Kingdom of Saudi Arabia

The National Commission for Academic Accreditation & Assessment

T5. COURSE REPORT
(CR)
Course title: Radiation Protection
Course code: (2-403388)

Second Semester

Academic Year 1438-1439H -2018

Assistant Prof. Taha Mohamed Taha Al-Fawwal (PhD)
Medical Radiation Physics (Physics)
College of Applied Science
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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 NCAAA handbooks.

Institution Umm Al-Qura University	Date of CR: 2-403388
College/ Department: Applied Sciences College- Physics department	

A Course Identification and General Information

1. Course title Radiation Protection			Code # : 2-403388		Section #	
2. Name of course instructor Dr.Taha Al-Fawwal				Location: Main campus- Al-Abdia		
3. Year and semester to which this report applies. 1438-1439 H- 2nd Semester						
4. Number of students starting the course? 10				Students completing the course? 10		
5. Course components (actual total contact hours and credits per semester):						
	Lecture	Tutorial	Laboratory/ Studio	Practical	Other:	Total
Contact Hours	24					24
Credit	2					2

B- Course Delivery

1. Coverage of Planned Program			
Topics Covered	Planned Contact Hours	Actual Contact Hours	Reason for Variations if there is a difference of more than 25% of the hours planned
Chapter one: External Radiation Safety Goals Basic principles of external radiation protection Minimize exposure time Maximize distance from the radiation source Problems Shielding the radiation source Problems X-rays Shielding Structural shielding Shielding requirements Occupancy factors NCRP 147 methodology Workload Calculation of the thickness of primary barriers Calculation of thickness of secondary barriers for gypsum board, lead and concretes Radiation Protection in diagnostic x-ray, CT,.	10 hrs	10 hrs	
First Periodic Exam			
Middle Term Vacation			
Chapter two: Radiation Safety Guide International organizations Some famous hazards Dose limitation system Deterministic effects System limitation Justification, optimization and dose limit ICRP basic safety criteria Dose limits for occupational , public and	8 hrs	8 hrs	

embryo (pregnant women) Effective dose calculation and problem dose limits, entrance shin doses, annual limit of intake, tissue weighting factors Stochastic annual limit of intake Non stochastic annual limit of intake Problems, intake of radioactive materials Lung model, ICRP-30 and ICRP-66 lung models			
Internal radiation safety Principles of control Control of the source confinement Ventilation hood Glove box Problems Quantities for internal dosimetry, dose constraints, dose limits and action levels.	4 hrs	4 hrs	
Radiation protection for non ionized radiation UV protection – problem, protection from laser light, protective eye wear- problem	2 hrs	2hrs	

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	Effected Learning Outcomes	Possible Compensating Action
Radiation protection for medical radiography	To increase the student mentality to protect a patient and workers during medical radiography	It is possible by adding new chapter for that course using new reference entitle : Radiation Protection for medical radiography.

3. Course learning outcome assessment.

	List course learning outcomes	List methods of assessment for each LO	Summary analysis of assessment results for each LO
1	Learning fundamentals of the radiation quantities and concept of radiation protection quantities Learning basics of external radiation safety. Learning Radiation Safety Guides Learning and understanding the Internal Radiation Safety Developing the learning skills of the students to design X-ray shielding room Learning code of practice of radiation protection for medical radiography and ability to design radiation protection for non ionized radiation Explain concept of radiation protection quantities Develop ability to think creatively to find a relationship between operational radiation quantities and protection radiation quantities Develop ability to think creatively in the different concepts of external radiation safety. Develop internal radiation safety procedures to protect workers from internal contamination	1. Home work 2. Interactive discussion 3. Short exam1 4. Short exam2 5. Final exam	All pass in short exam 1, short exam2 and final exam
	1. Enhancement the ability of students to use computers and internet 2. Know how to write a report 3. Perform effective communication with colleagues and faculty members 4. Ability to use programs designed for medical internal radiation dose software 5- Problem solving and ability to interpret	1. Marking the home works 2. Working closely with the different groups 3. Evaluate the efforts of each student in preparing the report 4. Evaluate the scientific values of reports 5. Evaluate the work in team	

	the results.		

Summarize any actions you recommend for improving teaching strategies as a result of evaluations in table 3 above. Encouraging students to prepare the next lecturer and introduce power point presentation Initiating reactive learning

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 They Effective?		Difficulties Experienced (if any) in Using the Strategy and Suggested Action to Deal with Those Difficulties.
	No	Yes	
seminar presentation by the students and web-interactions.		Yes	The students need to gain more experience via sharing in national and international conference.
, Students will be divided into groups for seminar presentation on important areas of the course to assess their understanding and comprehension of the course		Yes	
All students will be involved in on-line learning process and each student is required to create an E-mail address to facilitate student web interactions		Yes	
Encouraging students to collect the new information about what the new radiation effect		Yes	

Enable the reference books and scientific sites concerning bacteriology in internet		Yes	
Lectures **Brain storming** **Discussion**		Yes	
Lab work Case Study Active learning Small group discussion Data presentation Learning methods: ,. Power point, . E-learning		Yes	

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

Result Summary:

Passed: No 10 Percent 100% Failed No - Percent 0 %

The weighted arithmetic mean for degree is 73.7 out of 100.
Did not complete No Percent

1. Distribution of Grades

Letter Grade	Number of Students	Student Percentage	Analysis of Distribution of Grades
A	1	10 %	There are variations in degree distribution due to performance for each student. The degree distribution was 10% with A* grade, 10% with A grade, 20% with C* grade ,30 % with C, 10% with D* and 20% with D.
A	1	10 %	
B			
B			
C	2	20%	
C	3	30%	
D	1	10%	
D	2	20%	
F			
F			
Denied Entry			
In Progress			
Incomplete			
Pass	10		
Fail	-		
Withdrawn	-		

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

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

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

Variation	Reason

b. Variations (if any) from planned assessment processes in Domains of Learning (see Course Specifications)	
Variation	Reason

4. Student Grade Achievement Verification (eg. cross-check of grade validity by independent evaluator).	
Method(s) of Verification	Conclusion
Check of grade validity of a sample of exam papers by others staff college in the physics department **Check exam paper follows criteria of examination rules** **Check exam paper is covered all parts of the course specification**	**Grad of exam** paper is précised and judged Exam paper follows criteria of examination rules Check exam pap**er is covered all parts of the course specification**

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.
Shortage the hand books in Arabic and WEB rooms available for student to be useful at any time between lectures	All students must take all of the requirements before start in this course

E. Administrative Issues

1 Organizational or administrative difficulties encountered (if any)	2. Consequences of any difficulties experienced for student learning in the course.

F Course Evaluation

1 Student evaluation of the course **(Attach summary of survey results)**

01 الأهداف الأساسية للمقرر (بما في ذلك المعلومات والمهارات التى صمم المقرر لتنميتها) واضحة بالنسبة لي
02 - متطلبات النجاح في المقرر (بما في ذلك الواجبات التي يتم التقيم بناء عليها ومحكات التقييم) واضحة بالنسبة لي
03 - مصادر مساعدتي في المقرر (بما في ذلك الساعات المكتبية لعضو هيئة التدريس والمراجع) واضحة بالنسبة
04 تنفيذ المقرر والأشياء التي طلب مني أداوها متسقة مع الأهداف الأساسية للمقرر
05 التزام عضو هيئة التدريس بأعطاء المقرر بشكل كامل (مثل : بدء المحاضرة ، تواجد الأستاذ ، التحضير ...)
06 لدى عضو هيئة التدريس إلمام كامل بمحتوى المقرر الذي يقدمه
07 عضو هيئة التدريس موجود للمساعدة خلال الساعات المكتبية
08 عضو هيئة التدريس متحمس لما يقوم بتدريسه
09 عضو هيئة التدريس مهتم بمدى تقدمي الدراسي وكان معينا لي
10 كل ما يقدم في المقرر حديث ومفيد (النصوص المقروءة ، التلخيصات ، المراجع ، وما شابهها)
11 مصادر التعلم التي احتجتها في هذا المقرر متوافرة كلما احتجت إليها
12 تم استخدام الفعال للتقنية لدعم تعليمي في هذا المقرر
13 وجدت تشجيعا لإلقاء الأسئلة وتطوير أفكاري الخاصة في هذا المقرر
14 شجعت في هذا المقرر على تقديم أفضل ما عندي
15 ساعدت الأشياء التي طلبت مني في هذا المقرر في تطوير معرفتي ومهاراتي التي يهدف المقرر لتعليمها
16 كانت كمية العمل في هذا المقرر متناسبة مع عدد الساعات المعتمدة المخصصة للمقرر
17 قدمت لي درجات الواجبات والاختبارات في هذا المقرر خلال وقت معقول
18-كان تصحيح واجباتي واختباراتي عادلا ومناسبا
19- وضحت لي الصلة بين هذا المقرر والمقررات الأخرى بالبرنامج (القسم)
20- ما تعملته في هذا المقرر مهم وسيفيدني مستقبلا
21- ساعدني هذا المقرر على تحسين قدرتي على التفكير وحل المشكلات بدلا من حفظ المعلومات فقط
22- ساعدني هذا المقرر على تحسين مهاراتي في العمل كفريق
23- ساعدني هذا المقرر على تحسين مهارات الاتصال بفاعلية
24- أشعر بالرضا بشكل عام عن مستوى جودة هذا المقرر

Total student no. 10 **No of students taken the survey : 5** **% of respondents : 50 %**

Q	غير موافق بشدة (1)	غير موافق (2)	محايد (3)	موافق (4)	موافق بشدة (5)	المتوسط
Q1	0	0	3	0	2	3.8
Q2	0	0	0	4	1	4.2
Q3	0	0	2	1	2	4.0
Q4	0	0	2	1	2	4.0
Q5	0	0	1	3	1	4.0
Q6	0	0	1	1	3	4.4
Q7	0	0	1	2	2	4.2
Q8	0	0	2	0	3	4.2
Q9	0	1	0	3	1	3.8
Q10	0	0	2	1	2	4.0
Q11	0	0	2	2	1	3.8
Q12	0	2	1	0	2	3.4
Q13	0	1	0	3	1	3.8
Q14	0	1	1	1	2	3.8
Q15	1	2	0	1	1	2.8
Q16	0	0	1	1	3	4.4
Q17	0	0	1	3	1	4.0
Q18	0	0	2	1	2	4.0
Q19	0	1	2	1	1	3.4
Q20	0	1	0	2	2	4.0
Q21	1	1	0	2	0	2.8
Q22	0	1	1	1	2	3.8
Q23	0	1	1	3	0	3.4
Q24	0	1	1	1	2	3.8

a. List the most important recommendations for improvement and strengths

b. Response of instructor or course team to this evaluation
2. Other Evaluation (eg. 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	Action Results	Action Analysis
a. . New lecturer was added to cover the new of the radiation protection in diagnostic x-ray		Was applied successfully	

2. List what other actions have been taken to improve the course (based on previous CR, surveys, independent opinion, or course evaluation).				
3. Action Plan for Next Semester/Year				
Actions Recommended for Further Improvement	Intended Action Points (should be measurable)	Start Date	Completion Date	Person Responsible
a. Updating the course according to the recent publications ▪ Visit to Researches Lab.				

Name of Course Instructor: _Dr.Taha Al-Fawwal Signature : _
Date Report Completed: _____
Program Coordinator: _____
Signature: _____ Date Received: __ 13-5-2018_____