



Basic Course Information:

Course Prefix/Number: PHYS-101
Course Title: Introduction to Physics I
Core/Elective Course
Class Meeting Times: 1pm-2pm
Instructional Modality: Onsite
Class Location: A206

Instructor: Dr. Mohammed Alsawafta
Office Location: Science building, A 326
Office Phone: 2224 8399 ext :3730
Email: malsawafta@auk.edu.kw
Office Hours (Online) :
UTR, 10am-11am
UTR, 12pm-1pm

AUK Mission Statement:

The American University of Kuwait is a liberal arts institution based on the American model of higher education. It is dedicated to providing students with knowledge, self-awareness, and personal growth experiences that can enhance critical thinking, effective communication, and respect for diversity. AUK seeks to create leaders and lifelong learners who aspire to the highest standards of moral and ethical responsibility in their societies.

Department/College Mission Statement: The Department of Mathematics and Natural Sciences is committed to excellence in teaching, research, and scholarly activities. The department prepares AUK students in different disciplines with the fundamental scientific and analytical skills critical to a quality liberal education. The department strives to prepare students to be successful in their careers and promotes lifelong learning.

Catalog Course Description:

This course is an introductory physics course for non-science majors. The course focuses on basic physics concepts and connections to everyday life in fields of mechanics and thermodynamics. Course topics include motion in one-dimension, projectile motion, Newton's Laws of force, work,

energy, circular motion, momentum, and heat and thermodynamics. A required laboratory that offers experiments in basic physics concepts is part of this course.

Course Learning Outcomes: Upon successful completion of this course, the student will be able to:

- Demonstrate and apply knowledge of different kinds of units and dimensional analysis.
- Explain the differences between vector and scalar quantities.
- Demonstrate an understanding of one- and two-dimensional kinematics problems.
- Demonstrate an understanding of the fundamental laws of motion, energy, momentum, circular motion and gravitation.
- Solve dynamics problem by using the conservation of both energy and momentum.
- Use various experimental techniques and instruments to measure and analyze different physical quantities and then compare them to the accepted theoretical values.
- Calculate both percentage error and uncertainty ratio.

Course Delivery/Methodology:

For this course we will be meeting in-person three days per week and material will be presented through lectures. All course materials will be posted on Moodle. All assignments must also be submitted through Moodle. You will be completing the following evaluations for this course: short quizzed, home-works, and mid-term and final assessments. To successfully complete this course, you must attend all the classes, complete actively participate in class discussions, prepare well for your class evaluations, and submit them by the posted due dates and times.

Required Textbook/Required Readings: The Physics of Everyday Phenomena: A Conceptual Introduction to Physics, 8th Edition, by W. T. Griffith

Recommended/Supplemental Readings:

- Physics for Scientists and Engineers, third edition, Volume 3 by Randall D. Knight, first edition.
- Fundamentals of Physics, tenth edition, by Halliday, Resnick and Walker.
- University Physics by Young (or earlier editions by Sears, Zemansky and Young; and University Physics by Benson.

Evaluations and Grading:

Evaluation type	Weight (%)	Notes
Class participation	5	
HW/s	25	Conducted online, Submitted only through Moodle
Mid-term exam	30	On site
Final exam	40	On site

AUK Official Grading Scale:

Letter Grade	Percentage	University Points
A	94-100	4.0
A-	90-93	3.7
B+	87-89	3.3
B	84-86	3.0
B-	80-83	2.7
C+	77-79	2.3
C	74-76	2.0
C-	70-73	1.7
D+	67-69	1.3
D	64-66	1.0
D-	60-63	0.7
F	0-59	0.0

AUK Attendance Policy:

Any student who misses more than 15% of class sessions of any course during a semester should expect to fail, unless she/he submits documented evidence to the course instructor of inpatient medical care, death of an immediate family member, academic instructional activities, or national athletic activities. If excused, students are required to satisfy all coursework due or assigned during their absence as determined by the course instructor. If a student does not submit documented evidence for her/his absence exceeding the limit, it is the student's responsibility to withdraw from the course by the specified deadline, as indicated on the academic calendar. Students who withdraw from a course receive a grade of "W". Students who do not withdraw from a course nor submit supporting documents for excessive absences will receive a grade of "FN" (failure for non-attendance).

Code of Academic Honesty and Integrity:

Upon admission to the American University of Kuwait, students agree to act responsibly in all areas of academic, personal and social conduct and to take full responsibility for their individual and collective action. Such regulations are found in the American University of Kuwait Catalogue, Student Handbook, and the AUK website at www.auk.edu.kw. Any question of interpretation regarding the code of academic honesty and Integrity shall be reported to the appropriate academic dean. The Code shall be reviewed annually at the discretion of the academic deans. Any student or student organization found to have committed the cited violations or misconduct, either on or off campus, is subject to the disciplinary sanctions outlined in adjudication procedures.

Plagiarism:

The term "plagiarism" includes, but is not limited to, an attempt of an individual to claim the work of another as the product of his or her own thoughts regardless of whether that work has been published. Plagiarism includes, but is not limited to, quoting improperly or paraphrasing text or other written materials without proper citation on an exam, term paper, homework, or other written material submitted to an instructor as one's own work. Plagiarism also includes handing in a paper to an instructor that was purchased from a term paper service or downloaded from the Internet and presenting another person's academic work as one's own.

Cheating:

The term “cheating” includes but is not limited to, copying homework assignments from another student; working together with another individual on a take-home test or homework when not approved by the instructor, looking at and/or copying text, notes or another person’s paper during an examination when not permitted to do so. Cheating also includes the giving of work information to another student to be copied and/or used as his or her own. This includes but is not limited to giving someone answers to exam questions either when the exam is being given or after having taken an exam; informing another student of specific questions that appear or have appeared on an exam in the same academic semester; giving or selling a term paper, report, project or other restricted written materials to another student.

Academic Support:

Learning Support Services focuses on empowering students to become independent and successful learners by developing their literacy skills, enhancing their understanding, and helping them improve their academic and study skills. Learning Support Services is comprised of two centers: the Tutoring Center and the Writing Center. The Tutoring Center provides free academic support in various subjects to AUK student. Email: tutoringcenter@auk.edu.kw

The Writing Center provides multilingual support (English, Arabic, French, and Spanish) through individual or small-group consultations. Email: writingcenter@auk.edu.kw

Disability Accommodations:

Disability services include identifying strategies to accommodate the learning requirements of students with disabilities. The Counseling Center at AUK offers services that include personal counseling and disability services. Their mission is to support students as they overcome what inhibits their success and prepare them for lifelong learning and development. For questions regarding accommodation services, please contact the Counseling Center at Counseling@auk.edu.kw.

Course Policies/Student Responsibilities:

Class attendance is compulsory, it is essential that students make every effort to attend all classes. Years of experience has shown that students who do not attend classes and believe they can keep up with the material on their own, do poorly on the final assessment. If a class is missed, the student is responsible for all material covered or assigned during that class

Late and Missing Work Policy:

There will be no makeup for a quiz, assessment or any other piece of work.

Make-Up Work Policy:

The only exceptions to the above policy are special cases such as; death of an immediate family member and documented medical care. The student is responsible to provide that documentation **no later than 24 hours from the time of the missing assessment**, otherwise the assigned grade is zero. You must contact the instructor before the scheduled assessment. Please, be prepared to provide detailed written documentation (e.g., a detailed medical note from your doctor, not his secretary!) to verify the emergency and its seriousness. A medical note simply saying that a student was at a clinic, without detailed explanation about the seriousness of their illness, won’t grant them

any special consideration. Also, athletes, who need to travel for sport competitions (that enter in conflict with any type of course work or evaluation), need to contact me ahead of time and provide a proof and documentation from their coach or sports league with a full contact information.

Communication Policy:

Please be sure to use your official AUK email account, write your full name, and indicate which class and section you are taking when you send me an email. If you have a question, please check the syllabus first and if your question is not answered there, then please feel free to send an email and I will be happy to clarify. I respond to questions via email within 48 working-hours (8am-5pm) of receiving them; if I do not respond within this time, please re-send the email. Emails sent on weekends will be responded to on either Sunday or Monday.

Technology Issues:

All assignments must be submitted through Moodle. However, you may experience trouble submitting an assignment due to technology or internet issues. If such a situation does arise and you are unable to submit your assignment through Moodle, please send me an email at fristinitiallastname@auk.edu.kw and include the **completed** assignment. Please make sure that you email me the assignment **before** the deadline as this documents that you did finish everything by the due date and time, but that you just had a technology issue. This will ensure that your assignment will be accepted, and you will not receive a late penalty. Once the technology or internet issue is resolved, please upload the assignment to Moodle. In general, always be sure to frequently save your files and keep backups of your assignments.

Course Schedule:

Chapter	Topic	Weeks
2	Vectors and scalars, The Newtonian revolution-Describing motions	1 -3
2	Describing straight line motion	4
3	Falling objects and projectile motion	5
4	Newton’s law: Explaining motion	6
6	Energy and oscillations	7-10
7	Momentum and impulse	11-13
9,10	Fluid, temperature, and heat	14-16

Syllabus Changes:

There may be changes to the schedule and syllabus during the semester. When this happens, I will inform you in class and/or over email.