



ENGR120 02/03

Programming for Engineers

Online Asynchronous¹ (section 02)

TTh, 2p - 3:15p (section 03), MCT 158

Dr. Chen Huo

<https://web.engr.ship.edu/~chuo>

The content of this schedule may change during the semester.

Course Description:

This course is a highly focused introduction to programming in C language. It covers the basics of programming including procedures, variables, types, loops, and control structures. It also covers abstract data structures such as linked lists, stacks and queues. In addition, the course also covers the essentials for programming in Unix, such as using command-line tools and debuggers.

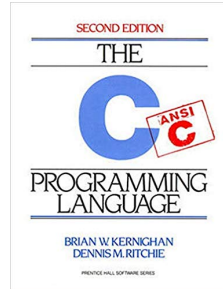
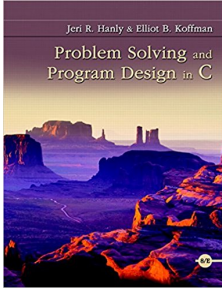
Prerequisite(s): CSC110 C or above OR ENGR110 C or above OR SWE100 C or above

Note(s): A minimum grade of C is required in this course to progress to other major courses. This course is a replacement for CSC111 for engineering majors. You should not take it if you have taken CSC111. This course should satisfy any pre-requisites that call for CSC111.

Credit Hours: 3

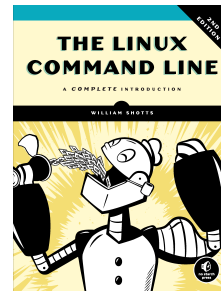
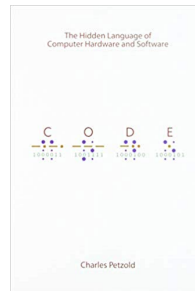
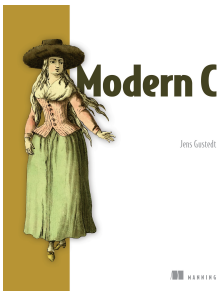
Required Texts:

1. (PSP) *Problem Solving and Program Design in C*, 8th Edition, **ISBN-13:** 9780134014890
2. (K&R) *The C Programming Language*, 2nd Edition, **ISBN-13:** 9780131103627



Recommended Texts:

1. (MC) *Modern C*², ISBN-13: 9781617295812
2. (ECP) *Expert C Programming: Deep C Secrets*, ISBN-13: 9780131774292
3. (CODE) *Code*, ISBN-13: 9780735611313
4. (TLC) *The Linux Command Line*³, 2nd Edition, ISBN-13: 9781593279523



Course Resources:

Name	How to access	Description
D2L	Added by the university	The central portal: gradebook, quizzes, course slides, course videos, etc
Gradescope	Enrolled; access from D2L ⁴	Submit coding assignments (HW & EX); see feedback on coding assignments
Piazza	Enrolled ⁵	Post questions which can be answered by instructors or peers. Can choose to post anonymously. I prefer this platform to emails for academic questions.
Repl.it	Register on: www.repl.it	An online playground for various languages. This is the IDE (Integrated Development Environment) to be used in this course given the pandemic situation.

²The author provides a Creative Commons license version (free pdf). See <https://modernc.gforge.inria.fr/>

³The author provides a Creative Commons license version (free pdf). See <http://linuxcommand.org/tlcl.php>

Letter Grade Distribution:

≥ 93.00	A	70.00 - 76.99	C
90.00 - 92.99	A-	60.00 - 69.99	D
87.00 - 89.99	B+	≤ 59.99	F
83.00 - 86.99	B		
80.00 - 82.99	B-		
77.00 - 79.99	C+		

Grade Distribution:

Quizzes	30%
Coding Exercises	20%
Coding Homework	25%
Final Exam	15%
Attendance	10%
Extra Credits	0 - 5%

Description of the Grade Items

Quizzes are D2L quizzes. Multiple choices, matching, ordering, etc. Automatically graded. Expect it to be weekly and due on Friday nights. You are responsible to be aware of the deadline on D2L. Usually each quiz covers the content of the week. The scope of quiz questions are limited up to the lecture slides (will not cover the textbook readings). The quizzes are open book but are **individual**. You will have 5-9 attempts to each quiz. The answers will not be released on D2L but I will go over the answers in class (so you are encouraged to take notes). Lowest TWO quizzes are dropped.

The *final* is the only exam. It will just be a collection of some of the quiz questions plus some small coding questions. It will be hosted on D2L.

Coding Exercise is a bit interesting: for example, if the exercise contains 5 coding problems with 20 pts each, then the total is 100 points. However, you will get full score on D2L for this grade item as long as you score 50 points or above. Exercises encourage you to try out the problems in the PSP textbook. Moreover, actual code for the problems can be shared on piazza (and piazza ONLY). Please note that any use of answers from Chegg.com will I'll explain the details how duplicate code is detected on Gradescope. A list of exercises and what they are about can be found in the table below. Lowest exercise is dropped.

HW no.	Chapters in PSP	Topic
1	Ch 2 (ex 1,2,3,5,8,12) Ch 3 (ex 4,5,9,12)	basics, <code>printf</code> <code>scanf</code> primitive data types
2	Ch 4 (ex 2,3,4,5,6,8,11) Ch 5 (ex 1,2,5,10,14,15)	conditionals loops
3	Ch 6 (ex 4,6,9,14) Ch 7 (ex 2,3,5,11,14)	pointers arrays
4	Ch 8 (ex 1,2,7,8)	C strings
5	Ch 10 (ex 1,2,3,5,9) Ch 11 (ex 9)	C structure file IO

Coding Homework is what usually expected for a programming course. Discussion on Piazza is encouraged as long as it does not involve actual code for the homework solution. See more information about academic dishonesty in the next section. The coding homework does not ask you to start from scratch. Instead you are given skeletons to fill out. The skeletons can be found on: <https://repl.it/@engr120/engr120-fall2020-hw-start>. You will submit related C files on Gradescope. Details will be provided. Lowest homework is dropped.

Attendance For the face to face section, attendance means showing up in class. Being late or leaving early will yield penalties. For the online asynchronous section, we'll have a 5-minute individual meeting every week. Please sign up using the following link: <https://calendar.google.com/calendar/u/0/selfsched?sstoken=UUstMUhPNURtRkVJfGRlZmF1bHR8ODMwZjZlZTU4ODEwZWY1MDY3YWU3ZThmOTJ>

You'll have one unexcused absence and up to two excused ones.

Course Policies:

- You cannot use any electronic devices in class unless you are told to.
- **Grades**
 - All grades that matters will be maintained on D2L. Students are responsible for tracking their progress by referring to the online gradebook. D2L will also tell you what final grade is expected if you are consistent in your performance.
 - You can dispute your grade for a certain item within **ONE** week after the grade is released. For example, you *cannot* dispute your grade of the first homework at the end of the semester.
- **Lecture Notes**
 - Slides will be released on D2L.
 - Students are expected to take notes. Some contents in the slides and written on the board are not from the textbooks.

Academic Honesty Policy Summary:

Those students found violating Shippensburg's academic dishonesty policy will be dealt with on a case by case basis. Minimal punishment should it be a first offense is a zero for the assignment and signing a form admitting to the offense. Second offenses are handled directly by the office for the Dean of Students. See additional information about academic Dishonesty within the Computer Science Department