



Course Specifications

Institution:	Zulfi college of education .
Academic Department	Physics Department
Programme :	Physics Department
Course :	Modern Physics
Course Coordinator :	Dr. Fatema Alzahraa M..
Programme Coordinator :	Dr.Nagwa Ibrahim..
Course Specification Approved Date :	1./ 1 / 1438 H



A. Course Identification and General Information

1 - Course title : Modern Physics	Course Code: PHYS223	
2. Credit hours (4hours)		
3 - Program(s) in which the course is offered: ..physics..		
4 - Course Language :Arabic.....		
5 - Name of faculty member responsible for the course: ...Dr.Nagwa Ibrahim..		
6 - Level/year at which this course is offered : ...Fivth..		
7 - Pre-requisites for this course (if any) : • .. PHYS 123		
8 - Co-requisites for this course (if any) : •		
9 - Location if not on main campus : (.....)		
10 - Mode of Instruction (mark all that apply)		
A - Traditional classroom	<input checked="" type="checkbox"/> What percentage? <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center;">100..... %</td></tr></table>	100..... %
100..... %		
B - Blended (traditional and online)	<input type="checkbox"/> What percentage? <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center;">..... %</td></tr></table> %
..... %		
D - e-learning	<input type="checkbox"/> What percentage? <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center;">..... %</td></tr></table> %
..... %		
E - Correspondence	<input type="checkbox"/> What percentage? <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center;">..... %</td></tr></table> %
..... %		
F - Other	<input type="checkbox"/> What percentage? <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center;">..... %</td></tr></table> %
..... %		
Comments :		

B Objectives

<p>What is the main purpose for this course?</p> <p>. Newton relativity - Galileo relativity - Einstein relativity - the experience of Michelson and Morley - photoelectric effect - the phenomenon of Kempton - black body radiation - Planck model of black body radiation interaction of radiation with the article - the interaction of heavy charged particles - the interaction of light charged particles.</p> <p>Briefly describe any plans for developing and improving the course that are being implemented :</p> <p>The use of interactive lecture halls</p> <p>....</p>
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C. Course Description

1. Topics to be Covered

List of Topics	No. of Weeks	Contact Hours
The emergence of science relative.	1	3
The basic concepts of relativity.	1	3
Relative Newton and exercises.	1	3
Galileo relativity and exercises.	1	3
A complete study of the theory of special relativity.	1	3
Lorentz transformations of time and distance.	1	3
Lorentz transformations of the speed and amount of traffic.	1	3
Some applications and exercises.	1	3
Entrance of quantum mechanics:	1	3
Black body radiation.	1	3
Property duplication of waves and particles and exercises.	1	3
Atomic structure.	1	3

Second: practical lessons:

Topics	N0.
Instructions to be followed in the physics labs - definition devices	First
Appoint Wavelength	The second
Appoint a fixed Rdidberg	Third
Pilot test	Fourth
Appoint shipment electron (Oil Drop)	Fifth
Fabry device Beirut	sixth
Hertz francs	Seventh
Pilot test	Eighth
Designate the proportion of charge-to-mass	ninth
Michelson device	tenth

2. Course components (total contact hours and credits per semester):

	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	45	30.75





Credit	45	15.60
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3. Additional private study/learning hours expected for students per week.

.4hours.

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0 Knowledge			
1.1	Recognize the importance of modern physics.	Debate and discussion within the classroom tests.	Tests.
1.2	Identify some of the important aspects and applications of quantum physics.	Give explanations examples for the Anterior lectures	Give the student calendar questions after each lecture
1.3	Identify the theoretical foundation The definition of modern physics. Understand the theory of relativity. Identify Haw was black body radiation. for Theoretical Physics.	Scientific activities and cooperation within the halls	Responding to the student by the cost of duties
2.0 Cognitive Skills			
2.1	The student learns to what modern physics,	Debate and discussion within the classroom tests.	Give the questions to see how the student's understanding
2.2	The student explains that the theory of relativity	Debate and discussion within the classroom tests.	Give the questions to see how the student's understanding
2.3	To know the importance of modern physics in the development of modern scientific	Debate and discussion within the classroom tests.	Give the questions to see how the student's understanding
3.0 Interpersonal Skills & Responsibility			
3.1	Division students to groups to conduct joint research group	Commissioning analysis and interpretation of research in the	Know the contribution of each student in the interpretation





	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
		ring discussion for, discuss the collective search.	and analysis of search through dialogue and discussion.
3.2	Skills take responsibility and lead the team	Assigning some students, to lead research groups.	Know the contribution of each student's leader of the team through dialogue and discussion.
4.0	Communication, Information Technology, Numerical		
4.1	Ability to use the World Wide Web in search of the latest findings of modern science	.....	.....
4.2	- Ability to use computers in research writing and presentation using power point	.....	.....
4.3	use - The computers in the provision of research and scientific reports required	.....	.....
4.4	- use the modern techniques in scientific research	.....	.....
4.5	- The ability to analyze research information required	.....	.....
5.0	Psychomotor		
5.1	.not require in this course .	.....	.....

5. Schedule of Assessment Tasks for Students During the Semester:

	Assessment task	Week Due	Proportion of Total Assessment
1	. Test Mid term .	Seventh week.	.20% .
2	..Final test	.fifteenth week.	40%
3	Practical final test	Thirteenth week	20%
4	Quiz +attendance +Home work		20%





D. Student Academic Counseling and Support

Is providing consultancy and academic advice to students where there is a professor in office hours to 4 hours per week

E. Learning Resources

1. List Required Textbooks :

2. List Essential References Materials : Foundations of Electromagnetic Theory;

3. List Recommended Textbooks and Reference Material :

Introduction to Modern Physics: Ibrahim Fakhry

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4. List Electronic Materials :Modern physics massailcom

5. Other learning material :

Attend lectures related

Attend workshops and conferences

. Facilities Required

1. Accommodation

Classrooms capacity of 50 student

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2. Computing resources

..... Hall of interactive.

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3. Other resources

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G Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching:

Strategies to obtain feedback from students regarding the effectiveness of teaching:

Through discussions.

Distribution of questionnaires to the students at the end of the semester to get special evaluate the decision.

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2 Other Strategies for Evaluation of Teaching by the Program/Department





Instructor :

. Continuous assessment of the extent to which students achieve the standards.....

3 Processes for Improvement of Teaching :

The provision of modern tools necessary for learning

- Exchange of experiences both internal and external

Taking the recommendations of the audit findings with the decision.

Taking the recommendations of the Commission for Academic Accreditation department.

Management guidance department and dean of the college on the performance of a faculty member on the basis of direct observation and opinions of students

4. Processes for Verifying Standards of Student Achievement

Review of papers that have been corrected by the professor and at the request of the head of the academic department and the formation of a special committee to review as determined by senior management when needed or requested by the requesting Dean at the end of each semester.

Will pass to the achievement of the students of standards.

5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement :

1-Periodic review of the decision by a professor of art and faculty members plan to amend the decision.

2-Review and update the article topics commensurate with the needs of the labor market.

3-update the content to be in line with recent developments in the field.....

Course Specification Approved
Department Official Meeting No (2) Date 1 / 1 / 1438 H

Course's Coordinator

Name : Dr.Nagwa Ibrahim

Signature :

Date : 15/ 12 / 1437 H

Department Head

Name : Dr. Fatema Alzahraa M.

Signature

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Date : 15./ 12 / 1437 H

