PHYSICS 18 – How Things Work ONLINE
Course Syllabus

Course Summary: An introduction to the science behind modern technology and everyday phenomena, with particular emphasis on electronics and other electrical devices.

Instructor: Prof. Philip G. Collins

Contact Info:
E-mail: collinsp@uci.edu
Office Location: 222 Rowland Hall
Office Hours: by appointment only during Summer Session

Prerequisites: None. This course requires minimal mathematical background. Students interested in a more mathematical introduction to physics should consider Physics 3.


Online Website: An example course website from Summer 2015 is available at https://eee.uci.edu/15z/47275/

Course Logistics and Assignments

Class Meetings: This is an ONLINE course held during Summer Session II. We do NOT meet regularly on campus for a lecture. We will meet in person only for the Final Exam.

Daily Assignments: Each day beginning Week 1, students will complete a learning sequence that consists of reading from the assigned text, submission of an online assignment, watching a video lecture by Prof. Collins, and then completing a short, interactive writing assignment. Complete course materials, announcements, and assignments are available to registered students through an online course portal.

Readings: Reading assignments for each day are posted on the course calendar.

Warm-Up Assignments: Each new topic has a Warm-Up assignment to be completed with the reading. These online assignments are designed to help you focus on key concepts from the reading and to get the most out of the upcoming lecture video. Assignments are only available on the course portal and are due by midnight on the assigned date.

Lecture Videos: When students have completed and submitted the Warm-Up assignment, the associated video for that lecture becomes available online.

Through and Beyond: For each topic, two short questions are posed asking students to contemplate or investigate ideas that go beyond the material in the textbook. These questions are provided in an online forum environment, so that students may see and comment on each other’s answers. Students must provide at least one original comment or response to every set of questions.

Written Essays: In addition to the daily assignments, students are responsible for completing two extended, written responses of at least 750 words. The first essay is due at noon on Monday at the start of Week 3; the second is due at noon on Saturday at the end of Week 5. Complete information about the writing assignments will be provided on the course website.

Exams: The Final Exam is a conventional, timed exam given on campus. The exam is composed of questions similar to the Warm-Up and Online Forum assignments, with multiple choice and long-answer formats. The Final Exam focuses exclusively on topics from lecture -- additional topics covered in the textbook will not be on the
exams. The exams **will** include questions related to the demonstrations done in the lecture videos and the forum discussions.

**Final Exam:** The Final Exam is given on campus from 7:00 to 8:30 pm on Wednesday, September 7. It will cover Chapters 10-16 of the textbook and require 60 to 90 minutes.

**What to Bring:** Students only need to bring something to write with. Leave computers or other personal electronics at home. No scantron form is necessary.

**Scheduling and Late Work:** Students interested in taking Physics 18 need to make sure they mark their calendars carefully and avoid scheduling conflicts. No makeup exams will be available. Students are welcome to complete their daily work ahead of schedule, but *late work will receive no credit*. Students who begin the course after the beginning of the course will receive zeros for missed days.

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**Course Grading**

**Grading Policy:** Final letter grades for the course will be computed using the following weights:

- Warm-Up assignments 20%
- Participation in Online Forums 20%
- Two Short Essays 15% + 15%
- A cumulative Final Exam (30%)

Students with composite scores 85% or higher, or who are in the top 15% of the class overall, will receive grades of A- or higher. Lower letter grades will be approximately at 10% intervals, as determined by the class curve.

Scores for individual assignments will be posted on EEE as they become available. It is your responsibility to ensure that your scores have been correctly recorded. No scores will be changed after the last day of classes.

**Cheating:** Anyone caught cheating on any assignment will automatically fail this course. In addition, the appropriate deans will be notified, and this course will strictly enforce the UCI policies on academic honesty. Cheating includes giving or receiving assistance on any exam, or submitting work that is based on the words and/or structure of another person’s work. Cheating does not include discussing Warm-Up assignments with others or using outside reference materials to learn more. You are encouraged to work together, but any work turned in for a grade must be your own effort and not a copy of someone else’s. Warm-Up submissions will be tested at random against web content using TurnItIn.com to identify plagiarism. No matter how pressured you feel, do not plagiarize - it is not worth it. Note that submitting the same work for more than one class without notifying the instructor is also defined as plagiarism under UCI policies.

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**Additional Resources**

**Course Information:** During the course it may be necessary to give additional instructions or announcements. This information will be posted on the course website and also broadcast by email. Please activate your e-mail account and check your account regularly.

**Students with Disabilities:** All University-recognized disabilities will be accommodated according to University policies.

**Additional Help:** For any questions not on the course FAQ, please contact the Instructor and/or the course TA via email.