PHYS 1410 6.0 FW 2019-20 COURSE OUTLINE

FACULTY OF SCIENCE
Department of Physics and Astronomy

Course: SC/PHYS 1410 6.0 Physical Science
Course Webpage: *https://moodle.yorku.ca/moodle/course/view.php?id=154979*
Term: FW 2019-20

Course Credit Exclusions: SC/PHYS 1010 6.00, SC/PHYS 1420 6.00; SC/PHYS 1800 3.00 and SC/PHYS 1801 3.00; SC/ISCI 1310 6.00.
Prerequisite / Co-requisite: Prerequisites: 12U Physics or OAC Physics or SC/PHYS 1510 4.00; MHF4U Advanced Functions and MCV4U Calculus and Vectors, or 12U Advanced Functions and Introductory Calculus, or OAC Algebra and OAC Calculus, or SC/MATH 1505 6.00, or SC/MATH 1520 3.00.

Course Instructors

First Term (Fall):	Second Term (Winter):
(Professor) Paul Delaney	Dr Elaina Hyde
Ext. 77763	Ext. TBA
Petrie Science & Engineering Bldg. room 329	Petrie Science & Engineering Bldg. room TBA
phys1410@yorku.ca	phys1410@yorku.ca
Office Hours: Tuesdays, 2:00 – 3:00 pm	Office Hours: TBA

Time and Location

The lectures will be held in VC 135 (Vanier College room 135) from 5:30 – 6:20 PM, Monday, Wednesday and Friday. Attendance at lecture is highly recommended for the clarity provided in the course material as well as for the clicker questions given in class. Engaging the material of a lecture in "real-time" has been correlated directly with improved grades in a course. However, attending a lecture and disturbing your colleagues (eg watching a movie or engaging in Social Media) is inappropriate and disrespectful. Plan not to attend lecture of these are your intentions.

An optional tutorial is on Tuesdays from 12:30 – 1:30 PM in LAS-A (Lassonde Building, lecture theatre A) where help with concepts and problems is provided.

The laboratory portion of the course is divided into sections and you should be sure to confirm which section you are in (you decided this when you enrolled into this course) and at what time it meets. The laboratory location is Bethune College, BC, room 102C. As the laboratory section of this course is maintained by another professor, please direct any inquiries regarding the laboratory exercises to Prof. Scott Menary, menary@yorku.ca.

Course content

Students will be expected to

- Understand the foundations of the areas of physics specifically in kinematics, dynamics, momentum and energy for linear and rotational motion; elementary kinetic theory and thermodynamics; static and current electricity; waves and physical and geometrical optics.
- Recognize problems to which knowledge of physics may be productively applied
- Apply knowledge of physics to solve problems
- Be experienced with both the theory and practice of physics

More specifically, the Fall term will cover material in chapters 1 through 15 minus chapters 11 and 12. In the Winter term, approximately chapters 21 through 36 will be covered (more detail at the beginning of January). Not all material in these chapters will be covered. Thus a pace of about 1 chapter per week will take place. Keeping up with the reading of the chapter material is essential for a good result (grade) in the course.

Course Text / Readings

The course lectures will closely follow the textbook, Sears and Zemansky's University Physics with Modern Physics, Young and Freedman, 15th edition, 2019. There are three options at the York University bookstore:

- hardcover book with electronic access code for Mastering Physics
- loose-leaf book with electronic access code for Mastering Physics
- eText with electronic access codes for Mastering Physics

Mastering Physics (course identity delaney17829) will be automatically packaged with the textbook (at no additional cost) or available "stand alone" at a cost. A Mastering Physics license will be needed to complete assignments in this course.

Contacts and Communications

- A student's success in any course depends critically on their level of engagement, which requires clear and consistent communications with the relevant Course Director and Teaching Assistants (TAs).
- The primary vehicle for communications in this course outside of the classroom is the Course (Moodle) Website to which a student should refer regularly. The course website will be updated frequently and will contain all pertinent administrative and curricular information; e.g., assignment deadlines, etc.
- Apart from questions in/after/before class, the next level of communications in this course is through the Discussion Forum on the course website. A Discussion Forum allows students to discuss course-related issues, primarily with other students, but also with TA(s) assigned to the Forum.
- The next level of communication is via email. Students who for whatever reason prefer not to use the Discussion Forums can contact the course director by the email address: phys1410@yorku.ca. Please note though that if a question is course-content related (no personal content), it should be posted to the Discussion Forum so both the question and its answer can be shared among the class as a whole. Course-content emails posted to the Discussion Forum and answered therein will not be answered again via email.
- Regular Course Announcements from the course instructors will keep you informed on important dates, administrative aspects of the course and the occasional media-oriented story relevant to the course.
- All members of the course – students, TAs and instructors – should adhere to "common sense" NETiquette guidelines to communicate effectively and courteously online, including:
    1. Use of a reasonable ID; e.g., "D. Lee" and not "Joker47"
    2. Include a specific and relevant subject line
    3. Use appropriate language, avoiding rudeness, vulgarity and sarcasm
    4. Be concise
- Students who require face-to-face meetings with the Instructor should make use of the Instructors' Office Hours which are listed above. Additional appointments can also be made by arrangement at a mutually convenient time.

Organization of the Course

- Students who are registered in the course should have automatic access to the class Moodle website following Passport York authentication (moodle.yorku.ca). The website will contain all important administrative and curricular information for this course and should be consulted frequently by the student, daily if possible.
- The Chapter materials, including lecture materials, will remain open throughout the course. Graded assessment for each Chapter – e.g., homework assignments – must be completed in a specific period that will be clearly posted well in advance on the course website (nominally weekly submissions to Mastering Physics will be due by 10 pm Wednesday evenings). Late submission of assignments will result in no credit being awarded for that assignment.
- Clicker questions will be given in most classes to aid in the understanding of the concepts. A student must be in class to access these questions and thus be eligible for the assessment marks. The iClicker format will be used. Check out the following York University link for details on the iClicker system: http://student.computing.yorku.ca/technology-used-in-courses/polling-student/. It is the student's responsibility to register their device into the course and be sure of its operation. The course identity is

"PHYS 1410 Physical Science FW19-20".

- The laboratory experiments form an integral part of this course and must be completed in the timelines specified by your TA instructors. More details including timetables will be available online shortly after the beginning of term. Stay tuned. Professor Menary can be reached via email at menary@yorku.ca.

Grading Information

The final grade for PHYS 1410 6.0 will be based on the following items weighted as indicated in the Table below. Note: to receive a passing grade in this course (D or higher), students must successfully pass BOITH the laboratory component (minimum 5/10) AND the non-laboratory component (minimum 45/90) of the course.

Assessment tasks	Details	Weighting (%)
Fall mid-term test	Saturday October 26, 12-2 PM, room Curtis Lecture Hall I (CLH I)	10
Winter mid-term test	February TBA	10
Chapter (Homework) assignments (85% rule applies)	Throughout Fall and Winter terms via Mastering Physics	15.0
In-class clicker questions (85% rule applies)	During each lecture, mix of multiple choice, short answer	5.0
Laboratory exercises	Throughout Fall and Winter terms	10
End-of-term Examination (Fall)	December: Chapters ~1-15, short answer and worked problems; on campus	25.0
End-of-term Examination (Winter)	April: Chapters ~21-36, short answer and worked problems; on campus; on campus	25.0
Total		**100.0**

Grading:

The grading scheme for the course conforms to the 9-point grading system used in undergraduate programs at York (e.g., A+ = 9, A = 8, B+ - 7, C+ = 5, etc.). Assignments and tests will bear either a letter grade designation or a corresponding number grade (e.g. A+ = 90 to 100, A = 80 to 90, B+ = 75 to 79, etc.) All grades will be posted on the Moodle course gradebook. Students will have access to all of their grades – but only their grades – at any point in the course via the gradebook. (For a full description of York grading system see the York University Undergraduate Calendar - http://calendars.registrar.yorku.ca/2015-2016/academic/index.htm) NB: Students are ultimately responsible for the accuracy of their marks on the Moodle website and so should report any discrepancies to the TAs/Instructor at once. Students are also advised to keep all their work until a final grade has been awarded.

Assignment Submission:

Students must not only perform academically to the best of their ability, but submit their work on time. Accordingly, **weekly** assignments for this course must be received on or before the due date and time specified (normally 10 pm Wednesday evenings) in order to receive a mark. Assignments will be done on-line and will be automatically graded by Mastering Physics and the grade will appear both in the Mastering gradebook after the assignment closes and also in the Moodle gradebook at the end of each term. Registering on the Mastering Physics website should happen as soon as practical with eth course identity of "delaney17829".

Lateness Penalty and the 85% Rule:

Assignments are handled entirely on-line with a precise due date and time, so there will be **no opportunity for**

late submission. Thus plan accordingly and do not leave submissions to the last minute.

- The "85% rule" is in effect for chapter assignments in Mastering Physics, so it is not necessary to provide documentation for a single missing assignment even if there were valid extenuating circumstances. If, however, there is a chronic problem that may cause a student to miss a few (>4) assignments, this should be discussed with an Instructor during office hours at the earliest opportunity.

Similarly, the in-class clicker questions require your presence in class and a registered iClicker device. Put simply, no correctly operating clicker means no marks can be awarded for this assessment component.

- The "85% rule" is in effect for clicker questions, so it is not necessary to provide documentation for any missed questions or classes even if there were valid extenuating circumstances. If, however, there is a chronic problem that may cause a student to miss a few (>8) classes, this should be discussed with an Instructor during office hours at the earliest opportunity.

Missed Tests or Exams:

Students with a legitimate reason for missing a course midterm test or end-of-term exam, such as illness, compassionate grounds, etc., which is confirmed by supporting documentation (e.g., an Attending Physician's Statement and not simply a physician's note/letter) may request accommodation from a Course Instructor. A student who has missed a test or exam for a legitimate/documentable reason **must** contact the course Instructor by email (phys1410@yorku.ca) as soon as he/she is able and certainly no more than 72 hours after the missed assessment element, and estimate when she/he will provide the appropriate hardcopy documentation. The hardcopy documentation should be received by the Physics and Astronomy office, Petrie Science and Engineering building room 128, within 5 business days of the missed assessment element (test or exam). In the case of a missed test or exam with acceptable, on-time documentation, accommodation for the student will be provided (eg normally deferred exam, but on occasion reweighting of missed assessment, etc),. If a student misses a deferred Exam, then a student may be required to submit a formal Petition to the Faculty of Science.

Important Course Information for Students

All students are expected to familiarize themselves with the following information (and more), available on http://secretariat-policies.info.yorku.ca/

- Senate Policy on Academic Honesty and the Academic Integrity Website
- Student Conduct Standards
- Religious Observance Accommodation, specifically http://secretariat-policies.info.yorku.ca/policies/academic-accommodation-for-students-religious-observances-policy-guidelines-and-procedures/)

Academic accommodation for physical, medical, systemic, learning or psychiatric disabilities:

Students who feel that there are extenuating circumstances which may interfere with the successful completion of exams or other course requirements and students with physical, learning or psychiatric disabilities who require reasonable alternate accommodations in teaching style or evaluation methods should consult with the Student Counselling & Development Centre *AND* the Course Director *in the first week of the term* to make appropriate arrangements. Students have the right to have any accommodations they receive be treated confidentially. For further information, students should contact Student Counselling & Development Services: https://counselling.students.yorku.ca/. The Senate policy can be found here: http://secretariat-policies.info.yorku.ca/policies/academic-accommodation-for-students-with-disabilities-policy/

Academic Honesty:

The Senate of York University maintains a policy on Academic Honesty. "Academic honesty requires that persons do not falsely claim credit for the ideas, writing or other intellectual property of others, either by presenting such works as their own or through impersonation. Similarly, academic honesty requires that persons do not cheat…" Although collaboration with peers is an important component of the learning experience,

"submitting work prepared in whole or in part by another person and representing that work as one's own" is a violation of academic honesty.

Evidence of violations of academic honesty are submitted to the Department's Undergraduate Academic Advisor and thereafter to the Faculty of Science Associate Dean - Students for evaluation by the Dean and by the Committee on Examinations and Academic Standards. Penalties for confirmed violations of academic honesty can include lower grades, failure in the course, or expulsion from the University.

Students are advised to review the concepts associated with Academic Honesty at http://www.yorku.ca/spark/academic_integrity/.

Non-Academic Student Conduct:

Non-Academic Student Conduct falls under the jurisdiction of the Code of Student Rights & Responsibilities: http://www.yorku.ca/oscr/studentconduct.html. In particular:

"All students… are expected to conduct themselves in a way that promotes an atmosphere of civility, diversity, equity and respect in their interactions with others."

"[Students have] the right to participate in activities for students at the University, without harassment, intimidation, discrimination, disruption or acts of violence."

Students must familiarize themselves with the underlying details surrounding their rights and responsibilities in the Code.

Copyright Information

IMPORTANT DATES

Event	Date
Classes begin	Sep 4, 2019
Last day to enrol without permission of Course Director	Sep 17, 2019
Last day to enrol with permission of Course Director	Oct 22, 2019
Fall midterm test (To be Confirmed)	Oct 26, 2019 12 - 2 PM (**Saturday**)
Fall Reading week	Oct 12 – 18, 2019
Last day of Fall Term	Dec 3, 2019
Examination period (Fall)	Between Dec 5 - 20, 2019
Last day to drop without a grade submitted	Feb 3, 2020
Reading Week	Feb 15-21, 2020
Winter midterm test (To be Confirmed)	TBA
Last day of Winter Term	Apr 05, 2020
Course Withdrawal Period (withdraw from a course and receive a "W" on the transcript	Between Feb 4 - Apr 5 2020
Examination period (Winter)	Between Apr 07 - 25, 2020