CS 1337-020: Computer Science II

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Spring, 2020

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Office Hours: MWF 2-4 pm, TR 9-11 am
Office: MCS 205K

Course Website: Blackboard
Class Hours: TR 12:30-1:45 pm
Class Room: MCS 115

Course Description

Continuation of Computer Science 1336. Problem solving and program development techniques emphasizing modular design. Includes advanced programming topics such as class design, records, strings, pointers, and bit manipulation.

Prerequisite

CS 1336 or a first course in C or C++ programming

Learning Outcomes

By completing this course,

1. Students will become familiar with the internal storage of integral data;
2. Students will learn how to create, compile, link, and run a program in a Unix operating environment;
3. Students will learn how to create multi-file source programs;
4. Students will be introduced to bit manipulation, including left and right shift operators and bitwise operators (not, and, or, exclusive or);
5. Students will be introduced to pointers;
6. Students will learn about character data, including its representation and available functions for testing and manipulating characters;
7. Students will be introduced to the string data type and various functions for manipulating strings;
8. Students will be introduced to structured data; and
9. Students will be introduced to object oriented programming using the class concept.
Required Materials


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.

Communication

You are responsible for checking your ASU email account and Blackboard throughout the duration of this course.

Activities Assessing Learning Outcomes

Programming Assignments The following guidelines are to be observed concerning the programming assignments (labs):

• No late assignment will be accepted. No e-mail submission is accepted. There are no exceptions to this rule.
• Labs are due by the end of the day on the designated due date.
• The labs will be developed on the department’s Unix environment.
• All assignments will be submitted electronically, as discussed in class.
• Assignments will be graded on the CS department’s Unix environment. If you develop solutions to the programming assignments in a different environment such as Microsoft Visual Studio, it is your responsibility to ensure that these solutions work correctly in the Unix environment also.
• You are responsible for doing your own work. You may be asked to defend/explain your work at any time. You are encouraged to work with your classmates and use the resources of the Internet to understand and complete the assignments; however, when you submit an assignment, you are verifying that it is your own work. Cheating will not be tolerated.

Exams Four exams will be given throughout the semester (including the final). The following guidelines are to be observed concerning the exams:

• There are no makeup exams. Only exception will be student absence for observance of religious holy day (see Additional Policies below).
• If one exam is missed, the final exam will count double to make up for the missed exam. Only one missed exam can be made up this way. If more than one exam is missed, a grade of zero will be given for the additional missed exam.
• The final exam must be taken on its assigned date. For students taking all four exams, the final exam grade can replace a lower grade on one of the first three exams if the final exam grade is higher. Only one regular exam grade can be replaced in this way.
Grades

Your course grade will be based on the following:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programming Assignments</td>
<td>40%</td>
</tr>
<tr>
<td>Exams</td>
<td>60%</td>
</tr>
</tbody>
</table>

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>

Course Topics

The following list of course topics is tentative and subject to change and adaptation.

1. Number systems
2. Internal numerical representation
3. Bitwise operations
4. Pointers
5. Characters
6. Strings
7. Structures
8. Classes

Attendance

Attendance is expected, but it will not be used in calculating your final grade.

Student Disability Services

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.
The Office of Student Affairs is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability, and it is the student’s responsibility to initiate such a request by contacting:

Ms. Dallas A. Swafford  
Director of Student Disability Services  
- 325-942-2047  
- dallas.swafford@angelo.edu  
- Houston Harte University Center

Title IX Statement

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 Nicole Boone, J.D. Director of Student Disability Services  
- 325-942-2022  
- Michelle.boone@angelo.edu  
- Mayer Administration Building 204

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.

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.
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.

Student Conduct Policies

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. Visit ASU’s Academic Integrity page 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 via Turnitin. Resources to help you understand this policy better are available at the ASU Writing Center.

Copyright Policy

Students officially enrolled in this course should make only one printed copy of the given articles and/or chapters. You are expressly prohibited from distributing or reproducing any portion of course readings in printed or electronic form without written permission from the copyright holders or publishers.

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

Modifications to the Syllabus

The instructor and the university reserve the right to modify or change the syllabus (schedule, course requirements, grading policy, etc.) as the curriculum and/or program require(s).