



**GEMS296 TEAM Project Seminar I
FALL 2016**

TEAM: TEAM Bikes

Day: Th

Time: 5 – 5:50pm

Location: ITV 1100 (ITV=Instructional TV Building)

Gemstone Team Mentor:

NAME: Professor Robert W. Newcomb
AVW 1347 (or lab at AVW 1364)

(301) 405-3662 (office)

Email: newcomb@eng.umd.edu

office hours: Tu 2:00 – 3:15

Web:

www.ece.umd.edu/~newcomb/courses

Gemstone Team Librarian:

NAME: Neddelina Tchangalova
Librarian
1403 William E. Kirwan Hall

(301) 405-9151 (office)

Email: nedalina@umd.edu

office hours arranged by appointment

Team Members:

Name: Asfari, Sarah (BIO ENGR)

Name: Jayapal, Aishwarrya (BIO SCI:PHNB)

Name: Mukku, Sahith (BIO SCI:PHNB)

Name: Qamar, Bareera (BIO SCI:PHNB)

Name: Satyarthi, Divyam (BIO SCI:PHNB)

Name: Tous, Cristina (BIO ENGR)

Course Description:

Prerequisite: GEMS100, GEMS102, and GEMS104. Corequisite: GEMS202. Restriction: Must be in the Gemstone program with sophomore standing in a research team.

This is the first of six seminars during which Gemstone students carry out multidisciplinary research with the guidance of a faculty mentor. The team members develop their working relationships, start their literature search, define their research question, and set short & long-term goals.

Goals and Objectives: [first 14 taken from Timeline for Team Success]

- Contact/consult the team librarian early in the semester.
- Begin to explore the literature. Collect academic articles and books linked to the research problem and project, review the sources for relevance and research ideas, summarize

the sources and discuss them with the team. Assign an appropriate number of materials per team member so that the research problem and the team's specific topic can be thoroughly explored (NOTE: To thoroughly cover the literature on the topic, team members will probably have to read MORE articles than what the GEMS102 Summary of Resources assignment required, and continue reading articles once the assignment has been completed).

- Identify a list of experts/consultants and set up meetings with them to learn about the team's topic and explore possible research areas where the team can create new knowledge.
Develop a focus for the research project. How will the team create new knowledge on this subject?
- Develop a solid justification for why the proposed study is important.
- Develop a research question and a hypothesis (if applicable).
- Develop short and long-term goals.
- Explore methodologies and methods and identify at least one potential methodology for the study.
- Identify a team liaison, a team clerk, a financial liaison (to serve as the team's treasurer for all three years), a library liaison, and a web liaison, who will take the lead on creating and updating the team's web site.
- Explore ways of organizing the team so that the team makes progress and all members are utilized.
- Create a system for organizing all of the articles and summaries on the topic (EndNote Web or Zotero are FREE bibliographic software program for UMD students, faculty, and staff).
- Identify and learn one writing style for citations, references, and formatting in addition to the University of Maryland Graduate School Thesis and Dissertation guidelines. The key point here is to adopt a consistent writing/citation style.
- Begin to identify professional associations, conferences, journals, and other research communities relevant to the team's research topic.
- Complete the initial draft of the research proposal.
- Team specific goals/objectives: To determine a viable topic that can produce results in the area of energy harvesting related to the heart.

Participation Policy

Full participation in Gemstone is expected. We will respect up to 2 scheduled absences by each team member. These absences include other scholarly activities, professional commitment or family commitment to which the team member does not have to reschedule. These will be noted in advance.

Grading Criteria: (As specified by GEMSTONE administration; To be discussed)

50% - Degree to which progress meets Timeline for Team Success and Quality of Work

Develop team focus – 10%

Short and long-term goals – 20%

Collection of literature and summaries/collection system – 20%

Research question – 15%

Liaison with Gemstone Program – 5%

Start designing team website – 5%

Start making contacts/outreach to experts – 5%

Other Team Specific Goals – 20%

20% - Individual contribution to teamwork

Take into consideration peer evaluations here.

20% - Participation

Be There!

Participate during class

Take on responsibilities and roles

Contribute to the research progress

10% - Attitude

Destructive sarcasm and other attitudes that detract from group process will not be tolerated.

Deadlines/Due Dates: As specified by the GEMSTONE administration.