ME 301/BME 301 Fall 2004

CBIMMS and CBTE
Biological Engineering Seminar Series

Course Objective, Course Syllabus, and Grading Policy

Course Objective

Seminar series featuring, in alternate weeks, invited speakers and pre-seminar discussions. Research topics will cover biological engineering, with emphasis on bioinspired materials and materials systems, biomolecular, and tissue engineering. Enrollment is required of all BIMMS and BTE certificate program students in their first and second years. Open to others for credit or audit. 1 credit hour. Instructor consent required.

Seminar and Class Schedule

Preseminar: Tuesdays 3:05 pm – 5:00 pm in room: 203 Teer
Seminar: Thursdays 3:05 pm – 5:00 pm in CIEMAS auditorium B unless otherwise noted.

Date	Event	Faculty Lead
Tuesday, August 24	Orientation/Preseminar	S. Craig and S. Zauscher
Thursday, September 2	Orlin Velev, North Carolina State University	
Tuesday, September 7	Preseminar	B. Akhremitchev
Thursday, September 16	Paul van Tassel, Yale University	
Tuesday, September 21	Preseminar	S. Craig
Thursday, September 30	David Martin, University of Michigan	
Tuesday, October 5	Preseminar	R. Clark and D. Cole
Friday, October 15 TBA	Miles Padgett, Univ. of Glasgow	
Tuesday, October 19	Preseminar	M. Alam
Thursday, October 28	Tom Kepler, Duke University	
Tuesday, November 2	Preseminar	S. Zauscher
Thursday, November 11	Mark Geoghegan, University of Sheffield, UK	
Tuesday, November 16	Preseminar	K. Franz
Thursday, December 2	David Kaplan, Tufts University	

Instructors

Professor Stephen Craig
310 Gross Chemistry
Phone: (919) 660-1538
e-mail: `stephen.craig@duke.edu`

Professor William "Monty" Reichert
Old office location: Levine Science Research Center B229

New office location: CIEMAS, Department of Biomedical Engineering
Phone: (919)660-5151
email: reichert@duke.edu

Professor Stefan Zauscher
Old office location: 1104 Hudson Hall
New office location: CIEMAS, CBIMMS
Phone: (919) 660-5360
e-mail: zauscher@duke.edu

Websupport

Blackboard at Duke

- https://courses.duke.edu/webapps/portal/frameset.jsp
  Log in and select ME301 or BME301 from the menu. Check this site for important course information and pertinent literature.

CBIMMS

- http://www.cbimms.duke.edu/seminars.htm
  On-line access to seminar schedule and abstracts.

CBTE

- http://bte.egr.duke.edu/

Office Hours

By appointment only.

Course Expectations

There are three expectations for the successful completion of this course. (1) Visible attendance at seminars, *i.e.*, be present and ask questions. (2) Active participation in the preseminar discussions. (3) At least once a semester a student must be part of a preseminar discussion team.
The preseminars are an important way to gain knowledge about an upcoming speaker's research, and they are a required part of the course. Student teams will be responsible for the preseminar discussions, but a "Faculty Lead" has been identified to help select pertinent literature, and guide and advise the student team prior to and during the preseminar. A student team will select several research papers, relevant to the speaker's work (you can get some insight here from the titles and abstracts) and make these available to the class before the preseminar. Using these papers, the team will guide a discussion of the work focusing on the following:

- What is the general research area in which the speaker works?
- What is the research about?
- Why is it important?

- What techniques are prominently used and how do they work?
- What data is gathered and how is it interpreted?

The rationale for the last two questions is that speakers usually do a good job pointing out why the work is important, but often one doesn't quite grasp how data were obtained and interpreted. These preseminars provide a great opportunity to discuss techniques and methods, as often during a seminar the audience is assumed to be familiar with a special technique and its implications. It is also an opportunity to point out Duke's capabilities; *i.e.*, research facilities, equipment etc.

A brief (1-2 page) summary of the key points should be distributed to the class prior to the seminar.

It will be the privilege of a team to have (free) lunch with the speaker (no attendance requirement).

Grading

This is a one credit class. A grade will be assigned based on attendance, participation in the team led discussions, and the completion of a written summary (one per team).

Special Needs

Any student in this course who has a disability that may prevent him/her from fully demonstrating his/her abilities should contact one of the instructors personally as soon as possible in order to discuss accommodations necessary to ensure full participation and to facilitate the educational opportunity.