

BME203 Biomedical Informatics

Level: 2

Credit Units: 5 Credit Units

Language: ENGLISH

Presentation Pattern: EVERY JAN

Synopsis:

The course provides the theoretical knowledge and practical aspects of medical informatics with application to the healthcare environment. With a thorough understanding of the relevant principles, students should be able to manage and transform healthcare data into useful information and knowledge to improve patient care, as well as to design systems that uses this information to support clinical decision-making. Topics include the processing of specific medical data, fundamentals of medical information system design and computer-aided medical diagnostics.

Topics:

- Overview of Biomedical Informatics & Computing Concepts
- Clinical Data, Processes, Systems
- Decision Support Systems
- Imaging & Telemedicine
- Standards & National Electronic Health Records
- Personal Health Records and Consumer Health Informatics

Learning Outcome:

- Describe the systems development life cycle and examine the importance of human-computer interface in designing healthcare systems
- Explain the nature and uses of clinical data
- Analyze the potential of computerized systems in decision making
- Illustrate the potentials of telemedicine and robotic-based systems in providing quality care
- Identify the benefits and challenges of personal health record systems, consumer health applications and devices
- Examine and use concepts and methods in Biomedical Informatics to solve practical problems
- Analyze the challenges of building national electronic health records

Assessment Strategies:

Continuous Assessment Component	Weightage (%)
QUIZ	15
QUIZ	15
Sub-Total	30

Examinable Component	Weightage (%)
Written Exam	70
Sub-Total	70

Weightage Total **100**