BME 6010, Clinical Immersion

Class Periods: Thursday Period 3:00 PM - 3:50 PM
Location: CHE 316
Academic Term: Fall 2018

Instructor:
Blanka Sharma
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352-273-9329
Office Hours: Thursdays 2-3pm, BMS J387

Teaching Assistants:
none

Course Description
Biomedical engineers are called on to develop practical solutions to various problems encountered in healthcare and clinical practice. In this course, students learn and identify such problems through direct immersion in the clinical environment. Students will shadow a clinician (one-on-one) for 1-3 hours per week where they will identify a clinical problem and propose a solution. ***1 credit hour***.

Course Pre-Requisites / Co-Requisites
Pre-Requisite: BME 6018 Clinical Correlations in BME or permission from instructor

Course Objectives
a) Identify significant clinical problems and needs.
   The best way to learn about clinical problems is to be immersed in the clinical environment. Students will be matched with a clinician and will shadow him/her in the clinic and/or operating room over the semester (1-3 hours/week on average). The principles of needs identification and screening are covered in the BME6XXX (Clinical Correlations in BME).
b) Develop an engineering solution to an unmet clinical need.
   Students will develop a possible solution to address the unmet clinical need identified during clinical immersion.
c) Communicate ideas to a broad audience in written and verbal formats.
   Students will communicate ideas with their preceptor for feedback, and will also write a final report.

Materials and Supply Fees
None

Required Textbooks and Software
There are no specific required textbooks.

Recommended Materials
> Biodesign: The Process of Innovating Medical Technologies
> Stefanos Zenios, Josh Makower, Paul Yock
> Cambridge University Press
> ISBN 978-0-521-51742-3

Course Schedule
Note this is subject to change at instructor's discretion or to accommodate clinicians' schedules

Week 1   Course overview
                Preceptor assignment provided

Complete HIPPA Certification

Week 2   Meet with preceptor
             Submit first weekly report

Weeks 3-15   1-3 hrs per week, submit weekly report every week with exception of spring break and/or
             Thanksgiving (depending on semester). Weekly reports are due by Friday at midnight.

Week 10   Interim report due (specific aims page)

Week 16   Final Reports due on last day of class

Attendance Policy, Class Expectations, and Make-Up Policy
Excused   absences   must   be   consistent   with   university   policies   in   the   graduate   catalog
(http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance)   and   require   appropriate
documentation.

This class does not meet. Students are expected to communicate directly with their preceptor to arrange a suitable
schedule for shadowing that meets the course requirements (1-3 hours/week on average). Students must submit a
weekly report to the instructor that summarizes the shadowing experience for that week.

Students who miss clinical meetings/shadowing or assignment deadlines for reasons not covered under the UF
attendance policy will have 15% deducted from coursework grade per day late.

Weekly Reports: Students are required to submit a report each week summarizing their shadowing experience,
progress in identifying a clinical need, and/or progress in developing a solution. The **highest professional conduct**
is expected in the clinic. When attending clinical grand rounds, please abide by the College of Medicine dress code
(no jeans, sneakers, flip-flops, etc.). Any reports of unprofessional conduct by a student in the course could result in
the student being removed for the course entirely.

Background Research: In order to understand and propose solutions to clinical problems, students are expected
to independently conduct the necessary background research and review of the literature. This includes anatomy,
physiology, state-of-the-art therapies, etc.

This statement is required: Excused absences are consistent with university policies in the undergraduate catalog
(http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance)   and   require   appropriate
documentation

Evaluation of Grades

Assignment	Percentage of Final Grade
Weekly Reports (14)	15%
Interim Report	5%
Final Report (1)	65%
Participation (3)	15%
	100%

*Participation grade includes feedback from clinical preceptor, and regular shadowing in clinic.

Grading Policy

Percent	Grade	Grade Points

90.0 - 100.0	A	4.00
87.0 - 89.9	A-	3.67
84.0 - 86.9	B+	3.33
81.0 – 83.9	B	3.00
78.0 - 80.9	B-	2.67
75.0 - 79.9	C+	2.33
72.0 – 74.9	C	2.00
69.0 - 71.9	C-	1.67
66.0 - 68.9	D+	1.33
63.0 - 65.9	D	1.00
60.0 - 62.9	D-	0.67
0 - 59.9	E	0.00

More information on UF grading policy may be found at: http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#grades

Students Requiring Accommodations

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, https://www.dso.ufl.edu/drc) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

University Honesty Policy

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Plagiarism is a common infraction to the UF Honor Code. If you are confused as to what constitutes plagiarism, see here: https://guides.uflib.ufl.edu/copyright/plagiarism. Plagiarism on any of your assignments **will be reported to the Dean of Students as a UF Student Honor Code violation.** Also, note that **copying solutions for any assignment, regardless of the source (e.g. other students, pirated website solutions), will be treated as plagiarism.** If you have any questions or concerns, please consult with the instructor in this class. Note that failure to comply with this commitment will result in disciplinary action compliant with the UF Student Honor Code Procedures.

Commitment to a Safe and Inclusive Learning Environment

The Herbert Wertheim College of Engineering values broad diversity within our community and is committed to individual and group empowerment, inclusion, and the elimination of discrimination. It is expected that every

person in this class will treat one another with dignity and respect regardless of gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture.

If you feel like your performance in class is being impacted by discrimination or harassment of any kind, please contact your instructor or any of the following:
• Your academic advisor or Graduate Program Coordinator
• Robin Bielling, Director of Human Resources, 352-392-0903, rbielling@eng.ufl.edu
• Curtis Taylor, Associate Dean of Student Affairs, 352-392-2177, taylor@eng.ufl.edu
• Toshikazu Nishida, Associate Dean of Academic Affairs, 352-392-0943, nishida@eng.ufl.edu

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html

Campus Resources:

Health and Wellness

U Matter, We Care:
If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: http://www.counseling.ufl.edu/cwc, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)
Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or http://www.police.ufl.edu/.

Academic Resources

E-learning technical suppor*t*, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu. https://lss.at.ufl.edu/help.shtml.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling. https://www.crc.ufl.edu/.

Library Support, http://cms.uflib.ufl.edu/ask. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. https://teachingcenter.ufl.edu/.

Writing Studio, 302 Tigert Hall*,* 846-1138. Help brainstorming, formatting, and writing papers. https://writing.ufl.edu/writing-studio/.

Student Complaints Campus*:* https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf.

On-Line Students Complaints*: http://www.distance.ufl.edu/student-complaint-process.