Class meetings  
section 020:  MWF 9:00–9:50  in MCS 115

Instructor  
Rob LeGrand  
e-mail: rlegrand@angelo.edu  
webpage: http://www.cs.angelo.edu/~rlegrand/  
office phone: 325-486-5422  
office location: MCS 205I  
office hours: MTWRF 2:00–4:00 and by appointment

Textbook  
Tony Gaddis. Starting Out with C++: From Control Structures through Objects.  
ASU bookstore.

Description  
Problem solving and program development techniques emphasizing modular  
design. Includes advanced programming topics such as class design, structures,  
strings, pointers and bit manipulation in C++ using a Unix environment.

Prerequisites  
CS 1336 (Computer Science I) is a prerequisite for this course. Please see me if  
you haven’t taken it or if you’re unsure about your proficiency in C++  
programming.

Grading breakdown  
40% assignments  
60% exams (probably four, including final)

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

Class format  
This class will meet in a computer lab. Unlike in CS 1336, we will be using the  
GNU C++ compiler in a Unix environment. In most lab sessions, I will present  
new material, answer questions, assign new lab assignments and help everyone  
get started on them. I plan to make as much class time available as possible to  
work on the lab assignments, but you will still likely need to spend significant  
time outside of class on most of the assignments.
Discussion and giving and receiving help are generally encouraged when working on assignments, but all work you turn in must be your own; anything you turn in you must be prepared to explain in detail. You must list everyone you helped and/or got help from on each assignment. Failure to do so is considered taking credit for work not done and thus cheating. There will likely be four exams: three midterms and one final; in-class exams must be completed independently.

Attendance is important and expected. You are responsible for the content of each class meeting. You have a duty to inform me as soon as you know that you’ll have to miss a class.

Blackboard (http://blackboard.angelo.edu/) will be used to keep track of grades and assignments.

<table>
<thead>
<tr>
<th>Semester schedule</th>
<th>This schedule should be considered approximate and tentative.</th>
</tr>
</thead>
<tbody>
<tr>
<td>week of</td>
<td>topic</td>
</tr>
<tr>
<td>January 17th</td>
<td>number systems</td>
</tr>
<tr>
<td>January 22nd</td>
<td>number systems</td>
</tr>
<tr>
<td>January 29th</td>
<td>internal numerical representation</td>
</tr>
<tr>
<td>February 5th</td>
<td>internal numerical representation</td>
</tr>
<tr>
<td>February 12th</td>
<td>bitwise operations</td>
</tr>
<tr>
<td>February 19th</td>
<td>bitwise operations</td>
</tr>
<tr>
<td>February 26th</td>
<td>pointers</td>
</tr>
<tr>
<td>March 5th</td>
<td>pointers</td>
</tr>
<tr>
<td>March 12th</td>
<td>spring break</td>
</tr>
<tr>
<td>March 19th</td>
<td>strings</td>
</tr>
<tr>
<td>March 26th</td>
<td>strings</td>
</tr>
<tr>
<td>April 2nd</td>
<td>structures</td>
</tr>
<tr>
<td>April 9th</td>
<td>structures</td>
</tr>
<tr>
<td>April 16th</td>
<td>classes</td>
</tr>
<tr>
<td>April 23rd</td>
<td>classes</td>
</tr>
<tr>
<td>April 30th</td>
<td>classes</td>
</tr>
</tbody>
</table>

Final exam

The final exam for this course is scheduled for Wednesday, May 9th, 8:00–10:00.

Academic honesty

Angelo State University expects its students to maintain complete honesty and integrity in their academic pursuits. By remaining enrolled in this course you agree to adhere to the Academic Honor Code, which is contained in both print and web versions of the Student Handbook.

Accommodations

Persons with disabilities which may warrant academic accommodations must contact Student Services in order to request and to implement academic accommodations. For ASU’s policy on absences due to religious holy days, please see OP 10.19 at http://www.angelo.edu/opmanual/.