

SYLLABUS

Instructor: Prof. Scott Bunch Mechanical Engineering
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Office Hours: By appointment

Meeting Times: Lectures: Tuesday 12:30pm-1:45pm
All lectures meet in room PRB-150.

Purpose:

This course is designed to prepare and assist you during your role as a Graduate Teaching Fellow (GTF). As PhD students, you are not only generators of new knowledge through your research but also transmitters of established knowledge through your role as GTFs. This course will focus on improving the latter by teaching you established methods on effective techniques to transmit knowledge in the classroom.

"If I have seen further, it is by standing on the shoulders of giants." – Isaac Newton

Expectations:

- I expect you to attend all classes and be on time. If you are going to miss a class, email me in advance. You do not need to give me a reason.
- I expect you to participate in class.
- I expect you will complete all individual assignments.

Grading:

The course grade as Pass/Fail. There are no quizzes or exams in this class. Your grade will be based on a combination of attendance, class participation, individual written and oral assignments, and input from both your course faculty supervisor and peer mentor/mentee.

To pass the class you must complete all assignments on time and cannot miss for than 1 class.

Textbook: Recommended Textbook: David, Barbara G. *"Tools for Teaching"*, 2nd edition, John Wiley and Sons, 2009.

Course Schedule:

| Class | Topic | Reading | Assignment Due |
|-------------------------|---|---|--|
| Lecture 1: 9/19/2017 | Rules, Roles, and Responsibilities of a GTF | None | None |
| Lecture 2: 9/26/2017 | Getting Under Way, First Day of Class, Syllabus, Student Body | <i>Tools for Teaching</i> , Part I and II, pages 1-93 | Bring a typed response to items 1, 2, 6, and 8 of "Top Ten To-Dos" |
| Lecture 3: | Leading a | <i>Tools for Teaching</i> , | Edit your syllabus |

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| 10/3/2017 | Discussion and Office Hours | Part III and XI, pages 95 – 127 and 489-526 | |
| Lecture 4: 10/17/2017 | Lectures | <i>Tools for Teaching</i> , Part IV, pages 133-167 | Pose a BIG question |
| Lecture 5: 10/24/2017 | Field Trip | Professor Ray Nagem's Class | Clicker question |
| Lecture 6: 10/31/2017 | Present a concept in 5 minutes | <i>Tools for Teaching</i> , Part IV and V, pages 168-251 | Presentations Due |
| Lecture 7: 11/7/2017 | Present a concept in 5 minutes (continued) | <i>Tools for Teaching</i> , Part X, pages 459-481 | Presentations Due |
| Lecture 8: 11/14/2017 | Clickers | <i>None</i> | Clicker Presentation Due |
| Lecture 9: 11/28/2017 | Clickers (cont) | <i>None</i> | Clicker Presentation Due |
| Lecture 10: 12/5/2017 | Enhancing Learning and Motivating Students; Testing and Grading Finishing Up and Ethics | <i>Tools for Teaching</i> , Part VI - VIII, pages 257-419 and Part XII, pages 527-551 and "The scientific fraudster who dazzled the world of physics" | "What Motivates You" Essay and Test Problem and Grading Rubric and 5 things you loved and hated about class- Anonymous |

Ethical Responsibilities:

Cheating or plagiarism on any assignments is an infringement on engineering ethics and will be dealt with accordingly. Plagiarism is a serious academic offense and should not be taken lightly. Understanding your ethical responsibilities is an integral part of becoming a professional engineer. Please recall that when you enrolled at Boston University, you agreed to an Academic Honesty Pledge. A copy of this pledge can be found in your student handbook. It details your responsibilities as well as the results of code violations.

Incompletes:

Incompletes will be permitted only for extenuating circumstances, and must be arranged before the end of the semester.

Students with Disabilities

If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services in a timely manner so that your needs can be addressed.

Religious Observation

I respect individuals' rights to follow their own religious expression. Please let me know if a religious observation conflicts with a due date.