

Physics 1101A Course Outline

1. Course Information

Course Information

Class Time:	Monday, Wednesday, and Friday – 11:30AM to 12:20PM (EST)
Class Location:	Western Science Centre Room 55 (WSC - 55)
Laboratories	Monday (002), and Thursday (003) – 2:30PM to 5:30PM (EST)
Office Hours:	TBD

List of Prerequisites

Ontario Secondary School MHF4U (or equivalent) or Mathematics 0110A/B.

Anti

Physics 1201A/B, Physics 1401A/B, Physics 1501A/B, the former Physics 1028A/B, the former Physics 1301A/B.

Unless students have either the prerequisites for this course or written special permission from the Department of Physics and Astronomy to enroll in it, they may be removed and withdrawn from this course in accordance with university policy. This may be done after the add/drop deadline of the academic term, and the course will be marked as withdrawn (WDN) on their academic record. This decision may not be appealed.

2. Instructor Information

Instructors	Email	Office	Phone	Office Hours
Dr. Isabelle Cyr (they/them) (Course Coordinator)	rcyr2@uwo.ca			
Dr. Alexei Ouriadorov (he/him) (Course Instructor)	aouriado@uwo.ca	232		TBD
Dr. Shailesh Nene (he/him) (Lab Instructor)	snene2@uwo.ca			
TA	TBD			

Students must use their Western (@uwo.ca) mail addresses when contacting their instructors. Students should try to write a brief email that clearly and concisely explains the reason for contacting the instructors.

Best Method to Contact Course Staff:

The best method to contact your instructor for this course is in-person before or after class. If this does not work for you, then you should email the course email phys1101@uwo.ca with your question(s) – either the instructor or teaching assistant will respond within two business days. Note that any question

that is answered in this outline or in an announcement posted by the course instructor will **not** be answered. Your email should clearly state the question(s) you have **and** what you have already done to answer said question.

If you have any questions regarding **laboratory content**, please direct them to Dr. Shailesh Nene through a JIRA ticket: <https://help.sci.uwo.ca/servicedesk/customer/portal/8>.

Your teaching assistant(s) will hold student hours throughout the term to assist with assignment questions or general course questions. A schedule of their student hours will be posted on OWL Brightspace once finalized.

Your instructor will hold limited student hours throughout the term. This will be finalized in class and on OWL Brightspace.

Forums will be accessible on OWL Brightspace for you to post general administrative questions, general technical questions (about Mastering or Gradescope, perhaps), or general physics questions.

Office hours will be offered online **via Zoom**. In-person meetings are also available upon request.

3. Course Syllabus, Schedule, Delivery Mode

Course Description:

An introductory algebra-based course in physics covering the foundation principles of kinematics forces, conservation of energy and momentum, torque, equilibrium, geometric optics and optical instruments. Fundamental physics concepts are introduced with examples from biological applications.

Learning Outcomes:

By the end of the course, students will be able to:

1. Develop physics thinking skills and problem-solving approaches that are useful in other fields and in everyday situations;
2. Acquire an intuitive understanding of fundamental physics concepts; and
3. Engage in critical analysis of a problem individually and through team effort effectively communication your approach to others, through laboratory projects and other activities.
4. Essential learning outcome of this course is to acquire hands-on skills in mechanics, kinematics, and dynamics through the attendance and completion of laboratories

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Office Hours:	TBD
Tutorial Sessions:	TBD

Tentative Class Schedule:

This is subject to change and should not be held as absolute. All textbook sections come from College Physics

Week of ...	Monday Class Content	Wednesday Class Content	Friday Class Content	Important Notes (deadlines, etc.)
Sept 1 st	-- no class --	-- no class --	-- no class --	
Sept 7 th	-- no class --	Introduction to PHYS1101 Chapter 1 (Measurements / Vectors)	Chapter 2 (§2.1 – §2.4)	Welcome to Western Physics!
Sept 14 th	Chapter 2 (§2.5 – §2.7)	Chapter 3 (§3.1 – §3.3)	Chapter 3 (§3.4 – §3.5)	Assignment #1 Due September 21 st at 11:59PM
Sept 21 nd	Chapter 4 (§4.1)	-- no class --	-- no class --	
Sept 28 th	Chapter 4 (§4.2 – §4.3)	Chapter 4 (§4.4 – §4.5)	Chapter 4 (§4.6)	Assignment #2 Due October 5 th at 11:59PM
Oct 5 th	Chapter 5 (§5.1)	Chapter 5 (§5.2 - §5.3)	Chapter 5 (§5.4 – §5.5)	
Oct 12 th	-- no class -- Thanksgiving Holiday	-- no class --	-- no class --	Fall Reading Week
Oct 19 th	Chapter 6 (§6.1)	Chapter 6 (§6.2 – §6.3)	Chapter 6 (§6.4 – §6.5)	Assignment #3 Due October 26 th at 11:59PM
Oct 26 th	Midterm Test Review (Ch. 1 and Ch. 2)	Midterm Test Review (Ch. 3 and Ch. 4)	Midterm Test Review (Ch. 5 and Ch. 6)	Midterm Test November 1 st from 10:00AM – 1:00PM

Nov 2nd	<i>Chapter 7</i> (§7.1 – §7.3)	<i>Chapter 7</i> (§7.4 – §7.6)	<i>Chapter 7</i> (§7.7 – §7.8)	
Nov 9th	Chapter 8 (§8.7 – §8.8)	Chapter 9 (§9.1 – §9.2)	Chapter 9 (§9.3 – §9.4)	Assignment #4 Due November 16 th at 11:59PM
Nov 16th	Chapter 9 (§9.5)	Chapter 10 (§10.1 – §10.3)	Chapter 10 (§10.4 – §10.5)	
Nov 23th	Chapter 10 (§10.6 – §10.7)	Chapter 23 (§23.3, §23.7)	Chapter 24 (§24.1 – §24.2)	-- Assignment #5 Due November 30 th at 11:59PM
Nov 30th	Chapter 24 (§24.3)	Chapter 24 (§24.4 – §24.6)	Final Test Review (Ch. 7, Ch. 8 & Ch. 9)	Assignment #6 Due December 9 th at 11:59PM
Dec 7th	Final Test Review (Ch. 10, Ch. 23 & Ch. 24)		--	

Key Sessional Dates:

Classes begin: September 9, 2026

Fall Reading Week: October 10 – 18, 2026

Classes end: December 9, 2026

Exam period: December 11 – 22, 2026

4. Course Materials

Textbook and Other Learning Materials

***Sears and Zemansky's College Physics (11e.)* by H.D. Young and P.W. Adams (Pearson).**

Available in an e-text format through the publisher bundled with the Mastery Physics online platform. A print copy is also an option and can be purchased through the publisher. Various assessments will be hosted on the Mastery Physics platform from Pearson.

College Physics with Mastering 125-day rental - \$50 CAD

https://bookstore.uwo.ca/textbook-search?campus=UWO&term=W2026A&courses%5B0%5D=001_UW/PHY1101A

Students need to purchase this edition.

Lab Manual for Physics 1101A. - \$67.50 CAD

https://bookstore.uwo.ca/textbook-search?campus=UWO&term=W2026A&courses%5B0%5D=001_UW/PHY1101A

Important websites and their utilization in this course:



OWL Brightspace – This learning management system will be your hub to find all posted resources for this course. This will include lecture notes, additional resources for the week (videos, extra notes, activities and your grades! Announcements will also be sent out via OWL Brightspace for reminders regarding upcoming assessments and any pertinent information regarding the course. It is your responsibility to check OWL often (daily!!).



Mastering Physics – Directly linked to our textbook (see above) Mastering Physics will be where all your at-home assignments will be hosted. This online platform is regarded for its ease to use and ability to give you quick feedback. Throughout the semester, you will have graded assignments due (approximately every two weeks). In addition, we will have Chapter Check-Ins that will allow you to check your understanding at the end of every chapter. Both assessments (assignments and check-ins) contribute to your final grade. ***Having access to Mastering Physics is mandatory for this course.***

Please use your UWO username and email address to create your Pearson account!

Failure to do so may result in a mark of zero for your Mastering Physics assignment!



Gradescope – This will be our grading platform for your labs and your two major assessments for this semester. Details regarding how Gradescope will function for labs will be given during your lab session(s). Your two tests will be scanned into Gradescope for grading and feedback.

- Gradescope works best when you upload a PNG or PDF file as your submission. Other file formats risk being corrupted or unseen by the grader.
- We will be using gradescope.ca in this course – please ensure you are going to this website and not gradescope.com!!

All course materials, including recorded lectures, will be posted on OWL Brightspace: <https://westernu.brightspace.com/>

Students are responsible for checking the course OWL Brightspace site regularly for news and updates. This is the primary method by which information will be disseminated to all students in the class.

If students need assistance with the course OWL Brightspace site, they can seek support on the [OWL Brightspace Help](#) page. Alternatively, they can contact the Western Technology Services Helpdesk. They can be contacted by phone at 519-661-3800 or ext. 83800.

Technical Requirements

Stable internet connection, computer with working microphone.

5. Methods of Evaluation

Grading Scheme and Assessment Dates

The overall course grade will be calculated as listed below:

Dynamic Study Modules (best <u>7</u> out of <u>9</u>)	5%	(Mastering Physics)
Assignments (best <u>5</u> out of <u>6</u>)	10%	(Mastering Physics)
Laboratories (best <u>3</u> out of <u>4</u>)	10%	
Midterm Test	35%	(Nov 1 st from 10:00AM – 1:00PM)
Final Exam	40%	(to be scheduled by the Registrar)

Tentative List of Topics

Week 1	Sep 7 2026	Ch 1 Ch 2	Introduction to Unit Motion Along a Straight Line
Week 2	Sep 14, 2026	Ch 2, 3	Motion in a Plane
Week 3	Sep 21, 2026	Ch 4	Newton's Laws of Motion
Week 4	Sep 28, 2026	Ch 4	Applications of Newton's Laws
Week 5	Oct 5, 2026	Ch 5	Circular Motion and Gravitation
Week 6	Oct 19, 2026	Ch 6	Work and Energy
Week 7	Oct 26, 2026	Ch 1-6	Midterm review
Week 8	Nov 2, 2026	Ch 7	Work and Energy & Momentum
Week 9	Nov 9, 2026	Ch 8,9	Momentum & Rotational Motion
Week 10	Nov 16, 2026	Ch 9, 10	Rotational Motion & Dynamics of Rotational Motion
Week 11	Nov 23, 2026	Ch 23,24	Electromagnetic Waves& Geometric Optics
Week 12	Dec 1, 2026	Ch 7-24	Final Exam review

Essential Learning Requirements

Even when Academic Consideration is granted for missed coursework, the following are essential to earn a passing grade in this course:

Students must complete a minimum of 3 out of 4 labs to earn credit for the laboratory component. If a student completes at least 3 labs, the weight of the missed lab is redistributed among the completed labs. Students who fail to meet the minimum completion threshold will receive an Incomplete (INC) standing or be required to withdraw.

When a student has not demonstrated proficiency in an essential learning requirement listed above, and when the shortfall results from a granted Academic Consideration, they will be withdrawn (WDN) from

the course. The student may appeal to the Associate Dean (Academic) for reinstatement with an Incomplete (INC) standing. Where an appeal for INC is granted, their maximum course load may be reduced during the term in which they complete the outstanding course requirements.

Information about Missed Coursework

Students must familiarize themselves with the *University Policy on Academic Consideration – Undergraduate Students in First Entry Programs*, posted on the Academic Calendar: https://uwo.ca/univsec/pdf/academic_policies/appeals/academic_consideration_Sep24.pdf,

This policy does not apply to requests for Academic Consideration submitted for **attempted or completed work**, whether online or in person. The policy also does not apply to students experiencing longer-term impacts on their academic responsibilities. These students should consult [Accessible Education](#).

For procedures on how to submit Academic Consideration requests, please see the information posted on the Office of the Registrar's webpage: https://registrar.uwo.ca/academics/academic_considerations/. All requests for Academic Consideration must be made within 48 hours after the assessment date or submission deadline.

Midterms and Tests

This course has **one midterm** test and a **cumulative** final exam. **The final exam may include questions based on the laboratory material. All students are expected to be prepared to answer lab-related questions on the final exam, including students who have received a lab exemption. The final examination falls outside Flexible Completion.** There is no makeup test for a missed midterm. If a student misses a midterm, its weight will shift automatically to their final exam grade. If their final exam grade is higher than their midterm grade, their final exam grade will replace the midterm's weight in their overall grade. They do not need to request Academic Consideration for a missed midterm; the reweighing will be done automatically.

The only exception is an early sitting, offered solely for a university-sanctioned schedule conflict (e.g., conflict of two midterms, Varsity competitions) or a religious accommodation that prevents a student from writing the midterm at its scheduled time. If a student requires this accommodation, they must notify their instructor in writing no later than one week before the test. No other circumstance, including illness, qualifies for an early sitting or makeup; these are addressed through the automatic reweighing described above.

Lab Completion, Passing, and Grade Requirements

In order to satisfy the lab requirement for the course, a student must complete at least three out of the four labs.

A lab is considered complete only when the student:

1. Attends the scheduled lab.
2. Collects the required experimental data.
3. Completes the lab worksheet.
4. Uploads the completed worksheet to Gradescope before the deadline.

To pass an individual lab, the student must obtain at least 5 out of 10 marks on the submitted lab worksheet. If the student achieves 5/10 or higher, the student receives the full credit allocated to that lab.

If the student receives less than 5/10, the student has failed that lab. The credit associated with that lab will be transferred to the final exam.

Lab Component and Transfer of Marks

The four labs together are worth 10% of the final course grade, with each lab contributing 2.5%.

- If a student completes and passes all four labs, they receive the full 10% lab component.
- If a student misses a lab or fails a lab, the percentage associated with that lab will be transferred to the final exam.
- For example, if a student completes two labs and passes them but fails the other two labs, the 5% associated with the two failed labs will be transferred to the final exam.
- Similarly, if a student completes and passes three labs but misses the fourth, the 2.5% associated with the missed lab will be transferred to the final exam, provided the student otherwise satisfies the course requirements.

SRA

No SRA is required for any lab. If a student submits an SRA for a lab, it will not be considered, as the course already provides flexibility through the built-in mechanism of transferring the credit for a missed or failed lab to the final exam.

Minimum Lab Requirement

A student must complete at least three out of the four labs to satisfy the lab component requirement for the course, except where a lab exemption has been obtained at the beginning of the course (i.e., via Accessible Education, or because the student had already passed the lab component and the entire course in a previous term, and is only repeating the course for grade improvement).

If a student does not complete the required number of labs, the student will be automatically withdrawn (WDN) from the course, and may appeal to the Dean of Science for receiving an Incomplete (INC) standing, provided that the student has otherwise passed the course.

Finally, satisfying the lab requirement does not guarantee that the student will pass the course overall. The student must achieve at least 50 out of 100 marks in the course overall to pass the course..

Assignments This course has 6 assignments. Students are expected to complete 5 of 6 to receive full credit for this component. If they miss up to one of these, they do not need to request Academic Consideration; the missing item will not count against them, and their grade for this component will be calculated from their best 5 submissions.

If a student misses an assignment or fails an assignment, the percentage associated with that assignment will be transferred to the final exam.

For example, if a student completes and passes three assignments but fails the other two assignments, the 4% associated with the two failed assignments will be transferred to the final exam.

Similarly, if a student completes and passes four assignments but misses the fifth, the 2% associated with the missed assignment will be transferred to the final exam, provided the student otherwise satisfies the course requirements.

Dynamic Study Modules: This course has 9 Dynamic Study Modules. Students are expected to complete 7 of 9 to receive full credit for this component. If they miss up to two of these, they do not need to request Academic Consideration; the missing item will not count against them, and their grade for this component will be calculated from their best 7 submissions.

If a student misses an assignment or fails an Dynamic Study Module, the percentage associated with that assignment will be transferred to the final exam.

For example, if a student completes and passes five Dynamic Study Modules then but fails the other two assignments, the 1.43% associated with the two failed Dynamic Study Modules will be transferred to the final exam.

Similarly, if a student completes and passes six Dynamic Study Modules but misses the seventh, the 0.71 % associated with the missed Dynamic Study Module will be transferred to the final exam, provided the student otherwise satisfies the course requirements.

Deadlines: The 48-Hour No-Late-Penalty Period

All take-home assignments, study modules, and labs with a stated due date include an automatic 48-hour period after the deadline during which students may still submit without a late penalty. For example, if an assignment is due on November 5, they may submit it until November 7 without penalty. After this 48-hour period, no further submissions will be accepted, and students do not need to request Academic Consideration for a missed deadline; their grade for this component will be calculated as described above.

Special Examination

Per university policy, Academic Consideration requests with supporting documentation are required for the final examinations scheduled during official examination periods by the Registrar's Office.

If the student has been approved by the Academic Advising Office to write a Special Examination (SPC) and the final exam is their only outstanding course component, an SPC will be assigned to them and scheduled by the instructor per university policy.

If the student misses their SPC exam and is approved for Academic Consideration, they will be withdrawn from the course without academic penalty. If they experienced extenuating circumstances such as prolonged illness, they may appeal to the Associate Dean (Academic), on a case-by-case basis, for the opportunity to write the final exam the next time the course is offered. An outstanding SPC will reduce their course load for the term in which the exam is deferred, as outlined in the [Definitions of Types of Examinations](#) policy.

If the student misses their SPC exam and Academic Consideration is not approved, or was not requested, they will receive a grade of zero on the exam.

The Department of Physics and Astronomy may in rare circumstances adjust the course final grades to conform to Departmental policies.

6. Additional Statements

6.1 Religious Accommodation

When a recognized religious holiday either requires a student to be absent from the University, or requires or prohibits an activity that makes it impossible for them to complete an academic requirement scheduled that day, they are entitled to accommodation. No student will be penalized for an absence for religious reasons, and an alternative means of satisfying the requirement will be arranged. This accommodation is provided in accordance with the University's policy on Accommodation for Religious Holidays:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_religious.pdf

The student should submit their requests through the Student Absence Portal (SAP), identifying the conflict and the specific course component(s) affected (e.g., test, midterm, exam).

Midterms and Tests: If a religious observance conflicts with a midterm test, they must submit their request no later than **one week** before the test. Their instructor will arrange an early sitting of the test. As set out above, no makeup test is offered for any other reason; this early sitting is available specifically for this accommodation.

Final Examinations: If a religious observance conflicts with the final exam, the student must submit their request no later than **two weeks** before the exam. Their instructor will arrange a Special Examination to take place no later than one month after the end of the examination period.

Students are responsible for finding out what was covered in any class they miss due to a religious observance, and for taking the appropriate steps to keep up with the course.

If a suitable arrangement cannot be reached between a student and their instructor, they should consult the Undergraduate Chair of the department offering the course, and if necessary, the Associate Dean (Academic) of the Faculty of Science.

For a list of recognized religious observances, please visit the calendars posted on the Equity, Diversity & Inclusion website - <https://www.edi.uwo.ca> (About Us – Resources – Additional Resources – Calendars).

6.2 Academic Accommodation Policies

Students with disabilities are encouraged to contact Accessible Education, which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The policy on Academic Accommodation for Students with Disabilities can be found at:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Accommodation_disabilities.pdf.

6.3 General Academic Policies

The website for Registrar Services is <https://www.registrar.uwo.ca/>.

Use of @uwo.ca email: In accordance with policy, https://www.uwo.ca/univsec/pdf/policies_procedures/section1/mapp113.pdf, the centrally administered e-mail account provided to students will be considered the individual's official university email address. It is the responsibility of the account holder to ensure that emails received from the University at their official university address are attended to in a timely manner.

Requests for Relief (formally known as “appeals”)

Policy on Request for Relief from Academic Decision:

https://uwo.ca/univsec/pdf/academic_policies/appeals/requests_for_relief_from_academic_decisions.pdf

Procedures on Request for Relief from Academic Decision (Undergraduate):

https://uwo.ca/univsec/pdf/academic_policies/appeals/undergrad_requests_for_relief_procedure.pdf

6.4 Scholastic Offences

Policy on Scholastic Offences:

https://uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_offences.pdf

Procedures on Scholastic Offences (Undergraduate):

https://uwo.ca/univsec/pdf/academic_policies/appeals/undergrad_scholastic_offence_procedure.pdf

Use of Electronic Devices During Assessments

In courses offered by the Faculty of Science, the **possession** of unauthorized electronic devices during any in-person assessment (such as tests, midterms, and final examinations) is strictly prohibited. This includes, but is not limited to: mobile phones, smart watches, smart glasses, hidden cameras and wireless earbuds.

Unless explicitly stated otherwise in advance by the instructor, the presence of any such device at a student's desk, on their person, or within reach during an assessment will be treated as a scholastic offence, **even if the device is not in use**.

Effective September 2026, the typical penalty for this offence is a failing grade in the course AND a 12-month prohibition on retaking the course.

Only devices expressly permitted by the instructor (e.g., non-programmable calculators) may be brought into the assessment room. It is their responsibility to review and comply with these expectations.

Use of Generative AI Tools

Unless otherwise stated, the use of generative AI tools (e.g., ChatGPT, Microsoft Copilot, Google Gemini, or similar platforms) is **not permitted** in the completion of any course assessments, including but not limited to: assignments, lab reports, presentations, tests, and final examinations.

Using such tools for content generation, code writing, problem solving, translation, or summarization—when not explicitly allowed—will be treated as a **scholastic offence**.

If the use of generative AI is permitted for a particular assessment, the conditions of use will be specified by the instructor in advance. If no such permission is granted, students must assume that use is prohibited. It is the student's responsibility to seek clarification before using any AI tools in academic work.

6.5 Support Services

Academic Advising. Please visit the Science & Basic Medical Sciences Academic Advising webpage for information on adding/dropping courses, academic considerations for absences, requests for relief, exam conflicts, and many other academic-related matters: <https://www.uwo.ca/sci/advising/>.

Mental Health Support. Students who are in emotional/mental distress should refer to Mental Health@Western (<https://uwo.ca/health/>) for a complete list of options about how to obtain help.

Gender-Based and Sexual Violence. Western is committed to reducing incidents of gender-based and sexual violence (GBSV) and providing compassionate support to anyone who has gone through these traumatic events. If a student has experienced GBSV (either recently or in the past), they can find information about support services for survivors, including emergency contacts, at:

https://www.uwo.ca/health/student_support/survivor_support/get-help.html.

To connect with a case manager or set up an appointment, please contact support@uwo.ca.

Accessibility for Coursework. A student may contact the course instructor if they require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to them. If they have any questions regarding accommodations, they may also contact Accessible Education at http://academicsupport.uwo.ca/accessible_education/index.html

Learning Development and Success. Learning-skills counsellors at Learning Development and Success (<https://learning.uwo.ca>) are ready to help students improve their learning skills. The facility offers

strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling.

Student Councils.

Student-run support services are offered by the University Students' Council (<https://westernusc.ca>) and the Science Students' Council (<https://www.westernssc.ca>).