10 Week Online Course

Course Schedule

Week 1

Patient Care and Screening Contrast Administration and Safety

Week 2

Instrumentation

Week 3

Basic Principles of MRI

Week 4

Contrast and Imaging Weighting

Week 5

Intro. To Conventional Spin Echo and Gradient Echo Sequences

Spatial Encoding and K – Space

Week 6

Parameters and Tradeoffs

Week 7

Types of Pulse Sequences

Week 8

Flow Phenomena and Compensation

Week 9

Artifacts

Week 10

Pathology

MRI MADE EASY COURSE

*All participants will receive a complimentary copy of the books "<u>MRI Layman's Terms: The Basis</u> <u>Concepts of MRI Physics Made</u> <u>Easy</u> (LJ Notes)", "<u>MRI Layman's</u> <u>Terms: Registry Review (LJ</u> Notes)" and Course Materials.

*24 Category A CE Credit approval by the ASRT.

*Certificate of Course Completion

*Access to Instructor for MRI questions and explanations

* See Terms and Conditions

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MRI MADE EASY COURSE



NEW AGE INNOVATIONS LLC.

TOUCHING LIVES ONE INNOVATION AT A TIME

An Educational Service Of:



1. To become familiar with Patient Care and Screening Issues related to MRI

2. To learn about the standards of MRI Safety and types of Contrast Agents

3. To learn about the different types of MRI Machines and Coils used in MRI Scanning.

4. To learn about the Basic Principles and Terms of MRI Physics.

5. To learn the different concepts of Imaging Weighting and the technical factors involved.

6. To become familiar with the concepts of Spatial Encoding and K – Space.

7. To grasp the advantages and disadvantages of the Parameters involved in MRI Scanning.

8. To evaluate the different Pulse Sequences used in MRI Scanning.

9. To evaluate the concepts of Flow Phenomena and Compensation Techniques.

10. To review and recognize the different types of Image Artifacts.

LAWRENCE MCNAIR JR., M.P.H., R.T. (R) (CT) (MR)

Lawrence McNair is currently working as an independent consultant with New Age **Innovations LLC, providing** MRI, CT, and X-ray education and operations consulting. He also serves as the MRI Clinical **Instructor at Birmingham** Veterans Hospital. Lawrence is the author of "MRI Layman's Terms Registry Review (LJ Notes)", "MRI Layman's **Terms: The Basis Concepts of** MRI Physics Made Easy (LJ Notes)", "CT Layman's Terms : The Basic Concepts of CT Physics Made Easy (LJ Notes)", "Diagnostic X-Ray Layman's **Terms: The Basis Concepts of Diagnostic X-Ray Physics Made** Easy (LJ Notes)" and <u> Diagnostic X-Ray Layman's</u> **Terms Registry Review (LJ** Notes)". Lawrence approach to this course is always entertaining and informative. Lawrence McNair's website is www.laymanterms.org.

COURSE OBJECTIVE

This course is designed for Technologists who have had no previous experience with MRI as well as those working in MRI, but have had no formal education in basic MRI principles. This course also serves as an in depth course for Technologists preparing to take the ARRT MR Registry Exam. The class is approved for 24 Hrs Category A Credit. If the participant has had no prior experience to MR, it is recommend the participant observe at an MRI facility a few weeks prior to taking the course.

Sample of Topics Covered

Magnetism, Alignment of Spins, & Precession

Larmor Equation, Resonance, & Free Induction Decay

T1 and T2 Relaxation

Repetition Time & Echo Time

T1, T2, and PD Contrast Weighting

Types of Pulse Sequences (Pros and Cons)

Scanning Parameters

Flow Phenomena and Compensation Tech.