Medical Informatics Technology II

Spring 2023

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Office Hours: Saturday: 12:00pm-12:30pm

Textbook: Biomedical Informatics: *An Introduction to Information Systems and Software in Medicine and Health* David J. Lubliner, 2016

Schedule: Moodle. Hybrid.

Overview:
This course is a continuation of the fundamentals of Medical Informatics Technology 1. Deep dive into technologies and electronic medical record usage with emphasis on key medical informatics topics that affect not only the Medical Informatics profession but also the student as a health care consumer.Review of basic, very high level anatomy and physiology and the associated applications, modalities, technologies and medical informatics support used in supporting the inpatient or outpatient well/ill patient. Real world scenarios discussed each week. Topics include basic anatomy and physiology, current and future trends in medical informatics, comparison of the current industry leading electronic medical record applications.

Topics:

Telehealth
Barriers to Electronic Medical Records implementations
Anatomy and Physiology 1(Brain, Spinal Cord, Muscles, Heart, Eye)
Anatomy and Physiology 2 (Cells, Hearing, Kidneys, Pancreas, Liver, Digestive System)
Anatomy and Physiology 3(Lungs, Immune System, stokes, Blood Flow, Prostate)
Anatomy and Physiology 4(Heart Disease, Cancer)
Critical Care Nursing Perspective on the Electronic Medical Record
Compare and contrast of EMR systems (demo)
Healthcare Analytics
Trends in Healthcare
Employment opportunities in the Healthcare Industry
Medical Imaging II

Student Learning Outcomes:

- Understand the use of Telehealth technology in Healthcare and the role of the Medical Informatics professional
- Understand the role of Medical Informatics in the use of technology used to diagnose and treat patients through a basic review of Anatomy and Physiology
- Understand the nursing perspective and how Medical Informatics supports the clinician at the bedside
- Explore use of Analytics in Healthcare

- Explore current Trends in Healthcare
- Explore and explain one imaging technology in use today and the role of the Medical Informatics profession.
- Search for employment opportunities in the Healthcare Industry

Grading:
1. 4Homework assignments (15%): 60%
2. Midterm Exam: 20%
3. Final Exam: 20%

Policy:
1. All assignments should be submitted by their due date in order to be considered for full credit. Exceptions can be made for valid medical reason and family emergencies only.
2. You could discuss your assignments with others but you have to write all assignments individually.
3. No team work allowed unless specifically specified.

Grading:
The program will be credited in different levels:
1. Rubrics are defined in Moodle for each homework assignment and Final Paper

Points will be deducted for the following reason:
1. Inadequate citation.
2. Incorrect formatting.
3. Content.
4. Word Count.

Homework assignments are due on the specified date. The late assignment will be graded according to the policy listed above.

Plagiarism: Plagiarism will not be tolerated and will receive a penalty of an automatic grade off.

All students must abide by the NJIT honor code.

http://www.njit.edu/academics/honorcode.php