PHYS 1111: Introductory Physics — Mechanics

Section: 25667; TH 12:45 P.M. - 2:00 P.M.
Lectures will be given in F2F at regular class times. No recordings!
Attendance will not be monitored!

Instructor: Professor Henning H. Meyer
Office hours: T 11:00 A.M. - 12:00 Noon
Q&A Zoom Session: Day before exam: 4:00 P.M. - 5:00 P.M. (See ELC for Zoom link)
Office: Room 217, Physics Building
Email: hmeyer@uga.edu, add ‘PHYS1111 Period4’ to subject line.
No individual communication via ELC!!!
ELC: General announcements; Posting of lecture slides/comments, homework or exam solutions, practice exams.

I. GENERAL INFORMATION

- Primary method of communication: during office hours;
- Email through: hmeyer@uga.edu
- Text: James S. Walker, Physics, 5th edition (2017). (3rd or 4th editions are fine, but **you will be responsible** for knowing about any changes in content.) The bookstore usually describes the text as: Physics & VP AC MOD MST If you already have a book, you can also buy the access code online during the registration process.
- Otherwise, make sure you get a copy that says: w/ MasteringPhysics.
- Mastering Physics: To register look for Course Name
  • PHYS1111-Fall2021-MeyerPeriod4 with Course ID: meyer49627 – You will need to enter your UGA ID, i.e. your 81X number. **Enter 9 digits only – do not enter the last digit.**

II. ACADEMIC HONESTY

- The University of Georgia has a comprehensive policy on academic honesty, described in a document entitled "A Culture of Honesty."
- The document is available online at https://honesty.uga.edu/_resources/documents/academic_honesty_policy_2017.pdf.
- The policy covers all academic work. As a UGA student, you are responsible for knowing and understanding this policy.
- If you have any question about the appropriateness of your actions or your work, you are obligated to ask me for clarification.

III. GRADING POLICY

- Overall grade will be determined as follows:
  • 20% LAB grade (completion mandatory; see Section V for details)
  • 15% HOMEWORK (no makeup; working in groups OK; must be submitted individually)
  • 45% EXAM 1 (no makeup; must be taken with the section you are registered for)
  • EXAM 2 (no makeup; must be taken with the section you are registered for)
  • EXAM 3 (no makeup; must be taken with the section you are registered for)
  • EXAM 4 (no makeup; must be taken with the section you are registered for)
  **Worst of 4 exams dropped**
  • 20% Final EXAM (no makeup, unless required by University Rules)

100% TOTAL
• Letter grades will be assigned in accordance with the following cut-offs (for additional rules see below):
  • F: [0, 55)  D: [55, 65)  C−: [65, 68)  C: [68, 72)  C+: [72, 75)  
  • B−: [75, 78)  B: [78, 82)  B+: [82, 85)  A−: [85, 90)  A: [90, 100]
  • NOTE: There is no rounding; 64.99 = “D”, etc.

IV. LABS (20%)

• All students are required to complete the LAB part of the class.
• Students who are not assigned a lab grade due to non-completion will automatically receive a failing grade (“F”) for the course.
• PLEASE NOTE:
  ▪ Labs will start week of August 31.
  ▪ Lab syllabus: Use the link below from the Department’s web site, then scroll down to your particular lab section. https://www.physast.uga.edu/courses

V. HOMEWORK (15%)

• There will be a number of HOMEWORK assignments posted online (on the Mastering Physics website).
• All assignments count towards your grade.
• All assignments must be submitted on time.
• No makeup, no late submission.
• Rules:
  ▪ You may work in groups.
  ▪ You submit your work individually.

VI. EXAMS (45% TOTAL)

• There will be a total of four (4) in-class EXAMS on selected chapters.
• Worst of the four exam grades will be dropped (such as, e.g., a “0” due to non-completion), so, technically, each exam is worth 15%.
• Depending on the development of the pandemic, exams might be moved online requiring the Lockdown Browser.
• No makeups or re-scheduling is permitted.

VII. FINAL EXAM (20% TOTAL)

• Final Exam is mass exam, date and time: Tuesday, Dec. 9; 7:00 - 10:00 P.M.
• Comprehensive final exam (20% of overall grade): All chapters covered in class.
• No makeups or re-scheduling unless required by University rules.

• Rules for the EXAMS (Exams might be online given through ELC):
  ▪ Recommendation: Prepare ONE (1) STANDARD SHEET of paper containing anything you want (e.g., physical constants, formulae, diagrams, problem solutions, etc.) ALL HANDWRITTEN. You may write on both sides
  ▪ A simple (non-graphing, non-symbolic, non-programmable) scientific calculator.
  ▪ No other electronic device(s) permitted.
  ▪ Must work individually.
VIII. INCOMPLETES

• You may be assigned an "I" (incomplete) for the course in accordance with the UGA Regulations, provided all of the following applies:
  ▪ You received a non-failing grade in LABS (> 70)
  ▪ You received a non-failing grade (> 55%) on at least one EXAM,
  ▪ No violation of the Academic Honesty Policy took place during the course of the semester.

IX. ABSENCES

• You are responsible for obtaining any announcements/materials/information that were given out in a class that you missed.

X. WITHDRAWALS

• The Undergraduate Bulletin and the Registrar's Office website describe the University policies regarding withdrawals and incompletes. The deadline for withdrawal is Monday, October 25th.

XI. TUTORS

• Tutors are available through the following:
  ▪ Department of Physics and Astronomy: https://www.physast.uga.edu/tutors/
  ▪ UGA Tutoring Program: http://tutor.uga.edu/arc/tutoring/ Please remember: the goal is to learn from your tutor, not for them to do your homework for you.

XII. HOW TO DO WELL IN THIS CLASS

• Read each chapter before it is discussed in class.
• Attend every lecture.
• Participate actively in discussions.
• Re-read chapter carefully after class. Rework the notes taken during lecture.
• Do assigned homework.
• Solve as many end-of-chapter problems as possible.
• Concepts first. Do NOT plug-and-chug.
• Use a buddy system: find a friend with whom to discuss physics.
• Think about physics on a regular basis.
• If everything fails, consider dropping the class before the deadline and retaking it at a later time.
TABLE I: Fall 2021 Master Schedule  (ATTENTION: This schedule is preliminary. It is subject to modification, possibly including exam dates.)

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Reading</th>
<th>Topics</th>
<th>Day</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Aug 19</td>
<td>1.1-8</td>
<td>Intro to this course; Introduction</td>
<td>H</td>
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<tr>
<td>2</td>
<td>Aug 24</td>
<td>2.1-7</td>
<td>1D Kinematics</td>
<td>T</td>
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<td></td>
<td>Aug 26</td>
<td>3.2-5</td>
<td>Vectors</td>
<td>H</td>
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<tr>
<td>3</td>
<td>Aug 31 Sep 2</td>
<td>3.6, 4.1-2, 4.3-5</td>
<td>Relative motion, 2D Kinematics 2D Kinematics</td>
<td>T</td>
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<tr>
<td>4</td>
<td>Sep 7 Sep 9(E1)</td>
<td>Review; Problem Solving</td>
<td>EXAM 1 (Chap 2,4)</td>
<td>T</td>
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<tr>
<td>5</td>
<td>Sep 14 Sep 16</td>
<td>5.1-3</td>
<td>Force, mass, Newton’s 1st and 2nd Laws Newton’s 3rd Law, weight, and normal forces</td>
<td>T</td>
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<tr>
<td>6</td>
<td>Sep 21 Sep 23</td>
<td>6.1-4</td>
<td>Applications: Friction, tension, equilibrium Circular Motion</td>
<td>T</td>
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<tr>
<td>7</td>
<td>Sep 28 Sep 30</td>
<td>7.1-4</td>
<td>Work and energy, power Review; Problem Solving</td>
<td>T</td>
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<tr>
<td>8</td>
<td>Oct 5 (E2) Oct 7</td>
<td>8.1-3</td>
<td>EXAM 2 (Chap 5-7) Conservative forces, energy conservation</td>
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<tr>
<td>9</td>
<td>Oct 12 Oct 14</td>
<td>8.4-5</td>
<td>Work for non-conservative forces, potential energy curves Linear momentum</td>
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<tr>
<td>10</td>
<td>Oct 18 Oct 21</td>
<td>9.4-7</td>
<td>Collisions Review; Problem Solving</td>
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<td>EXAM 3 (Chap 8-9)</td>
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<td>12</td>
<td>Nov 2 Nov 4</td>
<td>10.1-4</td>
<td>Rotational kinematics</td>
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<td></td>
<td>Nov 9 Nov 11</td>
<td>11.3-5</td>
<td>Rotational equilibrium and dynamics Angular momentum, rotational work</td>
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<tr>
<td>13</td>
<td>Nov 16 Nov 18</td>
<td>12.1-5</td>
<td>Review; Problem Solving Gravitation</td>
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<td>15</td>
<td>Nov 23 (E4)</td>
<td>EXAM 4 (Chap 10-11)</td>
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<tr>
<td>16</td>
<td>Nov 30 Dec 2</td>
<td>13.1-6</td>
<td>Simple harmonic motion, pendulum; Review; Problem Solving</td>
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<td>Dec 13</td>
<td>13.6</td>
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<td></td>
<td>Dec 9</td>
<td></td>
<td>FINAL EXAM  (Chap 1-13) Time: 7-10pm</td>
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