CIS 2107: Computer Systems and Low-Level Programming

Sections 1 and 2

Fall 2017

Instructor: Joe Jupin
Office: Science Education and Research Center (SERC), Room 323
Phone: 215-204-????
Office hours: Monday: 4:00 - 5:30
Wednesday: 1:00 -5:30
Friday: 10:30-1:30
and by appointment with sufficient notice
URL: http://astro.temple.edu/~joejupin (Links to an external site.)Links to an external site.
EMAIL: joejupin@temple.edu

Course webpage: This course is on Canvas

Class Material: Will be posted on Canvas

Textbooks:

1. Required: Bryant and O'Hallaron, Computer Systems: A Programmer's Perspective, 3rd Edition. Pearson. 2015.
2. Required: Kernighan and Ritchie, The C Programming Language, Second Edition. Pearson. 1988
3. Recommended free book: Bartlett, Bruno, Programming From The Ground Up. Bartlett. 2004. At http://download.savannah.gnu.org/releases/pgubook/

Lectures:	Monday	11:00AM – 12:20PM	Tuttleman 302
	Wednesday	11:00AM – 12:20PM	Tuttleman 302

Laboratory Section 1: Wednesday 8:00AM – 9:50AM SERC 359
Lab Instructor: TBA
Office: TBA
Office hours: TBA
TBA
EMAIL: TBA

Laboratory Section 2: Friday 8:00AM – 9:50AM SERC 357
Lab Instructor: TBA
Office: TBA
Office hours: TBA

TBA

EMAIL: TBA

Course description: This course introduces computer systems architecture at the level required to understand low-level systems programming. It examines issues of information representation, the form of machine instructions and addressing, the implementation of programming language constructs in terms of machine instructions, the interfaces to peripheral devices. Programming is done in assembly language and in C. NOTE: For Computer Science Majors.

Prerequisites: (CIS 1068|Minimum Grade of C-|May not be taken concurrently
OR CIS 1073|Minimum Grade of C-|May not be taken concurrently)
AND (CIS 1166|Minimum Grade of C-|May not be taken concurrently)

Course Objectives: The primary objectives for this course are to introduce you to computer hardware, machine instructions, and low-level programming in C.

Grading: Grades will be posted on Canvas (Note negatives)

Homework	-10
Labs	-20
Quizzes	10
Midterm	40
Final	50

Total	Grade
92-100	A
90-91	A-
88-89	B+
82-87	B
80-81	B-
78-79	C+
72-77	C
70-71	C-
68-69	D+
62-67	D
60-61	D-
Below 60	F

Attendance: Attendance will be taken and is required. Excessive absences may lead to a withdrawal or failure in this class.

Quizzes: There will be a quiz at the beginning of each Lab about the material covered in the previous class. These will be 3-5 minute quizzes.

Homework Assignments: Homework questions will be assigned, typically as written assignments. These should be submitted through Canvas. They should be submitted by midnight of the due date. Late assignments without a reasonable excuse will receive a grade of zero.

Labs: When you register for this course, you are also registering for the lab session for this course. Students are required to attend the lab section that they are registered for.

Lab Programming Assignments: Lab assignments will be assigned as problem solving, program design or programming projects.

Exams: There will be 2 exams – a Midterm and a final.

Fall 2017 Academic Calendar:

Wednesday, August 9 - Sunday, August 27	Early Term Start Courses
Monday, August 28	Full Term 16-week Courses and 7-week Courses (7A) begin
Monday, September 4	Labor Day (no classes held)
Tuesday, September 5	Last day to add or drop a 7-week (7A) course (Links to an external site.)Links to an external site.
Monday, September 11	Last day to add or drop a Full Term 16-week course (Links to external site.)Links to an external site.
Tuesday, September 26	Last day to withdraw from a 7-week (7A) course (Links to an external site.)Links to an external site.
Monday, October 2	Undergraduate midterm progress ratings begin (Links to an external site.)Links to an external site.
	7-week Courses (7A) end
Monday, October 16	Undergraduate midterm progress ratings end (Links to an external site.)Links to an external site.
Tuesday, October 17	7-week Course (7B) begin
Monday, October 23	Last day to add or drop a 7-week (7B) course (Links to an external site.)Links to an external site.
Tuesday, October 24	Last day to withdraw from a Full Term 16-week course (Links an external site.)Links to an external site.
Wednesday, October 25	Final grading for Full Term 16-week Courses begins
Thursday, November 2	Priority registration for Spring 2018 begins
Monday, November 13	Last day to withdraw from a 7-week (7B) course (Links to an external site.)Links to an external site.

Monday, November 20 - Wednesday, November 22	Fall Break (no classes held)
Thursday, November 23- Sunday, November 26	Thanksgiving Holiday (no classes held)
Monday, December 11	Full Term 16-week Courses and 7-week Courses (7B) end
Tuesday, December 12 - Wednesday, December 13	Study Days
Thursday, December 14 - Wednesday, December 20	Final Exams
Thursday, December 21	Diploma Date
Friday, December 22 at 11:59PM (ET)	Final grading for Full Term 16-week Courses ends

Course Withdrawal: Students may withdraw as long as it meets university guidelines.

Academic Freedom: Temple has adopted a policy on Student and Faculty Academic rights and responsibilities (Policy 03.70.02) at: http://policies.temple.edu/ (Links to an external site.)Links to an external site..
Academic Integrity: Please review Temple's policies on academic honesty and other student responsibilities
at: http://www.temple.edu/bulletin/Responsibilities_rights/responsibilities/responsibilities.shtm (Links to an external site.)Links to an external site.

Do not cheat in this class. I take this very seriously as does the university!! This includes plagiarism. If you quote someone else's material, you MUST cite it properly. This includes all material taken from the Internet. If you copy work from the Internet or another source, and do not cite it properly, you will fail this course. All of your work must be your own…this includes your homework assignments. Copying during an exam or quiz, copying homework, copying disks, sharing printed or digital homework files, or any other type of plagiarism in any form is strictly prohibited in this class.

Tentative Schedule: There are 28 classes scheduled for this semester. The table shows a tentative schedule.

Course Introduction	Bryant and O'Hallaron, Ch. 1
Introduction to C	Kernighan and Ritchie, Ch. 1-7
Data Representation	Bryant and O'Hallaron, Ch. 2 supp Bartlett and Bruno, Ch. 10
Assembly	Bryant and O'Hallaron Ch. 3 supp: Bartlett and Bruno, Ch. 1-6
Memory Allocation	Bryant and O'Hallaron, Ch. 9.9-9.11
Storage	Bryant and O'Hallaron, Ch. 6

Linkers (maybe)	Bryant and O'Hallaron, Ch. 7 supp: Bartlett and Bruno, Ch. 8

Lab projects and homework assignments will be posted to Canvas.

Special Needs: Any student that has a need based on a disability should contact me privately as soon as possible. Please contact Disability Resources and Services at 215-204-1280 in Ritter Annex to arrange for reasonable accommodations.