

Hemodynamic Simulator II (P09026)

Status Report (Week 1)

Progress & Day's Feedback	<p>The team successfully presented to the class, the Project Overview in first session of the meeting. During the second session, the Project Plan Elements including 1-page summary, work breakdown structure, team roles, and 2 quarter milestone were presented to the Project Guide, Teaching Assistants and other senior design groups. Based on the feedback received from them, the group made significant changes to the Project Objectives. In addition, a formal meeting was held between the group and the project guide, Dr. Phillips. In the meeting, many technical questions that the team members had, were successfully answered. Furthermore, a formal list of customer needs was also generated. In addition, the group also met with the outside consultant of project, Dr. Day. During that meeting the group shared ideas for some of the challenges, such as waterproofing the cubicle where the final unit will be assembled and tested. Also, more insight of "Artificial Heart Pump Design" was given by one of Dr. Day's student researchers.</p>
Project Objectives	<p>also the system as a whole</p> <ul style="list-style-type: none"> ● Get in touch with Dr. Schwartz asap, in order to better understand the dynamics and characteristics of the heart. ● After fully understanding the modular system, the pump would be redesigned in order to better replicate the pumping of the heart, which includes appropriate blood pressure and volume from the heart. ● The final product would contain a data acquisition system that would monitor blood pressures, volumes, flow rates at desired locations. In addition, the measured data must be easily accessible to the user. ● Furthermore, a computer system would be developed that would allow a user, access to all the parameters of the flow simulator. Hence, providing the user with a better control of the entire unit.
Action Items	<ul style="list-style-type: none"> ● Research for information on heart dynamics, dimensions of the heart, and aorta ● Research for ways to waterproof the cubicle floor ● Research for information on other Artificial Heart Pump researches conducted at other institutions. ● Contact Dr. Schwartz and schedule a meeting with him ASAP
Week 2 Schedule	<p>Sat - Mon: Research and post information on EDGE for other group members Tue:</p> <p>Team meeting, for everyone team member to give synopsis of their research and finalize some of the deliverables from Week 1. Wed:</p> <p>(Tentative) meet with Dr. Schwartz to discuss specificities of the project Thu: Team</p> <p>meeting to work on the deliverables due on Friday Fri: Present</p> <p>deliverables</p>