COURSE INFORMATION

Course Prefix/Number: RAD 135
Course Title: Computed Tomography Body and Musculoskeletal Protocols
Lecture Hours/Week: 2.0
Lab Hours/Week: 0.0
Credit Hours/Semester: 2.0

VA Statement/Distance Learning Attendance
Textbook Information
Student Code and Grievance Policy
Attendance Statement (3-30-4000.1)

COURSE DESCRIPTION

This course provides the basic imaging protocols and patient positioning for CT exams of the abdomen, pelvis, and musculoskeletal system. Case studies including anatomy and pathology of the abdomen, pelvis, and extremities will be explored.

COURSE COMPETENCIES

Module 1: Head and Neck
- Identify required patient positioning for standard exams in the body region.
  - Describe protocols required for standard exams in the body region
- Identify common pathologies in the body region:
  - Cranial Nerves
  - Internal Auditory Canal
  - Temporal Bones
  - Pituitary
  - Orbits
  - Sinuses
  - Maxillofacial
  - Temporomandibular Joint
  - Posterior Fossa
  - Brain
  - Cranium
  - Vascular
  - Larynx
  - Soft Tissue Neck
  - Vascular

Module 2: Chest
- Categorize Contrast Media - types of agents, indications, contraindications, dose calculation, administration route, scan/prep delay, (e.g., bolus timing, test bolus)
- Distinguish Imaging Processes - isocentric positioning, scout, acquisition methods (e.g.,
volumetric, axial or sequential), parameter selection, (e.g., image thickness, mA, time, algorithm, pitch), protocol modification for pathology or trauma

- Identify required patient positioning for standard exams in the body region.
  - Describe protocols required for standard exams in the body region
- Identify common pathologies in the body region.
  - Mediastinum
  - Lung
  - Heart
  - Airway
  - Vascular

**Module 3: Abdomen and Pelvis**
- Identify required patient positioning for standard exams in the body region.
  - Describe protocols required for standard exams in the body region
- Identify common pathologies in the body region.
  - Liver
  - Biliary
  - Spleen
  - Pancreas
  - Adrenals
  - Kidneys and/or Ureters
  - GI Tract
  - Vascular
  - Bladder
  - Colorectal
  - Reproductive Organs
  - Vascular

**Module 4: Musculoskeletal**
- Identify required patient positioning for standard exams in the body region.
  - Describe protocols required for standard exams in the body region
- Identify common pathologies in the body region.
  - Upper Extremity
  - Lower Extremity
  - Spine
  - Pelvis and/or Hips
  - Shoulder Girdle
  - Sternum and/or Ribs
  - Vascular
  - Post Myelography
  - CT Arthrography
  - Diskography

**METHODS OF INSTRUCTION**
Principles will be introduced by the instructor through the use of the learning management system via power points, outlines, computer-based lessons and modules, class discussion board, drop-box assignments and videos.
PERFORMANCE OBJECTIVES/MINIMAL STANDARDS

Performance objectives for each topic (unit) are included in this syllabus. A minimum grade of 80% is required to pass the course (See Grading Procedures).

COURSE REQUIREMENTS

All students are responsible for attaining competencies though the completion of the following course requirements:

- Participating in all class assignments (ex. Discussion board, drop-box, etc.)
- Completing online learning modules
- Reading all assigned materials as listed in the course calendar
- Completing all quizzes and tests as scheduled as scheduled in the course calendar.

Academic Integrity

The policies stated in the York Technical College Handbook will be enforced. Any student violating these policies will be subject to academic discipline.

GRADING PROCEDURES

Tests are to be taken on or before the assigned dates as listed on the course calendar. Each test is only taken once and will be timed. Tests will not be open to the student until other unit assignments are complete. Semester objectives will include attendance and drop-box assignments. Unit tests and the final exam will make up the remainder of the course grade. Students achieving a 93% average or above will be exempt from the final exam but still need to complete it for registry practice. A grade of “C” or better is required to receive credit for the program.

As with all RAD courses, the grading scale is as follows:

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<thead>
<tr>
<th>Grade</th>
<th>Range</th>
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<tbody>
<tr>
<td>A</td>
<td>93 - 100</td>
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<tr>
<td>B</td>
<td>86 - 92</td>
</tr>
<tr>
<td>C</td>
<td>80 - 85</td>
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<td>D</td>
<td>70 - 79</td>
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<td>F</td>
<td>Below 70</td>
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ENTRY LEVEL SKILLS

A student entering this course must be enrolled in the Certificate in Computed Tomography Program.

PREREQUISITES

Prerequisite: Admission to CT program or permission of program coordinator

CO-REQUISITES

RAD 145, RAD 140
DISABILITIES STATEMENT

Any student who feels s/he may need an accommodation based on the impact of a disability should contact the Special Resources Office (SRO) at 803-327-8007 in the 300 area of Student Services. The SRO coordinates reasonable accommodations for students with documented disabilities.