New Course Request

Indiana University

IPFW

Check Appropriate Boxes: Undergraduate credit [✓] Graduate credit [✓] Professional credit [✓]

1. School/Division: College of Health and Human Services
   2. Academic Subject Code: ________________________________

3. Course Number: RADX-R215 (must be cleared with University Enrollment Services)
   4. Instructor: Radiography faculty

5. Course Title: Medical Imaging Modalities
   Recommended Abbreviation (Optional): ________________________________
   (Limited to 32 Characters including spaces)

6. First time this course is to be offered (Semester/Year): Fall 2011

7. Credit Hours: Fixed at ______ or Variable from ______ to ______

8. Is this course to be graded S-F (only)? Yes [✓] No [ ]

9. Is variable title approval being requested? Yes [✓] No [ ]

10. Course description (not to exceed 50 words) for Bulletin publication: Introduction to current and emerging advanced imaging and therapeutic modalities in the radiologic sciences. Diagnostic and therapeutic modalities utilizing contrast media will be explored. Analysis of indications and contraindications for specific procedures based on pathology and patient condition.

11. Lecture Contact Hours: Fixed at ______ or Variable from ______ to ______

12. Non-Lecture Contact Hours: Fixed at ______ contact/credit or Variable from ______ to ______

13. Estimated enrollment: ______ of which ______ percent are expected to be graduate students.

14. Frequency of scheduling: ______ Will this course be required for majors? Yes [✓] No [ ]

15. Justification for new course: ______ content currently taught in other courses combined and expanded to meet professional curriculum

16. Are the necessary reading materials currently available in the appropriate library? Yes [✓] No [ ]

17. Please append a complete outline of the proposed course, and indicate instructor (if known), textbooks, and other materials.

18. If this course overlaps with existing courses, please explain with which courses it overlaps and whether this overlap is necessary, desirable, or unimportant

19. A copy of every new course proposal must be submitted to departments, schools, or divisions in which there may be overlap of the new course with existing courses or areas of strong concern, with instructions that they send comments directly to the originating Curriculum Committee. Please append a list of departments, schools, or divisions thus consulted.

Submitted by:

Date: 2/11/11

Dean of Graduate School (when required)

Date: _____________________________

Approved by:

Date: _____________________________

Dean

Date: _____________________________

Chancellor/Vice-President

Date: _____________________________

University Enrollment Services

After School/Division approval, forward the last copy (without attachments) to University Enrollment Services for initial processing, and the remaining four copies and attachments to the Campus Chancellor or Vice-President.

University Enrollment Services Final-White; Chancellor/Vice-President-Blue; School/Division-Yellow; Department/Division-Pink, University Enrollment Services Advance-White

Reset
COURSE TITLE: Medical Imaging Modalities

COURSE NUMBER: RADX-R215

INSTRUCTOR: Radiography Faculty

COURSE DESCRIPTION: Introduction to advanced imaging and therapeutic modalities in diagnostic radiology including computed tomography, magnetic resonance, and diagnostic and interventional procedures requiring the use of contrast media. Diagnostic and interventional procedures of all body systems as well as indications and contraindications for each will be discussed.


COURSE OBJECTIVES:

The student will be able to:

1. Describe various types of contrast media in terms of indications, contraindications, patient precaution measures, administration, adverse and allergic reactions.
2. List the treatments for each contrast media effect and reaction.
3. Describe the considerations, types, methods of administration, and adverse reactions of local anesthesia.
4. Describe the anatomical structures, functions, and common pathologies of the systems involved.
5. Describe for each Specialized Procedure in terms of the following: exam indications, patient preparation and care, set-up of tray, equipment and accessories, type and amount of contrast media, type and amount of local anesthesia, major structures identified, and the criteria for an acceptable exam.
6. Given radiographs or diagrams of the above Specialized Procedures, name the projection, identify the indicated anatomical structures and evaluate the radiograph in terms of positioning accuracy, image quality, and pathological variances.
7. Given a clinical simulation, perform various tasks such as patient preparation and care, sterile set-up of tray or pack, equipment and accessories, and the selection and administration of contrast media and local anesthesia for the above Specialized Procedures.
8. Given a clinical simulation, perform the film sequencing, positioning and centering of the patient, CR and imaging modality, patient history, and selection of exposure factors, collimation, and marker placement for specialized procedures.
9. Given a clinical simulation, demonstrate proper surgical asepsis in scrubbing, gowning, closed gloving, handling of instruments, and maintenance of the sterile area while assisting an angiographic procedure.
10. Given a clinical simulation, demonstrate how to perform the Seldinger Technique.
COURSE OUTLINE:

CONTRAST MEDIA AND LOCAL ANESTHESIA
  Orientation/Contrast Media Terms
  Contrast Media Ingestables
  Contrast Media Injectables
  Contrast Media Injectables
  Local Anesthesia

MISCELLANEOUS SPECIALIZED PROCEDURES
  Arthrography
  Myelography
  Sialography/Darcreycystography

GENITOURINARY SYSTEM/ RESPIRATORY SYSTEM
  Voiding Cystourethrography
  Hysterosalpingography
  Respiratory Procedures/ Review

BILIARY SYSTEM/ DEFECOGRAPHY
  Biliary System
  Defecography

CIRCULATORY SYSTEM I
  Venography
  Lymphography

CIRCULATORY SYSTEM II
  Cerebral Angiography
  Thoracic/Pulmonary Angiography
  Abdominal Angiography/Peripheral Angiography
  Cardiac Catheterization
  Pacemakers

INTERVENTIONAL RADIOGRAPHY
  Vascular/Pulmonary Studies
  Biliary/Urinary/Abdominal Studies
  Pelvic/Breast/ Vertebral Studies