**MTRL 466 Design Project 2014**

**Flexible thermoforming of thermoplastic sheet**

**Project Management**

* We will meet each Friday for a formal project progress meeting. I will meet with each group for ~ 1 hour.
	+ The objective of this formal progress meeting is to describe progress towards project deliverables
	+ It is an opportunity to ask me (and/or Blair) questions regarding project direction
* The other period (Wed or Fri) will be used for project work. I am available during that period and am happy to meet with individuals or groups at that time.
* Formal Project Progress Meetings:
	+ Each progress meeting will have one leader (who will organize the meeting) and one secretary who will take notes
	+ A project planning memo will be completed and emailed to me for 9am the on the Friday corresponding to our planned meeting (at the latest)
	+ See the attached example of the planning memo -- it identifies the project lead, the topics to be discussed (and who will discuss them) and provides a space for the secretary to take notes.
	+ During the meeting the secretary will take notes -- these will be written up and distributed to the rest of the group following the meeting. These should identify the key points raised in the meeting and should identify any action items (and the people responsible for them)
* The student team will function as an engineering group from a consulting engineering company. Your goal is to complete the design tasks in the time allotted and to deal properly with the client (i.e. be polite to your supervisor and respond with enthusiasm to the most unreasonable requests – just like the real world of engineering!)
* Lack of communication will be understood to reflect lack of progress and lack of attention to the clients.
* As consulting (members in training) engineers on this project you will be held to the code of ethics and professional practice of APEGBC as well as ethical standards of UBC

**Communication**

* I have established a “wiki” page for this project, with sub-pages for each of the groups. I have previously found this to be a very effective and useful way for groups to store pertinent information they wish to share, to communicate with one another (and the clients) and to archive project planning memos, midterm report and final report. It also provides me an easy way of providing documents and other information for all of you.

Tasks to complete for next (Sept 12) meeting:

1. **Develop a Gant Chart:** While it may not be possible to be very definitive about the specifics at this point it is important to realize how short the term is and how important it is to be on schedule
2. **Re-cast the problem in your own words:** For next week’s meeting I would like you to present back to me in your own words what you understand this project to be about. Give me a clear and concise need statement, a point form list of objectives, constraints and free variables (and be prepared to defend your choices)
3. **Initial Literature Review:** What is a thermoplastic? What is thermoforming and how is it typically performed? In particular what is vacuum forming? What are the primary characterisitcs of a thermoplastic that are important to consider in relation to thermoforming?
4. **Brainstorm:** This project has an enormous scope that we must quickly narrow to a reasonable set of goals. This will require brainstorming about the specific embodiment regarding the heating and loading that will be used to achieve forming.
5. **Provide an engineering critique of what you see as the challenges of having this concept work in practice.**