

Term 261: PYP001 Course Syllabus

WEEK	DATE	EXPERIMENT TITLE	HWS & QUIZZES
1	19-25/08	Group-1 and 2: Constant Velocity	
2	26/08-01/09	Group-1: Uniform Acceleration (Newton's 2 nd Law) Group-2: Simple Pendulum	
3	02-08/09	Group-1: Conservation of Momentum and Energy Group-2: Conservation of Mass Law	
4	09-15/09	Group-1: Free Fall Group-2: Viscosity	HW-1, Quiz-1
5	16-22/09	Group-1: Projectile motion Group-2: Archimedes principle (pt.1 and pt. 2)	
Wednesday-Thursday, 23-24/09, National Day Holiday			
6	27/09-01/10	Group-1: Conservation of Mechanical Energy Group-2: Archimedes principle (pt.3) and density measurement	
7	04-08/10	Group-1: Centripetal force Group-2: Gas Laws	HW-2, Quiz-2
8	11-15/10	Group-1: Inclined Plane Group-2: Specific heat	
Switch Labs			
9	18-19/10	Group-2: Uniform Acceleration (Newton's 2 nd Law) Group-1: Simple Pendulum	
Tuesday-Thursday, 20-22/10, Midterm Break			
10	25-29/10	Group-2: Conservation of Momentum and Energy Group-1: Conservation of Mass Law	HW-3, Quiz-3
11	1-5/11	Group-2: Free Fall Group-1: Viscosity	
12	8-12/11	Group-2: Projectile motion Group-1: Archimedes principle (pt.1 and pt. 2)	
13	15-19/11	Group-2: Conservation of Mechanical Energy Group-1: Archimedes principle (pt.3) and density measurement	
Sunday-Monday, 22-23/11, Autumn Break			
14	24-30/11	Group-2: Centripetal force Group-1: Gas Laws	HW-4, Quiz-4
15	1-7/12	Group-2: Inclined Plane Group-1: Specific heat	
	8-10/12	Group-2: Uniform Acceleration (Newton's 2 nd Law) Group-1: Simple Pendulum	

Term 261: Prep-Physical Science (PYP001) Course Policy

Course Website:

<https://pyp.kfupm.edu.sa/psep/major-courses/pyp001>

Course Coordinator:

Dr. Tayseer Abu Alrub,

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Course Description:

The course discusses basic concepts in Physics and Chemistry through laboratory work. The course includes several experiments on the following topics:

Physics	Chemistry
Motion	Gas Laws
Forces and Newton's Laws	Buoyancy
Conservation of Momentum and Energy	Density
Free Fall	Viscosity
Projectile Motion	Conservation of Mass
Simple Pendulum	Specific Heat
Inclined Plane	

Course Objectives:

1. Develop a better understanding of basic physics and chemistry concepts.
2. Observe, analyze, and interpret data.
3. Learn to estimate different types of errors affecting the results.
4. Develop written reporting skills.
5. Use scientific apparatus in a wide range of experiments
6. Practice collaborative problem-solving.

Course Outcomes:

After successfully completing the course, students should be able to:

1. Identify basic concepts of Physics and Chemistry.
2. Analyze and solve physics and chemistry problems effectively.
3. Develop written reporting skills.
4. Demonstrate the ability to think critically, abstractly, and logically.
5. Use the scientific method to make conclusions.
6. Investigate whether results come out as expected.
7. Develop a positive attitude toward Physical Sciences.

Attendance Policy:

Attendance is compulsory. It will be enforced and evaluated according to current university regulations. **DN grade shall be given to students who accumulate 3 or more unexcused absences or a total (excused and unexcused) of 5 or more absences.**

A student, who has a valid excuse for an absence, must present an officially authorized document to his instructor no later than one week following his resumption of classes. **3 Lates** equals one unexcused absence.

Grading Policy:

Lab Reports	14 Reports (70%)
Online Homework	4 HWs (6%)
Classroom Quizzes	4 Quizzes (24%)

Make-up Exam Policy:

A student, who misses an assessment must present an **official and valid document (excuse)** to the instructor within 7 days after the assessment to be eligible for make-up. If not, the score for that assessment will be zero. **Personal excuses will not be accepted.**

Cheating Policy:

Cheating is unethical. Proved cases of cheating would entitle concerned students to zero marks (in assessments or lab work).

Device Use Policy:

During the lab time, students are not allowed to use their smart devices, our labs are Device Free. All smart devices must be removed. The instructor shall monitor this rule strictly.

Safety Policy:

The nature of the experiments and the lab require personal protective equipment (PPE). In every experiment and whenever in the lab room, students and instructors must put lab coats on and shoes (see images below). Note that some experiments require additional PPEs, the instructor shall point this out at the right time. In addition, inside the lab, **you should adhere strictly to all safety rules.**

Foot Safety in the Lab



Slippers ❌



Sandals (all sorts) ❌



✅ Shoes protect foot