

# Reading Hospital School of Health Sciences Medical Imaging Program

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MI 110: Introduction to Medical Imaging  
Unit 1 – Additional Opportunities In Medical Imaging

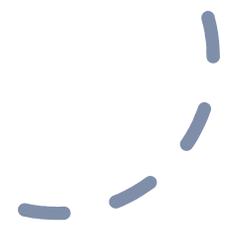
Ms. Shartle M.S. R.T. (R) (ARRT)

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## Additional Opportunities

- Registered Radiologist Assistant
- Education
- Administration
- Quality Management
- Commercial Firms
- PACS/ Imaging Informatics



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## Registered Radiologist Assistant (RRA)

**Advanced level radiographer who extends the capacity of the Radiologist**

- **Requirements**

- ARRT certified radiologic technologist
  - 1-year full time Radiography experience
- Completion of advanced academic program encompassing nationally recognized RA curriculum
- ARRT offers post-primary certification for RA (Registered Radiologist Assistant)
  - R.R.A., R.T.(R)(ARRT)



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## Education

- **Mentor/ Preceptor**
  - Staff technologist works one on one in clinical setting
- **Clinical Instructor**
  - School faculty works one-on-one in the clinical setting but can also teach didactically
- **Didactic Faculty Member**
  - School faculty teaches classroom lectures
- **Clinical Coordinator**
  - Teaching responsibilities
  - Administrative duties - Oversees clinical education
- **Program Director**
  - Teaching/Overall administrative responsibilities for entire program



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## Administration

- Management of radiology services within an organization
- Directors, administrators, supervisors, chief/ lead technologists
- Experience and advanced course work in management desirable
  - Usually, will require a bachelor degree to be eligible



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## Quality Management



- Data collection and monitoring of radiologic quality
  - Handle problems associated with medical images and processes
- Training varies from physicist to on the job depending on role
  - Physics of equipment
  - Quality of images
  - PACS support
  - Administration of processes
- QM boards were issued beginning 1997 but not after 2018 due to implementation of digital imaging
  - Credentials were: RT(R)(QM)(ARRT)

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## Quality Management

### Quality Assurance

- Assesses everything that affects patient care
  - Patients, Customer Service, Image interpretation, Accuracy of diagnosis, Timeliness of reports, Education, Scheduling
- Ensures that the department is consistently delivering high-quality care and images
- Process consists of: Identifying problems, monitoring problems and resolving problems

### Quality Control

- Specific to equipment and it's safe/reliable operation
  - Monitors technical equipment
    - Equipment testing
    - Routine equipment evaluation
- Ensures that the radiologist are provided with great images through good equipment performance

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## Benefits of QM within Radiology

- Patient safety
- Radiation safety
- Reduce the number of repeat exposures
- Consistent image quality
- Reduce patient dose
- Reduce patient waiting time
- Reduce equipment downtime
- Reduce supply costs – cost effectiveness
- Increase departmental morale
- Increase confidence

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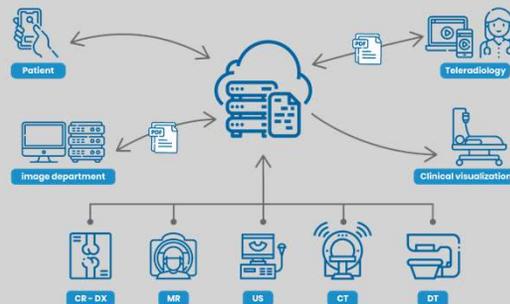
## Commercial Firms

- Companies need sales representatives with technical knowledge and the ability to sell
- Selling of x-ray equipment, film, processing equipment, chemicals and supplies
- Applications/ Technical Specialists
  - Train staff at the sites
- Requirements
  - Bachelors Degree
  - Travel

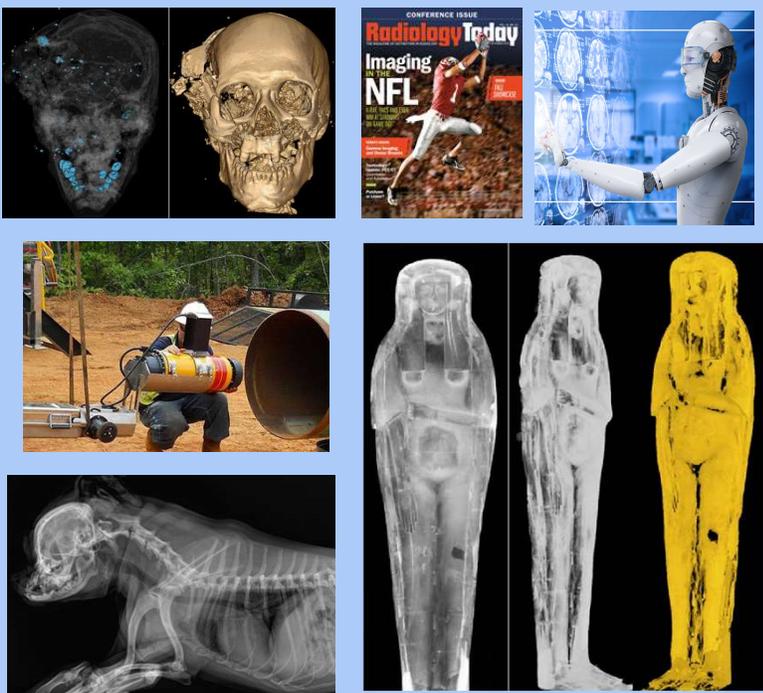
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## PACS Administration/ Imaging Informatics

- Picture Archive Communication System
- Digital storehouse where radiology information is stored
- 1982 1<sup>st</sup> large scale system
- Oversees equipment maintenance and systems testing, upgrading, and installing



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## Other Options in Radiology ...

- Physics
- Research
- Industrial
- Forensics
- Archaeological
- Veterinary
- Sports Medicine
- Prison/Jails