

# General Physics II CAPA Instructions

Professor Donald Luttermoser's Course

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Spring 2020 Semester

## 1 The CAPA Software Package and Your Homework Assignments.

Michigan State University developed a software package called CAPA (Computer-Assisted Personalized Approach) to enable professors to set up computerized homework assignments, quizzes, and exams. In this course, we will be using CAPA for the graded portion of your required homework assignments. There will be four homework assignments that will be assigned for this semester with the start dates and due dates listed in the table here:

Homework Set	Start Date	Completion Date
# 1	Monday, January 27, 2020	Friday, February 7, 2020
# 2	Wednesday, February 12, 2020	Friday, February 28, 2020
# 3	Wednesday, March 4, 2020	Friday, April 3, 2020
# 4	Wednesday, April 8, 2020	Monday, April 27, 2020

Each homework set will have anywhere between 8 and 10 CAPA questions you will need to answer by 6:00 p.m. on the **Completion Date** listed above. Also note that you will not be able to start a given Problem Set until 8:00 a.m. of the **Start Date** on the table above. Some of the CAPA questions will be fairly difficult to solve, and some of them should be relatively easy. I have weighted all of the problems to have the same value. In this way, you will not be penalized too severely if you are unable to solve the tougher problems in the allowed number of attempts you will be given (typically 20 maximum attempts to answer a question correctly).

In addition to these graded CAPA problems, there will be an addition set of supplemental questions assigned from the textbook. These supplemental questions will not be collected or graded. Solutions to these questions are posted on the course web page.

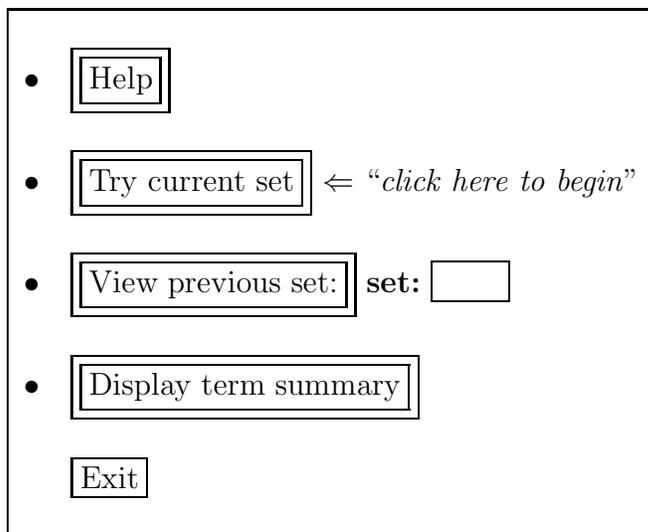
## 2 Accessing the CAPA Web Page.

CAPA homework assignments are accessed by going to the server at <http://capa.etsu.edu> . This will place you on the Department's home page for CAPA. Click the [Login to CAPA](#) link, which will then bring up the following CAPA Sign-On Sheet page:

Class:	<input type="text" value="phys2020"/>	<input type="button" value="□"/>
Student Number:	<input type="text" value="B23456789"/>	CAPA ID: <input type="text" value="XXXX"/>
Click	<input type="button" value="here"/>	to work on CAPA.
Click	<input type="button" value="here"/>	to clear Student Number and CAPA ID.
To end this Web session: Choose File (from the browser menu), then Exit/Quit.		

The Course ID button will have a variety of courses listed. You are to select the course ID **phys2020** on the pull-down menu (this course ID will not be available until the Start Date listed in the previous table). Type in your assigned course student number (9 digits with no dashes or spaces) and the CAPA ID (4 digits) for the given homework assignment. Both the CAPA student number and the CAPA ID will be passed out in class. **You will need these CAPA IDs throughout the semester — keep them in a safe place where you can access them when needed.** Note that you will be supplied with 4 CAPA ID numbers which correspond to Problem Sets #1, #2, #3, and #4 respectively.

Once you have entered your CAPA student number and your CAPA ID number, click the “here” button on the Click  to work on CAPA. You will then see the following phys2020 main menu page:



Read each question carefully and pay attention to the answer format. I suggest you print out the help pages for answer formats (see the **Help** button on the main menu page) so you don't waste answer attempts with format errors. I also give a summary of the formats below. Remember, you will only get 20 attempts per question to answer a question correctly. I suggest that each student print out the questions on a printer, then work out the solutions elsewhere so you don't tie up a computer. Once you have worked out your problems in detail on a scrap sheet of paper, go back to the computer and log back into the CAPA problem set page. **Note that your questions will be the same the next time you login.** It would be a good idea to bring your scrap sheet with the full solutions on it, along with a calculator, in case you need to modify your solution on the fly. **Note that your input parameters will not be the same as your classmates, so giving your answers to a friend will do your friend no good.**

### 3 CAPA Answers Format.

Use a **SPACE** to separate the **NUMBER** from the **UNIT** (if one is required). Note that when you see questions that ask for an answer with a specific unit (typically mentioned in parentheses), one does not need to include the unit in the answer. However, if specific units are not requested, **you need to include the units in your answer.** When powers are required on units, use the "carrot" ( $\wedge$ ) symbol (*e.g.*, centimeter squared would be written as  $\text{cm}^2$ ). The following input symbols may also be of use: + (addition), - (subtraction), \* (multiplication), and / (division). For scientific notation of **NUMBERS**, use the "E" notation to indicate the power to which 10 is being raised (*e.g.*,  $2.34 \times 10^{-23}$  would be input as 2.34E-23 in CAPA). Some examples for typical CAPA inputs are given on the next page.

- The length of a rod is 167.2 centimeters: 1.672 m (or) 167.2 cm (or) 1672 mm
- $x$ -component of acceleration is  $3.46 \times 10^5$  meters per second per second:  
3.46E5 m/s<sup>2</sup> (or) 3.46E5 m/(s\*s)
- Magnitude of force is 2.43 Newtons: 2.43 N

## 4 Answering Multiple Choice Questions.

There are a few types of multiple choice questions. Make sure to read the question carefully! In most cases, you select the true statements (*e.g.*, ABF), but in other cases you answer questions with the correct description (*e.g.*, TLGEFF = True / Less Than / Greater Than / Equals / False / False). If you have any difficulties either talk to me after class, during office hours, or by email.