Physics 1251 - Autumn 2017

Questions about physics class: see your lecturer
   8:00a  Dr. Tom Barrett - SM 1106E, 614-292-8065, barrett.3@osu.edu
   9:10a  Dr. Zeke Johnston-Halperin - PRB 2060, 614-247-4074, ejh@mps.ohio-state.edu
  10:20a Dr. Rolando Valdes Aguilar - PRB 2042, 614-292-5758, valdesaguilar.1@osu.edu

For excuses or permission for anything: see the course manager
   Dr. Ziegler - SM 1036A, 292-2067, ziegler.2@osu.edu

For WebAssign issues (access and technical issues): see the WebAssign administrator
   Dr. Bolland - SM 1106D, 292-8065, bolland.1@osu.edu

For help in physics: see your lecturer, TA, or visit the tutor room
   tutor room: SM 1011A&B
       my TA:

See   http://www.physics.ohio-state.edu/phys1251   for course policies, book and WebAssign info
   textbook: Physics for Scientists and Engineers with Modern Physics, 9th edition by Serway & Jewett
   relevant chapter,section numbers in [brackets]

Homeworks & prelabs due through WebAssign ( https://www.webassign.net/osu/student.html )
   WebAssign homeworks typically due Mondays at 11:59 pm
   Prelabs typically due 10:00 am Wednesday

lab manual: Physics 1251 Activities & Worksheets, 6th edition
Grading: homework (WebAssign)=15%, PER=1%, lab=11%, prelabs=3%, quizzes=15%, midterms=2*15%,
         final=25%
   1 quiz, 1 prelab, and 1 lab are dropped; see course manager only if you miss more than this.
You are responsible for receiving messages sent through Canvas’s messaging system.

PER: The Flexible Homework Assignment (“flex”) consists of participating in a 55 minute session, which
   could include an interview/discussion about physics content, a short test, small group work, or short tutoring
   sessions. You will be sent an email sometime during the semester (by Nov 13) to arrange a time. To find out
   more about the flex homework, see the “Flexible HW Assignment” document in the content section of
   Carmen. To contact the Flex Homework team send email to physics-flex-homework@lists.osu.edu.
LABORATORY: (1) Electric Force
T Aug 22  L  Coulomb's law [23.1-3]
W Aug 23  L  conductors & insulators; induced charges; prelab due 10:00 am every Wednesday
F Aug 25  L  electric fields [23.4,6-7]

LABORATORY: (1.5) group work
M Aug 28  R  Quiz 1 (Coulomb's law); Homework #1 due
T Aug 29  L  electric fields [23.5]
W Aug 30  L  electric fields
F Sep 1  L  Gauss's law [24.1-3]

LABORATORY: (2) Electric Field
M Sep 4  holiday
T Sep 5  L  Gauss's law [24.4]
W Sep 6  L  Gauss's law
F Sep 8  L  potential [25.1-6]

LABORATORY: (3) Electric Flux
M Sep 11  R  Quiz 2 (electric field); Homework #2 due
T Sep 12  L  potential
W Sep 13  L  potential
F Sep 15  L  potential; capacitors [26.1-2,4-6]

Last date to drop a course without receiving a W

LABORATORY: (4) Electric Potential
M Sep 18  R  Quiz 3 (Gauss's law); Homework #3 due
T Sep 19  L  capacitors (end of 1st midterm material)
W Sep 20  L  current; Ohm's law [27.1-4,6]
F Sep 22  L  simple circuits [28.1-2]

LABORATORY: (5) Electric Current // (6) Qualitative Circuits
M Sep 25  R  Quiz 4 (potential); Homework #4 due
T Sep 26  L  simple circuits [26.3]
W Sep 27  L  complex circuits [28.3]
F Sep 29  L  RC circuits [28.4]

LABORATORY: (7) Quantitative Circuits
M Oct 2  R  MIDTERM 1; Homework #5 due
T Oct 3  L  magnetic forces [29.1-4]
W Oct 4  L  magnetic forces [29.5]
F Oct 6  L  magnetic fields [30.1-2]
LABORATORY: no lab this week

M Oct 9  R  Quiz 5 (circuits); Homework #6 due
T Oct 10 L  magnetic fields [30.3-5]
W Oct 11 L  magnetic fields
F Oct 13  autumn break

LABORATORY: (8) Magnetic Torque // (9) Magnetic Field // (10) Magnetic Induction

M Oct 16  R  Quiz 6 (magnetic forces & fields); Homework #7 due
T Oct 17 L  induction [31.1-3]
W Oct 18 L  induction [31.4-6]
F Oct 20 L  inductors and RL circuits [32.1-3]

LABORATORY: (11) Inductor Circuits

M Oct 23  R  Quiz 7 (Ampere's law, induction); Homework #8 due
T Oct 24 L  oscillators and LC circuits [32.4-5] (end of 2nd midterm material)
F Oct 27 L  adding waves [16.4-5]

Last Day to withdraw without petitioning

LABORATORY: (12) Standing Waves // (13) Wave Superposition

M Oct 30  R  MIDTERM 2; Homework #9 due
T Oct 31 L  standing waves [18.1-4,7]
W Nov 1  L  sound waves [17.1-3]
F Nov 3  L  E&M waves; polarization [34.1-4,7; 38.6]

LABORATORY: no lab this week

M Nov 6  R  Quiz 8 (waves & sound); Homework #10 due
T Nov 7  L  reflection & refraction [35.1-8]
W Nov 8  L  double slit interference [37.1-6; 38.4]
F Nov 10  holiday

Online SEIs become available on or about Nov 26. If 65% of the course completes SEIs for both lecturer and TA, a second quiz will be dropped.

LABORATORY: (14) Microwave Interference // (15) Light Interference

M Nov 13  R  Quiz 9 (light waves & refraction); Homework #11 due
T Nov 14 L  single slit diffraction [38.1-3]
W Nov 15 L  interference
F Nov 17 L  quantum: photoelectric effect [40.2-3]

LABORATORY: no lab this week

M Nov 20  R  Quiz 10 (interference); Homework #12 due
T Nov 21 L  quantum: matter waves [40.4-8]
W Nov 22  travel day
F Nov 24  holiday
LABORATORY: (16) Spectroscopy (Thurs. and Fri. labs)
M Nov 27  no class
T Nov 28 L  quantum: quantized energy; square well [41.1-2]
W Nov 29 L  quantum: Bohr atom [42.3-4,8]
F Dec 1  L  quantum [42.6-7]

LABORATORY: (16) Spectroscopy (Wed. labs)
M Dec 4  R  TBA
T Dec 5  L  TBA
W Dec 6  L  review
R Dec 7  Homework #13 due; SEI's must be completed by 11:59 pm

FINAL EXAM for 8:00 section at 8:00 am Monday Dec 11
FINAL EXAM for 9:10 section at 10:00 am Monday Dec 11
FINAL EXAM for 10:20 section at 10:00 am Tuesday Dec 12
Final exams are in the recitation rooms

* By university rules, your regularly scheduled final exam in physics takes precedence over common finals in other courses (like math or chemistry). The other class must offer you an alternate time.