Spring 2-1-2016

Introduction to Biomedical Engineering

Maribel Vazquez
CUNY City College

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BME101: Introduction to Biomedical Engineering

**BME 101:** An introductory course with an overview of the field of biomedical engineering designed to acquaint the students with its interdisciplinary nature; research areas presented by the BME faculty.

**Lectures/Credit:** Fridays 11AM-12PM; ST-402 1.0 Credit

**Instructor:** Professor M. Vazquez vaZqueZ@ccny.cuny.edu
Department of Biomedical Engineering Steinman Hall, T-403D

**Office Hours:** Mondays 2:00PM-3:00PM, and by appointment

**Course Website:** https://portal.cuny.edu/portal/site/cuny

**Attendance:** Students are expected to attend every lecture at 11AM with cell phones silenced. Please exit the classroom for emergency calls.

**Grading:** Course grades will be determined by written assignments and in-class exams as listed. Assignments are due by the following lecture date. **NOTE:** Assignments will NOT be accepted from students who are absent or significantly late to the specified lectures.

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>2 Reports (350 Words Each)</td>
<td>15</td>
</tr>
<tr>
<td>Ethics Case Study</td>
<td>15</td>
</tr>
<tr>
<td>Health Disparities</td>
<td>15</td>
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<tr>
<td>2 Summaries (200 Words Each)</td>
<td>10</td>
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<tr>
<td>BME Lab Tour</td>
<td>10</td>
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<tr>
<td>BME Day Challenges</td>
<td>10</td>
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<tr>
<td>2 Exams (1-Hour Each, closed book)</td>
<td>25</td>
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<tr>
<td>Midterm</td>
<td>25</td>
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<tr>
<td>Final</td>
<td>25</td>
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<tr>
<td><strong>Total:</strong></td>
<td><strong>100%</strong></td>
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**Rules and Regulations:**
1. Prompt attendance is required. Excused absences require prior notification to the Instructor (via email or in person).
2. Students are encouraged to ask any and every question of interest relating to the BME dept, its policies, courses and BME research areas.
3. Plagiarism of any sort will result in an automatic dismissal from the course.
4. All student inquiries will be received openly and courteously from the class and instructor.
# BME101: Introduction to Biomedical Engineering

## Class Schedule for SP2016

<table>
<thead>
<tr>
<th>Class</th>
<th>Date</th>
<th>Topics to be Discussed</th>
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</table>
| 1     | 01.29.16 | **Introduction: BME/GSOE Structure and Expectations**
What will I learn in BME? What are my GSOE student rights? How do the administrative and faculty offices help undergraduates? |
| 2     | 02.05.16 | **Professionalism & Academic Integrity**
Guest Lecturer: Mr. Rawlins Beharry, Director, Office of Student Development
How can students get help with course work? Advising? Funding? |
| 3     | 02.09.16 | **Internships, Career Networking and Experience**
Guest Lecturer: Ms. Katie Nailler, Career & Professional Development Institute
How can students be professionals? How to find internships/launch my career? |
|       | 02.12.16 | **No Classes (CCNY Holiday Schedule)**                                                                                                                                         |
| 4     | 02.19.16 | **Ethics in BME Research: Case Study**
Guest Lecturer: Mr. Sean McCutcheon (BME PhD Candidate) |
| 5     | 02.26.16 | **Research Lecture 1:** Prof. J. Dmochowski (BME205/405/505)
What is neural engineering? |
| 6     | 03.04.16 | **Research Lecture 2:** Prof. R. Majeska (BME310)
What kinds of bone biomechanics research does the dept support at CCNY? |
| 7     | 03.11.16 | **BME Curriculum Overview: Shortcuts and Pitfalls**
Guest Lecturer: Dr. P. Payton (Undergraduate Director)
How can I avoid course sequence conflicts? If I don’t graduate in 4 years? Should I engage in research? |
| 8     | 03.18.16 | **MIDTERM EXAM** (In Class)                                                                                                                                             |
| 9     | 03.23.16 | **Research Lecture 3:** Prof. B. Fu (BME305)
What kind of BME research incorporates cardiovascular systems and cancer? |
|       | 03.25.09 | **No Classes (CCNY Holiday Schedule)**                                                                                                                                       |
| 10    | 04.01.16 | **BME JRs, SRs and Alumni in Industry, Graduate/Med Schools**
Where do BMEs work? What kind of responsibilities do they have? |
| 11    | 04.08.16 | **Guided Tours of BME Research Laboratories**                                                                                                                                   |
| 12    | 04.15.16 | **Research Lecture 4:** Health Disparities in the USA
Guest Lecturer: Dr. A. Motta-Mas (Sophie Davis School of Medicine) |
| 13    | 05.06.16 | **BME DAY:** Describe Senior Design Challenges & Solutions                                                                                                                    |
| 14    | 05.13.16 | **BME Undergraduate luncheon:**
Who are the other BME faculty? What about my unanswered questions? |
|       | 05.27.16 | **FINAL EXAM:** TBD by CCNY                                                                                                                                               |