

الخطة الدراسية لبرنامج الشهادة الجامعية المتوسطة في تخصص تكنولوجيا الأشعة

تتكون الخطة الدراسية لبرنامج الشهادة الجامعية المتوسطة (برنامج السنتين) في تخصص (تكنولوجيا الأشعة) من (72) ساعة معتمدة موزعة على النحو التالي:

الرقم	المتطلبات	عدد الساعات المعتمدة
أولاً	متطلبات الجامعة	12
ثانياً	متطلبات البرنامج	18
ثالثاً	متطلبات التخصص	42
	المجموع	72



الخطة الدراسية

First: University requirements (12 credit hours) as follows:

Course No.	Course Title	Credit Hours	Weekly Contact Hours		Prerequisite
			Theoretical	Practical	
22001101	Arabic Language	3	3	-	
22002101	English Language	3	3	-	
21901100	Islamic Culture	3	3	-	
21702101	Computer Skills	3	1	4	
Total		12	10	4	

Second: Program requirements (18 credit hours) as follow:

Course No.	Course Title	Credit Hours	Weekly Contact Hours		Prerequisite
			Theoretical	Practical	
21301123	Medical physics	3	3	-	
21301131	Biochemistry	2	2	-	
21301132	Biochemistry/ practical	1	-	3	21301131*
21102111	Anatomy	3	3	-	
21102113	Physiology	3	3	-	21102111*
21102115	Medical sociology	3	3	-	
21102117	Medical terminology	3	3	-	
Total		18	17	3	

* Co-requisite



❖ تطبق هذه الخطة الدراسية اعتباراً من بداية العام الجامعي 2009/2008

Third: Specialization Requirements (42 credit hours) as follows:

Course No.	Course Title	Credit Hours	Weekly Contact Hours		Prerequisite
			Theoretical	Practical	
21109151	Patient Care in Radiology Department	3	2	3	
21116231	Radiology Administration	3	3	-	
21109255	Radiographic Pathology and Cross-sectional Anatomy	3	3	-	
21109161	Radiographic Equipment	3	2	3	
21109121	Radiographic Positioning 1	3	3	-	
21109122	Radiographic Positioning 1/ Practical	2	-	6	
21109223	Radiographic Positioning 2	3	3	-	
21109224	Radiographic Positioning 2/ Practical	2	-	6	
21109231	Principles of Exposure	3	3	-	
21109263	Radiation Protection and Quality Assurance	3	2	3	
21109371	Contrast Media Procedures	3	3	-	
21109372	Contrast Media Procedures/ Practical	2	-	6	
21109281	Physics of Advanced Imaging Modalities	3	2	3	
21109261	Radiation Physics	3	3	-	
21109201	Field Training*	3	-	-	
Total		42	29	30	

* Equivalent to 280 training hours



الخطة الاسترشادية

السنة الأولى					
الفصل الدراسي الثاني			الفصل الدراسي الأول		
الساعات المعتمدة	اسم المادة	رقم المادة	الساعات المعتمدة	اسم المادة	رقم المادة
3	Medical Physics	21301123	3	Arabic Language	22001101
2	Biochemistry	21301131	3	English Language	22002101
1	Biochemistry Lab	21301132	3	Computer Skills	21702101
3	Physiology	20602113	3	Medical Sociology	21104215
3	Islamic Culture	21901100	3	Medical terminology	20602117
3	Patient Care in Radiology	21109151		Anatomy	20602111
3	Radiology Administration	21116231			
18	المجموع		18	المجموع	

السنة الثانية					
الفصل الدراسي الثاني			الفصل الدراسي الأول		
الساعات المعتمدة	اسم المادة	رقم المادة	الساعات المعتمدة	اسم المادة	رقم المادة
3	Radiographic Pathology and Cross-sectional Anatomy	21109255	3	Radiation Physics	21116261
3	Physics of Advanced Imaging Modalities	21109281	3	Radiographic Positioning 1	21109121
3	Radiographic Equipments	21109161	2	Radiographic Positioning 1/ Practical	21109122
3	Radiation Protection and Quality Assurance	21109263	3	Radiographic Positioning 2	21109223
3	Principles of Exposure	21109231	2	Radiographic Positioning 2/ Practical	21109224
3	Field Training	21109201	3	Contrast Media Procedures	21109371
			2	Contrast Media Procedures Practical	21109372
18	المجموع		18	المجموع	

❖ تطبق هذه الخطة الدراسية اعتباراً من بداية العام الجامعي 2009/2008

وصف مختصر
لمواد الخطة الدراسية في تخصص تكنولوجيا الأشعة

اسم المادة	رقم المادة	الساعات المعتمدة (نظري، عملي)
لغة عربية	22001101	(0, 3) 3
<p>تتضمن هذه المادة مجموعة من المهارات اللغوية بمستوياتها وأنظمتها المختلفة: الصوتية، والصرفية، والنحوية، والبلاغية، والمعجمية، والتعبيرية، وتشتمل نماذج من النصوص المشرقة: قرآنية، وشعرية، وقصصية، من بينها نماذج من الأدب الأردني؛ يتوخى من قراءتها وتدوقها وتحليلها تحليلاً أدبياً؛ تنمية الذوق الجمالي لدى الطلاب الدارسين.</p>		
English Language	22002101	3 (3-0)
<p>English 1 is a general course. It covers the syllabuses of listening, speaking, reading, writing, pronunciation and grammar, which are provided in a communicative context. The course is designed for foreign learners of the English language, who have had more than one year of English language study. The extension part would be dealt with in the class situation following the individual differences.</p>		
ثقافة إسلامية	21901100	(0, 3) 3
<ol style="list-style-type: none"> 1. تعريف الثقافة الإسلامية وبيان معانيها وموضوعاتها والنظم المتعلقة بها – وظائفها وأهدافها 2. مصادر ومقومات الثقافة الإسلامية والأركان والأسس التي تقوم عليها . 3. خصائص الثقافة الإسلامية . 4. الإسلام والعلم، والعلاقة بين العلم والإيمان 5. التحديات التي تواجه الثقافة الإسلامية . 6. رد الشبهات التي تثار حول الإسلام . 7. الأخلاق الإسلامية والآداب الشرعية في إطار الثقافة الإسلامية 8. النظم الإسلامية . 		
Computer Skills	21702101	3 (1-4)
<p>An introduction to computing and the broad field of information technology is given. Topics covered include the basic structure of digital computer system, microcomputer, operating systems, application software, data communication and networks, and the internet. Hands-on learning emphasizes Windows xp , MS-office2000, and the internet.</p>		

Medical Physics	21301123	3(3,0)
<p>This course is designed to acquaint the students with knowledge about forces and units of forces, energy changes in the body, heat loss from the body, and breathing mechanism. It helps the students acquire knowledge about electric signals of the body, general properties of sound in the body as a drum (percussion in medicine) and vision defects and corrections. Moreover, it makes the students recognize sources of radioactivity, nuclear medicine imaging devices, and the dose in nuclear medicine and therapy with radioactivity.</p>		
Biochemistry	21301131	2(2,0)
<p>Biochemistry course introduces the basic essential information to the college students to know the biomaterials which we deal with during our daily activities, classification, chemical structure, reactions and how the human body metabolizes such biomolecules work.</p>		
Biochemistry/ Practical	21301132	1 (0-3)
<p>This course deals with performing practical applications for the different classes of biomolecules including carbohydrates, lipids and proteins.</p>		
Anatomy	21102111	3(3,0)
<p>The course deals with structural anatomy of the body as a whole to provide the students with knowledge of the structure of the body of the human being. This course deals all the systems of the body in an attempt to make it easy for the paramedical students to recognize the organs of the body.</p>		
Physiology	21102113	3(3,0)
<p>This course is designed to provide the students with the knowledge of the functions performed by the various parts and organs of the human body. It also deals with the integrity of the body systems as a whole to let the student recognize the physiological changes that happen within the human body and how the body systems work.</p>		
علم الاجتماع الطبي	21102115	3(3,0)
<p>يتناول هذا المساق المضمون المعرفي لعلم الاجتماع من حيث الفكر الاجتماعي والرعاية الصحية. فيقدم عرضاً لمفاهيم: الصحة، المرض، الرعاية الصحية، الخدمة الصحية والسلوك المرضي. وكذلك يتناول الدور الذي يمارسه المجتمع في الخدمة الصحية والسياق الاجتماعي للصحة والمرض وانعكاسات مفهوم الصحة والمرض على الخدمات الصحية. ثم يتناول المساق أهم الميادين الدراسية في العلوم الاجتماعية والسلوكية وذلك لفهم السلوك الاجتماعي على المستوى النظري والعملية من التطرق إلى مفاهيم: المعايير، الاتجاهات و القيم.</p>		
Medical Terminology	21102117	3(3,0)
<p>This course is designed to develop a working knowledge of the language of medicine to let students acquire word building skills by learning word roots, suffixes, prefixes and abbreviations. By relating terms to body systems, students should identify the proper use of words in a medical environment. Knowledge of medical terminology enhances the students' ability to communicate and practice his/her work successfully on the purpose of providing health services.</p>		

Patient Care in Radiology Department	21109151	3 (2-3)
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This course covers the general patients care in radiology departments. Moreover, it deals with vital signs, cardiac arrest, accident victims, aseptic techniques, contrast media reactions. It also provides students with some knowledge about methods of sterilization and isolation.

Radiology Administration	21116231	3(3,0)
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This course is a summary of the administrative process and its application on radiology department, its intended to introduce the student to the basis of radiography with emphasis on the usefulness of the early diagnosis in treatment of different diseases, and also introducing the student to the multi-disciplinary effect of radiology with inter relations to other branches of medicine. Also, expressing the role of the radiologist and the radiographer and all personnel contributing to radiology.

Radiographic Pathology	21109255	3(3,0)
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This course is an integrated anatomy course in radiography as it concentrates on the appearances of pathological effects of anatomical radiology. It is aimed to provide students with basic anatomical positions and their normal appearances, also to differentiate between structural and abnormal body tissue. It also enable student to differentiate between structural and functional aspects of diseases, links anatomical structures with its radiological appearances. And give the students an idea about the appearances of the anatomical parts of the body as they correspond to computerized tomography and MRI where body slices are acquired.

Radiographic Equipment	21109161	3 (2-3)
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The aim of this course is to provide the student with the basic essential knowledge about the available equipments in the radiology department including the design and function of these equipments; in addition to their performance and maintenance where possible; and finally to be familiar with the impact of technology on the progress of diagnostic imaging .

Radiographic Positioning 1	21109121	3(3,0)
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Introduces the basic positioning techniques used in radiography of the upper extremities, shoulder girdle, lower extremities and pelvic girdle. Practical sessions includes peer positioning, film critique, anatomical identifications, pathologies and an energized section using phantoms if available.

Radiographic Positioning 1/ Practical	21109122	2 (0-6)
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This course provides the student with practical skills in radiology department which includes taking positioning techniques of the upper extremities, lower extremities and vertebral column. The course deals with the special radiographic position like myelography.

Radiographic Positioning 2	21109223	3(3,0)
<p>This course covers basic positioning of the abdomen and pelvis, skull Para nasal sinuses, facial bones, temporal bone mastoids and mandible with sessions includes peer positioning, film critique, and anatomical identifications.</p>		
Radiographic Positioning 2/ Practical	21109224	2 (0-6)
<p>This course provides the student with practical kills in radiology department which includes taking positioning techniques of the abdomen and pelvis, skull, Para-nasal .sinuses, mastoids and mandible. It provides the student with practical skills including positioning techniques of the chest and bony thorax.</p>		
Principles of Exposure	21109231	3(3,0)
<p>This course is designed to enable students to understand other parts of imaging system including intensifying screens, image intensifier, expose students to different types of radiographic techniques such as fluoroscopy, tomography, stereo radiography, magnification radiography and others.</p>		
Radiation Protection and Quality Assurance	21109263	3 (2-3)
<p>This course is introductory to the basis of radiobiology & radiation protection emphasizing on diagnostic & nuclear medicine. It is designed to provide students with basic knowledge required to minimize excessive radiation exposure to patients, public and operators, expose students to various radiation effects and enabling the students to understand the radiation units and the main difference between them. It also provides the student with the basic knowledge about the concept of quality assurance & control, and their benefits.</p>		
Contrast Media Procedures	21109371	3(3,0)
<p>The course is concentrating on radiographic Procedures that need contrast media and special preparation & techniques. It provides the Students with knowledge of various types of contrast media used in radiology department, and the adverse reaction of all types of contrast media with special preparation for each radiographic procedure, indication and contraindications of each procedure and taking care of the patient after the end of the procedure.</p>		
Contrast Media Procedures/ Practical	21109372	2 (0-6)
<p>This course provides the student with practical kills in radiology department which includes taking the radiographic procedure that need contrast media and special preparation & techniques also exposing students to various types of contrast media needed in radiology department and apply the adverse reaction of all types of contrast media with special preparation for each radiographic procedure, also enabling student to practice the required care after procedure.</p>		

Physics of Advanced Imaging Modalities	21109281	3 (2-3)
<p>This course is designed to provide the students with the physical Principles of CT, MRI, and NMR, also it allows students to know major configuration of these units to obtain high quality images and to understand the safety measures of these systems.</p>		
Radiological Physics	21116261	3(3,0)
<p>This course is designed to provide students with basic physics of radiology implementing both theoretical and practical applications of physics in X-ray machines. Also to understand and implement the safety measures of radiation and electricity.</p>		
Field Training	21109201	3 (140 training hours)
<p>Provides students with practical skills in radiology department which includes applications of equipment manipulation and operation, radiological imaging procedures of upper extremities, shoulder girdle, lower extremities and pelvic girdle. It also provides students with knowledge about radiation protection, record keeping and patient care.</p>		

