Kingdom of Saudi Arabia

The National Commission for Academic Accreditation & Assessment

T5. 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 NCAAA handbooks.

Institution : **Umm AL-Qura University**	Date of CR ; **20/12/2018**
College/ Department; **Faculty of Applied Science / Physics Department**	

A Course Identification and General Information

1. Course title; **Fundamentals of Medical Physics** Code ; **4032280-4** Section ; **G1**						
2. Name of course instructor; **Ramadan Ali Hassan** Location; **Main campus (Abdiia)**						
3. Year and semester to which this report applies. **1439-1440, semester 1 (391)**						
4. Number of students starting the course? **15** Students completing the course? **15**						
5. Course components (actual total contact hours and credits per semester):						
	Lecture	Tutorial	Laboratory/ Studio	Practical	Other:	Total
Contact Hours	55hr	55 hr	55 hr			
Credit						

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
❖ **Static force** 1 Equilibrium and Stability 2 Equilibrium Considerations for the Human Body 3 Stability of the Human Body under the Action of an External Force	**6**	**6**	

4 Skeletal Muscles 5 Levers 6 The Elbow 7 Friction Standing at an Incline			
❖ **Elasticity and Strength of Materials** 1 Longitudinal Stretch and Compression 2 A Spring 3 Bone Fracture: Energy Considerations 4 Impulsive Forces 5 Fracture Due to a Fall: Impulsive Force Considerations 6 Airbags: Inflating Collision Protection Devices 7-Whiplash Injury 8 Falling from Great Height 9 Osteoarthritis and Exercise. .	**6**	**6**	
❖ **The Motion of Fluids** 1 Bernoulli's Equation 2 Viscosity and Poiseuille's Law 3 Turbulent Flow 4 Circulation of the Blood 5 Blood Pressure 6 Control of Blood Flow 7 Energetics of Blood Flow 8 Turbulence in the Blood 9 Arteriosclerosis and Blood Flow 10 Power Produced by the Heart 11 Measurement of Blood Pressure Exercises.	**6**	**6**	
❖ **Heat and Life** 1 Energy Requirements of People 2 Energy from Food 3 Regulation of Body Temperature 4 Control of Skin Temperature 5 Convection 6 Radiation 7 Radiative Heating by the Sun 8 Evaporation 9 Resistance to Cold 10 Heat and Soil Exercises	**6**	**6**	
❖ **Wavs and Sound** 1 Properties of Sound	**3**	**3**	

2 Some Properties of Waves (Reflection, Refraction, Interference, Diffraction) 3 Hearing and the Ear (Performance, Frequency and Intensity and Loudness) 4 Bats and Echoes 5 Sounds Produced by Animals 6 Acoustic Traps 7 Clinical Uses of Sound 8 Ultrasonic Waves Exercises **1st periodic exam**			
❖ **Electricity** 1 The Nervous System 2 The Neuron 3 Electrical Potentials in the Axon 4 Action Potential 5 Propagation of the Action Potential 6 Synaptic Transmission 7 Action Potentials in Muscles .8 Surface Potentials 9 Electricity in the Bone	**3**	**3**	
❖ **Optics** 1 Vision. 2 Nature of Light 3 Structure of the Eye 4 Accommodation 5 Eye and the Camera 6 Lens System of the Eye 7 Reduced Eye .8 Retina 9 Resolving Power of the Eye. 10 Threshold of Vision 11 Vision and the Nervous System. 12 Defects in Vision. 13 Lens for Myopia. 14 Lens for Presbyopia and Hyperopia 15 Fiber Optics	**6**	**6**	
❖ **Atomic Physics** 1 The Atom 2 Spectroscopy 3 Quantum Mechanics 4 Electron Microscope 5 X-rays 6 X-ray Computerized Tomography 7 Lasers & Lasers applications in medicine Exercises	**3**	**3**	

❖ **Nuclear Physics** 1 The Nucleus 2 Magnetic Resonance Imaging 3 Radiation Therapy 4 Food Preservation by Radiation 5 Isotopic Tracers 6 Laws of Physics and Life Exercises	**6**	**6**	
Nanotechnology in Biology and Medicine 1 Nanostructures 2 Nanotechnology 3 Some Properties of Nanostructures 4 Medical Applications of Nanotechnology 5 Concerns Over Use of Nanoparticles in Consumer Products Exercises	**3**	**3**	
❖ **Revision & Exercises and Solved problems & 2nd periodic exam**	**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	Effected Learning Outcomes	Possible Compensating Action

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			
2			

3			
4			
5			
6			
7			
8			

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 They Effective?		Difficulties Experienced (if any) in Using the Strategy and Suggested Action to Deal with Those Difficulties.
	No	Yes	

▪ Demonstrating the basic information and principles through lectures and the achieved applications ▪ Discussing phenomena with illustrating pictures and diagrams ▪ Lecturing method: ▪ Projector ▪ Power point ▪ e-learning ▪ Tutorials ▪ Revisit concepts ▪ Discussions ▪ Brain storming sessions ▪ Start each chapter by general idea and the benefit of it ▪ Learn the student background of the subject; ▪ Show the best ways to deal with problem; Keep the question "why" or "how" to explain always there		Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	
▪ Preparing main outlines for teaching ▪ Following some proofs ▪ Define duties for each chapter ▪ Home work assignments ▪ Encourage the student to look for the information in different references ▪ Ask the student to attend lectures for practice solving problem ▪ Doing small research		Yes Yes Yes Yes Yes Yes Yes	

▪ Learn how to search the internet and use the library. ▪ Learn how to cover missed lectures. ▪ Learn how to summarize lectures or to collect materials of the course. ▪ Learn how to solve difficulties in learning: solving problems – enhance educational skills. ▪ Develop her interest in Science through :(lab work, field trips, visits to scientific and research. ▪ Encourage the student to attend lectures regularly by: ▪ Giving bonus marks for attendance assigning marks for attendance.		Yes Yes Yes Yes Yes Yes Yes	
▪ Know the basic mathematical principles. ▪ Use the web for research. ▪ Discuss with the student. ▪ Exams to measure the mathematical skill. ▪ Clear the weakness point that should be eliminated. ▪ Encourage the student to ask for help if needed. ▪ Computational analysis. ▪ Data representation. ▪ Focusing on some real results and its physical meaning. ▪ Lectures for problem solution. ▪ Encourage the student to ask good question to help solve the problem.		Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes 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

1. Distribution of Grades

Letter Grade	Number of Students	Student Percentage	Analysis of Distribution of Grades
A	3	20%	
B	2	13%	
C	4	27%	
D	6	40%	
F	0	0%	
Denied Entry	0	0	
In Progress	0	0	
Incomplete	0	0	
Pass	15	100%	
Fail	0	0%	
Withdrawn	0	0	

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
The instructors of the course are checking together and put a unique process of evaluation	TRUE
Check marking of a sample of papers by others in the department.	Equal with the level of student in written tests
Feedback evaluation of teaching from independent organization	TRUE

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.

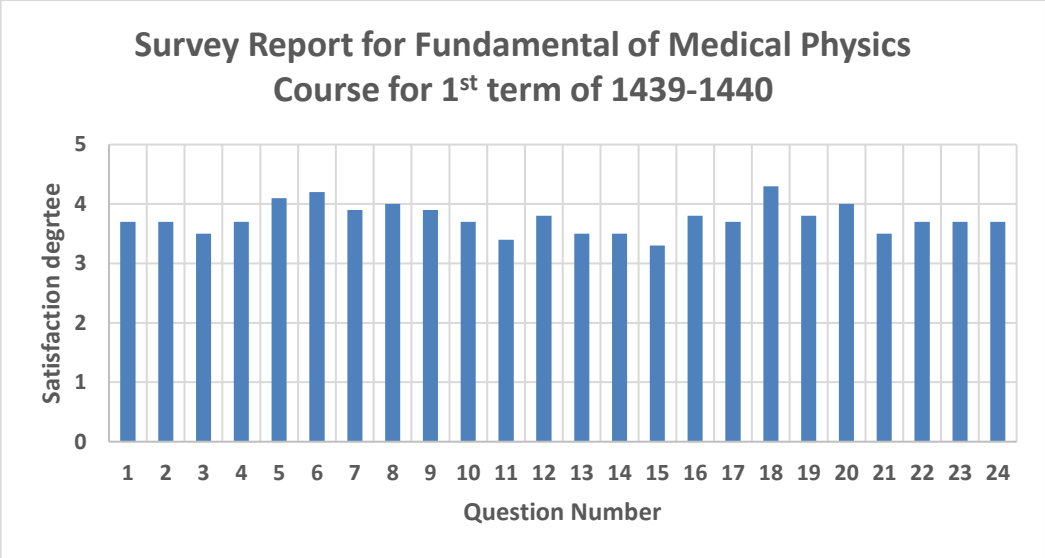
F Course Evaluation

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

ملخص لتقرير المقرر

اسم المقرر	أساسيات الفيزياء الطبية	**الخطة**	33	**رقم المقرر**	403280-4
اسم أستاذ المقرر	**د. رمضان على حسن**		**عدد من ملأ الاستبانة**	12	

أسئلة الاستبيان	غير موافق بشدة (1)	غير موافق (2)	محايد (3)	موافق (4)	موافق بشدة (5)	المتوسط
الأهداف الأساسية للمقرر (بما في ذلك المعلومات والمهارات التي صمم المقرر لتنميتها) واضحة بالنسبة لي	0	2	3	4	3	3.7
متطلبات النجاح في المقرر (بما في ذلك الواجبات التي يتم التقييم بناء عليها ومحكات التقييم) واضحة بالنسبة لي	0	2	3	4	3	3.7
مصادر مساعدتي في المقرر (بما في ذلك الساعات المكتبية لعضو هيئة التدريس والمراجع) واضحة بالنسبة لي	0	2	5	2	3	3.5
تنفيذ المقرر والأشياء التي طلب مني أداوها متسقة مع الأهداف الأساسية للمقرر	0	2	3	4	3	3.7
التزام عضو هيئة التدريس بإعطاء المقرر بشكل كامل (مثل : بدء المحاضرة , تواجد الأستاذ , التحضير ...)	1	0	2	3	6	4.1
لدى عضو هيئة التدريس إلمام كامل بمحتوى المقرر الذي يقدمه	0	1	2	3	6	4.2
عضو هيئة التدريس موجود للمساعدة خلال الساعات المكتبية	0	1	3	4	4	3.9
عضو هيئة التدريس متحمس لما يقوم بتدريسه	0	1	2	5	4	4.0
عضو هيئة التدريس مهتم بمدى تقدمي الدراسي وكان معينا لي	0	2	2	3	5	3.9
كل ما يقدم في المقرر حديث ومفيد (النصوص المقروءة , التلخيصات , المراجع , وما شابهها)	1	1	2	5	3	3.7
مصادر التعلم التي احتجتها في هذا المقرر متوافرة كلما احتجت إليها	1	2	3	3	3	3.4
تم استخدام الفعال للتقنية لدعم تعليمي في هذا المقرر	0	1	3	5	3	3.8
وجدت تشجيعا لإلقاء الأسئلة وتطوير أفكاري الخاصة في هذا المقرر	1	1	5	1	4	3.5
شجعت في هذا المقرر على تقديم أفضل ما عندي	1	1	4	3	3	3.5
ساعدت الأشياء التي طلبت مني في هذا المقرر في تطوير معرفتي ومهاراتي التي يهدف المقرر لتعليمها	1	3	3	2	3	3.3
كانت كمية العمل في هذا المقرر متناسبة مع عدد الساعات المعتمدة المخصصة للمقرر	0	1	4	4	3	3.8
قدمت لي درجات الواجبات والاختبارات في هذا المقرر خلال وقت معقول	1	1	3	3	4	3.7
كان تصحيح واجباتي واختباراتي عادلا ومناسبا	0	0	3	3	6	4.3
وضحت لي الصلة بين هذا المقرر والمقررات الأخرى بالبرنامج (القسم)	1	0	3	3	4	3.8
ما تعلمته في هذا المقرر مهم وسيفيدني مستقبلا	0	1	4	1	6	4.0
ساعدني هذا المقرر على تحسين قدرتي على التفكير وحل المشكلات بدلا من حفظ المعلومات فقط	2	0	4	2	4	3.5
ساعدني هذا المقرر على تحسين مهاراتي في العمل كفريق	2	1	3	1	5	3.5
ساعدني هذا المقرر على تحسين مهارات الاتصال بفاعلية	2	1	2	1	6	3.7
أشعر بالرضا بشكل عام عن مستوى جودة هذا المقرر	0	3	2	3	4	3.7



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 chapter was added to cover the heat and life interaction	Was applied successfully		
b. New chapter was added to cover the nanoparticle applications	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				
b. Visit to Researches Lab.				
c.				

Name of Course Instructor: _ Ramadan Ali Hassan Ali _

Signature: _____ Date Report Completed: _2018-2019__

Program Coordinator: Dr. Fahad A. Alhashmi

Signature: Fahad A. Alhashmi Date Received: __20/12/2018__