PHYS551
Biological Physics

Fall 2014
453 HBH

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Office Hours: TBD

Class meetings
The class will meet Tuesday and Thursday from 1:00pm to 2:15pm in 453 Herman Brown Hall.

Reference Texts


Course Description
This course will cover topics in frontier of biological physics.

Important Dates

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tr>
<td>25 August 2014</td>
<td>First day of classes</td>
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<tr>
<td>13-14 October 2014</td>
<td>Midterm recess, no classes</td>
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<tr>
<td>27-28 November 2014</td>
<td>Thanksgiving recess, no classes</td>
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<tr>
<td>5 December 2014</td>
<td>Last day of classes</td>
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**Honor Code**
The Rice Honor Code applies.

**Homework Policy**
Homework assignments will be given every week on Thursday. Homework will be due the following Thursday in the beginning of class. Late homework will not be accepted. You are allowed to collaborate with fellow students on your homework. You may not consult answer keys (from previous years, *etc.*). The homework you turn in must represent your own understanding.

**Midterm Report**
The midterm report is a short report on the topic and paper you chose to present at the end of the term. The selected topic/paper must be related to biological physics. Detailed instructions about the term paper will be given later in the semester.

**Presentation**
Each person will give a 45 minute presentation in class. The presentation should be based on a topic related to biological physics of your choice.

**Credit**

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<tbody>
<tr>
<td>Homework</td>
<td>40 %</td>
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<tr>
<td>Midterm report</td>
<td>20 %</td>
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<tr>
<td>Presentation</td>
<td>40 %</td>
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**Tentative list of the topics to be covered**
DNA  
RNA  
Proteins  
Cells  
Bacteria  
Eukaryotic systems  
Virus  
Biomaterials  
Single molecule techniques  
Cancer and other diseases  
Fluctuations and noise  
Biological networks  
Evolution

*If you have a documented disability that will impact your work in this class, please contact me to discuss your needs during the first two weeks of class. Additionally, you will need to register with the Disability Support Services Office in the Ley Student Center.*