CS 4091
Research

Instructor
Dr. Erdogan Dogdu
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Phone: 325-486-5444
Office: MCS 205A
Office Hours: M,W,F 2:00pm – 5:00pm or by appointment

Course Information
Course Description
Supervised research with a faculty member for students majoring in computer science.

Prerequisite Courses
Junior or Senior Computer Science major. Junior or Senior Computer Science major. Approval from the department chair is required prior to enrollment.

Course Goals
The goal of this course is to learn how to conduct research in computer science, specifically in data science.

Student Learning Outcomes
When you complete this course, you should be able to:
- Identify and specify a research problem in computer science,
- Collect or obtain data in relation to a research problem,
- Preprocess, explore, visualize, and analyze data,
- Search, find, read and evaluate related published works,
- Develop algorithms to solve the identified problems,
- Develop software to implement the algorithmic solutions,
- Test developed software on collected data,
- Analyze results,
- Write a scientific/technical report of findings and evaluations,
- Present results as a talk,
- (Possibly) Publish results as a scientific paper or poster presentation.
Course Delivery

This is a self-guided research project supervised by your instructor. Weekly meetings between the student and faculty will take place either in-person or remotely online. Research project requirements, all related materials, and project delivery will be done online through Blackboard and Github websites.

Please refer to this Health and Safety web page\(^1\) for updated information about campus guidelines as they relate to the COVID-19 pandemic.

Required Text and Materials

- Reading materials will be provided by the instructor.

Technology Requirements

- **Blackboard**: You are required to follow the posts and study all material posted on Blackboard.
- **Computer**: You must have access to an adequate computer and Internet connectivity to participate fully in the class. A table describing supported browsers can be viewed on Blackboard’s support site\(^2\).

Communication

You are responsible for checking your ASU email account and Blackboard throughout the duration of this course. I will generally respond to email and/or telephone messages within 24 hours during working hours Monday through Saturday. However, weekend messages may not be returned until Monday.

**Written communication via email**: All private communication will be done exclusively through your ASU email address. Check frequently for announcements and policy changes. In your emails to faculty, include the course name and section number in your subject line in the form of “[CS 4091] subject matter”.

**Virtual communication**: Office hours and/or advising may be done with the assistance of the telephone, Collaborate, Skype, etc.

Grading

**Evaluation and Grades**

*Your course grade will be based on the following:*

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Deliverables</td>
<td>50%</td>
</tr>
<tr>
<td>Project Report</td>
<td>50%</td>
</tr>
</tbody>
</table>

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**ASU employs a letter grade system. Grades in this course are determined on a percentage scale:**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90 – 100</td>
</tr>
<tr>
<td>B</td>
<td>80 – 89</td>
</tr>
<tr>
<td>C</td>
<td>70 – 79</td>
</tr>
<tr>
<td>D</td>
<td>60 - 69</td>
</tr>
<tr>
<td>F</td>
<td>0 - 59</td>
</tr>
</tbody>
</table>
Activity Descriptions

Project Deliverables – need to be completed on time and submitted through Blackboard or Github. A list of deliverables (reports, datasets, software, presentation, paper) and deadlines will be assigned at the beginning of the class. These deliverables will be completed and submitted every other week in 5 iterations. No late submission will be accepted unless a reasonable excuse is provided by the student.

Project Report – is a complete scientific paper or term report to be submitted and presented at the end of semester.

Course Schedule (subject to change)

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Project Deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aug 17</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Aug 24</td>
<td>Project plan</td>
</tr>
<tr>
<td>3</td>
<td>Aug 31</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Sep  7</td>
<td>1st iteration</td>
</tr>
<tr>
<td>5</td>
<td>Sep 14</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Sep 21</td>
<td>2nd iteration</td>
</tr>
<tr>
<td>7</td>
<td>Sep 28</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Oct  5</td>
<td>3rd iteration</td>
</tr>
<tr>
<td>9</td>
<td>Oct 12</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Oct 19</td>
<td>4th iteration</td>
</tr>
<tr>
<td>11</td>
<td>Oct 26</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Nov  2</td>
<td>5th iteration</td>
</tr>
<tr>
<td>13</td>
<td>Nov  9</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Nov 16</td>
<td>Project presentation</td>
</tr>
</tbody>
</table>

Last day to drop/withdrawal

General Policies Related to This Course

All students are required to follow the policies and procedures presented in these documents:

- Angelo State University Student Handbook
- Angelo State University Catalog

Academic Integrity

Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

The College of Science and Engineering adheres to the university’s Statement of Academic Integrity.
Accommodations for Students with Disabilities

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA) and subsequent legislation.

Student Disability Services is located in the Office of Student Affairs, and is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. It is the student’s responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the Houston Harte University Center, Room 112, or contacting the department via email at ADA@angelo.edu. For more information about the application process and requirements, visit the Student Disability Services website. The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dallas Swafford  
Director of Student Disability Services  
Office of Student Affairs  
325-942-2047  
dallas.swafford@angelo.edu  
Houston Harte University Center, Room 112

Incomplete Grade Policy

It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 Grading Procedures for more information.

Plagiarism

Plagiarism is a serious topic covered in ASU’s Academic Integrity policy in the Student Handbook. Plagiarism is the action or practice of taking someone else’s work, idea, etc., and passing it off as one’s own. Plagiarism is literary theft.

In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

Papers are subject to be evaluated for originality. Resources to help you understand this policy better are available at the ASU Writing Center.

Student Absence for Observance of Religious Holy Days

A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. See ASU Operating Policy 10.19 Student Absence for Observance of Religious Holy Day for more information.

Title IX at Angelo State University

The University prohibits discrimination based on sex, which includes pregnancy, sexual orientation, gender identity, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination including: sexual assault, sex-based discrimination, sexual
exploitation, sexual harassment, public indecency, interpersonal violence (domestic violence and/or dating violence), and stalking. As a faculty member, I am a Responsible Employee meaning that I am obligated by law and ASU policy to report any allegations I am notified of to the Office of Title IX Compliance.

Students are encouraged to report any incidents of sexual misconduct directly to ASU's Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator at:

Michelle Boone, J.D.
Director of Title IX Compliance/Title IX Coordinator
Mayer Administration Building, Room 210
325-942-2022
michelle.boone@angelo.edu

You may also file a report online 24/7 at www.angelo.edu/incident-form.

If you are wishing to speak to someone about an incident in confidence you may contact the University Health Clinic and Counseling Center at 325-942-2173 or the ASU Crisis Helpline at 325-486-6345.

For more information about Title IX in general you may visit www.angelo.edu/title-ix.

Required Use of Masks/Facial Coverings by Students
As a member of the Texas Tech University System, Angelo State University has adopted the mandatory Facial Covering Policy[^1] to ensure a safe and healthy classroom experience. Current research on the COVID-19 virus suggests there is a significant reduction in the potential for transmission of the virus from person to person by wearing a mask/facial covering that covers the nose and mouth areas. Therefore, in compliance with the university policy students in this class are required to wear a mask/facial covering before, during, and after class. Faculty members may also ask you to display your daily screening badge as a prerequisite to enter the classroom. You are also asked to maintain safe distancing practices to the best of your ability. For the safety of everyone, any student not appropriately wearing a mask/facial covering will be asked to leave the classroom immediately. The student will be responsible to make up any missed class content or work. Continued non-compliance with the Texas Tech University System Policy may result in disciplinary action through the Office of Student Conduct.

Modifications to the Syllabus
This syllabus, including grade evaluation and course schedule, is subject to modification. In particular, the COVID-19 pandemic may require significant changes in course delivery and content on potentially short notice.

[^1]: https://www.angelo.edu/covid-19/returning-to-campus/health-and-safety.php
[^2]: https://help.blackboard.com/Learn/Student/Getting Started/Browser_Support
[^3]: https://www.angelo.edu/student-handbook/
[^4]: https://www.angelo.edu/catalogs/
[^6]: https://www.angelo.edu/services/disability-services/
[^7]: https://www.angelo.edu/content/files/14197-op-1011-grading-procedures
[^8]: https://www.angelo.edu/student-handbook/community-policies/academic-integrity.php
[^9]: https://www.angelo.edu/dept/writing_center/academic_honesty.php
[^10]: https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of