Research Methods in Computer Science, COSC 5393
School of Engineering and Computing Sciences
Spring 2017

A. COURSE INFORMATION

Course number/section: COSC 5393.001
Class meeting time: R 11:00am-1:30pm
Class location: OCNR 255
Course website: http://sci.tamucc.edu/~amahdy/Teaching/Spring17/cosc5393/cosc5393.html

B. INSTRUCTOR INFORMATION

Instructor: Dr. Ahmed Mahdy
Office location: CI 324
Office hours: T 12:00-2:00pm, R 1:30-3:30pm & F 10:00-11:00am
Telephone: 825-3172
e-mail: ahmed.mahdy@tamucc.edu
Appointments: Please email for appointments

C. COURSE DESCRIPTION

Catalog Course Description
This course provides students with a range of experiences in conducting and communicating research. Students will learn major research methods and techniques. Experiences will be gained in all stages of research: reviewing literature, writing a proposal, designing an approach, and reporting results. Critical reading/writing assignments and weekly class discussions on state-of-the-art research in Computer Science will provide students with major research aspects.

D. PREREQUISITES AND COREQUISITES

Prerequisites
Only Graduate

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES

Optional Textbook(s) or Other References
• Fundamentals of Educational Research, Anderson and Arsenault, Falmer Press, 1st Ed.
• Instructor’s handouts and research papers
Supplies
None.

F. STUDENT LEARNING OUTCOMES AND ASSESSMENT

Assessment is a process used by instructors to help improve learning. Assessment is essential for effective learning because it provides feedback to both students and instructors. A critical step in this process is making clear the course’s student learning outcomes that describe what students are expected to learn to be successful in the course. The student learning outcomes for this course are listed below. By collecting data and sharing it with students on how well they are accomplishing these learning outcomes students can more efficiently and effectively focus their learning efforts. This information can also help instructors identify challenging areas for students and adjust their teaching approach to facilitate learning.

By the end of this course, students should be able to:

1. Demonstrate understanding of the research fundamentals and ethics
2. Practice surveying a research area and choose a research topic
3. Practice how to write a thesis/project proposal
4. Practice how to effectively communicate research ideas and present research results in oral and written formats
5. Recognize state-of-the-art research in Computer Science

G. INSTRUCTIONAL METHODS AND ACTIVITIES

This class will mostly employ interactive and independent learning strategies. Students will be engaged in frequent class discussions led by the instructor. Independent study will include researching state-of-the-art topics in computer science.

H. MAJOR COURSE REQUIREMENTS AND GRADING

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>% of FINAL GRADE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Papers (multiple; check schedule)</td>
<td>50</td>
</tr>
<tr>
<td>Presentations (multiple; check schedule)</td>
<td>35</td>
</tr>
<tr>
<td>Quizzes and Class Participation</td>
<td>15</td>
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</tbody>
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I. COURSE CONTENT/SCHEDULE

Please refer to the course website for an up-to-date schedule.
Note: Changes in this course schedule may be necessary and will be announced to the class by the Instructor. The assignments and exams shown are directly related to the Student Learning Outcomes described in Section F.

J. COURSE POLICIES

- Submitted Work
  - Assignments are due at the beginning of the class on the due date. Late submissions will be graded at 50% of the maximum score. Under no circumstances, submissions will be accepted after 24 hours of the due date.
  - Assignments must be submitted in a neat computer-generated format. Handwritten submissions will not be accepted.
  - Assignments can only be submitted in class; email submissions will be discarded unless instructed otherwise. In case of late submissions, please stop by my office. If I am not available, ask the secretary to date and time your submission and put it in my mailbox.
  - Graded work can only be discussed after 48 hours and no later than one week of releasing the scores.
  - In case of programming assignments, submissions that do not compile will receive no credit.
  - Start working on your assignments early; last day questions that show carelessness will not be responded to.
  - It is always recommended to keep your graded work.

- Exams and Quizzes
  - Exams and quizzes are NOT open-book unless instructed otherwise.
  - Not all quizzes times will be announced; pop-up quizzes are likely.
  - NO makeup exams or quizzes will be allowed unless I have agreed prior to the exam or quiz time and been provided with official supporting documents.

- Class Participation
  Class discussions and information provided in class are considered regular course material; it is your responsibility to take appropriate notes. You are expected to attend lectures and actively participate in class discussions. I will be frequently taking attendance. You are also required to turn off your cell phone and/or pager in class and pay attention to class discussions. Use of laptops and other electronic devices is restricted to taking notes. Unethical behavior will result in final grade deduction or an automatic F.

- Announcements
  Announcements will be made available in class, on course web page, and/or through email. It is your responsibility to regularly check for announcements.

K. COLLEGE AND UNIVERSITY POLICIES
• **Academic Integrity (University)**
  University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a failing grade.

• **Classroom/Professional Behavior**
  Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

• **Statement of Civility**
  Texas A&M University-Corpus Christi has a diverse student population that represents the population of the state. Our goal is to provide you with a high quality educational experience that is free from repression. You are responsible for following the rules of the University, city, state and federal government. We expect that you will behave in a manner that is dignified, respectful and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that infringe on the rights of another individual will not be tolerated.

• **Deadline for Dropping a Course with a Grade of W (University)**
  The grade of W will be assigned to any student officially dropping a course. Please consult with the instructor before you decide to drop to be sure it is the best thing to do. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Should dropping the course be the best course of action, visit the Office of the University Registrar for the Course Drop Form that must submitted. No student is eligible to receive a W without completing the official drop process by this deadline. Please consult the Academic Calendar (http://www.tamucc.edu/academics/calendar/) for the last day to drop a course.

• **Grade Appeals (College of Science and Engineering)**
  As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a
grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules website at http://www.tamucc.edu/provost/university_rules/index.html, and the College of Science and Engineering Grade Appeals webpage at http://sci.tamucc.edu/students/GradeAppeal.html. For assistance and/or guidance in the grade appeal process, students may contact the chair or director of the appropriate department or school, the Office of the College of Science and Engineering Dean, or the Office of the Provost.

- **Disability Services**
  The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. 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 an accommodation, please call (361) 825-5816 or visit Disability Services in Corpus Christi Hall 116.

  If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

  http://disabilityservices.tamucc.edu/

- **Statement of Academic Continuity**
  In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

L. **OTHER INFORMATION**

- **Academic Advising**
  The College of Science & Engineering requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up a degree plan, which must be signed by the student, a faculty mentor, and the department chair. Meetings are by appointment only; advisors do not take walk-ins. Please call or stop by the Advising Center to check availability and schedule an appointment. The College’s Academic Advising Center is located in Center for Instruction 350 or can be reached at (361) 825-3928.
M. GENERAL DISCLAIMER

The instructor reserves the right to modify the information, schedule, assignments, deadlines, and course policies in this syllabus if and when necessary. I will announce such changes in a timely manner during regularly scheduled lecture periods.