# Spring 2018 EE/COMPE496-B: SENIOR CAPSTONE DESIGN

Number of units: 2 Course Syllabus

**1. Instructor:** John Kennedy

E101-C

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2. <u>Prerequisites:</u> <u>Electrical Engineering</u> <u>Computer Engineering</u>

EE496-A COMPE496-A

**3. <u>Team Meeting Times:</u>** Monday: (1:00pm – 2:00pm) Rm. E-101D

Monday: (2:00pm – 3:00pm) Rm. E-101D Tuesday: (1:00pm – 2:00pm) Rm. E-101D Tuesday: (2:00pm – 3:00pm) Rm. E-101D Friday: (1:00pm – 2:00pm) Rm. E-101D Friday: (2:00pm – 3:00pm) Rm. E-101D

**4. Purpose of this Course:** To provide students with a capstone design experience.

At the completion of the course, each student will have:

- a) actively participated as a member of a design team and made significant contributions to achieving the team's goals and objectives.
- b) learned how to prepare an engineering design proposal with clear statements of specifications, design criteria and deliverables.
- c) participated in several individual and group oral presentations.
- d) contributed to a well-organized written report for a team based design project.
- e) an understanding of the benefits and the problems of associated with working on an engineering design team.
- f) been exposed to contemporary engineering issues.

#### 5. Team Composition:

- a) Teams will be formed by the instructor during the first Lab meeting.
- b) Teams will typically consist of 4-6 members.
- c) Teams exist for the entire semester.
- d) Teams should have a combination of EE and COMPE students.

## 6. Responsibilities of the Team Members:

*Individual Design Tasks:* Each team member will actively participate in the design and construction of the project. Which includes the following activities:

- a) Submission of weekly written and oral progress reports.
- b) Actively participate in the weekly team meetings.
- c) Provide technical information for the team web site.
- d) Supply text and technical illustrations for power point presentations.
- e) Prepare an individual contribution for the final report.

*Individual Non-design Tasks:* Apart from the team design project responsibilities, each team member will be in charge of coordinating a specific non-design activity. They are:

- a) Project management (Gnatt chart, meeting notes, weekly report submission)
- b) Editor of the reports (Organization and coordination of proposal and final report)
- c) Parts Manager (Coordinate ordering parts, budget etc...)
- d) Presentation coordinator (PowerPoint, presentation rehearsal coordination)
- e) Web page design
- f) Repository manager
- g) Secretary (Team meeting notes, weekly report submission)

## 7. Grading:

The approximate grading for the course is as follows:

10%	I	Participation in Team Meetings (Weekly Reports and Presentations)
10%	T	Project Proposal
10%	I&T	Team Presentations
25%	I&T	Project Evaluation and Performance (Contest Rank)
20%	I&T	Design Day (Booth, Poster, Website, Public Engagement, Etc.)
5%	I	Peer Evaluation
5%	I	Individual Non-design Responsibility
15%	I&T	Final Report

### 8. Tentative schedule of deliverables throughout the semester:

Jan. 26-30: Team Formation (Team Name, URL, Contact Sheet, Repository)

Feb. 23-27: Written Project Proposals due

Mar. 2-6: Team Presentation of Project Proposal

Mar. 18, Sunday: Preliminary Website online

Apr. 20-24: Practice Final Oral Presentation (Team Meeting)

Apr. 29, Sunday: Team Website to be Graded

April 30, Monday: Mini-Sumo Robotic Contest

May 1, Tuesday: Formal Oral Presentations

May 2, Wednesday: Design Day 1:30-3:30 in Montezuma Hall

May 10, Thursday: Peer Review Due

May 10, Thursday: Final Report is due by 4PM