CSCE 5930.001 – Multimedia Computing (Spring 2020)

Instructor: Dr. JungHwan Oh, E-mail: Junghwan{dot}Oh{at}unt{dot}edu
Phone: (940) 369-7790, Office: NTRP F274, Office Hours: TuTh, 02:00 PM - 4:00 PM.
Class Web: http://www.cse.unt.edu/~johoh/
Text: Lecture Notes will be provided in Canvas.
Pre-Requisites: working knowledge of any programming language.
Class time and Room: TuTh 04:00 pm - 05:20 pm, NTD P D215

Objectives: This course aims to provide 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, manipulation tools, and 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>
<td>28%</td>
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<td>Programming Assignments</td>
<td>16%</td>
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<td>Attendance</td>
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<td>Term-Paper</td>
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<td>Term-Paper Presentation</td>
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- **Programming Assignments**: There will be some programming assignments. An instruction for each programming assignment will be provided. The programming assignments are individual works. Each individual student needs to submit her/his own work by due date. **No late submission accepted.** The details can be found in the course web, and Canvas.
- **Term-Project & Presentation** There is a term project in which you do either an implementation of a system related to Multimedia, or a survey of a topic for Multimedia System that you choose. You need to submit a term paper by the due date. Finally, present your term project in the class. **No late submission accepted.** The details can be found in the class web page.

Policy:
1. No make up exams (before and after) will be given. Equitable arrangements will be made for those with a university-approved excuse.
2. The penalty for cheating will be dismissal from the course with failure.
3. No incomplete grade will be given.
4. No grading question by email.
5. No early exams.

Others:
- 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.
- No communication through a non-UNT email account. If such an email is received, the student should be asked to use their UNT account and resend.
- 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.