

## FLORIDA STATE COLLEGE AT JACKSONVILLE

## COLLEGE CREDIT COURSE OUTLINE

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| COURSE NUMBER:                         | DIG 2251                   |
| COURSE TITLE:                          | Multimedia Digital Audio I |
| PREREQUISITE(S):                       | None                       |
| COREQUISITE(S):                        | None                       |
| CREDIT HOURS:                          | 3                          |
| CONTACT HOURS/WEEK:                    | 3                          |
| CONTACT HOUR BREAKDOWN:                |                            |
| Lecture/Discussion:                    | 3                          |
| Laboratory:                            |                            |
| Other _____:                           |                            |
| FACULTY WORKLOAD POINTS:               | 3                          |
| STANDARDIZED CLASS SIZE<br>ALLOCATION: | 25                         |

## CATALOG COURSE DESCRIPTION:

The purpose of this course is to develop a thorough knowledge of basic audio concepts, audio processing principles, basic digital audio concepts, digital audio processing and production as relates specifically to the field of multimedia. All areas of knowledge will be applied to practical applications through project oriented assignments.

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| SUGGESTED TEXT(S): | <u>Experiencing Music Technology</u> , Williams & Webster,<br>Wadsworth Publishing, 2 <sup>nd</sup> Edition |
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| IMPLEMENTATION DATE: | Spring Term, 2000 |
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| REVIEW OR MODIFICATION DATE: | Fall Term, 2000<br>Fall Term, 2003, (20041)<br>Fall Term, 2005 (20061) (was MUM 2630)<br>Fall Term, 2008 (20091) - Outline Review 2007 |
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| COURSE TOPICS                              | <u>CONTACT HOURS<br/>PER TOPIC</u> |
|--|------------------------------------|
| I. Audio Basics                            | 3                                  |
| A. Pitch/Frequency                         |                                    |
| B. Volume/Tone                             |                                    |
| C. Tone/Waveshape                          |                                    |
| D. Human Hearing                           |                                    |
| II. Audio Processing A                     | 6                                  |
| A. Audio Connectors + Cables               |                                    |
| B. Microphones                             |                                    |
| C. Line Level Equipment                    |                                    |
| D. Speakers and Amplifiers                 |                                    |
| III. Audio Processing B                    | 9                                  |
| A. Mixers-Trim/Gain                        |                                    |
| B. Mixers-Faders/Volume Control            |                                    |
| C. Mixers-EQ and Filtering                 |                                    |
| D. Mixers-Masters                          |                                    |
| IV. Audio Processing C                     | 3                                  |
| A. Effects-Reverb                          |                                    |
| B. Effects-Delay                           |                                    |
| C. Effects-Delay Variations                |                                    |
| V. Digital Audio Basics                    | 3                                  |
| A. Sampling Rate & Standards               |                                    |
| B. Resolution Bit Depth & Standards        |                                    |
| C. Recording Tracks                        |                                    |
| D. Conversion                              |                                    |
| VI. Digital Audio Recording and Processing | 6                                  |
| A. Change Gain-Normalize                   |                                    |
| B. Trim                                    |                                    |
| C. Reverse                                 |                                    |
| D. Overdub                                 |                                    |
| E. Automation                              |                                    |
| F. Pitch Shifting                          |                                    |
| G. Time Compression/Stretching             |                                    |

## COURSE TOPICS (CONTINUED)

CONTACT HOURS  
PER TOPIC

## VII. Digital Audio File Formats

6

- A. WAV
- B. AIFF
- C. SD II
- D. Internet File Formats
- E. Cross Platform Compatibility
- F. Video/Quicktime Compatibility

## VIII. Hardware Technologies

9

- A. Computer Design
  - 1. CPU
  - 2. Bus
- B. Peripherals
  - 1. SCSI/IDE/Firewire
  - 2. USB
- C. Disk/Disc
  - 1. Hard Drives
  - 2. Removable Technologies
  - 3. CD-R & CD-RW & DVD
  - 4. AV Specific Technologies
- D. PCI Cards
  - 1. Digital Audio
  - 2. Video Capture
  - 3. Hard Disk
- E. Current Technologies