

**ATTACHMENT 2 (g)**

**Course Report**

**Kingdom of Saudi Arabia**

**The National Commission for Academic Accreditation & Assessment**

**COURSE REPORT  
(CR)**

A separate Course Report (CR) should be submitted for every course and for each section or campus location where the course is taught, even if the course is taught by the same person. Each CR is to be completed by the course instructor at the end of each course and given to the program coordinator

A combined, comprehensive CR should be prepared by the course coordinator and the separate location reports are to be attached.

## Course Report

**For guidance on the completion of this template refer to the NCAAAA handbooks or the NCAAAA Accreditation System help buttons.**

Institution : Majmaah University	Date of Course Report : 22/ 8 / 1436 H
College/ Department : Physics	

### A. Course Identification and General Information

1. Course title: Nuclear Physics (II)	Code #: Phys 423.	Section #				
2. Name of course instructor : Dr. Mohsen Challan		Location : Department of Physics				
3. Year and semester to which this report applies : 2 <sup>nd</sup> Semester						
4. Number of students starting the course?	21	Students completing the course? <span style="border: 1px solid black; text-align: center;">21</span>				
5. Course components (actual total contact hours and credits per semester):						
	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	3	.....	.....	.....	.....	48
Credit	3	.....	.....	.....	.....	48

### B. - Course Delivery

1. Coverage of Planned Course			
Topics to be covered	Planned Contact Hours	Actual Contact Hours	Reason for Variations if there is a difference of more than 25% of the hours planned
Nuclear reactors (the basic structure of the reactors, classification, criticality of reactors, fission products. Damage inside the reactors, Protection systems, most popular types of reactors Nuclear accelerators (the theoretical principles of acceleration), types of accelerators.	9	9	-
Resonance accelerators, Betatron accelerator, Synchrotron, Synchro-cyclotron accelerators, Isochronous Cyclotrons. Radiation sources (fast electrons sources - sources of heavy charged particles - sources of electromagnetic radiation - neutron sources).	9	9	-

Interaction of radiation with matter: interaction of the heavy ions, electrons, alphas, neutrons and gamma-rays with matters.			
Interaction of radiation with matter: interaction of the alphas, neutrons and gamma-rays with matters. Detectors of nuclear radiation (electrons and ions motion in the gases, patterns of measurement, the energy spectrum analysis. Detector efficiency, gas counters, scintillation Detectors Semiconductor detectors, radiation detection using imaging plates emulsified films, neutron detectors.	9	9	-
Biological effects of ionizing radiation: entry of radioactive materials into the human body, what is a living cell, the interaction of radiation with the cell and physical stages and physicochemical, chemical stage, biological stage, early and late effects of radiation, genetic effects. Radiation dosimetry and scanning devices (radiation survey device characteristics, radiation survey meters.	6	6	-
Calibration of radiation detectors, survey devices, personal dose measuring devices, sensitive badge films. Thermal luminesces Dosimeter, fast neutrons plates, pocket dosimeters) Units of radiation dose and its borders measure (flux intensity, exposure, absorbed dose, equivalence between Roentgen and radio. Biological effect in the body and the relative biological effect - quality factor - equivalent dose rate - dose - dose endurance - the maximum allowable dose limits - proposed) equivalent dose.	12	12	-
Review	3	3	

## 2. Consequences of Non Coverage of Topics

For any topics where the topic was not taught or practically delivered, comment on how significant you believe the lack of coverage is for the course learning outcomes or for later courses in the program. Suggest possible compensating action.

Topics (if any) not Fully Covered	Effectuated Learning Outcomes	Possible Compensating Action
Not Found		

## 3. Course learning outcome assessment.

	List course learning outcomes	List methods of assessment	Summary analysis of assessment results
1	This is an introductory course which gives the student a wide	Formal homework	

	and general look at the different aspects of nuclear physics.		
2	Recognize the importance of nuclear reactors in nuclear physics with respect to structures.	Spontaneous questions	
3	Identify some of the important characteristics of the active nuclei aspects such as radiation types and analysis, the interaction of radiation with the matter.	Major and Final exams	
4	To identify the theoretical and scientific fundamentals of the nuclear accelerators, Identify some of the important aspects for the detection of nuclear radiation, sources, protection, and biological effects and to follow-up applied research in this area.	Scientific reports	
5	Know the content of the subject	Spontaneous questions to connect different parts of the course to each other	
6	Develop the student's ability to solve and analyze problems related to the course.	Revisiting concepts	
7	Develop the student's ability to use physical laws.	Quizzes and homework	
8	principles to understand the subject	Major and final exams	
9	Work independently	Grading homework	
10	Work within a group	Grading group assignments on the internet	
11	Share research ideas and findings with others	Quizzes on previous lectures	
12	Leadership development (managing time, resources and people)	Revisiting concepts	
13	communicating with peers, lecturers and community, use of the computer and the internet, problem solving	Discussions	
14	communicating with lecturers	Grading the student homework	

Summarize any actions you recommend for improving teaching strategies as a result of evaluations in table 3 above.

4. Effectiveness of Planned Teaching Strategies for Intended Learning Outcomes set out in the Course Specification. (Refer to planned teaching strategies in Course Specification and description of Domains of Learning Outcomes in the National Qualifications Framework)

List Teaching Methods set out in Course Specification	Were these Effective?		Difficulties Experienced (if any) in Using the Strategy and Suggested Action to Deal with Those Difficulties.
	No	Yes	
Lectures		√	—
Homework assignments		√	—
Decisions		√	—
Presentations		√	—

**Note:** In order to analyze the assessment of student achievement for each course learning outcome, student performance results can be measured and assessed using a KPI, a rubric, or some grading system that aligns student work, exam scores, or other demonstration of successful learning.

### C. Results

#### 1. Distribution of Grades

Letter Grade	Number of Students	Student Percentage	Explanation of Distribution of Grades
A	2	10%	90-100
B	3	15%	80-89
C	8	38%	70-79
D	6	27%	60-69
F	2	10%	Less than 60, Fail
Denied Entry			-
In Progress	21		-
Incomplete			-
Pass	19		-
Fail	2		-
Withdrawn			-

#### 2. Analyze special factors (if any) affecting the results

#### 3. Variations from planned student assessment processes (if any) (see Course Specifications).

Not Found

##### a. Variations (if any) from planned assessment schedule (see Course Specification)

Variation	Reason
Not Found	

b. Variations (if any) from planned assessment processes in Domains of Learning (see Course Specification)	
Variation	Reason
Not Found	

4. Student Grade Achievement Verification (eg. cross-check of grade validity by independent evaluator).	
Method(s) of Verification	Conclusion
Recheck the exam paper by one of faculty member,	Accurate exam paper.

#### D. Resources and Facilities

1. Difficulties in access to resources or facilities (if any)	2. Consequences of any difficulties experienced for student learning in the course.
Lack the sources and reference at college library.	

#### E. Administrative Issues

1 Organizational or administrative difficulties encountered (if any)	2. Consequences of any difficulties experienced for student learning in the course.
Not Found	

#### F Course Evaluation

1 Student evaluation of the course (Attach survey results report) See attached survey results.
a. List the most important recommendations for improvement and strengths  strength points : - The course outline (including the knowledge and skills the course was designed to develop) was made clear to me. - Sources of help for me during the course including faculty office hours and reference material, were made clear to me. - My instructor(s) cared about my progress and were helpful to me. - My instructor(s) were fully committed to the delivery of the course. (Eg. classes started on time, instructor always present, material well prepared, etc) -The things I had to do to succeed in the course, including assessment tasks and criteria for assessment, were made clear to me. - The resources I needed in this course (textbooks, library, computers etc.) were available when I needed them.

b. Response of instructor or course team to this evaluation
2. Other Evaluation (e.g. by head of department, peer observations, accreditation review, other stakeholders)
a. List the most important recommendations for improvement and strengths
b. Response of instructor or course team to this evaluation

### G. Planning for Improvement

1. Progress on actions proposed for improving the course in previous course reports (if any).			
Actions recommended from the most recent course report(s)	Actions Taken	Results	Analysis
Not found			

2. List what actions have been taken to improve the course (based on previous CR, surveys, independent opinion, or course evaluation).
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3. Action Plan for Improvement for Next Semester/Year				
Actions Recommended	Intended Action Points and Process	Start Date	Completion Date	Person Responsible

**Name of Course Instructor: Dr. Mohsen Challan**

**Signature: Mohsen Challan**

**Date Report Completed: 22/ 8 / 1436 H**

**Program Coordinator: Dr. Nagwa Ibrahim**

**Signature: \_\_\_\_\_ Date Received: \_\_\_\_\_**