Marshall University Syllabus
College of Science

Course

Phy.203 – College Physics II

Course Description
Second half of an introduction to physics for life-science students, using algebra and trigonometry, including electric and magnetic fields, circuits, geometrical and physical optics, atomic and nuclear physics.

Credits
3 Credit Hours, undergraduate, with Normal Grading Mode

Prerequisites
Phy.201 or Phy.211, and Phy.202, with minimum grade of C;

Phy.204 as prerequisite/co-requisite to carry a Core II Natural Science attribute.

Section , Term , Year , CRN

section 601 , 2024 Summer D: CRN 4156

Class Meeting Days and Times
MTWRF @ 11:00 – 12:20

Location
Science 277

Academic Calendar
first regular class meeting M Jun.17
drop/add ends M Jun.17
Juneteenth Holiday – no classes W Jun.19
Independence Holiday – no classes R Ju.04
withdrawals end R Jul.18
last regular class meeting R Jul.25
Final Exam F Jul.26

Instructor
Dr. Curt W. Foltz

Contact Information

- Office: Science Building room 159
- Sci.159 Office Hrs: _T_R_ 10^{30}–11^{30} ; MTWRF 1^{00} – 3^{00}
- Office Phone: (304) 696-2519
- Marshall e-mail: foltzc@marshall.edu

Health and Safety Information

All members of the Marshall University community are expected to always observe health and safety protocols. This includes general health and safety protocols as well as specific protocols that might emerge in response to community and campus health conditions.

Required and/or Recommended Texts and Materials

Required Texts and Materials

College Physics 4th edition by Knight, Jones, Field © 2019 Pearson
or some comparable *College Physics* or *General Physics* textbook
email access : I will use your marshall email address for official communications
emails sent from another account might be treated as spam by my computer
web browser able to display html & pdf files, and run webworks on Blackboard
course home page is www.science.marshall.edu/foltzc/20324sD.htm
non-programmable calculator : buttons for EXP/EE/×10^ , sin, $\sqrt{}$x , x^2, e^x , $^1/_x$
we will test your EE button on day 1 … E-notation: 6.63E−34 = 6.63×10^{-34}
attendance in each class, ready to learn with pencil & paper & calculator
study time outside class, ≥3 effective hours/day to do homework & webwork

Recommended/Optional Texts and Materials

Notebook with lined paper : for class-notes, and paper homeworks to turn in
study partner : more fun & usually more thorough than studying alone
peer instruction is not sharing answers – it's sharing *how you get* your answer
end-of-chapter exercises to try, with answers available (odd #s in back-of-book)
try some problems after becoming familiar with that topic's exercises
occasional learning help from Foltz (email), or PhysicsForums or KhanAcademy
avoid asking ChatGPT for help – it is still as bad as Chegg and CourseHero

Course Student Learning Outcomes

Course student learning outcome **Students will:**	**How students will practice each outcome**	**How student achievement will be assessed**
know basic facts and theories about electricity & magnetism, EM waves, and microscopic matter	class discussion, in-class exercises, homework sets, webwork sets	Quizzes & Exams
identify atomic charge, magnetism, and energies	discussion, exercises, homework, webwork	Quizzes & Exams
relate concepts & explanations by math & logic	discussion, exercises, homework, webwork	Quizzes & Exams
read & interpret verbal descriptions accurately	discussion, exercises, homework, webwork	Quizzes & Exams
recognize and use physics vocabulary correctly	discussion, exercises, homework, webwork	Quizzes & Exams
compare measured observables with predictions	discussion, exercises, homework, webwork	Quizzes & Exams

Course student learning outcome **Students will:**	**How students will practice each outcome**	**How student achievement will be assessed**
predict Forces, Energies, momenta, and powers for simple model scenarios at many size scales	discussion, exercises, homework, webwork	Quizzes & Exams
synthesize diode, phasor, Poynting descriptions	discussion, exercises, homework, webwork	Quizzes & Exams
discuss deBroglie, Heisenberg, Schrödinger view	discussion, exercises, homework, webwork	Quizzes & Exams
judge the validity of model approximations	discussion, exercises, homework, webwork	Quizzes & Exams
Show how corrected measurements lead to different numerical predictions for observables	discussion, exercises, homework, webwork	Quizzes & Exams

Course Requirements/Due Dates

E&M Concept test M Jun.17, Phy.1 Review webwork set due R Jun.20
Topic 1: webwork due F Jun.21, Quiz F Jun.17
Topic 2: webwork due T Jun.25, Quiz T Jun.25
Topic 3: webwork due R Jun.27, Quiz R Jun.27
    Unit 1 Exam F Jun.28
Topic 4: webwork due W Jul.03, Quiz W Jul.03
Topic 5: webwork due M Jul.08, Quiz M Jul.08
    Unit 2 Exam T Jul.09
Topic 6: webwork due R Jul.11, Quiz R Jul.11
Topic 7: webwork due M Jul.15, Quiz M Jul.15
Topic 8: webwork due W Jul.17, Quiz W Jul.17
    Unit 3 Exam R Jul.18
Topic 9: webwork due T Jul.23, Quiz T Jul.23
Topic 10: webwork due R Jul.25, Quiz R Jul.25
E&M Concept post-test R Jul.25
    Unit 4 Exam F Jul.26

Grading Policy

12 webwork sets × 4 points/set = 48 points (13¾%) [incl.Conc.test 1 try]
    E&M Conc.Test 2 (paper, in-class) bonus up to 25 points (7%)
10 topic Quizzes × 10 points/quiz = 100 points (29%)
4 unit Exams × 50 point avg/exam = 200 points (58¾%) [60, 40, 60, 40 pts]

100% > A > 85% > B > 75% > C > 65% > D > 55% > F

Late homework sets will be penalized – not accepted after solutions are posted.

If you miss a Quiz or Exam email me (foltzc) ASAP to arrange a make-up time

Attendance/Participation Policy

Students are expected to attend every class meeting and discuss its content, but University Policies (below) allow absences for Personal Heath issues and other University Excused Absences, and for safety issues with Inclement Weather.

University Policies

By enrolling in this course, you agree to the University Policies. Please read the text of each policy (listed below) by going to MU Academic Affairs: University Policies. (URL: https://www.marshall.edu/academic-affairs/policies/)

- Academic Dishonesty Policy
- Academic Dismissal Policy
- Academic Forgiveness Policy
- Academic Probation and Suspension Policy
- Affirmative Action Policy
- Pre-Finals Week Policy
- D/F Repeat Rule
- Excused Absence Policy for Undergraduates
- Inclement Weather Policy
- Sexual Harassment Policy- Title IX prohibits the harassment of students based on sex, which includes pregnancy, childbirth, and related conditions. This includes that students will not be penalized for taking medically necessary leave related to pregnancy, childbirth, or related conditions. Marshall's Title IX Office may be contacted at TitleIX@marshall.edu
- Students with Disabilities (Policies and Procedures)
- University Computing Services Acceptable Use Policy