobbs 135, Dobbs 133

Office Telephone Number: x4288, x4834

Appointments and Meetings: Office Hours (TBD)

Email address: yuj6@wit.edu, wuh@wit.edu

Credits/Hours: 3/2/4

COURSE DESCRIPTION:

This course is a capstone-like project course. The target students are the ones who currently registered at a university oversea and are visiting Wentworth to extend their study for one semester. The design of the course brings in entrepreneurship spirit and guides the students to identify and resolve an issue by using different kind of engineering skills, including software and hardware. The content of the course includes but not limited to: identify a real-life issue, propose a project idea, design a solution (including hardware and software), implement the system, evaluate the system and demonstrate the solution at the end. The first half of the course will be executed oversea in the visiting students' original school, then the second half will be executed at Wentworth. At the end of the course, all student teams are required to present their projects to the whole Wentworth community.

COURSE PREREQUISITES:

- COMP2350: Algorithms (or related)

REQUIRED TEXTBOOK(S):

None.

THE COLLEGE BOOKSTORE:

Location: 103 Ward Street Boston MA 02115
Telephone: 617-445-8814

COURSE LEARNING OUTCOMES:

At the completion of this course, the student should be able to:

- Describe the development process of an engineering project
- Identify a real-life issue and propose an engineering solution for it
- Design and implement an engineering system to address the identified issue
- Communicate, verbally and in writing, the details of the project to a variety of audiences

INSTRUCTIONAL METHODOLOGIES:

This course is driven by student work. Very little lecture will be given. Instead, students will be working on a single semester long project of their own choosing. Student groups will be expected to periodically present their progress to the instructor and to the other students in the course. In addition, the students must document their work and progress at all times. Feedback will be given on the presentations, documentation, and the quality of the work itself.

ATTENDANCE POLICY:

Students are expected to attend classes regularly, take tests, and submit papers and other work at the times specified by the instructor. Students who are absent repeatedly from class or studio will be evaluated by faculty responsible for the course to ascertain their ability to achieve the course objectives and to continue in the course. Instructors may include, as part of the semester's grades, marks for the quality and quantity of the student's participation in class. At the discretion of the instructor, a student who misses 15 percent of class may be withdrawn from the course by the instructor. A grade of WA will appear on the student's official transcript as a result.

GRADING POLICY:

The entire grade for this course revolves around the semester-long project chosen by each student group. There are several milestones that must be met at specific times throughout the semester, as detailed at the end of this syllabus. The course grade will be determined as follows:

Deliverable	Grade Contribution
Project Proposal Document	5%
Initial Pitch Presentation	5%
Project Plan Document	10%
Design Document	10%
Midterm Presentation	10%
Final Presentation	15%
Final Project and Report	20%
Poster	10%
Weekly Meetings & Progress Reports	15%

WENTWORTH GRADING SYSTEM:

Grade	Definition	Weight	Numerical Definition
A	Student learning and accomplishment far exceeds published objectives for the course/test/assignment and student work is distinguished consistently by is high level of competency and/or innovation.	4.00	93-100
A-		3.67	90-92
B+	Student learning and accomplishment goes beyond what is expected in the published objectives for the course/test/assignment and student work is frequently characterized by its special depth of understanding, development, and/or innovative experimentation.	3.33	87-89
B		3.00	83-86
B-		2.67	80-82
C+	Student learning and accomplishment meets all published objectives for the course/test/assignment and the student work demonstrates the expected level of understanding, and application of concepts introduced.	2.33	77-79
C		2.00	73-76
C-		1.67	70-72
D+	Student learning and accomplishment based on the published objectives for the course/test/assignment were met with minimum passing achievement.	1.33	67-69
D		1.00	60-66
F	Student learning and accomplishment based on the published objectives for the course/test/assignment were not sufficiently addressed or met.	0.00	0-59
P	Pass (for credit)	0.00	
S	Satisfactory (no credit)	0.00	
U	Unsatisfactory (no credit)	0.00	
W	Withdrew	0.00	
IC	Incomplete (temporary)	0.00	
NR	Grade Not Reported by Instructor	0.00	

DROP/ADD:

Students should check the academic calendar to confirm the add/drop deadline. Dropping and/or adding courses is done online. Courses dropped in this period are removed from the student's record.

Non-attendance does not constitute dropping a course. If a student has registered for a course and subsequently withdraws or receives a failing grade in its prerequisite, **then the student must drop that course**. In some cases, the student will be dropped from that course by the Registrar. However, it is the student's responsibility to make sure that he or she meets the course prerequisites and to drop a course if the student has not successfully completed the prerequisite. The student must see his or her academic advisor or academic department chair for schedule revision and to discuss the impact of the failed or withdrawn course on the student's degree status.

MAKE-UP POLICY:

Due to the nature of this project-based course, all submissions and presentations must be completed on time. Any late deliverables will be assigned a grade of zero.

ACADEMIC SUPPORT:

The Center for Academic Excellence facilitates Wentworth students' academic success and helps them to achieve their full learning potential. Students may choose to receive individual assistance through one-on-one tutoring in many subjects, including math, science, writing, and major classes. In addition, the Center for Academic Excellence offers Facilitated Study Groups (FSGs), tutor-led study tables, academic workshops, and learning-strategy

consultations. The peer-tutoring program is certified by the College Reading and Learning Association's International Tutor Training Certification program. To make an appointment or to review our drop-in offerings, please visit www.wit.edu/cae. For additional assistance or support on subjects not listed, please reach out via email at cae@wit.edu.

ACADEMIC HONESTY STATEMENT:

Students at Wentworth are expected to be honest and forthright in their academic endeavors. Academic dishonesty includes cheating, prohibited collaboration, coercion, inventing false information or citations, plagiarism, tampering with computers, destroying other people's coursework or lab or studio property, theft of course materials, or other academic misconduct. If you have any questions, contact your professor **prior** to submitting an assignment for evaluation. See your academic catalogue for a full list of definitions and the WIT Academic Honesty website for the procedures: wit.edu/academic-honesty.

STUDENT ACCOUNTABILITY STATEMENT:

Behavior unbecoming a student is any violation of a published Wentworth policy in an academic environment, and/or any behavior that individual faculty or staff determines is unacceptable in his or her classroom, laboratory, or other academic area or function. Behavior unbecoming a student in an academic environment will not be tolerated. Violations of behavioral expectations may be forwarded to the Office of Community Standards for disciplinary action.

Wentworth takes violations of academic dishonesty and misconduct very seriously. Sanctions for such violations include, but are not limited to, a grade of "F", removal from a course, Institute suspension, or Institute expulsion.

WELLNESS AND DISABILITY SERVICES:

College can be challenging and it is common to feel overwhelmed or stressed at times. If these feelings are related to course work or academic performance, please talk to me. For more significant mental health concerns, the **Center for Wellness and Disability Services (003 Watson Hall, 617-989-4390)** provides free and confidential mental health counseling.

If you or someone you know needs support around thoughts of suicide, the following resources are available:

- Center for Wellness and Disability Services, Watson 003, 617-989-4390, M-F 8:15-4:45
- Campus Police, First level of 610 Huntington Avenue, 617-989-4444, 24/7
- Samaritans, call or text 1-877-870-4673
- Crisis Text Line, text "start" to 741-741
- National Suicide Prevention Lifeline, call 1-800-273-8255
- GLBT Youth Hotline, call 1-866-488-7386
- Beth Israel Deaconess Emergency Room, 190 Pilgrim Rd Boston, MA

Students requiring academic accommodations must provide an official accommodation memo from the **Center for Wellness and Disability Services** and contact me privately to discuss logistics.

WEEKLY SCHEDULE:

The following schedule is tentative and subject to change.

Week	Topic	Deliverables
1	Team Formation, Topic Identification	• Project Proposal (5%)
2	Literature Study	• Initial Pitch Presentation (5%)
3	Design - Paper Prototype	• Project Plan (10%)
4	Design - Prototype Testing & Re-iterations	
5	Design - System Architecture	• Design Document (10%)
6	Implementation - Environment Setup and Testing	
7	Implementation - Technology Exploration	
8	Implementation	• Midterm Presentation (10%)
9	Implementation	Break
10	Implementation - Testing & Debugging	
11	Implementation - Testing & Debugging	• Practice Presentation
12	Evaluation - User Study	• Poster Design (10%) • Final Project & Documentation (20%)
13	Wrap Up	• Final Project Presentation (15%)
14	Wrap Up	• Poster Showcase
15	Final Review, Discussion and Future Directions	