



Marshall University Syllabus College of Science

Course

PHY.204, General Physics 2 Laboratory

Course Description

Laboratory to accompany PHY.203 or PHY.213 focusing on classical E&M, circuits, and optics.

Credits

1 Credit Hour, undergraduate Core II Natural Science, Normal Grading Mode

Prerequisites

PHY.203 or PHY.213 as co-requisite (may be taken concurrently)

Year, Term, Section, CRN

2024 Spring – section 202 [CRN 4375]

Class Meeting Days/Times/Location

_T___ 4:00pm – 5:50pm f2f in Sci.103

Academic Calendar

first regular class meeting T Jan.09

drop/add ends F Jan.12

Spring Break M Mar.18 – F Mar.22

withdrawals end F Apr.12

last regular class meeting T Apr.16, for Exam 2, 4pm – 6pm (in class)

Instructor

Dr. Curt W. Foltz

Contact Information

- Office: Science Building room 159
- 159 Office Hrs: _T_R_ 10-12 & 2³⁰-3³⁰ ; _W_ 9³⁰-11³⁰ & 2³⁰-3³⁰ ; _F 10³⁰-11³⁰
Physics II Herd Hours (mostly peer instruction) in Sci.103 , M__ 12-4
- Office Phone: (304) 696-2519
- Marshall Email: 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

General Physics PHY 204 Lab Manual 11th edition by MU Physics Department
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non-programmable calculator (mostly for Exams)

most of our Lab Data analysis will be done on Spreadsheets (Excel)

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 files, to see 204 Lab FAQ commentary

via course home page at www.science.marshall.edu/foltzc/204_24s.htm

attendance in each class, ready to participate with pencil & manual & calculator

study time outside class, ≥ 2 effective hours/week to do readings & writings

Recommended/Optional Texts and Materials

computer able to write & edit Excel spreadsheet files for graph data-fitting

Course Student Learning Outcomes

Course student learning outcomes Students will:	How students will practice each outcome	How student achievement will be assessed
recognize that science is based on observation & measurement	in-class labwork, answering questions in lab manual	Lab Exams
control, manipulate, & measure via devices	labwork & questions	Lab Exams
collect & analyze data, notice uncertainties	labwork & questions	Lab Exams
formulate hypotheses & design exp'tal tests	labwork & questions	Lab Exams
interpret & communicate results	labwork & questions	Lab Exams
discuss a conclusion's validity from calibration, precision, accuracy	labwork & questions	Lab Exams
judge whether uncontrolled variables muddle an experiment's interpretation	labwork & questions	Lab Exams
learn principles of equipment design & use	labwork & questions	Lab Exams
explain by relating concepts via math logic	labwork & questions	Lab Exams
compose reasons using correct vocabulary	labwork & questions	Lab Exams
create numerical predictions of observable quantities	labwork & questions	Lab Exams

Course Requirements/Due Dates

Each Lab Manual Report is due at start of next class meeting

you will receive the graded Lab Report at the following class meeting

Exam 1 (in-class) T Mar.05 ; covers Labs 1 – 6

Exam 2 (in-class) T Apr.16 ; covers Labs 7 – 12

Lab 11 graded Reports will be available in Sci.159 by Apr.12 9am

Lab 12 reports turned in by F Apr.12 5pm will be available by M Apr.15 9am

Grading & Evaluation

50% - Lab Reports in manual & its analysis (12 reports × 10 pts/report = 120 pts)

50% - Lab Exams (2 Exams × 60 points/Exam = 120 points)

Letter grades: 100% > A > 90% > B > 80% > C > 70% > D > 60% > F > 0%

Attendance/Participation Policy

Attendance at all class meetings is expected. Students are expected to cooperate with their Lab Partner, to assist each other in the doing of the lab and in the understanding of its results.

If you miss a Tuesday Lab, email another instructor to permit you to attend theirs:

R 1-3 (facemeyer3@marshall) ...

otherwise email me to arrange a make-up (maybe F, prob'ly Sat. afternoon)

University policies (below) allow University Excused Absences for a variety of Personal Health issues and Safety issues related to Inclement Weather, etc.

University Policies

By enrolling in this course, you agree to the University Policies. Please read the full text of each policy (listed below) online at [MU Academic Affairs: University Policies](https://www.marshall.edu/academic-affairs/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

Course Schedule

week of	Lab	Due
Jan.08	Lab 1 – Electric Charge & Force	Jan.16
Jan.15	Lab 2 – Electric Field & Potential	Jan.23
Jan.22	Lab 3 – Charge on Capacitor Plates	Jan.30
Jan.29	Lab 4 – Current Thru Resistors	Feb.06
Feb.05	Lab 5 – Magnetic Field & Force	Feb.13
Feb.12	Lab 6 – Faraday’s Law	Feb.20
Feb.19	Lab 7 – RLC Resonance Circuit	Feb.27
Feb.26	Lab 8 – Reflection & Refraction	Mar.05
Mar.04	Lab Exam 1 (Labs 1 – 6)	Mar.05
Mar.11	Lab 9 – Thin Lenses	Mar.26
Mar.18	Spring Break	no class
Mar.25	Lab 10 – Telescope & Microscope	Apr.02
Apr.01	Lab 11 – Diffraction & Interference	Apr.09*
Apr.08	Lab 12 – H Balmer Spectrum & Rydberg’s <i>R</i>	Apr.16**
Apr.15	Lab Exam 2 (Labs 7 – 12)	Apr.16

* will be available Apr.12 in Sci.159

** to have it graded by M Apr.15 @ 9, turn in at Sci.159 by F Apr.12 @ 5pm.