


<p>UTEP Computer Science Department</p> <p>CS 1320 Course Syllabus</p> <p>Fall 2017</p>	
Course Title:	CS 1320 - Computer Programming for Scientists and Engineers
Days, Time, and Location:	MW 4:30 pm – 5:50 pm CCSB G.0208
Final Project Due:	Friday, December 7 th
Instructor:	<p>Name: Julio Cesar Urenda, PhD</p> <p>Email: jcurenda@utep.edu</p> <p>Office: Library 504</p> <p>Office hours: MF 12:25pm-1:25pm and W 10:25am-11:25am or by appointment</p> <p>Phone: (915) 747-7005</p>
TA:	<p>Name: Ahnaf Farhan</p> <p>Email: afarhan@miners.utep.edu</p> <p>Office: CCSB 1.0706</p> <p>Office hours: TBD</p>
Catalog Description:	Introduction to computers and problem solving with digital computers. A procedural programming language will be utilized to solve scientific and engineering oriented problems. Visualization methods will also be used to provide an experimental approach to problem solving.
Prerequisites:	MATH 1508 or MATH 1411 each with a grade of "C" or better. Students entering the course are assumed to have no background in Computer Science or programming. They should be familiar with running everyday software applications and using a computer, and they should be familiar with topics from Pre-Calculus.
Grading:	<p>Your semester grade will be based on a combination of homework, lab assignments, attendance, participation, quizzes, exams, and a final comprehensive project. The approximate percentages are as follows:</p> <p style="margin-left: 40px;">10% Class attendance and participation 10% Quizzes, class activities, homework 20% Final project 30% Lab assignments 30% Exams</p> <p>The nominal percentage-score to letter-grade conversion is as follows:</p> <ul style="list-style-type: none"> • 90% or higher is an 'A' • 80-89% is a 'B' • 70-79% is a 'C' • 60-69% is a 'D' • below 60% is an 'F' <p>Keys to success:</p> <ul style="list-style-type: none"> • Attend class! Participation in a study group is also very helpful. • Complete and submit assignments on time. • Don't get behind; ask for help if needed.

	 Work on practice problems of your own.
Details of grade components:	<p>Attendance and participation: Attendance and participation in class activities are part of your grade, as this is a hands-on workshop type of class. To earn full credit for attendance, you should plan to show up on time, stay for the entire session, and work on your assignment, NOT visit websites, work on email, text, or conduct other activities unrelated to class assignments.</p> <p>Assignments: Reading, lab, and homework assignments may be handed out, announced in class, or posted to class sites. There is no separate lab time requirement for this course, but you will receive regular lab assignments and/or other assignments, which you will need to complete outside of class.</p> <p>Quizzes: The purpose of short weekly quizzes is to ensure that you are staying current with reading assignments, recent lectures, and concepts learned during lab assignments.</p> <p>Exams: There will be three exams during the course, contributing 30% to your overall course grade. These exams will take place during the regular class session. If you have test-taking difficulties or special requirements, please let us know as soon as possible.</p> <p>Final Project: The final project will be a large, comprehensive programming project and will count 20% toward your course grade. This project should be based on a problem taken from your major, and should include required skills covered during the semester (minimum requirements will be specified). You are encouraged to discuss suitable topics or problems with a professor in your major department. You are required to demo your final project with your instructor.</p>
Textbook:	<p><u>C Programming for the Absolute Beginner</u>, 3rd Edition by Keith Davenport & Michael Vine <i>Note:</i> you can access this title from our library.</p>
University Policies:	<p>Standards of Conduct: You are expected to conduct yourself in a professional and courteous manner, as prescribed by the UTEP Standards of Conduct (http://sa.utep.edu/osccr/student-conduct/).</p> <p>Academic Honesty: Graded work is to be completed independently and should be unmistakably your own work (or, in the case of group work, your team's work), although you may discuss your project with other students in a general way. You may not represent as your own work material that is transcribed or copied from another person, book, or any other source (for example, a web page).</p> <p>Academic dishonesty includes but is not limited to cheating, plagiarism and collusion.</p> <ul style="list-style-type: none"> • <u>Cheating</u> may involve copying from or providing information to another student, possessing unauthorized materials during a test, or falsifying data (for example program outputs) in laboratory reports. • <u>Plagiarism</u> occurs when someone represents the work or ideas of another person as his/her own. • <u>Collusion</u> involves collaborating with another person to commit an academically dishonest act. <p>Professors are required to--and will--report academic dishonesty and any other violation of the Standards of Conduct to the Dean of Students (http://sa.utep.edu/dean/).</p> <p>Accommodations for Disabilities: If you have a disability and need classroom accommodations, please contact The Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu,</p>

	or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass .
Tentative Weekly Schedule	(Subject to change)
Week 1: 8/27 - 8/31	Course intro, problem-solving, algorithms, computer hardware components, binary numbers, programming languages, processing program instructions, installing and using an IDE. <ul style="list-style-type: none"> • <u>Reading</u>: Chap. 1
Weeks 2-3: 9/3 - 9/14 (No class 9/3 Labor Day)	Simple C Programs: program structure, data types, variables and constants, assignment statements, keyboard input/output, using predefined math and character functions, applied problem-solving, and algorithm introduction. <ul style="list-style-type: none"> • Review project problem with TA or Instructor by Friday 9/15 • <u>Reading</u>: Chap. 2
Week 4: 9/17 - 9/21	Algorithm development, pseudocode, flowcharts, conditional expressions, selection statements, testing and error handling. <ul style="list-style-type: none"> • Final project proposal due Friday 9/22 • <u>Reading</u>: Chap. 3
Week 5: 9/24 - 9/28	Loops introduction, Review, Exam 1 <ul style="list-style-type: none"> • Exam 1 Wednesday 9/27, Thursday 9/28 • <u>Reading</u>: Preview Chap. 4
Weeks 6-7: 10/1 - 10/12	Looping structures, sources of potential computational errors, input and output data files. <ul style="list-style-type: none"> • <u>Reading</u>: Chap. 4 & 11 (first half) • Final project status check with TA or Instructor by Friday 10/13
Week 8: 10/15 - 10/19	Functions, decomposition, macros, and program structure <ul style="list-style-type: none"> • <u>Reading</u>: Chap. 5
Week 9: 10/22 - 10/26	Arrays <ul style="list-style-type: none"> • <u>Reading</u>: Chap. 6
Week 10: 10/29 - 11/2	Review, Exam 2, and preview of 2-d arrays <ul style="list-style-type: none"> • Exam 2 Wednesday 11/1 and Thursday 11/2 • <u>Reading</u>: Preview Chap. 7
Week 11: 11/5 - 11/9	Pointers and 2-d arrays <ul style="list-style-type: none"> • <u>Reading</u>: Chap. 7

<p>Week 12: 11/12 - 11/16</p>	<p>Strings</p> <ul style="list-style-type: none"> • <u>Reading</u>: Chap. 8 • Check on final project status
<p>Week 13: 11/19 - 11/23</p>	<p>Structures</p> <ul style="list-style-type: none"> • <u>Reading</u>: Chap. 9 (ignore Unions)
<p>Week 14: 11/26-11/30 (No class 11/29-11/30) Thanksgiving Holiday</p>	<p>Review and Exam 3</p> <ul style="list-style-type: none"> • Exam 3 Wednesday 11/29 and Thursday 11/30
<p>Week 15: 12/3 – 12/7 (Dead Day 12/7)</p>	<p>Dynamic Memory Allocation</p> <p><u>Reading</u>: Chap. 10</p> <ul style="list-style-type: none"> • Final projects due Fri., 12/7
<p>Dec 11-15 Final Exams</p>	<p>Final project reviews will be scheduled individually</p>