RADIATION TECHNOLOGY/IMAGING INFORMATICS (RTII)

Courses

RTII 354. Introduction to Informatics. 3 Units.
Provides students with a challenging introduction to and basic overview of computer fundamentals. Offers in-depth insight into the components that comprise a picture-archiving and communication system (PACS), including but not limited to basic terminology, computed radiography, digital radiography, hospital information systems, radiology information systems, DICOM, and HL-7. Online instruction utilizing Blackboard exposes students to topics via reading, PowerPoint, videos, and other interactive resources. Challenges students to demonstrate critical problem-solving skills required to create and design basic models of a PACS system, as well as to troubleshoot issues related to such systems.

RTII 356. Information Technology in Radiology. 3 Units.
Introduces the basic principles behind developing and maintaining a network within a radiology health care enterprise. Topics include, but are not limited to: basic terminology, network components, network design and implementation, storage and archive assessment, hard- and software implementation databases, IT standards, and IT replacement schedules. Online instruction utilizing Blackboard exposes students to topics via reading, PowerPoint, videos, and other interactive resources. Challenges the student to create and design basic models of a network. Requires the student to demonstrate the critical problem-solving skills required to troubleshoot issues in a network.

RTII 358. PACS Planning and Implementation. 3 Units.
Studies the steps needed to successfully procure a picture-archiving and communications system (PACS) in a radiology department of any size. Focuses on organizational readiness, proposal requests, vendor selection, contracts, and cost strategies. Online instruction utilizing Blackboard, group discussions, and various online learning mediums challenge students to demonstrate not only critical-thinking skills in the planning environment, but also team-building and project management abilities. Includes two major projects.

RTII 364. Administrative Issues in Informatics. 3 Units.
Focuses on issues in informatics faced by a picture-archiving and communications system (PACS) administrator. Facilitates understanding of the architecture of a PACS and the details of running the business aspects of such a system. Topics include, but are not limited to: project management, operations management, relationships in health care, quality-improvement procedures, emergency protocols, and compliance with federal regulations.

RTII 368. Communication and Education in Imaging Informatics. 3 Units.
Focuses on the basic communication skills a picture-archiving and communications systems (PACS) administrator should possess. Topics include, but are not limited to: relationships in health care, medical terminology, educational concerns, feedback mechanisms, evaluation processes, effective communication, and quality education and training programs. Online instruction utilizes Blackboard, text, video, PowerPoint, and other interactive online resources.

RTII 374. Image Management in Informatics. 3 Units.
Focuses on basic image-management tasks that a picture-archiving and communications system (PACS) administrator must complete on a daily basis. Topics include but are not limited to: environmental design, human-computer interface evaluation, database retrieval, and problem solving. Online instruction using Blackboard incorporates text, video, PowerPoint, and other interactive resources.

RTII 378. Systems Management in Informatics. 3 Units.
Focuses on basic systems management tasks that a picture-archiving and communications system (PACS) administrator must complete on a daily basis. Topics include but are not limited to: capacity and throughput, disaster recovery and continuity, problem management, data migration, and data security. Online instruction using Blackboard incorporates text, video, PowerPoint, and other interactive resources.

RTII 384. Advanced Imaging Informatics. 3 Units.
An in-depth study of the advanced imaging informatics skills required of a picture-archiving and communications system (PACS) administrator. Topics include but are not limited to: medical imaging standards, integrated health care, enterprise guidelines, image architecture and design, modality integration, quality control, and environmental hazards. Online instruction using Blackboard incorporates text, video, PowerPoint, and other interactive resources.