

- **The Project Charter** details the expectations for the group project. If your project is as defined in the EGR300 “A3” then there is NO NEED to submit the project charter. Otherwise, the charter should be approximately a half page description of the project (what precisely are you proposing to do) and a concise breakdown of individuals responsibilities.
- **Project website** (“up and running” by mid-Fall semester). This will be used to post all team deliverables and updates. Each team is to select a “web master” – one person who will be responsible for creation and maintenance of the web page. Training will be provided in late September.
- **Industrial Advisor summary memo.** Each team is to contact their Industrial Advisor (IA) and schedule a meeting. The purpose of the meeting is to familiarize the IA with the team and the project, and for the team to get to know their IA. The role of the IA may vary substantially from project to project, so the purpose of this meeting is to help determine what role your IA will be able to perform – how will they be able to support the team. Typical roles may include technical knowledge and/or helping the team stay focused and making good progress. To document this meeting, submit a concise memo describing the results of the meeting especially in regard to the expected role of your industrial advisor.
- **Project Plan** – in memo form, a detailed description of the team’s proposed project (which includes both semesters). Must include:
 - A concise summary which describes the objective or purpose of the project.
 - A thorough background section (including literature search) which describes the need and/or context for the project. Proper citation and bibliography is required (no specific format). Length ... I don’t know, this is your project, but successful teams take full advantage of published knowledge to educate themselves on the “state-of-the art” for their project. This is not busy work – learn what you need to learn and document it.
 - Define team roles (each person should have specific responsibilities, including your IA and possibly faculty). For a team to succeed, it is essential for everyone to know their role.
 - Attachments:
 - Design consideration table (includes the 10 design considerations, and how they will apply to the project).
 - Criteria table (at least criteria for the overall project criteria, may include additional criteria tables for subsystems).
 - Milestone table – approximately 1 milestone every 2 weeks for the near-term (first semester), and include approximately 1 per month for longer term (next semester).
 - Budget estimate – remember, there is often quite a bit of miscellaneous expenses, not just “big ticket” items.
 - Technician time request. If you expect to use the shop or need technician support at least one member of the team (preferably the entire team) must meet with Mr. Jacob Amos (amos@up.edu) for mechanical help (aka fabrication, machining, welding, etc.) and Mr. Jared Rees (rees_up_egr.youcanbook.me). This meeting MUST occur BEFORE submitting the project plan. They will help you with “design for manufacturing” and will provide you an estimate for how much shop time your project will require. Remember, projects are to demonstrate engineering principles not produce a market-ready product (the design process is iterative – prove you can walk before you try to run).
 - Space/facilities request. Describe any anticipated needs for laboratory equipment and/or work space.
 - Other resources – if there are any additional resources that you expect to need, please describe them.
- **Integrated Testing Demonstration memo.** Design is an iterative process – both testing and analysis must be integrated throughout the project. By this point in the project, teams should have identified

major concerns or obstacles that will need to be addressed before a successful project is completed. The “prototype demonstration” is meant to help students tackle their biggest concerns early. Generally, this will require construction of some very simple physical artifact for them to learn how they will resolve their biggest obstacles. Discussion with advisors and instructor may help students define this. A submitted memo (including figures) is required for documentation.

- **End of semester memo.** Concisely: describe the progress to-date, work remaining, major obstacles remaining, etc. Must also include at a paragraph describing the following:
 - at least one engineering standard and describe how it will be incorporated into the final design
 - describe what contemporary issue is addressed by the project,
 - describe what the responsibility of an engineer is to address that contemporary issue,
 - describe what impact the engineering solution may have in a global and societal context.

Attached to the memo:

- Industrial Advisor feedback (form available on the course web page – each team is to request the IA provide them feedback in time to be included in this memo.
 - Each student must demonstrate their technical contribution to the project in the form of at least one “Design Increment Document” (formerly referred to as Design Decision Document). This document clearly communicates some form of analysis and/or testing which helped design some aspect of the project. Generally, it more closely resembles a well done homework problem than an engineering report.
 - Your project plan that was returned to you (with instructor comments). Also – if you were asked to revise or improve any of the tables in the plan, please include the improvements as well.
- **Peer evaluation.** Each individual is to submit to the instructor at the end of each semester an evaluation of themselves and their teammates. Form is available on the course web page.
 - **Poster Presentations** (formal presentation with visuals). This is a status presentation near the end of the fall semester. Specific poster requirements will be provided closer to the poster date. A prototype is strongly encouraged for most teams at the poster presentation.
 - **Weekly Updates** (emails sent to the instructor and “cc” to all stakeholders and posted on the team website). Teams are expected to meet at least weekly. The purpose of meetings is typically:
 - discuss progress made by individuals
 - discuss concerns or problems that have arisen
 - identify what needs to be done next (aka action items).

During each weekly meeting, notes should be kept to document progress and concerns. An action item log should be maintained (in whatever form the team finds most useful). The meeting minutes along with all open action items should be sent via email to the instructor and “cc” all other stakeholders (all team members, faculty advisors, industrial advisors). The form of these emails has changed substantially this year – so looking at past year’s examples may cause some confusion.

- **Honors Program Students:** Each honors student prepares an individual paper based on his/her senior design project (or a directed research project), and submits to Dr. John Orr. Students should consult with Dr. Orr regarding the requirements for that paper. A copy of the paper must also be submitted to the instructor for the senior capstone course by the last day of classes.