**Cleveland State University**
**Department of Electrical Engineering and Computer Science**

# CIS 465 Multimedia

**Catalog Description:** **CIS 465 Multimedia (4-0-4)**
*Pre-requisite: CIS 368*
Topics include multimedia data capture and representation including audio, image and video. Multimedia authoring paradigms and practice using a multimedia authoring tool will be discussed. Other topics include principles of user interface design, use of multimedia on the web, commercial tools for audio, image and video processing.

**Textbook:** The Science of Digital Media, Burg, Prentice Hall.

**Coordinator:**
Dr. Timothy Arndt
Professor of Electrical Engineering and Computer Science
Phone: 216-687-4779
Email: arndt@cis.csuohio.edu
Home Page: http://cis.csuohio.edu/~arndt

**Expected Outcomes:** By the end of the class, you should understand what multimedia computing is, be familiar with how multimedia data is stored and processed by computers, be able to use a high level language and the Java media APIs for media processing, and be able to use commercial tools for multimedia capture and editing.

**Fulfillment of EE, CE and CIS Program Objectives and Outcomes:**

**Objectives:**

1. Graduates will apply the concepts of the discipline including analysis, design, and implementation of information and computing systems.
2. Graduates will be employed in the computing profession, and will be engaged in life-long learning, understanding, and applying new ideas and technologies as the field evolves.

**Outcomes:**

5. An ability to translate fundamental computing concepts to a variety of emerging technologies
6. An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.
7. An ability to apply design and development principles in the construction of software systems of varying complexity.

**Student Characteristics:**

(c) An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs
(i) An ability to use current techniques, skills, and tools necessary for computing practice.

(j) An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.
(k) An ability to apply design and development principles in the construction of software systems of varying complexity.

**Prerequisites by Topic:** Java database programming