**PHY1033C**
**DISCOVERING PHYSICS (P) - FALL 2019**

**CLASS TIME & PLACE:** T 8-9 & R 8 Period in NPB #1101

**Instructor:**[**Neil Sullivan**](file:///P%3A%5CUsers%5Csullivan_neil%5CDesktop%5CDiscovering%20physics%5Cwww.phys.ufl.edu~yoonslee)

**Office:** NPB #2235

**Email: sullivan@phys.ufl.edu**

**Office Hours:**
M and W: 7th P. Feel free to email for an appointment outside office hours

**TEXTBOOKS:**

[*Physics for Poets**(5th Ed.)*](https://www.amazon.com/Physics-McGraw-Hill-Science-Engineering-Paperback/dp/B00DU87S2M/ref%3Dpd_lpo_sbs_14_t_1?_encoding=UTF8&psc=1&refRID=22G083N8Y3NGXXPFN3NQ) by Robert H. March; (McGraw Hill, publisher)

**REFERENCES:**

[*Great Experiments in Physics*: First-hand accounts from Galileo to Einstein (2nd Edition)](https://www.amazon.com/Great-Experiments-Physics-Firsthand-Accounts/dp/0486253465/ref%3Dsr_1_4?s=books&ie=UTF8&qid=1526409729&sr=1-4&keywords=great+experiments) by  M. H. Shamos (Editor); (Dover Publications, NY)

[*Einstein's Cosmos: How Albert Einstein's Vision Transformed Our Understanding of Space and Time (Great Discoveries)*](https://www.amazon.com/Einsteins-Cosmos-Transformed-Understanding-Discoveries/dp/0393327000) by Michio Kaku (W.W. Norton, publisher)

**PREQUISITES:**  None

**DESCRIPTION**:
An overview of the great ideas about the laws of the Universe that shape our daily lives, ranging from the quantum revolution that has lead to magnetic resonance imaging and the modern electronics of our cell phones, to structure and evolution of our Cosmos. A few simple experiments will be carried out in class.

**EXPECTATION**:
It is expected that students read textbook chapters thoroughly at least once, preferably before the class and review lecture notes timely.  Students should work on HW problems diligently.  The laboratory part of the course is part of the final grade. Short essays on topics of interest will be assigned.

**GRADING:**

***Assigned wor*k**:  In addition to short problems (involving only the simplest algebra), short essays will be assigned on topics covered in the course.

Homework:     Selected HW problems and writing assignments will be tested in the exams.

In-class Quiz:   There will be 4 in-class quizzes. 15 - 20 mins will be given for each quiz.

Laboratory:      There will be 6 in-class laboratories on Tuesdays.  Please review the [Laboratory Guidelines](file:///P%3A%5CUsers%5Csullivan_neil%5CDesktop%5CDiscovering%20physics%5CExpectations%20and%20Guidelines.pdf).

Exams:       There will be one Midterm exam (in-class) and one Final exam (not cumulative). Some exam material will involve writing in addition to elementary problem solving. Please check the [Course Calendar](file:///P%3A%5CUsers%5Csullivan_neil%5CDesktop%5CDiscovering%20physics%5C2017Calendar.html) for the exam time and date.

Policy on missed Exam or Quiz:
Consistent with university policies that can be found at <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

**Composition of Grade** (Total 100)

|  |  |
| --- | --- |
| ***Quizzes*** | 10 |
| ***Homework*** | 25 |
| ***Laboratory*** | 15 |
| ***Mid Term*** | 25  |
| ***Final*** | 25 |

**Projected Grading Scale\***

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Grade**  | **A**  | **A-**  | **B+**  | **B**  | **B-**  | **C+**  | **C**  | **C-**  | **D+**  | **E**  |
| **G. Pt.**  | **4.0**  | **3.67**  | **3.33**  | **3.0**  | **2.67**  | **2.33**  | **2.0**  | **1.67**  | **1.33**  | **0**  |
| **Score**  | **>= 90**  | **>= 80**  | **>=70**  | **>= 65**  | **>= 60**  | **>= 55**  | **>= 50**  | **>= 45**  | **>= 40**  |   |

**\*The passing grade for Physics majors is C and above. The actual grading scale may vary depending on numerous factors within +/- 4 points out of 100.**

**STUDENTS with DISABILITIES:** Students who require accommodation for disabilities must first contact the Dean of Students Office. That office will provide documentation, which the student must bring to his/her instructors *during the* ***first week*** *of the semester*. Contact the [Disability Resources Center](http://www.dso.ufl.edu/drc/) for information about available resources for students with disabilities.

**COUNSELING and MENTAL HEALTH RESOURCES:** Student facing difficulties completing the course or in need of counseling should call the on-campus Counseling and Wellness Center at (352) 392 1575.

**ACADEMIC HONESTY:** Each student is expected to hold himself/herself to a high standard of academic honesty. Under the UF academic honesty policy, unauthorized assistance or the use of unauthorized resources is strictly forbidden on work-for-credit. Although discussions among the students are highly encouraged, you are to work alone on all homework assignments unless specified differently. Fabrication or falsification of excuses or related documentation is also a violation of the UF academic honesty policy.  *Violations of this policy will be dealt with severely. There will be no warnings or exceptions*.

**ONLINE COURSE EVALUATION:** Students are expected to participate in course/instructor evaluations.  These evaluations are conducted [online](https://evaluations.ufl.edu/evals/Default.aspx) typically during the last 3 weeks of the semester.  Summary results of these assessments are available.