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| http://faculty.ksu.edu.sa/images/spacer.gif |

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| **COURSE SPECIFICATION** **RAD Course 365**(Radiology)   **Course Specification***For Guidance on the completion of this template, please refer to          of Handbook 2  Internal Quality Assurance Arrangements*

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| Institution    **King Khalid University Hospital, King SaudUniversity**                  |
| College/Department     **Radiology and Medical Imaging** |

**A Course Identification and General Information**

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| 1.  Course title and code:  **RAD Course 365 (Diagnostic Radiology for Medical Students** |
| 2.  Credit hours:      **2 hours** |
| 3.  Program(s) in which the course is offered.(If general elective available in many programs indicate this rather than list programs)**Medical  Students (Female & Male)**  |
| 4.  Name of faculty member responsible for the course**DR. HAMDY HASSAN / RAD Course 365 Organizer  and all teaching staff** |
| 5.  Level/year at which this course is offered**Level 3– 3rd Year**  |
| 6.  Pre-requisites for this course (if any) **None**  |
| 7.  Co-requisites for this course (if any)**None** |
| 8.  Location if not on main campus**None** |

 **B  Objectives**

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| 1.  Summary of the main learning outcomes for students enrolled in the course.* **Identify radiological anatomy for different body parts;**
* **Select and recommend the appropriate radiological examination for the common clinical problems that need imaging evaluation ;**
* **Recognize the imaging findings in common diseases on the different imaging modalities;**
* **Correlate the imaging findings with the clinical findings;**
* **Explain and discuss the steps of radiological examinations including patient preparation.**
* **Identify the indications and contraindications for the different radiological examinations**

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| 2.  Briefly describe any plans for developing and improving the course that are being implemented.  (eg increased use of IT or web based reference material, changes in content as a result of new research in the field)* **Supplement the students with reading materials, for their additional information.**
* **Additional tutorials or lectures to be given by the teaching staff to give the student more         information and knowledge about Radiology.**

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**C.  Course Description** (Note:  General description in the form to be used for the Bulletin or Handbook should be attached)

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| 1 Topics to be Covered**1st Semester** |
| Topic | No ofWeeks | Contacthours |
| **1.  Introduction to Medical** | **1** | **1** |
| **2.  Thoracic Imaging** | **1** | **1** |
| **3.  Gastro\_enterology (GIT)** | **1** | **1** |
| **4.  Genito-Urinary (GUT)** | **1** | **1** |
| **5. Nuclear Medicine** | **1** | **1** |
| **6. Vascular/Interventional Radiology** | **1** | **1** |
| **7. Muskuloskeletal Imaging** | **1** | **1** |
| **8. Neuroradiology and Head and Neck Imaging** | **1** | **1** |
| **9. Breast Imaging** | **1** | **1** |
| **10. Safety and Risk Management** | **1** | **1** |
| **2nd Semester** |  |  |
| **1.  Interpretation of Acute Injury of Head and Spine** | **1** | **1** |
| **2.  Investigation of CNS-Part 1** | **1** | **1** |
| **3.  Investigation of CNS-Part 2** | **1** | **1** |
| **4.  Interpretation of CNS** | **1** | **1** |
| **5.  Case Discussion (CNS)** | **1** | **1** |
| **6.  Anatomy of Chest Film** | **1** | **1** |
| **7.  Investigation of Respiratory System & CVS- Part 1** | **1** | **1** |
| **8.  Investigation of Respiratory System & CVS Part 2** | **1** | **1** |
| **9.  Case Discussion (Chest)** | **1** | **1** |
| **10. Vascular and Interventional Radiology 1** | **1** | **1** |
| **11. Vascular and Interventional Radiology** | **1** | **1** |
| **12. Breast** | **1** | **1** |
| **13.  Safety  and Risk Management** | **1** | **1** |

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| 2 Course components (total contact hours per semester):Lectures:  **10 hours /1st semester; ( 3hrs/ week)**Laboratory **:  n/a****13hours/2nd semester, (3hhrs/week)** |

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| 3. Additional private study/learning hours expected for students per week. (This should be an average: for the semester not a specific requirement in each week)**2 hours/week** |

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| 4. Development of Learning Outcomes in Domains of Learning For each of the domains of learning shown below indicate:         **The syllabus in RAD Course 365 is intended to be a guide, which will help students to achieve the expected level of knowledge on this course.**         **It is designed to extend the student’s knowledge of radiology, so as to enable them to understand the diagnostic value of radiology in Clinical Medicine.**  |
| **a.  Knowledge** |
| (i)                   Description of the knowledge to be acquired         **The course is given throughout the academic year.  The students are taught the basic imaging principles, radiological techniques, radiological anatomy, radiological findings in common diseases and role of various imaging modalities including plain film, contrast studies, Ultrasound, Computed tomography, Magnetic Resonance Imaging, Isotope Imaging, Angiography and Interventional Radiology in patient Management.**          **The course aims to allow students to identify radiological anatomy of different body system in their way to enable them to build up basic knowledge of radiological pathology identification.  In addition to this, diagnostic capabilities and limitations are highlighted.** |
| (ii)  Teaching strategies to be used to develop that knowledge          **Lectures**          **Continuous Exams**  |
| (iii)  Methods of assessment of knowledge acquired               **Continuous Assessment and Final Exam (Single Best Answer & MCQ)** |

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| **b.  Cognitive Skills** |
| (i)  Cognitive skills to be developed             **Through  lectures, the students will be able to apply the knowledge at the end of the course to correlate the imaging findings with the clinical findings.**             **The students will be able to identify the different radiological examinations**             **To get an idea regarding radiology and Medical Imaging.**  |
| (ii)  Teaching strategies to be used to develop these cognitive skills               **Lectures** |
| (iii)  Methods of assessment of students cognitive skills         **Written Exams** |
| **c. Interpersonal Skills and Responsibility** |
| (i)  Description of the interpersonal skills and capacity to carry responsibility to be developed                Not applicable  |
| (ii)  Teaching strategies to be used to develop these skills and abilities               **Lectures**  |
| (iii)  Methods of assessment of students interpersonal skills and capacity to carry responsibility                   **Class attendance of students at the beginning of the lecture is recoded.**                   **Through continuous examinations**  |
| **d.   Communication, Information Technology and Numerical Skills** |
| (i)  Description of the skills to be developed in this domain.                   **Not applicable** |
| (ii)  Teaching strategies to be used to develop these skills                     **Through oral communications and/or discussion, students participation during lectures.** |
| (iii)  Methods of assessment of students numerical and communication skills                     **Through students examination scores in all tests.**                       |
| **e.  Psychomotor Skills (if applicable)** |
| (i)  Description of the psychomotor skills to be developed and the level of performance required**Not applicable.** |
| (ii)  Teaching strategies to be used to develop these skills       **Not applicable** |
| (iii)  Methods of assessment of students psychomotor skills**Not applicable** |

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|  5. Schedule of Assessment Tasks for Students During the Semester  |
| Assessment | Assessment task  (eg. essay, test, group project, examination etc.) | Week due | Proportion of Final Assessment |
| 1  | **Exam – 1st Continuous Assessment (CAT1)** | **After 8 weeks****(as scheduled)** | **15%** |
| 2  | **Exam – Midterm** | **After 13 weeks****(as scheduled)** | **35%** |
| 3  | **Exam – 2nd Continuous Assessment (CAT II)** | **After 22 weeks****(as scheduled)** | **15%** |
| 4  | **Exam – Final Exam** | **After 28 weeks****(as scheduled)** | **35%** |
| **MCQ and image-based MCQ questions all are single best answer with no negative marks** |

**D. Student Support**

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| 1. Arrangements for availability of faculty for individual student consultations and academic advice. (include amount of time faculty are available each week)                   **Course Organizer and all the teaching staff are available to assist and support the students if they have any questions or inquiries.** |

**E Learning Resources**

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| 1. Required Text(s):

 **DIAGNOSTIC IMAGING (5th Edition)****By:   Peter Armstrong, Martin Wastie, Andrea Rockall****Publisher:  Blackwell Publishing, Inc.**  |
| 2. Essential References**DIAGNOSTIC IMAGING (5th Edition)****By:   Peter Armstrong, Martin Wastie, Andrea Rockall****Publisher:  Blackwell Publishing, Inc.** |
| 3- Recommended Books and Reference Material (Journals, Reports, etc) (Attach List)                   **Medical Imaging** by Peter Scally, Published by Oxford UniversityPress, ISVN 019-263056-3                   **Imaging Atlas of Human Anatomy** by Jamie Weir and Peter H. Abrahams, published by MOSBY, ISBN 0-7234-3294-5  |
|  4-.Electronic Materials, Web Sites et**File of Images for Radiology Education (FIRE)**               http://brighamrad.harvard.edi.fire/ **File of Images for Radiology Education (FIRE)**http://brighamrad.harvard.edu/fire/ **Finding-the-Path**http://brighamrad.harvard.edu/education/online/ftp/FTP.html **Eurorad**www.eurorad.org/eurorad/newsletter.php **Wayne State University Radiology Teaching File**www.med.wayne.edu/diagRadiology/TeachingFile.html **Learning radiology**www.learningradiology.com **Radiology education**www.radiologyeducation.com/ **University of Virginia Health Sciences Center**http://www.med-ed.virginia.edu/courses/rad/ **University of Toronto**http://icarus.med.utoronto.ca/imaging/  |
| 5- Other learning material such as computer-based programs/CD, professional standards/regulations                    **Computers are available with an internet access in the Main Library of the University where the students could access anytime within the hospital working hours.**  |

**F. Facilities Required**

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| Indicate requirements for the course including size of classrooms and laboratories (ie number of seats in classrooms and laboratories, extent of computer access etc.) |
|  **Lecture Theaters –capacity 150seats****Lecture rooms are equipped with a white board, overhead projector, and computer connection.**   |
| 2. Computing resources                  Not applicable    |
| 3. Other resources (specify --eg. If specific laboratory equipment is required, list requirements or attach list)               Not applicable    |

 **G   Course Evaluation and Improvement Processes**

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| 1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching                    Not applicable  |
| 2  Other Strategies for Evaluation of Teaching by the Instructor or by the Department                    Not applicable |
| 3  Processes for Improvement of Teaching                      Not applicable   |
| 4. Processes for Verifying Standards of Student Achievement (eg. check marking by an independent faculty member of a sample of student work, periodic exchange and remarking of a sample of assignments with a faculty member in another institution)                      **The Course Organizer ensure that the matters pertaining to the course, will be discussed through Departmental meeting, such as students achievement (marks/score) during the exams, since the marks of the students will be submitted at the end of each academic year to Vice Dean of the College.** |
| 5  Describe the  planning arrangements for periodically reviewing course effectiveness and planning for improvement. |

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