Republic of Iraq
Ministry of Higher Education & Scientific Research
Supervision and Scientific Evaluation Directorate
Quality Assurance and Academic Accreditation

Academic Program Specification Form For The Academic

University: Al-Nahrain University
College : College of Medicine
Department : Department of Physiology
Date Of Form Completion : 12/9/2021

Dean's Name

Date : / /

Signature

Dean's Assistant For Scientific Affairs

Date : / /
Signature

Head of Department
Date : / /
Signature

Quality Assurance And University Performance Manager
Date : / /
Signature

TEMPLATE FOR PROGRAMME SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

PROGRAMME SPECIFICATION

This Programme Specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It is supported by a specification for each course that contributes to the programme.

1. Teaching Institution	Al-Nahrain University/ College of Medicine
2. University Department/Centre	Department of Physiology
3. Programme Title	Physiology
4. Title of Final Award	M.B.ch.B.
5. Modes of Attendance offered	Courses
6. Accreditation	Ministry of Higher Education &Scientific Research
7. Other external influences	practical physics
8. Date of production/revision of this specification	22/6/2021
9. Aims of the Programme:	
Division of Medical Physics aims to try to link the laws of physics and its applications in various fields of medical diagnostic and therapeutic, including: -	
1- to explain the laws of physics and its application in the medical field	
2- deepen scientific logic for students	
3- in the advancement of the reality of scientific research	

4- application of basic scientific study acquired by the student to conduct scientific research and medical studies.

10. Learning Outcomes, Teaching, Learning and Assessment Methods

A. Knowledge and Understanding

A1. Introduce students to the physics of the human body
A2. form a solid foundation in understanding the principles and techniques of diagnostic and therapeutic devices with physical principles.
A3. Develop mental abilities by different academic learning tools
A4. Learn the methods of scientific discussion
A5. Acquisition of laboratory skills

B. Subject-specific skills

B1. How to use measuring instruments and physical materials in laboratories
B2. How to use radioactive materials and laser devices

Teaching and Learning Methods

Lectures, computers, plasma screens, scientific instruments, clinical tours, small teaching groups, visual and auditory aids instruments and discussions.

-The theoretical side includes theoretical lectures on the applications of physical laws in the medical field.
- The practical side includes practical experiences related to the medical specialty

Assessment methods

1- Written exams
2- Continuous assessment
3- Small teaching groups
4- Practical exams

C. **Thinking Skills**
C1. Moral and professional discipline.
C2. Good behavior of the students among them.
C3. Development the help spirit
C4. Removal of the class differences

Teaching and Learning Methods

Small teaching groups, discussions and seminars

Assessment methods

1- Scheduled assessment
2- Students follow up

D. **General and Transferable Skills (other skills relevant to employability and personal development)**

D1. The student should cooperate with his colleges and teachers in atmosphere friendliness and understanding
D2. One team work
D3. Reaction with them in the scientific journeys
D4.

Teaching and Learning Methods

Small teaching groups, discussions and seminars

Assessment Methods

3- Scheduled assessment
4- Students follow up

11. Programme Structure				12. Awards and Credits
Level/Year	Course or Module Code	Course or Module Title	Credit rating	
1st stage	**PHSPhs-1**	**Medical physics**	3	Bachelor Degree Requires (x) credits
1st stage	**PHSPhs-2**	**Medical physics**	3	

13. Personal Development Planning
Learn ideas, methods, tools and techniques that would enable the students to use them directly to fitful accomplishment of the work in the best way.
14. Admission criteria .
Central admission
15. Key sources of information about the programme
1-Medical physics by John Cameron 2- physics for biology and pre medical students by Burns and McDonald 3-Practical physics by Armitage

Curriculum Skills Map																	
please tick in the relevant boxes where individual Programme Learning Outcomes are being assessed																	
				Programme Learning Outcomes													
Year / Level	Course Code	Course Title	Core (C) Title or Option (O)	Knowledge and understanding				Subject-specific skills				Thinking Skills				General and Transferable Skills (or) Other skills relevant to employability and personal development			
				A1	**A2**	**A3**	**A4**	**B1**	**B2**	**B3**	**B4**	**C1**	**C2**	**C3**	**C4**	**D1**	**D2**	**D3**	**D4**
1st	**PHSPhs-1**	**Medical physics**		×	×	×	×	×	×	×		×	×	×	×	×	×	×	
	PHSPhs-2	**Medical physics**		×	×	×	×	×	×	×		×	×	×	×	×	×	×	

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

1. Teaching Institution	Collage of medicine
2. University Department/Centre	Al-Nahrain University
3. Course title/code	Medical Physics
4. Programme(s) to which it contributes	M.B.Ch.B.
5. Modes of Attendance offered	Obligatory
6. Semester/Year	1st semester 2020 – 2021
7. Number of hours tuition (total)	30 hours lectures
8. Date of production/revision of this specification	12/9/2021
9. Aims of the Course	
Medical Physics aims to try to link the laws of physics and its applications in various fields of medical diagnostic and therapeutic, including - : 1- to explain the laws of physics and its application in the medical field	
2- deepen scientific logic for students	
3- in the advancement of the reality of scientific research	
4- application of basic scientific study acquired by the student to conduct scientific research and medical studies.	

10· Learning Outcomes, Teaching ,Learning and Assessment Methode
A- Knowledge and Understanding A1. Introduce students to the physics of the human body A2. form a solid foundation in understanding the principles and techniques of diagnostic and therapeutic devices with physical principles. A3. Develop mental abilities by different academic learning tools
B. Subject-specific skills B1. How to use measuring instruments and physical materials in laboratories B2. How to use radioactive materials and laser devices
Teaching and Learning Methods
Lectures, quizzes
Assessment methods
5- Scheduled assessment 6- Students follow up
C. Thinking Skills C1. Moral and professional discipline. C2. Good behavior of the students among them. C3. Development the help spirit C4. Removal of the class differences
Teaching and Learning Methods
Lectures, quizzes
Assessment methods
Scheduled assessment Students follow up

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. The student should cooperate with his colleges and teachers in atmosphere friendliness and understanding

D2. One team work

D3. Reaction with them in the scientific journeys

11. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1st	**2**	Medical physics	**Terminology, Modeling ,measurement ,how to make a full diagnose.**	Theoretical lecture	**-Short daily, mid-term & final exams.**
2nd	**2**	Medical physics	**Forces on and in the human body.**	Theoretical lecture	**Short daily, mid-term & final exams**
3rd	**2**	Medical physics	**Centrifuge, Sedimentation velocity.**	Theoretical lecture	**Short daily, mid-term & final exams**
4th	**2**	Medical physics	**Physics of the skeleton.**	Theoretical lecture	**Short daily, mid-term & final exams**
5th	**2**	Medical physics	**Elastic properties of biological materials**.	Theoretical lecture	**Short daily, mid-term & final exams**
6th	**2**	Medical physics	**Heat and cold in medicine**.	Theoretical lecture	**Short daily, mid-term & final exams**
7th	**2**	Medical physics	**Cold in medicine**.	Theoretical lecture	**Short daily, mid-term & final exams**
8	**2**	Medical physics	**Energy, work, and power of the body**.	Theoretical lecture	**Short daily, mid-term & final exams**
9	**2**	Medical physics	**Pressure**	Theoretical lecture	**Short daily, mid-term & final exams**
10	**2**	Medical physics	**The physics of lung**.	Theoretical lecture	**Short daily, mid-term & final exams**
11	**2**	Medical physics	**The breathing mechanism, airway resistance**.	Theoretical lecture	**Short daily, mid-term & final exams**
12	**2**	Medical physics	**Compliance, physics of alveoli**.	Theoretical lecture	**Short daily, mid-term & final exams**
13	**2**	Medical physics	**Major components of the cardiovascular system(CVS)**.	Theoretical lecture	**Short daily, mid-term & final exams**
14	**2**	Medical physics	**Laplace law,Bernoulli's principle ,Viscosity &Poiseuille's law.**	Theoretical lecture	**Short daily, mid-term & final exams**
15			**final exams**		

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	1-Medical physics by John Cameron 2- physics for biology and pre medical students by Burns and McDonald 3-Practical physics by Armitage
Special requirements (include for example workshops, periodicals, IT software, websites)	1-Medical physics by John Cameron 2- physics for biology and pre medical students by Burns and McDonald 3-Practical physics by Armitage
Community-based facilities (include for example, guest Lectures , internship , field studies)	None

13. Admissions	
Pre-requisites	
Minimum number of students	As determined by the University
Maximum number of students	As determined by the University