**Course Instructors:**
Dr. Wynter J. Duncanson  
*wynterjd@bu.edu*  
Office: ERB 521  
Office Hours: Thursdays 3:00pm-4:30pm

Dr. Michael Smith  
*msmith@bu.edu*  
Office: ERB 502  
Office Hours: Fridays 8:30am-10am

**Writing Tutors:**
Liz Stevens  
*stevens1@bu.edu*  
Office: ERB 503  
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Ryan Weberling  
*ryanweb@bu.edu*  
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Office Hours: Online scheduling tool

**Course Administrator:**
Mindy Hicks  
*mjhicks@bu.edu*  
Office: ERB 408

**Course Meeting Locations:**  
Photonics 206 and LSEB B03

**Course Meeting Time:**  
Fridays 12:20pm -2:05pm

**Course Website:** [https://learn.bu.edu/](https://learn.bu.edu/). The course is BE465

**Course Description:** The BME Senior Design Course consists of a two-part course sequence: BE 465 and BE466. Students will work together in a team of 2-5 people with a Principal Investigator in Industry, Academia or a Hospital Setting to develop a solution to a biomedical engineering challenge. Students will research their problem using scientific literature, clearly write about their projects appropriately citing scientific literature, perform hands-on design work, collect and formally present work in oral and written formats. In addition to the scientific and engineering content in the course, there will be an emphasis on clear writing and professionalism.

**Class Format:**
- Limited in-class lecture series explaining course assignments.
- In-class workshops to work on and refine course assignments.
- Time outside of class researching project and working with principal investigators.
- Online videos, readings and assignments.

In BE 465, students will complete:

1. **Class Participation Assignments:**  
   Project choice and group selection  
   Reading, video or quiz as assigned
2. **Project Summary (Individual):** Write Significance and Innovation Statements with proposed Aims.
3. **Project Proposal (Group):** Consolidate individual versions of your individual Project Summaries into one coherent document and include a detailed section describing their design approach.
4. **Proposal Presentation:** Oral presentation of Project Proposal to course instructors.
Course Schedule:

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Assignments (Due class date)</th>
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<tbody>
<tr>
<td>6-Sep</td>
<td><strong>Lecture 1 (PHO 206): Introduction to Senior Project and Teamwork</strong></td>
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<tr>
<td>13-Sep</td>
<td>No Class</td>
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<tr>
<td>20-Sep</td>
<td><strong>Lecture 2 (PHO 206): Assignments in Style &amp; Career Advising</strong></td>
<td>Project Selected</td>
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<tr>
<td>27-Sep</td>
<td><strong>Lecture 3 (PHO 206): Scientific Writing &amp; Writing Workshop 1</strong></td>
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<tr>
<td>4-Oct</td>
<td><strong>Lecture 4 (PHO 206): Presentations in Style</strong></td>
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<td>11-Oct</td>
<td>No Class</td>
<td>Project Summary Due</td>
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<tr>
<td>18-Oct</td>
<td>No Class</td>
<td>Project Summary Returned</td>
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<tr>
<td>25-Oct</td>
<td>No Class</td>
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<tr>
<td>1-Nov</td>
<td><strong>Workshop 2 (B03): Proposal Writing</strong></td>
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<tr>
<td>8-Nov</td>
<td>Practice Presentations (Optional)</td>
<td>Project Proposal Due</td>
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<tr>
<td>15-Nov</td>
<td>Practice Presentations (Optional)</td>
<td>Proposal Presentations</td>
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<tr>
<td>22-Nov</td>
<td><strong>BE 465 Presentations and Practice Presentations (Optional)</strong></td>
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<tr>
<td>29-Nov</td>
<td><strong>Thanksgiving Recess- No Class</strong></td>
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<tr>
<td>6-Dec</td>
<td><strong>BE 465 Presentations and Practice Presentations (Optional)</strong></td>
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Course Grade Distribution (out of 100%):

- Class Participation: 5%
- Project Summary: 25%
- Project Proposal: 35%
- Project Presentation: 15%
- Project Effort*: 20%

*The student’s technical advisor will provide input on Project Effort grade; however, the course instructors will determine the final effort grade.

Course Objectives:

At the end of BE 465 students are expected to demonstrate:

- an ability to communicate effectively with a range of audiences
- an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
- an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.
- an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics

• an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
• an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts”

Course Policies:

Attendance: Class attendance is required. Students will be responsible for the knowing the material covered in classes.

Academic Integrity: Any incident of Academic Misconduct as described by the BU Code of Conduct will result in a zero for the assignment.

“Academic misconduct is conduct by which a student misrepresents his or her academic accomplishments, or impedes other students’ opportunities of being judged fairly for their academic work. Knowingly allowing others to represent your work as their own is as serious an offense as submitting another’s work as your own”

Accommodations: “Boston University provides reasonable accommodations to eligible individuals with disabilities in conformance with Section 504 of the Rehabilitation Act of 1973 and with the Americans with Disabilities Act of 1990. Requests for disability accommodations must be made in a timely fashion to Disability Services, 19 Deerfield Street, Boston, MA 02215; 617-353-3658 (Voice/TTY). Students seeking accommodations must submit appropriate medical documentation and comply with the policies and procedures of Disability Services.”

Late Assignments: It is essential to submit assignments by 12:20pm on the specified due date. Most of the submissions will be through Blackboard. To prevent incidents of late submissions, make a habit of beginning your submission no later than 12:00pm on the specified due date. Late submissions will be penalized by a full letter grade per day late. For example, if an assignment is due on Friday at 12:20pm and you submit it anytime between 12:20pm on Friday and 12:20pm on Saturday, the highest possible grade you will receive is a B.

2 https://www.bu.edu/academics/policies/academic-conduct-code/