







[Collapse All](#)**▼ Midterm #2 - Review Material****REVIEW MATERIAL** **exam2_review.pdf** **mid2_sample.pdf****LABS****Lab #8** **lab_8.pdf** **lab_8.tar.gz** **exercise_8_solution.c****Lab #9** **lab_9_slides.pdf** **lab_9.tar.gz** **exercise_9_solution.tar.gz****Lab #10** **lab_10_slides.pdf** **lab_10.tar.gz**

**exercise_10_solution.c****Lab #11 - Skipped****Lab #12****lab_12_slides.pdf****lab_12.tar.gz****exercise_12_solution.c****Lab #13****Coming Soon****QUIZZES****Quiz Week #8**

Oct 31 | 1 pts

**Quiz Week #9**

Nov 6 | 1 pts

**Quiz Week #10**

Nov 13 | 1 pts

**Quiz Week #12**

Nov 27 | 1 pts

LECTURE SLIDES**Communcation (IPC)****ipc_1.pdf****ipc_2.pdf**

Threads

 **thread_1.pdf**

 **thread_2.pdf**

 **thread_3.pdf**

Synchronization

 **sync_1.pdf**

 **sync_2.pdf**

 **sync_3.pdf**

Exceptions & Signals

 **sig_1.pptx**

 **sig_2.pptx**

Network Programming

 **net_1.pdf**

 **net_2.pdf**

PROJECTS

Project 2

 **project_2_solution.zip**

Project 3



p3_solution_server.c

▼ Course Resources

CURRENT WEEK has a * in front of it

PROJECT FAQ



Project #1 FAQ



Project #2 FAQ



Project #3 FAQ



Project #4 FAQ

UNITE access



[Unite Lectures \(https://cse.umn.edu/unite\)](https://cse.umn.edu/unite)

Lab Wiki



Lab Wiki Table of Contents

Remote Connection Wiki



Connecting to CSE-IT Lab Machines w/ SSH



Connecting to CSE-IT Lab Machines w/ VOLE



Password-less SSH

**Using PuTTY****Remote File Transfer****X11 Forwarding**

Code Editor Wiki

**Code Editor Options****Visual Studio Code Setup**

LAB FAQ + Helpful References

**Lab Questions and Answers****Many Helpful Links Here**

GDB Quick Reference (<https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwIU3rjM29r1AhXKFTQIHce9BUsQFnoECAwQAQ&url=https%3A%2F%2Fusers.ece.utexas.edu%2F~adnan%2Fgdb-refcard.pdf&usg=AOvVaw3mnJM54ww8QJAb4TWPgsjT>)



Valgrind Quick Start (<https://valgrind.org/docs/manual/QuickStart.html>)



Splint Manual (<https://splint.org/manual/manual.html>)



GCC (v9.4) Manual (<https://gcc.gnu.org/onlinedocs/gcc-9.4.0/gcc/>)



GCC Arguments Doc (<https://gcc.gnu.org/onlinedocs/gcc/Option-Summary.html>)



Makefile Basics (<https://web.stanford.edu/class/archive/cs/cs107/cs107.1212/resources/make>)

▼ Week 1: Course Introduction **this_week_1.txt****READING: R&R Chap. 1****LECTURE****Tuesday - (09/06)** **course_intro_lec_1****Thursday - (09/11)** **course_intro_lec_2****LAB****No Lab This Week****QUIZ****Quiz Week #1**

Sep 11 | 1 pts

▼ Week 2: Programs and Processes **this_week_2.txt****READING: R&R Chap. 2 and 3****LECTURE**

Tuesday - (09/13) **prog_proc_lec_1****Thursday - (09/15)** **prog_proc_lec_2_&_3****LAB****Lab + Exercise #1**

Sep 13 | 1 pts

**exercise_1_solution.tar.gz****QUIZ****Quiz Week #2**

Sep 18 | 1 pts

▼ Week 3: [Programs and Processes] + [I/O and Devices]**this_week_3.txt****READING: R&R Chap. 4****LECTURE****Tuesday - (09/20)****prog_proc_lec_2_&_3****Thursday - (09/22)**

io_devices_lec_1**LAB****Lab + Exercise #2**

Sep 20 | 1 pts

**exercise_2_solution.tar.gz****QUIZ****Quiz Week #3**

Sep 25 | 1 pts

PROJECT**Project #1 - Released****Project #1**

Oct 5 | 100 pts

**Project #1 - Intermediate Submission**

Sep 28 | 0 pts

**Project Group Form**  (<https://forms.gle/iCn47yvZTuAtJMp36>)**▼ Week 4: I/O and Devices****this_week_4.txt****LECTURE****Tuesday - (09/27)****io_devices_lec_2**

Thursday - (09/29)**io_devices_lec_3****LAB****Lab + Exercise #3**

Sep 27 | 1 pts


**lab_3_solution.tar.gz****QUIZ****Quiz Week #4**

Oct 2 | 1 pts

PROJECT**Project #1 - Intermediate Submission Due****Project #1 - Intermediate Submission**

Sep 28 | 0 pts

▼ Week 5: File Systems**this_week_5.txt****READING: R&R Chap. 5****LECTURE****Tuesday - (10/04)****fs_lec_1**

Thursday - (10/06) **fs_lec_2****LAB****Lab + Exercise #4**

Oct 4 | 1 pts

QUIZ**Quiz Week #5**

Oct 9 | 1 pts

PROJECT**Project #1 - DUE****Project #1**

Oct 5 | 100 pts

**project_1_solution.tar.gz****▼ Week 6: Communication****READING: R&R Chap 6-6.2****this_week_6.txt****LECTURE****Tuesday - (10/11)****ipc_lec_1**

Thursday - (10/13)**ipc_lec_1 cont'd; exam review****LAB****Lab + Exercise #5**

Oct 11 | 1 pts

QUIZ**No Quiz This Week -- Exam Next Week****PROJECT****Project #2 - Released****Project #2**

Oct 28 | 100 pts

**Project #2 - Intermediate Submission**

Oct 21 | 0 pts

Exam #1 Related**exam1_review.pdf****sample_midterm1.pdf****api.pdf****▼ Week 7: Communication****READING: Chap 15.1, 15.3-15.4 R&R**

LECTURE

Tuesday - (10/18)

Midterm #1



Midterm #1

Oct 18 | 100 pts

Thursday - (10/20)



ipc_lec_2

LAB



Lab #6 -- EXAM REVIEW

Oct 17

QUIZ

No Quiz This Week -- Exam Week

PROJECT

Project #2 - Intermediate Submission Due



Project #2 - Intermediate Submission

Oct 21 | 0 pts

▼ Week 8: Threads



this_week_8.txt

READING: Chap 12

LECTURE

Tuesday - (10/25)

 **thread_lec_1**

Thursday - (10/27)

 **thread_lec_2**

LAB



Lab #7 -- MIDTERM DISUCSSION

Oct 24

QUIZ



Quiz Week #8

Oct 31 | 1 pts

PROJECT

Project #2 - DUE



Project #2

Oct 28 | 100 pts




▼ Week 9: Threads/Synchronization



this_week_9_10.txt

READING: Chap 12, 13

LECTURE

Tuesday - (11/01) **thread_lec_3****Thursday - (11/03)** **sync_lec_1****LAB** **Lab + Exercise #8**
Nov 1 | 1 pts **exercise_8_solution.c****QUIZ** **Quiz Week #9**
Nov 6 | 1 pts**PROJECT #3 -- MOVING to next week****▼ Week 10: Synchronization** **this_week_10.txt****READING: Chap 12, 13****LECTURE****Tuesday - (11/08)** **sync_lec_2**

Thursday - (11/10)**sync_lec_3****LAB****Lab + Exercise #9**

Nov 8 | 1 pts

QUIZ**Quiz Week #10**

Nov 13 | 1 pts

PROJECT**Project #3 - Released****Project #3**

Nov 23 | 100 pts

**Project #3 - Intermediate Submission**

Nov 16 | 0 pts

▼ Week 11: Exceptions, Signals**this_week_11.txt****READING: Chap 8.1 - 8.7****LECTURE****Tuesday - (11/15)****sig_lec_1**

Thursday - (11/17) **sig_lec_2****LAB****Lab + Exercise #10**

Nov 15 | 1 pts

QUIZ**CANCELLED - Quiz Week #11**

Nov 20 | 0 pts

PROJECT**Project #3 - Intermediate Submission Due****Project #3 - Intermediate Submission**

Nov 16 | 0 pts

▼ Week 12: TBD**LECTURE****Tuesday - (11/22)****Thursday - (11/24)****No Class - Thanksgiving****LAB****CANCELLED - Lab + Exercise #11**

Nov 22

QUIZ



Quiz Week #12

Nov 27 | 1 pts

PROJECT

Project #3 - DUE



Project #3

Nov 23 | 100 pts



server.c

▼ Week 13: Network Programming



this_week_13.txt

READING: Chapter 4.4, 18 (mostly 18.7 onwards)

LECTURE

Tuesday - (11/29)



net_lec_1

Thursday - (12/01)



net_lec_2

LAB



Lab + Exercise #12

Nov 29 | 1 pts

**Exercise_solution.c****QUIZ****No Quiz This Week -- Exam Next Week****PROJECT****Project #4 - Released****Project #4**

Dec 16 | 100 pts

**Project #4 - Intermediate Submission**

Dec 9 | 0 pts

▼ *Week 14: Memory Management + Exam**mid2_sample.pdf****exam2_review.pdf**

Reading: [//en.wikipedia.org/wiki/Virtual_memory](https://en.wikipedia.org/wiki/Virtual_memory),
[//troydhanson.github.io/virtual_memory.pdf](https://troydhanson.github.io/virtual_memory.pdf) (read pp. 9-22, skim the rest)

LECTURE**Tuesday - (12/06)****Midterm #2****Midterm #2**

Dec 6 | 100 pts

Thursday - (12/08)

LAB**Lab #13 -- EXAM REVIEW**

Dec 5

QUIZ**No Quiz This Week -- Exam Week****PROJECT****Project #4 - Intermediate Submission Due****Project #4 - Intermediate Submission**

Dec 9 | 0 pts

▼ Week 15: System Design/Finale**LECTURE****Tuesday - (12/13)****LAB****Lab #14 -- MIDTERM DISCUSSION**

Dec 12

QUIZ**No Quiz This Week -- Semester Over****PROJECT****Project #4 - DUE**

Project #4



Dec 16 | 100 pts

Will unlock Dec 10 at 11:59am