CSCE 5933 – Multimedia Computing (Spring 2016)

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Office: NTRP F274, Office Hours: MoWe 02:30 PM - 4:00 PM.

Class Web: http://www.cse.unt.edu/~joh/
Text: Lecture Notes will be provided in Blackboard.
Pre-Requisites: CSCE2410 or working knowledge of any programming language.
Class time and Room: MoWe 4:00 PM - 5:20 PM, NTDP D201

Objectives: This course aims to develop a critical appreciation of the theoretical background as well as the practical issues of multimedia systems, and provides students with an in-depth knowledge of digital multimedia objects, storage and processing technologies: data acquisition, data compression, interpretation, presentation and interaction, and the emerging standards supporting them. Also, it gives students some practical experience of programming components of multimedia systems. By the end of this course, students will:

- know the principles of digital data acquisition and presentation
- understand the principles of data compression, image and video interpretation
- be familiar with the emerging standards for digital data storage, and compression: JPEG, MPEG, etc.
- have practical experience of programming component elements of multimedia systems.

Contents: Multimedia plays more and more important role in modern communications (voice-over-IP, videoconferencing, videophone), consumer electronics (MP3 players, digital still and video cameras, DVD, camera-equipped cell phones), entertainment (high-definition TV, digital cinema, networked home) and professional (medical imaging, remote sensing) markets. The success of multimedia systems stems from new opportunities they offer (e.g., video cell phone), and their widespread use (thanks to miniaturization and low cost). This course will provide an introduction to multimedia subjects. In this course we will discuss types of multimedia information, multimedia processing, compression standards and techniques, as well as content generation and manipulation tools, multimedia applications.

Grading:

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<th>Component</th>
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<tr>
<td>Mid-term Exam</td>
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<td>Final Exam</td>
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<td>Reading Assignments</td>
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<td>Term Project Implementation Plan</td>
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<td>Term Project Implementation &amp; Write-up</td>
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<td>Term Project Presentation</td>
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<td>Attendance</td>
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- **Reading Assignments**: There will be some reading assignments. Read the given materials, and submit summary report by due date. **No late submission accepted**. The details can be found in the class web page.

- **Term-Project & Presentation**: You will implement a proposed method (approach, or technique) in a paper you select. First, you need to select a paper, and submit your paper information, and implementation plan. Then, you implement it, and submit a source code and a write-up on program design, any threshold value and parameter value, how to compile and run, limitations, and references. Finally, you will present what has been done for the term project in the class using Power Point slides. **No late submission accepted**. More details can be found in the class web page.

Policy:

1. **If a student is absent for more than three classes (other than university-approved excuses), he/she will be dropped from the course.**
2. **No make-up exams (before and after) will be given. Equitable arrangements will be made for those with a university-approved excuse.**
3. **The penalty for cheating will be dismissal from the course with failure. No incomplete grade will be given.**
4. **No grading question by email.**
5. **No early exams.**

"The course evaluation is a requirement for all organized classes at UNT. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider this to be an important part of your participation in this class."

**Disabilities Accommodation**: The University of North Texas complies with Section 504 of the 1973 Rehabilitation Act and with the Americans with Disabilities Act of 1990. The University of North Texas provides academic adjustments and auxiliary aids to individuals with disabilities, as defined under the law. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring accommodation, please see the instructor and/or contact the Office of Disability Accommodation at 940-565-4323 during the first week of class.