CS 7323: Image Processing and Computer Vision  
Spring 2018  
(Section 251)

Instructor(s): Dr. Vangelis Metsis  
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Office Hours: TuWe 2:00pm – 4:00pm

Section Information: CS7323-251  
Time and Place of Class Meetings: Mo 6:30pm - 9:20pm, CMAL103  
Public course website: https://cs.txstate.edu/~v_m137/cs7323_spr2018  
TRACS URL: https://tracs.txstate.edu/  
We will use the TRACS website for the following:
  • Grades (Gradebook2 tool)  
  • Programming assignment submissions (Assignments tool)  
  • Lecture notes and Resources (code you can use in your programming assignments)  
  • The course schedule and assignments will also be posted on the public course webpage.

Description of Course Content: Image Processing and Computer Vision are research areas with a variety of modern applications ranging for the analysis of images and videos found on the web, to real-time processing of video and image streams coming from self-driving vehicles and robotic agents. This course will prepare computer scientists with the necessary skills and knowledge to apply existing methods and advance the state-of-the-art in the field.

Student Learning Outcomes:  
Students successfully completing this course will be able to:
  1. List, explain and discuss the most important concepts of image processing, perception, analysis, and computer vision.  
  2. Demonstrate a variety of computer techniques for the design of efficient algorithms for real-world applications, such as optical character recognition, face detection and recognition, motion estimation, human tracking, and gesture recognition.  
  3. Develop, use, and evaluate practical applications through computer and programming exercises.  
  4. Identify and apply fundamental knowledge to comprehend and appraise image processing & computer vision literature.

Course Materials:  
  • Class slides, notes, and source code (main material to study – posted on TRACS)

No required textbook.

Recommended Textbooks:
Software:
- MathWorks MATLAB software will be used for the course lectures and assignments. MATLAB is available to all Texas State students, free of charge. It can be found here: http://www.tr.txstate.edu/software/download/matlab-students.html

Grading:
Programming Assignments: 55%
Class participation: 5%
Midterm Paper Presentation: 10%
Final Project and Presentation: 30%

Class Attending Policy and Homework Policy:
Must attend class and submit homework on time. Excessive absences may influence your final grade. Late assignments will incur 10% penalty per day, for up to 5 days. After the 5 days, no submission will be accepted.

Make-up Exams: Make up exams will be allowed only to students that were not able to take the original exam due to a health condition justified by the related paperwork from a doctor. Absence due to other reasons will be graded with zero.

Drop Policy:
You must follow the withdrawal and drop policy set up by the University and the College of Science. You are responsible for checking the drop deadlines and making sure that the drop process is complete. http://www.registrar.txstate.edu/registration/drop-a-class.html
*Students will not be automatically dropped for non-attendance.

Accommodations for students with disability:
Any student with a special need, requiring special accommodations, should inform me during the first two weeks of classes. The student should also contact the office of disability services at the LBJ student center.

Academic Honesty:
You are expected to adhere to both the University's Academic Honor Code as described here: http://www.txstate.edu/effective/upps/upps-07-10-01.html, as well as the Computer Science Department Honor Code, described here: 2013 0426 HonestyPolicy CSPPS.doc.
- Except where explicitly and specially allowed (such as group project), all work submitted in the class is expected to be your individual work. Plagiarism will not be tolerated and if detected will result in automatic "F" grade.
- Do not include code (or other materials) obtained from the Internet in your assignments (except what is provided or allowed by the instructor).
- Do not email your program to anyone (except your partner or the instructor).
- The penalty for submitting a program that has been derived from the internet or any other non-approved source will be a 0 for that assignment. Violators will be reported to the Texas State Honor Code Council (http://www.txstate.edu/honorcodecouncil/).