Appendix III

Bachelor of Science Degree Program in Radiologic Sciences

Undergraduate Courses (Four Years – 120 Credits)

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| Core Liberal Art Courses - 42 Credits |
|  Course Code |  **Course Name** |  **Credit Number** |
| UNI 101 | First-Year University Experience  | 3 |
| ENL 101 | Expository Writing | 3 |
| BIO 101 | Introductory Biology  | 3 |
| PHI 101 | Introduction to Ethics | 3 |
| CSC 101 | Introduction to Computer Science  | 3 |
| MAT 102 | Pre-calculus | 3 |
| PHY 100 | Conceptual Physics | 3 |
| HIS 201 | Iraqi Studies  | 3 |
| HIS 101 | Civilizations and History I  | 3 |
| ENL 210 | Academic Writing | 3 |
| ENL 201 | Introduction to Public Speaking | 3 |
| MIS 101 | Introduction to Management Information Systems | 3 |
| SOC 101 | Introduction to Sociology  | 3 |
| PSY 101 | Introduction to Psychology | 3 |
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| College Requirements – 24 Credits |
| HCT 101 | Fundamentals of Healthcare Professions | 3 |
| PHY 241 | Medical Physics and Dosimetry | 3 |
| BIO 217 | Human Anatomy and Physiology | 3 |
| BIO 217L | Human Anatomy and Physiology Laboratory | 1 |
| BIO 218 | Pathophysiology  | 3 |
| BIO 210  | Biostatistics and Epidemiology | 3 |
| HCT 209 | First aid and Basic Life Support | 1 |
| HCT 4XX | Technical Elective  | 3 |
| HCT 331 | Critical Appraisal Course | 1 |
| HCT 4XX | Technical Elective  | 3 |
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| Core Requirements – 54 Credits |
| RAD 101 | Introduction to Radiologic Sciences | 3 |
| HCT 207 | Introduction to Radiation Protection | 1 |
| RAD 201 | Medical Imaging Systems I | 3 |
| RAD 210 | Contrast Agents and Radiopharmaceuticals | 3 |
| RAD 301 | Medical Imaging Systems II | 3 |
| RAD 305 | Imaging Procedures I | 3 |
| RAD 305L | Imaging Procedures I Lab  | 1 |
| RAD 310 | Radiographic Anatomy and Pathology I  | 3 |
| RAD 315 | Legal and Ethical Issues in Radiologic Sciences | 1 |
| RAD 355 | Imaging Procedures II | 3 |
| RAD 355L | Imaging Procedures II Lab | 1 |
| RAD 362 | Clinical Best Practice | 1 |
| RAD 365 | Introduction to Radiation Therapy | 3 |
| RAD 370 | Computer Applications in Medical Imaging | 3 |
| RAD 370L | Computer Applications in Medical Imaging Lab | 1 |
| RAD 405 | Imaging Procedures III | 3 |
| RAD 405L | Imaging Procedures III Lab | 1 |
| RAD 410 | Special Topics in Radiological Sciences | 1 |
| RAD 420 | Radiology Quality Assurance Laboratory | 1 |
| RAD 450 | Practicum II: Internship in Clinical Imaging | 3 |
| RAD 390 | Practicum I: Internship in Clinical Imaging | 2 |
| RAD 450 | Radiographic Anatomy and Pathology II | 3 |
| RAD 480 | Radiology information systems | 1 |
| RAD 490 | Practicum III: Internship in Clinical Imaging | 3 |
| RAD 460 | Nuclear Medicine Imaging | 3 |

Recommended sequence of courses:

**YEAR I – Freshman Courses (30 Credit Hours)**

**Spring Pre-1 Semester:**

First-Year University Experience (3 Credits)

Expository Writing (3 Credits)

Introductory Biology (3 Credits)

Introduction to Ethics (3 Credits)

Fundamentals of Healthcare Professions (3 Credits)

**Total: 15 Credits**

**Fall Pre-1 Semester:**

Introduction to Computer Science (3 Credits)

Pre-calculus (3 Credits)

Conceptual Physics (3 Credits)

Introduction to Sociology (3 Credits)

Introduction to Radiologic Sciences (3 Credits)

**Total: 15 Credits**

**YEAR II – Sophomore Courses (29 Credit Hours)**

**Spring– Pre2 Semester:**

Civilizations and History I (3 Credits)

Academic Writing (3 Credits)

Introduction to Radiation Protection (1 Credit)

Medical Physics and Dosimetry (3 Credits)

Human Anatomy and Physiology (3 Credits)

Human Anatomy and Physiology Laboratory(1 Credit)

**Total: 14 Credits**

**Fall Pre-2 Semester:**

Introduction to Public Speaking (3 Credits)

Pathophysiology (3 Credits)

Biostatistics and Epidemiology (3 Credits)

Medical Imaging Systems I (3 Credits)

Contrast Agents and Radiopharmaceuticals (3 Credits)

**Total: 15 Credits**

**YEAR III – Junior Courses (30 Credit Hours)**

**Spring P1- Semester:**

 Introduction to Sociology, (3 Credits)Medical Imaging Systems II (3 Credits)

Imaging Procedures I (3 Credits)

Imaging Procedures I Lab (1 Credit)

Radiographic Anatomy and Pathology I (3 Credits)

Legal and Ethical Issues in Radiologic Sciences (1 Credit)

First aid and Basic Life Support (1 Credit)

**Total: 15 Credits**

**Fall P1- Semester:**

Introduction to Management Information Systems (3 Credits)

Imaging Procedures II (3 Credits)

Imaging Procedures II Lab (1 Credit)

Clinical Best Practice (1 Credit)

Introduction to Radiation Therapy (3 Credits)

Computer Applications in Medical Imaging (3 Credits)

Computer Applications in Medical Imaging Lab (1 Credit)

**Total: 15 Credits**

**Summer Semester Year III:**

Practicum I: Internship in Clinical Imaging (3 Credits)

**Total: 3 Credits**

**YEAR IV – Senior Courses (30 Credit Hours)**

**Spring P2- Semester:**

Technical Elective (3 Credits)

Imaging Procedures III (3 Credits)

Imaging Procedures III Lab (1 Credit)

Special Topics in Radiological Sciences (1 Credit)

Radiology Quality Assurance Laboratory (1 Credit)

Practicum II: Internship in Clinical Imaging (3 Credits)

Critical Appraisal (1 Credit)

**Total: 13 Credits**

**Fall P2- Semester:**

Introduction to Psychology (3 Credits)

Technical Elective (3 Credits)

Radiographic Anatomy and Pathology II (3 Credits)

Radiology Information Systems (1 Credit)

Practicum III: Internship in Clinical Imaging (3 Credits)

Nuclear Medicine Imaging (3 Credits)

**Total: 16 Credits**

**Technical Electives:**

Leadership in Healthcare (3 Credits)

Health Informatics (3 Credits)

Marketing in the Healthcare sector (3 Credits)

Introduction to Clinical Research (3 Credits)