

**PHYS 150 SYLLABUS Spring 2019****Section 01 Mon, Wed, Fri noon-12:50 LaT 200**

<b>NIU Catalog Description</b>	<p>PHYS 150 Physics (Introductory) (3 credits) Development of concepts and principles from selected topics in mechanics, electricity, heat, sound, and light. Application to everyday life and contemporary issues facing society and their implications. Topics may include energy sources, climate change, medical physics, among others. Not recommended for students who have had a year of high school physics. Not available for credit to students with credit in PHYS 150A.</p> <p><b>Requisites:</b> No pre- or co-requisites required.</p>
<b>NIU General Education</b>	<p>Phys 150 (3 unit lecture) and 151 (1 unit lab) is approved to satisfy Nature and Technology general ed course credit at NIU. It is not, however, part of any of the new General Education Pathway sequences.</p> <p>“Courses in Nature and Technology will develop students' understanding of the role of science, technology, engineering, and mathematics and their relevance to societal issues. This domain encompasses human activities through which we observe, measure, model, and interpret the natural world and physical universe. Courses will explore the process of scientific discovery and how the resulting knowledge is applied to understand technological and societal change. Students will: (1) be able to articulate society's connections to, and responsibility towards, the natural world; and (2) learn to apply the scientific method, including assessing empirical data, investigating the predictions of existing theories, and developing experimentally testable hypotheses.”</p>
<b>IAI equivalent</b>	<p><b>IAI P1900(L) : General Education Physics (3-5 semester credits)</b> A course that examines the concepts and methods of physics, with topics selected from mechanics, fluids, heat, electricity and magnetism, optics, waves and modern physics. (P1900L = PHYS 150 (lect) + PHYS 151 (lab) at NIU)</p>
<b>Delivery method and other remarks</b>	<p>All lecture sections are traditional (Face-to-Face); 3 contact hours per week. All lab sections are traditional (Face-to-Face) with majority of lab activities hands-on; Lab meets for 2 contact hours per week. Some majors require Lecture (PHYS150) and ab (PHYS151)! Check with advisor.</p>
<b>Text and Materials</b>	<p><b>(1) <i>Conceptual Physics, P.G. Hewitt</i>, 12<sup>th</sup> Edition (ISBN 0-321-05202-1)</b> <b>(2) Mastering Physics</b> by Pearson for online homework (required – this can be bought separately if desired)</p> <p>The Hewitt textbook (<i>Conceptual Physics</i>) is designed for a 2 semester course, so we will only be covering selected sections. Older editions of the textbook are OK.</p> <p>However, make sure to acquire the license for Mastering Physics for Online Homework for the 12<sup>th</sup> edition or you will not be able to access the on-line homework pages.</p>
<b>CLASS MEETINGS:</b>  <b>Class times and instructor contact information</b>	<p><b>Lecture Sect 001:</b> M, W, F: 12:00 – 12:50 PM, La Tourette (FW) 200 <b>Instructor:</b> Carol Thompson; LaTourette Hall 207; 815-753-1772 <b>Office Hours:</b> W 10-11am and by appointment! <b>Email:</b> <a href="mailto:cthompson@niu.edu">cthompson@niu.edu</a></p> <p><b>Phys 151 Labs: 000A 9-10:50; 000B 13-14:50; FR 235</b> <b>Lab TA:</b> Daniel Faia; <a href="mailto:Z1779842@students.niu.edu">Z1779842@students.niu.edu</a></p>

<b>Physics Help Room Hours</b>	Faraday Hall 251 – Monday to Thursday 9-4pm, Friday 9-3pm
<b>Accessing “Pearson’s Mastering Physics” Online Assignments</b>	<p>Two pieces of information are needed to create an account on <b>Pearson’s Mastering Physics</b> for online homework assignments.</p> <p><b>Course Title:</b> PHYS 150 NIU Spring 2019 Thompson</p> <p><b>Course ID:</b> PHYS150NIUSPRING2019THOMPSON</p> <p>Your student ID you create should be your Zid (with the Z, e.g., z1234567) (if you already have Pearson ID, you can use it, make sure I can identify you, however!)</p> <p>A ‘sample’ assignment is up and must be completed within the first week. You <b>MUST</b> complete it so that we can fix any problems with your account or your access. <u>(I have no sympathy for complaints later in semester that should have been caught during this ‘shake-down’ practice assignment.</u></p> <p>FAQ: <a href="https://www.pearsonmylabandmastering.com/northamerica/masteringphysics/students/support/top-questions/index.html">https://www.pearsonmylabandmastering.com/northamerica/masteringphysics/students/support/top-questions/index.html</a></p> <p>Periodically, the grades from Mastering Physics will be transferred to Blackboard. Please check for accuracy in the transfer. The homework system is included in the price of a NEW textbook, but must be purchased separately if a used textbook is used.</p> <p>Note: Late homework will have 14% of the points deducted for each day past the deadline. (That is, homework 1 week late will automatically count for 0 points)</p>

<b>Grading</b>	<p>Final grade in class is calculated like a ‘GPA’ using the weightings as follows. Each of the 6 items will get a letter grade (A=4, B=3, C=2, D=1, F=0)</p> <table data-bbox="410 1241 1429 1360"> <tr> <td>Exam ONE, TWO, THREE, FOUR</td> <td>10% : 10% : 10% : 10%</td> <td>(40% total)</td> </tr> <tr> <td>1 final exam (cumulative)</td> <td>20%</td> <td></td> </tr> <tr> <td>In-class quizzes/activities</td> <td>15%</td> <td></td> </tr> <tr> <td>Homework</td> <td>25%</td> <td></td> </tr> </table> <p>Exam score to grade will be announced in class after the each exam. In-class quizzes/activities and homework receive a Letter grade at semester-end based on the final percentage of points/points total. This table is used to assign a letter grade to the final QUIZ and HW percentages.</p> <table data-bbox="410 1520 1502 1612"> <tr> <td>&gt;80%</td> <td>&gt;70%</td> <td>&gt;60%</td> <td>&gt; 50%</td> <td>&lt;50%</td> </tr> <tr> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td>F</td> </tr> </table> <p><b>Non-Attendance penalty:</b> Students who complete the in-class quizzes/exams/activities also receive attendance credit. At the end of the semester, I check how many days that a student has missed based on missing quizzes/activities.</p> <p>Missed ≤3 in-class sessions = No penalty          Missed 4 to 6 = attendance penalty “- 0.10” ← student missed at least 10% of classes!          Missed 7 to 10 = attendance penalty “- 0.30” ← this student missed at least 25%!          Missed 11 or more = attendance penalty “- 0.60” ← this student probably skipped out of more classes than they attended. I only happened to document at least 11 of their absences.</p>	Exam ONE, TWO, THREE, FOUR	10% : 10% : 10% : 10%	(40% total)	1 final exam (cumulative)	20%		In-class quizzes/activities	15%		Homework	25%		>80%	>70%	>60%	> 50%	<50%	A	B	C	D	F
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<b>Example of How Grading Works</b>	Calculating the Final grade calculates a 'GPA' using the weightings in this syllabus. Note: A=4; B=3; C=2; D=1; F=0											
	<b>ID</b>	<b>EXAM 1 (10%)</b>	<b>EXAM 2 (10%)</b>	<b>EXAM 3 (10%)</b>	<b>EXAM 4 (10%)</b>	<b>FINAL (20%)</b>	<b>HW (25%)</b>	<b>QUIZ/INCLAS (15%)</b>	<b>'GPA'</b>	<b>ATTENDANCE PENALTY</b>	<b>'GPA' (after penalty)</b>	<b>LETTER GRADE for COURSE</b>
	Mary	C	B	A	C	B	B	C	2.75	-0.30	2.45	C+
	Alice	C	B	A	C	B	B	C	2.75	0	2.75	B -
	Sara	C	B	A	C	B	A	A	3.40	0	3.30	B+
	Once the 'GPA' is calculated, it is transformed to final letter course grade using the following minimums as the cut points. <b>3.85 (A), 3.51 (A-), 3.18 ( B+), 2.85 (B), 2.51 (B-), 2.18 (C+), 1.75 (C), 0.75 (D), &lt;0.75 (F).</b>											
	In the table example: Mary missed at least 7 quizzes/class activities out of the semester! Sara and Alice missed less than 2 of the activities out of the entire semester so there is zero attendance penalty.											

<b>Learning Outcomes</b>	explain and use the physical concepts of force, motion, velocities, accelerations, and Newton's Laws.
	analyze basic physical concepts of work, energy and conservation of energy, and momentum as applied to simple mechanical systems.
	explain basic physical concepts of the waves including light waves and sound waves and demonstrate their applications in everyday life
	explain basic physical concepts of thermodynamics and demonstrate of the laws of thermodynamics and apply
	explain basic physical concepts of electricity and magnetism, and apply them to simple electrical and magnetic systems/phenomena.
<b>Course Goals</b>	Develop an understanding of basic scientific concepts, principles and laws of Physics.
	Develop critical thinking skills and a scientific approach to problem solving.
	Develop basic quantitative analysis skills and methods

**Topical Outline Phys 150( Lecture) and Phys 151(Lab)**

The Hewitt textbook (*Conceptual Physics*) is designed for a 2 semester course, so we will only be covering selected sections.

<b>WEEK #</b>	<b>Phys 150 Lecture Topics</b>	<b>EXAMS</b> ONE (Wed, Feb 6) TWO (Mon, Feb 25) THREE (Mon, Mar 25) FOUR (Mon, Apr 15) FINAL (Mon May 7)	<b>(Phys 151 Laboratory</b> scheduled for 2 contact hours/week) 10 Hands-on Laboratory Modules (#1, ...) 4 Supporting Laboratory Activity (#A, #B, #C, #D)
Week 1	<b>Chapter 2 through 5.</b> Newton's three laws of motion		<b>Assessment pre-Testing (Force Concept Inventory)</b> <b>Activity #A Orientation &amp; Graphing, problem solving introduced (due next lab session)</b>
Week 2	<b>Chapter 2 through 5.</b> Newton's three laws of motion		<b>MLK Holiday (Monday)</b>
Week 3	<b>Chapter 2 through 5.</b> Newton's three laws of motion		<b>Lab #01 Motion &amp; Push / Pull Forces</b>
Week 4	<b>Chapter 6 and 7.</b> Momentum, work, energy, and power	<b>[W] EXAM ONE (Ch 2-5)</b>	<b>Activity #B Lab report writing guidance (Lab #1 used to demonstrate)</b>
Week 5	<b>Chapter 6 and 7.</b> Momentum, work, energy, and power		<b>Lab #02 Velocity, Acceleration, 2d Motion</b>
Week 6	<b>Chapters 15, 16 and 18.</b> Temperature, heat, and first two laws of thermodynamics		<b>Lab #03 Newton's 3<sup>rd</sup> Law</b>
Week 7	<b>Chapters 15, 16 and 18.</b> Temperature, heat, and first two laws of thermodynamics	<b>[M] EXAM TWO (Ch 2-7)</b>	<b>Lab #04 Friction</b>
Week 8	<b>Chapters 19, 20.</b> Vibrations and Waves and Sound		<b>Lab #05 Specific Heat</b>
Week 9	<b>SPRING BREAK March 11-15, 2019</b>		<b>SPRING BREAK</b>
Week 10	<b>Chapters 19, 20.</b> Vibrations and Waves and Sound		<b>Lab #06 Static Electricity / Coulomb's Law</b>
Week 11	<b>Chapters 22 through 24.</b> Electrostatics, Currents, Circuits and Ohm's Law, Magnetism	<b>[M] EXAM THREE (Ch 15, 16, 18, 19, 20)</b>	<b>Lab #07 Ohm's Law</b>
Week 12	<b>Chapters 22 through 24.</b> Electrostatics, Currents, Circuits and Ohm's Law, Magnetism		<b>Lab #08 Simple Harmonic Motion (springs) &amp; Energy</b>
Week 13	<b>Chapters 22 through 24.</b> Electrostatics, Currents, Circuits and Ohm's Law, Magnetism		<b>Lab #09 Reflection, Refraction, Dispersion</b>
Week 14	<b>Chapter 26 through 29,</b> Properties of light, color, reflection and refraction, light waves	<b>[M] EXAM FOUR (Ch 22-24)</b>	<b>Activity #C Simulation and demonstration of Interference of Waves (sound and light)</b>
Week 15	<b>Chapter 26 through s9.</b> Properties of light, color, reflection and refraction, light waves		<b>Lab #10 TBD (probably on color)</b>
Week 16	<b>Chapter 26 through 29.</b> Properties of light, color, reflection and refraction, light waves		<b>Activity #D – Q and A with Grad students presenting on their research and how their experimental skills were acquired! (also - Assessment post-Testing (Force Concept Inventory)</b>
<b>Finals Week</b>	Phys 150 Final takes place on date/time established by University (see Finals Schedule NIU).	Monday May 7, 2019; noon-1:50pm LaT 200	No labs meet during Finals week Note that Final exam is from Noon – 1:50pm

**COURSE POLICIES INCLUDE:**

1. **Be respectful of each other** (this applies to Instructors, TA's and students). Some specifics include:
  - a. Cell/ smart phones should be put away unless they are being used to help with the current lecture's class material.
  - b. When requested, electronic devices should be stowed in backpack/bag (typically this will be required for quizzes, etc). Violators may be required to turn in their devices to the Instructor for the remainder of the class period.
  - c. Minimal extraneous chatter during class – raise your hand if you have a question at any time. We are happy if you are curious and interested in discussing topics at greater length, but avoid chattering with neighbor with comments and questions.
  - d. Be on time to class.
  - e. It is respectful and professional to inform your instructor or TA when other commitments or issues will require you to leave early/arrive late/miss class.
2. Instructor makes good faith effort to ensure that important in-class class announcements are posted on Blackboard, but occasionally some may not be posted. It is the student's responsibility to be aware of what they missed when they are absent.
3. Laptops/notebooks/tablets may be used for lecture materials and taking notes.
4. Seat assignments may be used to facilitate in class group discussions or to separate distracting chattering buddies.
5. Completing the homework will improve retention of concepts and promotes learning Use Physics Help Room or my office hours if you need help. Work with fellow students to discuss and solve HW problems. It is an excellent way to learn. ALL HW assignments and due dates will be in Pearson's Mastering Physics online system, which can be accessed via [www.masteringphysics.com](http://www.masteringphysics.com).
6. Be aware of the policies and procedures regarding student rights as well as responsibilities that are published in the NIU Student Code of Conduct. It is available on line at [http://www.stuaff.niu.edu/judicial/24430jo\(body\).pdf](http://www.stuaff.niu.edu/judicial/24430jo(body).pdf) .
7. The instructor and the university reserve the right to modify, amend, or change the course syllabus (course requirements, grading policy, etc.) as the curriculum and/or program require.
8. Northern Illinois University is committed to providing an accessible educational environment in collaboration with the Disability Resource Center (DRC). Any student requiring an academic accommodation due to a disability should let his or her faculty member know as soon as possible. Students who need academic accommodations based on the impact of a disability are encouraged to contact the DRC if they have not done so already. The DRC is located on the 4th floor of the Health Services Building, and can be reached at 815-753-1303 (V) or [drc@niu.edu](mailto:drc@niu.edu).
9. **Absences (the normal nuisance absences):** There will be no 'excused' absences granted except in extraordinary circumstances. Unexcused means that there are no makeups of points on missed quizzes or in-class activities or attendance points. It is assumed that students have arranged their personal and professional schedules to attend all classes and thus they are responsible for their own scheduling. There is MORE than enough wiggle room in the point/grading structure to accommodate an occasional need to miss class due to a minor illness, family or job event, or

temporary mishap. This is not to imply that a given reason for an absence is 'bad' or not worthy of sympathy, simply that it is the student's choice and there are consequences they must balance and take responsibility. Note that keeping the instructor in the loop for a absence doesn't mean that the absence is excused, but it likely will mean that the instructor will try to make sure that this responsible-acting student gets any extra information on important in-class announcements or extra help with material that was missed. Yes there is a steep penalty built into the grading scheme for habitual absenteeism, but there is enough wiggle room for the occasional issues to not affect the final grade.

10. **Absences (exams/finals)** When an on-going situation or illness causes student to miss one of the four exams or final, and a decision needs to be made whether to allow a makeup exam or give an F for a missed exam, this situation should be discussed with instructor in ADVANCE or AS SOON AS PRACTICAL.
11. **Absences (The bad stuff that no one wants to happen):** Various events can temporarily "knock-the-stuffing" out of a student for extended period (example; death in immediate family, sudden change for worse in health of child/parent/sibling/ significant other for whom student is primary caregiver, an emotional/physical traumatizing event, or serious health issue arising.) We are not heartless! Please contact instructor (ASAP) so we can figure out the most realistic way to accommodate the situation. I am not interested in discussing private personal details of a situation, but need enough effort and communication from the student so that together we can figure out a credible and realistic timeline and agree on fair accommodations. Please don't ghost the course - waiting until the last week of classes to come in with excuses and explanations about failing work and absences throughout the semester – it is too late then to make plans for your success.

**Detailed Listing of Reading assignments per lecture**

WEEK #	Phys 150 Lecture Topics	MONDAY	WEDNESDAY	FRIDAY
Week 1	<b>Chapter 2 through 5.</b> Newton's three laws of motion	<b>2 Newton's First Law of Motion–Inertia</b> 2.2 Galileo's Experiments, leaning tower inclined planes 2.3 Newton's First Law of Motion	2.4 Net Force and Vectors, force vectors 2.5 The Equilibrium Rule 2.6 Support Force 2.7 Equilibrium of Moving Things 2.8 The Moving Earth	<b>3 Linear Motion</b> 3.1 Motion Is Relative 3.2 Speed, instantaneous, Average 3.3 Velocity, constant, changing
Week 2	<b>Chapter 2 through 5.</b> Newton's three laws of motion	<b>MLK holiday</b>	3.4 Acceleration (on inclined planes) 3.5 Free Fall, how fast, far, hangtime 3.6 Velocity Vectors	<b>4 Newton's Second Law of Motion</b> 4.1 Force Causes Acceleration 4.2 Friction 4.3 Mass and Weight (coming to Force)
Week 3	<b>Chapter 2 through 5.</b> Newton's three laws of motion	4.4 Newton's Second Law of Motion $F=ma$ 4.5 When Acceleration Is $g$ —Free Fall 4.6 When Acceleration Is Less Than $g$ —Nonfree Fall	<b>5 Newton's Third Law of Motion action-reaction</b> 5.1 Forces and Interactions 5.2 Newton's Third Law of Motion, define systems 5.3 Action and Reaction on Different Masses	5.4 Vectors and the Third Law 5.5 Summary of Newton's Three Laws <b>REVIEW of Ch 2-5</b>
Week 4	<b>Chapter 6 and 7.</b> Momentum, work, energy, and power	<b>6 Momentum</b> 6.1 Momentum 6.2 Impulse 6.3 Impulse Changes Momentum (and examples) 6.4 Bouncing	<b>EXAM ONE (Chapters 2-5)</b>	6.5 Conservation of Momentum 6.6 Collisions 6.7 More Complicated Collisions
Week 5	<b>Chapter 6 and 7.</b> Momentum, work, energy, and power	<b>7 Energy</b> 7.1 Work, power mechanical energy 7.2 Potential Energy 7.3 Kinetic Energy 7.4 Work–Energy Theorem	7.5 Conservation of Energy, (energy and technology, recycled energy) 7.6 Machines 7.7 Efficiency 7.8 Sources of Energy	<b>REVIEW of Ch 6,7</b> <b>15 Temperature, Heat, and Expansion</b> 15.1 Temperature 15.2 Heat, measuring heat
Week 6	<b>Chapters 15, 16 and 18.</b> Temperature, heat, and first two laws of thermodynamics	15.3 Specific Heat Capacity 15.4 The High Specific Heat Capacity of Water 15.5 Thermal Expansion	<b>16 Heat Transfer</b> 16.1 Conduction 16.2 Convection 16.3 Radiation, emission, absorption, reflection, cooling at night by radiation	16.4 Newton's Law of Cooling 16.5 The Greenhouse Effect 16.6 Climate Change 16.7 Solar Power 16.8 Controlling Heat Transfer
Week 7	<b>Chapters 15, 16 and 18.</b> Temperature, heat, and first two laws of thermodynamics	<b>EXAM TWO (Ch 6,7 (and 2-5 again))</b>	<b>18 Thermodynamics</b> 18.1 Thermodynamics 18.2 Absolute Zero, internal energy 18.3 First Law of Thermodynamics 18.4 Adiabatic Processes	18.5 Meteorology and the First Law 18.6 2 <sup>nd</sup> Law of Thermodynamics, 18.7 Energy Tends to Disperse 18.8 Entropy  <b>REVIEW Ch 15,16, 18</b>
Week 8	<b>Chapters 19, 20.</b> Vibrations and Waves and Sound	<b>19 Vibrations and Waves</b> 19.1 Good Vibrations 19.2 Wave Description 19.3 Wave Motion 19.4 Wave Speed	19.5 Wave Interference, standing waves 19.6 Doppler Effect 19.7 Bow Waves 19.8 Shock Waves	<b>20 Sound</b> 20.1 Nature of Sound 20.2 Sound in Air 20.3 Reflection of Sound 20.4 Refraction of Sound

Week 9	<b>SPRING BREAK March 11-15, 2019</b>	<b>SPRING BREAK March 11-15, 2019</b>	<b>SPRING BREAK March 11-15, 2019</b>	<b>SPRING BREAK March 11-15, 2019</b>
Week 10	<b>Chapters 19, 20.</b> Vibrations and Waves and Sound	20.5 Forced Vibrations 20.6 Resonance 20.7 Interference 20.8 Beats  REVIEW Ch 19, 20	<b>22 Electrostatics</b> 22.1 Electricity and electric forces 22.2 Electric Charges 22.3 Conservation of Charge 22.4 Coulomb's Law 22.5 Conductors and Insulators, semi and super	22.6 Charging (by friction, contact, induction) 22.7 Charge Polarization 22.8 Electric Field 22.9 Electric Potential, energy storage
Week 11	<b>Chapters 22 through 24.</b> Electrostatics, Currents, Circuits and Ohm's Law, Magnetism	<b>EXAM THREE (Ch 15,16,18,19,20)</b>	<b>23 Electric Current</b> 23.1 Flow of Charge and Electric Current 23.2 Voltage Sources 23.3 Electrical Resistance	23.4 Ohm's Law 23.5 Direct Current and Alternating Current 23.6 Speed and Source of Electrons in a Circuit
Week 12	<b>Chapters 22 through 24.</b> Electrostatics, Currents, Circuits and Ohm's Law, Magnetism	23.7 Electric Power 23.8 Lamps 23.9 Electric Circuits, series, parallel	<b>24 Magnetism</b> 24.1 Magnetism 24.2 Magnetic Poles 24.3 Magnetic Fields	24.4 Magnetic Domains 24.5 Electric Currents and Magnetic Fields 24.6 Electromagnets
Week 13	<b>Chapters 22 through 24.</b> Electrostatics, Currents, Circuits and Ohm's Law, Magnetism	24.7 Magnetic Forces on moving charges and current carrying wires 24.8 Earth's Magnetic Field  REVIEW Ch 22, 23, 24	<b>26 Properties of Light</b> 26.1 Electromagnetic Waves 26.2 Electromagnetic Wave Velocity 26.3 Electromagnetic Spectrum	26.4 Transparent Materials 26.5 Opaque Materials 26.6 Seeing Light—The Eye
Week 14	<b>Chapter 26 through 29,</b> Properties of light, color, reflection and refraction, light waves	<b>EXAM FOUR (Ch 22-24)</b>	<b>27 Color</b> 27.1 Color in Our World 27.2 Selective Reflection 27.3 Selective Transmission 27.4 Mixing Colored Lights 27.5 Mixing Colored Pigments	27.6 Why the Sky Is Blue 27.7 Why Sunsets Are Red 27.8 Why Clouds Are White 27.9 Why Water Is Greenish Blue
Week 15	<b>Chapter 26 through 29.</b> Properties of light, color, reflection and refraction, light waves	<b>28 Reflection and Refraction</b> 28.1 Reflection 28.2 Law of Reflection, 28.3 Refraction	28.4 Cause of Refraction 28.5 Dispersion and Rainbows 28.6 Total Internal Reflection 28.7 Lenses 28.8 Lens Defects	28.6 Total Internal Reflection 28.7 Lenses 28.8 Lens Defects
Week 16	<b>Chapter 26 through 29.</b> Properties of light, color, reflection and refraction, light waves	<b>29 Light Waves</b> 29.1 Huygens' Principle 29.2 Diffraction	29.3 Superposition and Interference 29.4 Thin-Film Interference 29.5 Polarization	REVIEW and finish loose ends
<b>Finals Week</b>	Phys 150 Final (cumulative) all material!	<b>FINAL EXAM Monday May 7, 2019; noon-1:50pm LaT 200</b>		