

# Course Addendum

Semester**: Winter 2023** Subject Code: **SEP400** Section**: NAA**

Subject Title: **Operating Systems**

Professor: Miguel WatlerOffice**:**

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Office Hours**:** **Monday 9:50am-11:35am, Thursday 9:50am-11:35am**

Approved by:

Kathy Dumanski, Chair, School of Software Design and Data Science

Please read this addendum to the general course outline carefully. It is your guide to the course requirements and activities.

Please refer to the course outline for learning outcomes, course description and text and materials.

Please also visit [sdds.senecacollege.ca](https://seneca-my.sharepoint.com/personal/laura_ojanen_senecacollege_ca/Documents/Course%20Materials/ict.senecacollege.ca) for key information on courses, graduation requirements, transfer credit, and more from the School of Software Design and Data Science.

**Assessment Summary**

Workshops - 20%

Assignments - 30%

Quizzes - 10% (1 bonus quiz)

Test - 20%

Final Exam - 20%

## Course Policies

Satisfactorily complete all assignments (they have to be working)

Achieve a weighted average of 50% or better for the midterm and final exam

Achieve a grade of 50% or better on the overall course (midterm, final, quizzes, Workshops and assignments)

**Academic Policies:**

<http://www.senecacollege.ca/about/policies/academics-and-student-services.html>

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**WEEKLY SCHEDULE**

**Semester Year**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Week** | **Topic or Skill** | **Reading** | **Assessment** | **Weight** |
| **Week 1**  **Jan 10-14** | **Introduction, Makefiles**  Intro to Linux,  Windows vs Linux  Linux File-System  Linux System Functions  Makefile (lab) |  |  |  |
| **Week 2**  **Jan 17-21** | **File-System Interface**  **Chapter 11**  Static/shared libraries  File I/O  Gdb (a Linux debugger)  Dup,dup2  cerr |  | **1 pre-lecture quiz,**  **Workshop 1 (due end of week 3)** | **1% Quiz** |
| **Week 3**  **Jan 24-28** | **I/O Systems, Device Drivers**  IOCTL’s (Ch13)  Device Drivers |  | **1 pre-lecture quiz,**  **Workshop 2 (due end of week 4)** | **1% Quiz**  **2% Workshop 1** |
| **Week 4**  **Jan 31-Feb 4** | **Processes, Signals**  Fork,exec  signals |  | **1 pre-lecture quiz,**  **Workshop 3 (due end of week 5)** | **1% Quiz**  **2% Workshop 2** |
| **Week 5**  **Feb 7-11** | **Inter-process Communication (sockets)**  Sockets  Makefiles, cont’d (lab) |  | **1 pre-lecture quiz,**  **Workshop 4 (due end of week 6)** | **1% Quiz**  **2% Workshop 3** |
| **Week 6**  **Feb 14-18** | **Threads, Mutexes and Deadlocks**  Threads (Ch4)  Mutexes (Ch7)  Server design |  | **1 pre-lecture quiz,**  **Workshop 5 (due end of week 7)** | **1% Quiz**  **2% Workshop 4** |
| **Week 7**  **Feb 21-25** | **Review,**  **MidTerm** |  |  | **2% Workshop 5**  **20% midterm** |
|  |  | **Study Week** |  |  |
| **Week 8**  **Mar 7-11** | **Inter-process Communication\_II, Process Synchronization**  Pipes, fifos, message queues, IPC comparison  Semaphores (Ch6.5) |  | **1 pre-lecture quiz,**  **Workshop 6 (due end of week 9),**  **Assignment 1 (due end of week 10)** | **1% Quiz** |
| **Week 9**  **Mar 14-18** | **Shared Memory**  Shared memory (Ch3.4.1) |  | **1 pre-lecture quiz,**  **Workshop 7 (due end of week 10)** | **1% Quiz**  **2% Workshop 6** |
| **Week 10**  **Mar 21-25** | **CPU Scheduling**  **Chapters 5,19** |  | **1 pre-lecture quiz,**  **Workshop 8 (due end of week 11)** | **1% Quiz**  **2% Workshop 7**  **15% assign 1** |
| **Week 11**  **Mar 28-Apr 1** | **Memory Management**  **Chapters 8,9** |  | **1 pre-lecture quiz,**  **Workshop 9 (due end of week 12),**  **Assignment 2 (due end of week 13)** | **1% Quiz**  **2% Workshop 8** |
| **Week 12**  **Apr 4-8** | **Storage Management**  **Chapters 10,12** |  | **1 pre-lecture quiz,**  **Workshop 10 (due end of week 13)** | **1% Quiz**  **2% Workshop 9** |
| **Week 13**  **Apr 11-15** | **Security**  **Chapters 14,15** |  | **1 pre-lecture quiz** | **1% Quiz**  **2% Workshop 10**  **15% assign 2** |
| **Week 14**  **Apr 18-22** | **Review,**  **Final Exam** |  |  | **20% final** |

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