
TA: Hongyu (Alice) Zhu E-mail: zhuhongyuices.utexas.edu
Office hours: TBD

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Chapter</th>
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<tbody>
<tr>
<td>Aug 29 - Aug 31</td>
<td>Classical dynamics</td>
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<tr>
<td>Sep 4 - Sep 7</td>
<td>Kinematics</td>
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<tr>
<td>Sep 10 - Sep 14</td>
<td>Mass and momentum, force and stress</td>
<td>2,3</td>
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<tr>
<td>Sep 17 - Sep 21</td>
<td>Conservation laws and thermodynamics</td>
<td>4,5,6</td>
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<td>Sep 24 - Sep 28</td>
<td>Constitutive eqs. Examples of BVPs</td>
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<td>Oct 1 - Oct 5</td>
<td>Electromagnetics</td>
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<tr>
<td>Oct 8 - Oct 12</td>
<td>Electromagnetics</td>
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<tr>
<td>Oct 15 - Oct 19</td>
<td>Introduction to Quantum Mechanics</td>
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<tr>
<td>Oct 22 - Oct 26</td>
<td>Dynamical variables and observables</td>
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<td>Oct 29 - Nov 2</td>
<td>The hydrogen atom</td>
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<td>Nov 5 - Nov 9</td>
<td>Spin and Pauli’s Principle</td>
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<td>Nov 12 - Nov 16</td>
<td>Atomic and molecular structure</td>
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<td>Nov 19 - Nov 21</td>
<td>Ab Initio methods</td>
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<td>Nov 26 - Nov 30</td>
<td>Introduction to Statistical Mechanics</td>
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<tr>
<td>Dec 3 - Dec 7</td>
<td>SM basis of classical thermodynamics</td>
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**Discussion Session:** ACES 6.304, Time TBD.

**Homework:** Homework assignments will be made in class. The problems assigned in the class will not be collected. Instead, we will begin each discussion session with a quizz for which one of the homework problems will be selected.

**Exams:** There will be two (closed book) exams held in ACES 4.304, during evening hours (5:00-8:00 p.m.) according to the following schedule:

- Exam1 (through Section 5) Mon., Oct 22,
- Exam2 (through Section 22) Mon., Dec 3,

**Final Exam:** Comprehensive, mandatory, closed book, on Monday, December 17, 2:00-5:00 pm, in ACES 4.304.

**Instructor:** Dr. Leszek Demkowicz, ACES 6.326, Office hours: Wed, Fri, 12:30-1:30 PM
**Final Grade:** Is based upon the final score.

<table>
<thead>
<tr>
<th>Final score range</th>
<th>grade</th>
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<tbody>
<tr>
<td>85 - 100</td>
<td>A with recommendation letter</td>
</tr>
<tr>
<td>75 - 85</td>
<td>A</td>
</tr>
<tr>
<td>72 - 74</td>
<td>A-</td>
</tr>
<tr>
<td>68 - 71</td>
<td>B+</td>
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<tr>
<td>65 - 67</td>
<td>B</td>
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<tr>
<td>62 - 64</td>
<td>B-</td>
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<tr>
<td>58 - 61</td>
<td>C+</td>
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<td>55 - 57</td>
<td>C</td>
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<tr>
<td>52 - 54</td>
<td>C-</td>
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<td>48 - 51</td>
<td>D+</td>
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<td>45 - 47</td>
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<td>42 - 44</td>
<td>D-</td>
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<td>00 - 41</td>
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The final score is a weighted average of the test score, three mid-term exams and the final exam, with the following weights:

- Tests (homework) - 20 %
- Exams - 25 % each
- Final - 30 %