

ICS 2303: MULTIMEDIA SYSTEMS

COURSE SCHEDULE

LECTURER: B. O. OKUKU

Purpose of the course:

This course explores concepts, approaches and techniques used in the multimedia systems.

Course Objectives:

At the end of the course, the students should be able:

- To describe the techniques and technology required for the design, storage and delivery of multimedia material in distributed information systems.
- To demonstrate a practical experience of the hardware and software co-design issues in developing multimedia technology.
- To describe the techniques and technologies associated with Virtual Reality.

Mode of Instruction:

The course will be conducted through:

- ❖ Lectures, textbook readings, handouts, lab sessions, tutorials (discussion, review, questions, etc)
- ❖ Individual written assignments
This is the only way to prepare for exams
- ❖ Case Study readings

Course Texts and Instructional materials:

1. BPB Editorial Board. BPB Multimedia & Web Design Course. BPB Publications: New Delhi, 2005.
2. Sinclair Ian R. Multimedia on the PC. BPB Publications: New Delhi, 2005.

Further Reading:

1. Sloane A. Multimedia Communication. McGraw-hill: New York, 1996
2. Steinmetz and Nahrstedt. Multimedia Fundamentals, Vol. 1: Media Coding and Content Processing. Prentice Hall: Englewood Cliffs, N.J, 2002.
3. Prabhat K. A. & K. Thakrar. Multimedia Systems Design. Prentice-Hall: Englewood Cliffs, N.J, 1998.

Course Evaluation:

- ❖ Assignments –10%
- ❖ CATS – 20%
- ❖ EXAM – 70%

Grading System

As per the Jomo Kenyatta University Grading System

Week	Topic/Subtopic
1 & 2	Introduction ❖ Definitions and Multimedia concepts
3 & 4	❖ Formats and standards of multimedia systems ASSIGNMENT1
5	❖ Compression techniques
6	❖ Multimedia storage, networking issues ❖ CAT 1
7	❖ Hypermedia systems: history, ❖ the World Wide Web, o ❖ pen hypermedia systems
8	❖ content based navigation. ❖ Audio and the web, digital audio broadcast, ❖ CAT 2
9	❖ content based navigation in audio ❖ ASSIGNMENT 2
10	❖ Multimedia information systems: ❖ Multimedia information retrieval, ❖ distributed multimedia systems, the role of software agents.
11	❖ Multimedia Applications: interactive television, video conferencing, video-on-demand ❖ CAT 3
12	❖ educational applications and authoring
13	❖ industrial applications
14	❖ multimedia archives ❖ digital libraries.