COMPUTER ORGANIZATION
21:198:251 (3 credits)

COURSE DESCRIPTION:
An introduction to computer system structure and organization. Topics include representation of information, circuit analysis and design, register-transfer level, processor architecture, and input/output.

PREREQUISITE:
21:198:102 (Computers & Programming II.)

TEXTBOOK:

DEPARTMENT WEB SITE:  http://www.ncas.rutgers.edu/math

THIS COURSE COVERS THE FOLLOWING:

Chapter 1:
Representation of numbers - binary numbers, base conversions and operations

Chapter 2:
Logic – binary logic, Boolean algebra, simplification with Karnaugh maps

Chapter 3:
Combinational circuits – two-level realization of Boolean functions, binary adders, decoders, multiplexors

Chapters 5 & 7:
Circuits, registers and counters, and other selected topics

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