



Jordan University of Science and Technology
Faculty of Science & Arts
Physics Department

PHY202 Space Physics

Summer Semester 2023-2024

Course Catalog

3 Credit Hours. This course is designed to acquaint students with the night sky and the laws of science that govern heavenly bodies. It leads students to learn more about stars, galaxies, and the universe itself. By the end of the course, successful students will critically think about astronomy and astrophysics principles and apply them in real-time, describing the Earth's place in the Solar System, Galaxy, and Universe.

Teaching Method: Blended

Text Book

Title	تعلم الفلك من الصفر -2- الكون والفضاء
Author(s)	احمد ناصر الدين Prof.
Edition	1st Edition
Short Name	1
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
2	اساسيات في علم الفلك والتقويم	أ.د. محمد باسل الطائي	2nd Edition	
3	الموسوعة الفلكية	د. خليل البدوي	2nd Edition	
4	اساسيات علم الفلك	انور ال محمد	2nd Edition	
5	المدخل الى علم الفلك	أ.د. محمد باسل الطائي	2nd Edition	
6	Astronomy	ANDREW FRAKNOI, DAVID MORRISON, and C. WOLFF,	1st Edition	

Instructor	
Name	Dr. Adnan Shariah
Office Location	PH3 L1
Office Hours	
Email	shariah@just.edu.jo

Class Schedule & Room
Section 1: Lecture Time: Sun, Mon, Tue, Wed : 11:30 - 12:30 Room: M3306

Prerequisites		
Line Number	Course Name	Prerequisite Type
821016	HSS101PHY General Physics (1)	Prerequisite / Pass
921010	PHY101 General Physics (1)	Prerequisite / Pass

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	The importance of studying astronomy, astronomy in previous civilizations	From 1, From 5
Week 2	Celestial sphere and constellations, The most important stars of the sky, Zodiac, Map of the sky, Astronomical coordinate systems	From 1, From 5
Week 3	Sun and its properties	From 1, From 5
Week 4	Earth and its properties, Moon	From 1, From 5
Week 5	Planets, classification of planets and their movements Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto. Asteroids, comets, meteors and meteorites, solar system formation.	From 1, From 5
Week 6	the Properties of Stars Galaxies	From 1, From 5
Week 7	Time and timing	From 1, From 5

Mapping of Course Outcomes to Program Outcomes	Course Outcome Weight (Out of 100%)	Assessment method

Demonstrate a conceptual understanding of fundamental physical principles and measurement techniques used in modern astronomy. Physical properties of planets. Classification of stars [3SLO1(K1S1), 2SLO5(C4)]	100%	
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Relationship to Program Student Outcomes (Out of 100%)					
SLO1(K1S1)	SLO2(S23C1)	SLO3(C24)	SLO4(C3)	SLO5(C4)	SLO6(S2C3)
60				40	

Evaluation	
Assessment Tool	Weight
Exam 1	30%
Exam 2	30%
Final Exam	40%

Policy	
Attendance	Students are required to attend scheduled lectures, labs, and field trips; and to work on class and lab/field assignments as scheduled by the professor. Students are required to attend their scheduled sections for labs, lectures, and examinations (unless authorized by the professor). Since class sessions start on the hour, students are expected to be punctual. There will be no late entries once a class has begun. In this case, the student's absence will be counted as unexcused and will receive a zero for any assignments due. If a student must leave class early during a regularly scheduled meeting, he/she must discuss reasons with the professor. If a student must miss a scheduled class meeting due to an acceptable, verifiable time conflict, he/she must resolve the time conflict prior to class. Students failing to call ahead or discuss absences prior to the class will be unexcused. If a student accumulates four unexcused absences, he/she will be given the option of dropping the course or receiving a failing grade for the semester.
course materials	the lectures will sometimes cover material not in the textbook
course information	Organizational material for the course, including the course description and syllabus, the course calendar, and times of office hours and help sessions.
Office hours	You may visit me during office hours for any reason without an appointment. You can come at other times also, but make an appointment so that you can be sure to catch me. You can contact us by email
Student Behavior	Student Behavior: As students in a technical program are preparing for a professional career, all students are expected to conduct themselves, in both manner and dress, as professionals. Eating, drinking, or the consumption of any tobacco products is prohibited during class meetings (lecture hall, classroom, laboratory, or field). Doing so may result in the student's dismissal from that class period and will count as an unexcused absence. Cell phones, pagers, and similar devices must be turned off during the instruction time. Use of or disruption of the class by these devices will result in the confiscation of the device by the instructor and may result in the student's dismissal from that class period which will count as an unexcused absence. The confiscated device may be retrieved by University Police.

<p>Honesty Policy & Discipline (Due Process)</p>	<p>Honesty and integrity are major elements in professional behavior and are expected of each student. Any assignment (including those in electronic media) submitted by a student must be of the student's original authorship. Representation of another's work as his/her own shall constitute plagiarism. Cheating, in any form, is considered unacceptable behavior within all University courses. Students having academic problems should consult with their adviser or a college counselor. Instances of cheating will be dealt with in accordance with University policy. Standards of academic honesty and due process procedures for JUST are located in the Rules, Regulations & Expectations section of the student handbook.</p>
<p>Safety Guidelines</p>	<p>Certain class assignments may require the student to be absent from the professor's immediate supervision. Whether the student is under immediate supervision or not, safe conduct and safe use of equipment shall be the ultimate rule. Failure to comply with prudent safety practices and/or willful disregard for class participants and/or equipment may be cause for immediate dismissal from that particular class session by the professor.</p>
<p>Students with- Disabilities</p>	<p>If you have a disability, (physical or psychological) and require reasonable accommodations to enable you to participate in this course, such as note-takers, readers, or extended time on exams and assignments, please contact the Physics Department Office, and also see me during the first two weeks of class to provide you with information and review appropriate arrangements for reasonable accommodations.</p>

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