

The Physics 103-104 sequence is a general physics course serving a broad spectrum of Bachelor of Arts students. Physics 103 & 104 are each five credit-hour courses. The following is a statement from the University about GEC Physical Science courses: "Physics 104 is a Physics Science course in the Natural Science category of the GEC. The goals and objectives for this category are:

Goals/Rationale: Courses in natural sciences foster an understanding of the principles, theories and methods of modern science, the relationship between science and technology, and the effects of science and technology on the environment.

Learning Objectives:

1. Students understand the basic facts, principles, theories and methods of modern science.
2. Students learn key events in the history of science.
3. Students provide examples of the inter-dependence of scientific and technological developments.
4. Students discuss social and philosophical implications of scientific discoveries and understand the potential of science and technology to address problems of the contemporary world."

A Textbook and an Activity Book are required for Physics 104. These are printed **ONLY** by UniPrint. They are available at the University Bookstores (Barnes and Noble in the Gateway and the Central Classroom). Orders for Textbooks and Activity Books can be placed online at UniPrint: [www.uniprint.osu.edu](http://www.uniprint.osu.edu)

A Web Site is maintained for Physics 104. It can be accessed at [www.physics.ohio-state.edu/104](http://www.physics.ohio-state.edu/104) Students are encouraged to visit the 104 web site to see course announcements and to view solutions to the written assignments, which appear on the web site approximately one week after each assignment is due.

**Midterm I** Tuesday, February 7, 7:00 p.m., Smith Lab, room 1153.

Covering periods 1-7, Videos 1-5

**Midterm II** Tuesday, February 28, 7:00 p.m., Smith Lab, room 1153.

Covering periods 8-13, Videos 6-7

**Final Examination** Tuesday, March 13, time (probably 5:30-7:18 pm or 7:30-9:18 pm) and Location (probably Smith 1153) to be set by Registrar, Comprehensive, Video 8

**Students with Disability:** Please contact your Laboratory Section Instructor at the start of the Quarter so that arrangements can be made to accommodate you. Students needing the services provided by the Office for Disability Services (ODS) will need to be certified by that office. The ODS is located in 150 Pomerene Hall, 1760 Neil Avenue, 292-3307, TDD 292-0901, [www.ods.ohio-state.edu/](http://www.ods.ohio-state.edu/) .

**Academic Misconduct:** It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of a reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see ([http://studentaffairs.osu.edu/info\\_for\\_students/csc.asp](http://studentaffairs.osu.edu/info_for_students/csc.asp)) for the Code of Student Conduct.

**Exam Conflict** Many departments give “common” midterms and final examinations in the evening for courses that meet at various times throughout the day. Any department using common exams must schedule an alternate time for that examination. In the case of a time conflict between a Physics 104 exam and a common exam in another department, you must make arrangements to take that department’s common exam at the alternate time. Since alternate times are typically later in the week, you should plan for this possibility.

**ID Requirements at Examinations:**

You must bring University Identification with you to every exam. You may be requested to provide us with that identification.

**Class Attendance:**

If you cannot attend a Group Meeting at which a video is shown, you may borrow a DVD of the video from the closed reserve desk of the SEL. DVD’s may be checked out for two hours. You will need your University Identification card and your own earphones. Hours for the SEL reserve desk: 8:00 am - 11:00 pm every day (including weekends)

You must be present during a Laboratory Section Meeting to receive credit for the homework and activity sheets due during that period. If for some particular Period you cannot attend your assigned Meeting, you may attend any of the other Meetings. To obtain credit for attending an alternate Meeting, you must **TURN IN** the activity sheet and all assignments due to the **INSTRUCTOR** teaching at that time. That instructor will sign the student’s assignments and forward those materials to your regular instructor. It is your responsibility to check with your instructor to confirm that he or she has received these materials. Any activity sheet not turned in at the end of the laboratory period during which it was written will **NOT BE COUNTED**.

**Excused Absences:**

No points will be given for assignments (activity sheets, homework, or video summaries) that are turned in late except in the case of a documented excused absence. A missed Laboratory Section Meeting or an Examination may be treated as an excused absence under some circumstances. If you miss or know you will miss a Laboratory Section Meeting or an Examination, you may provide timely documentation of the reason for the absence and request an excused absence from your Laboratory Section Meeting instructor.

In the case of an approved excused absence from a Laboratory Section Meeting, ask your instructor for information regarding the possibility of obtaining credit for the missed Laboratory Section Meeting. In the case of an approved excused absence from a Midterm, a grade for that Midterm will be determined based on your grade on the Final Examination. No makeup examinations will be given for missed midterms. In the case of an excused absence from the Final Examination, you will receive an incomplete for the course. A default grade will be assigned unless you request and take a makeup Final Examination following the University rules for Incompletes.

**Reading Assignments and Written Assignments:** Reading assignments are given for each period. Unless otherwise noted, the assignments are from the Textbook. They should be read before the class meeting for which they are assigned. The Exercises and Review Questions at the end of each section should also be read and thought about before the class meeting. As noted in the discussion of Written Assignments, written answers are required for two of the Exercises from each period.

**Grading policy:** Course policy is that the grades will be based on the two midterms (30 points each), the comprehensive final (45 points), and the Written Assignments (9 points from Exercises, 18 points from Activity Sheets, and 8 points from video descriptions, for a total of 35 points).

Instructors					
Name	Section		Office	Phone	
Bill Davis	T	7:00 pm	1106G Smith	292-8065	davis.30@osu.edu
Bill Davis	MW	12:30 pm	1106G Smith	292-8065	davis.30@osu.edu
Mary Wildermuth	TR	8:30 am	1106G Smith	292-8065	wildermuth.1@osu.edu
Mary Wildermuth	TR	10:30 am	1106G Smith	292-8065	wildermuth.1@osu.edu
Bill Davis	TR	12:30 pm	1106G Smith	292-8065	davis.30@osu.edu

The following videos will be shown at the Group Meetings:

Group Meeting	Date	Title
I	Jan 3	V1: Light Speed
II	Jan 10	V2: Empire of the Air
III	Jan 17	V3: Cadillac Desert
IV	Jan 24	V4: Nova: Absolute Zero
VI	Jan 31	V5: The Mighty Atom / Nova: Suicide Mission to Chernobyl
VII	Feb 14	V6: Origins: Back to the Beginning
IX	Feb 21	V7: Global Warming
X	Mar 6	V8: Nova: Solar Energy / Saved by the Sun

**Snow Days:** If OSU is closed due to adverse weather conditions or other emergencies, then the next day's 103/104 labs will be canceled to keep the Tue/Thu sections in sync with the Mon/Wed sections. For instance, if OSU is closed on Monday, then there will be no 103/104 labs on Tuesday even if OSU is open on Tuesday. The Tuesday night video will not be cancelled, however. Or for example, if OSU is closed on a Thursday, then there will be no 103/104 labs on the following Monday. Remember that 103/104 does not meet on Fridays. All remaining labs will be held one lab period later and the end of quarter review will be dropped. You should assume this will happen even if you receive no notification from your instructor.

**Examinations cannot be given at times other than those scheduled.** In particular, early examinations and examinations at alternate times are not given. The time for the Final Examination for Physics 104 will be assigned by the University Registrar, based on the Tuesday evening weekly meeting time for the course.

ASSIGNMENT SHEET				
Period/ Chapter	Group Meeting	Sections Meeting M, W	Section Meeting T, R	Reading Assignment
NC 1	I	Jan 2 M 3 T 4 W	Jan 3 T 3 T 5 R	NO REC (Video Shown Tuesday Evening) V1: Light Speed Introduction to Physics 104
2 3	II	Jan 9 M 10 T 11 W	Jan 10 T 10 T 12 R	Electromagnetic Radiation - Radiant Energy I V2: Empire of the Air Electromagnetic Radiation - Radiant Energy II
NC 4	III	Jan 16 M 17 T 18 W	Jan 17 T 17 T 19 R	NO REC (Video shown Tuesday Evening) V3: Cadillac Desert Transfer of Thermal Energy
5 6	IV	Jan 23 M 24 T 25 W	Jan 24 T 24 T 26 R	Thermal Energy: the Microscopic Picture V4: Absolute Zero Entropy and the Laws of Thermodynamics
7 8	V	Jan 30 M 31 T Feb 1 W	Jan 31 T 31 T Feb 2 R	Applications of the Laws of Thermodynamics V5: Mighty Atom / Mission to Chernobyl Chemical Energy
9 10	VI	Feb 6 M 7 T 8 W	Feb 7 T 7 T 9 R	Mass and Energy <b>MIDTERM I</b> covers Periods 1-7, Videos 1-4 Ionizing Radiation I
11 12	VII	Feb 13 M 14 T 15 W	Feb 14 T 14 T 16 R	Ionizing radiation II and Fundamental Particles V6: Origins Nuclear Reactions
13 14	VIII	Feb 20 M 21 T 22 W	Feb 21 T 21 T 23 R	Astrophysics V7: Global Warming Sensitive Systems and Computer Modeling
15 16	IX	Feb 27 M 28 T 29 W	Feb 28 T 28 T Mar 1 R	Earth as an Energy System <b>MIDTERM II</b> covers periods 8-13, Videos 5-6 Consequences of Chemical Energy Use
17 18	X	Mar 5 M 6 T 7 W	Mar 6 T 6 T 8 R	Consequences of Nuclear Energy Use V8: Solar Energy / Saved by the Sun Uses of Solar Energy

**Final Examination: Tuesday, March 13, 2012**, time to be set by Registrar,  
probably will be one of either 5:30 pm - 7:18 pm or 7:30 pm - 9:18 pm  
Location: probably Smith Lab 1153

**NOTE: Early examinations will not be given.**