

OVERVIEW AND OUTLINE OF COURSE

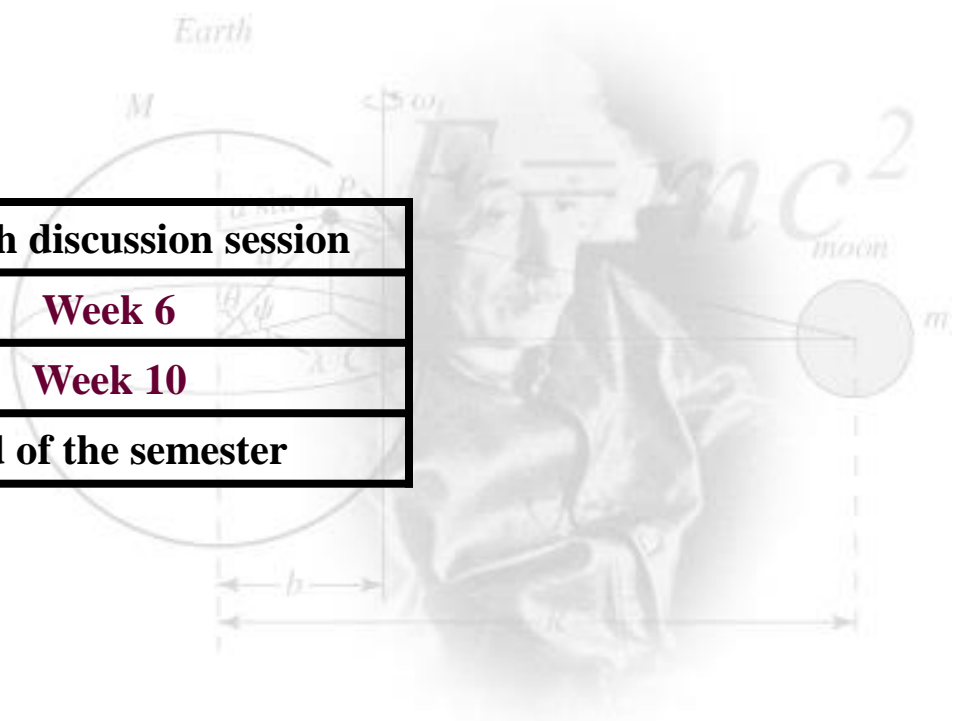
Course Description:

This course investigates the history of physics with attention also paid to astronomy and planetary science.

The time period covered is from 300 BC (Aristotle) to the end of the 20th century.

Course Grading

2 Projects	20%	On each discussion session
1 st EXAM	20%	Week 6
2 nd EXAM	20%	Week 10
FINAL EXAM	40%	End of the semester



Project (1): A presentation of one of the proposed topics. (12 MARKS)

The evaluation will be :

(3 MARKS) for your presentation.

(6 MARKS) for your research which should include:

- What is the conceptual basis of the physical ideas?
- How it developed?
- What is the effect of the ideas on sciences and culture?

(3 MARKS) for your submitted report.

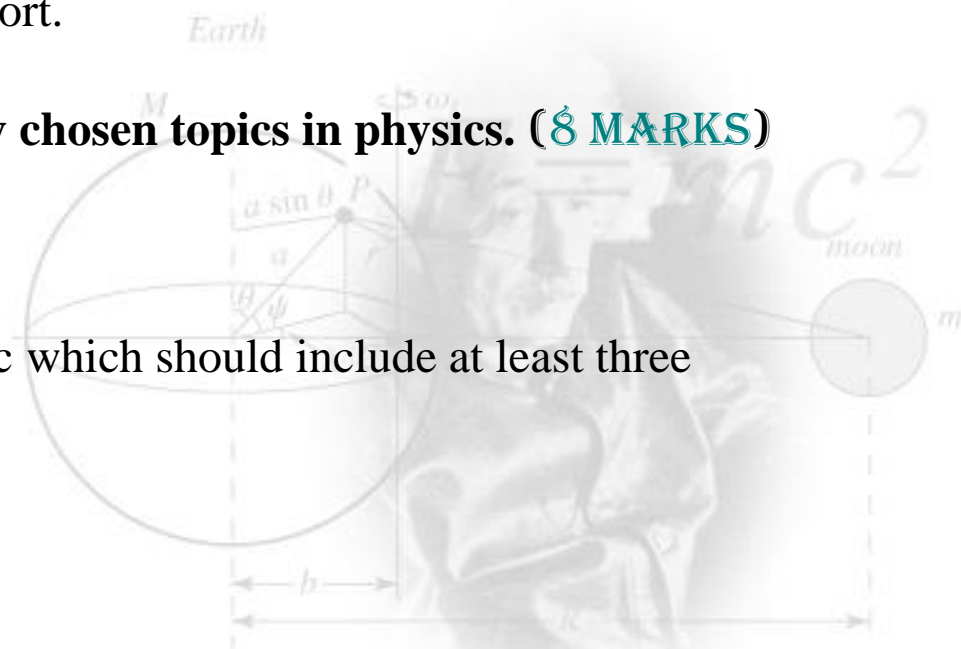
Project (2): A discussion of any chosen topics in physics. (8 MARKS)

The evaluation will be :

(2 MARKS) for your dialogue.

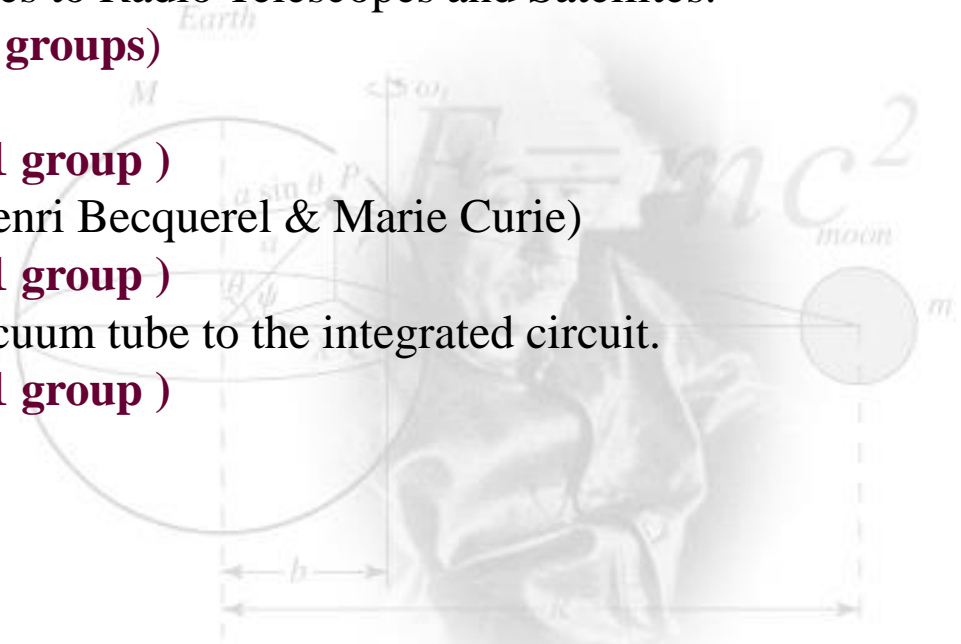
(3 MARKS) for your chosen topic which should include at least three interested points.

(3 MARKS) for your conclusion.



LIST OF THE PROPOSED PROJECTS

- 1- Archimedes: father of the science of Mechanics.
(1 group)
- 2- Effect of Muslim Scientists on the scientific revolution.
(2 groups)
- 3-Tools of Cosmology: from Naked Eyes to Radio Telescopes and Satellites.
(3 groups)
- 4- The Discovery of Electron.
(1 group)
- 5- The Discovery of Radioactivity :(Henri Becquerel & Marie Curie)
(1 group)
- 6-The Story of Transistor: From the vacuum tube to the integrated circuit.
(1 group)



PHYSICISTS TIME-LINE

Classical Period 500 BC	Middle Ages 400 AD	Renaissance Ages 1300	Classical Physics 1700-1900		Modern Physics > 1900
			EM	Thermo	
<u>Aristotle</u> 300 BC	Al-Fazari (735-806)	Copernicus (1473-1543)	Franklin (1706-1790)	Carnot (1796-1832)	Relativity 1905
<u>Ptolomy</u> 200 AD	Al-khwarizmi (850-926)	Kepler (1571-1630)	Coulomb (1736-1806)	Kelvin (1824-1907)	Quantum Mechanics 1920s
	Ibn Sina, (965-1039)	Galileo (1564-1642)	Faraday (1791-1867)	Boltzmann (1844-1906)	Elementary Particles 1970s
	Ibn Al-Haitham (980-1037)	Newton (1642-1727)	Maxwell (1831-1879)		