

ELECOMP CAPSTONE DESIGN PROGRAM

Academic Year 2023-2024

Expectations & Deliverables

EXPECTATIONS

When senior year engineers commit to work on an ELECOMP Capstone Design Project, the ***important*** expectations of the Program Director are itemized below. Professor Sunak has further strengthened the foundation of the Program by recruiting many challenging projects from multiple sponsors; many of them are new sponsors. The effort required to get these projects is ***monumental***, to say the least. You now have the amazing opportunity to get a fantastic “real-world” experience by putting your heart and soul into achieving the ***Anticipated Best Outcomes*** of the project you will be working on. Do not waste this opportunity to effectively ***launch your career in engineering, and prove your capabilities, expertise, innovation, critical thinking and learning*** from your excellent Technical Directors at the sponsoring companies. Aspire to be one in the future, as many previous graduates of the Program!

- Read carefully these documents in the Student Section: Roadmap, Homeworks, Logbooks and Grading Breakdown. The other documents must also be studied carefully, after the teams have been formed. Research the section: “Resources for Students.” Identify your own PASSION area for your engineering career. (The documents for the Fall 2023 Semester will be available after August 1st, 2023. You can get a good “feel” of the relevant content by looking at the documents for the Spring 2023 Semester.)
- Plan to devote ample time to the project. These are real and challenging problems and will give you a fantastic “real-world” experience.
- Apart from the above 6 hours/week, you are expected to work another 10 hours/week on the project, either individually or with the team.

- To achieve the **Anticipated Best Outcome** of the project, teams are expected to devote a total of about 500-750 hours per semester, depending on the number in the team. The **average** last year was about 180 hours per semester, for each capstone designer.
- The teams meet their Technical Directors, from the sponsoring companies, on Friday afternoons; 2-5pm is allocated capstone time in your schedule. No classes should be taken on campus after 5.00 pm on Fridays, as you may be working at the sponsor facility. Teams not going to their company location will be in ELECOMP Capstone Lab., Room 150, Fascitelli Center for Advanced Engineering (FCAE), or other assigned conference rooms. Occasionally, you may have to arrange other times for the meetings, as Fridays may not be convenient for many technical Directors. Zoom meetings can also be arranged at mutually convenient times during the week.
- Tuesdays 5-8.30pm is also allocated capstone time in your schedule. All teams will work in the ELECOMP Capstone Lab., Room 150 in the FCAE, and also the Biomedical Lab., Room 110. Consulting Technical Directors, if assigned for your project, will be also be present to discuss with you. Take advantage of their expertise in your project. There will be a dinner break, 6.30pm to 7.00pm; food will be provided, starting on September 26th; let me know if you have any dietary restrictions; you are welcome to bring your own dinner, if you are so motivated. The Tuesday Progress Summary (TPS) will be submitted to your TDs, between 8.30pm and 9.30pm, highlighting the Technical Accomplishments made during the evening. The schedule of the TPS, together with WPRs and MPRs, can be found on the website. Study carefully the format of these reports on the website. (These will be posted after August 1st 2023)
- Depending on your schedule, the team, or individuals, can also meet with their Technical Director/s at other mutually convenient times, on other week days. Meetings can be in person or virtual.
- Communicate regularly with your Technical Directors; **all** emails sent **must** be copied to Professor Sunak, the Program Director.

- Have a detailed agenda planned for your meetings on Friday afternoons, and also Tuesday evenings.
- Be on time, and don't miss meetings or deadlines. Remember, this is like an 8-month "interview," and it can end with an employment offer to you. It has happened very often in the past. (This year 2 capstone designers, on the Voltserver and Zebra Teams, have secured positions at the companies after graduation!)
- Work as a team; respect all team members, their ideas and suggestions. Inspire and motivate each other.

REMEMBER, TEAM MEANS: Together Everyone Achieves More

- Act professionally and ethically at all times. Students are representatives of the University, the College and the Department when they interact with their Technical Directors and others in the company.

DELIVERABLES

During the two semesters, the team will have a set of deliverables that are specific to the project. The list commonly includes:

- Weekly Progress Reports (WPRs): submitted every Sunday evening between 8.00pm and 9.00pm. More details are on the website.
- Tuesday Progress Summary (TPSs): submitted every Tuesday evening between 8.30pm and 9.30pm. More details are on the website.
- Major Progress Reports, MPRs, 2 in the Fall semester, and 1 in the Spring Semester: More details are on the website.
- The Final Comprehensive Project Report (CPR) in the Spring Semester, and 2 Oral Presentations at the Symposium and the Summit; see schedules on the Roadmaps for each semester.
- Maintain a Log Book, as done in the "real-world." More details are on the

website. This is a **very important** aspect, and a Homework is focused on it.

- Prototype demonstrations at the Fall Symposium and the May Summit.
- Poster presentations at the Fall Symposium and the May Summit.
- ABET Outcomes 1-5 and Evaluation.
- ABET Leadership and Collaboration Survey.