# Global Learning Semesters
# Course Syllabus
## Course: BENG-285 Audio & Video Technology
## Department: Engineering
## Host Institution: University of Nicosia, Nicosia, Cyprus

| Course Summary | | |
|---|---|---|
| **Course Code** | **Course Title** | **Recommended Credit Hours** |
| BENG-285 | Audio & Video Technology | 3 |
| **Semester Offered** | **Contact Hours** | **Prerequisites** |
| Fall | 42 | None |
| **Department** | **Level of Course** | **Language of Instruction** |
| Engineering | Lower Division | English |

## Course Description

Specific topics covered include: the ear , dynamic range of the ear, the spectral resolution of the ear, the sound pressure level, electrical signal levels and units of measurement; decibels, microphone and line signal levels and impedances, signal level monitoring, microphones, loudspeakers, sound consoles, hybrids, the audio production studio, digital audio, conversion from analog audio to digital audio, conversion from digital audio to analogue audio, the eye, gamma, scanning, synchronization, white and black levels, sync separator, cathode ray tubes, TV camera, bandwidth, contrast, sharpness, aperture effect, colorimetry and color displays, digital video, conversion from analogue to digital video, conversion from digital to analogue video, the television studio, vision mixers, keying and chroma keying, simple effects and DVEs, graphics, routers, studio lighting, film and video editing, magnetic tape recording and editing, telecines, servo systems and motor drives, data reduction and MPEG, digital recording principles, hard disks, servers and DVDs, digital audio and video interfaces, digital editing, computers and television, transition to DTV, and HDTV

## Instructor

Ms. Panayiota Kyriacou

## Course Aims and Objectives

To provide thorough grounding in analogue audio and video technology; focus on explaining the very latest developments in digital audio and video technology.

## Teaching Methods

The course is delivered through a mixture of lectures and projects.

## Course Teaching Hours

The course is 42 hours long and is delivered in 14 weeks (3 hours/week).

## Evaluation and Grading

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|---|---|
| Homework/Projects: | 20% |
| Mid-Term Exam: | 30% |
| Final Exam: | 50% |

## Readings and Resources

**Required Textbook**
None

**Recommended Readings**
- Michael Robin and Michel Poulin, Digital Television Fundamentals: Design and Installation of Video and Audio Systems, McGraw-Hill, 1998
- Eugene Trundle, Newnes TV and Video Engineer's Pocket Book, Third Edition, Newnes, 1999