# COMP 4272/6272: System Administration and Unix Programming

## Fall 2022

### Section 001

<table>
<thead>
<tr>
<th>Instructor</th>
<th>Gustav Borstad, Ph.D.</th>
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<tbody>
<tr>
<td>Office</td>
<td>Manning 212</td>
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<tr>
<td>E-mail</td>
<td><a href="mailto:gustav.borstad@memphis.edu">gustav.borstad@memphis.edu</a></td>
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</tbody>
</table>
| Office Hours        | Monday and Thursday 1 - 3 p.m.  
                     | Or by appointment.            |
| Class Room          | Dunn Hall, Room 119    |
| Class Time          | Monday and Wednesday 5:30 to 6:55 p.m. |
| Important Dates     |  Semester Endpoints: August 22 – November 30, 2022  
                     |  Labor Day: September 5, 2022 (Monday)  
                     |  Fall Break: October 8 – 11, 2022 (Saturday – Tuesday)  
                     |  Last Day to Withdraw: October 14, 2022 (Friday)  
                     |  Thanksgiving Holidays: November 23 – 27, 2022 (Wednesday – Sunday)  
                     |  Study Day: December 1, 2022 (Wednesday)  
                     |  Final Exam: Wednesday, December 7, 2022 5:30 to 7:30 p.m. |
| Course Description  | Fundamental of UNIX and operating systems principles; principles and practices of systems administration and management; network file systems; account management; OS installation; startup and shutdown, booting, backup, restore; system administration tools; web administration; duties and responsibilities of a system administrator. |
• *Running Linux: A Distribution-Neutral Guide for Servers and Desktops* by Matthias Kalle Dalheimer and Matt Welsh, 5th Edition (O'Reilly Media)

**ISBN-10:** 0596007604; **ISBN-13:** 978-0596007607

**Co-Requisite Courses**
- Physics I Laboratory (PHYS 2111)
- Calculus I (MATH 1910)

**Topics Covered**
1. Art and Culture
2. The History of UNIX
3. UNIX Paradigms
4. Unix Shells and Shell Commands
5. Shell Scripting
6. Editors
7. File Systems
8. Text Programming
9. Network Communications
10. Make
11. Unix Debugging
12. Programming in PERL
13. Programming in C
14. Graphical Environments
15. Understanding Mail

Other topics may include the following:
- Graphics Creation and Manipulation
- Version Control
- Security
- Windows Philosophy vs. Linux / UNIX Philosophy
- Patch / Upgrade Philosophies

Additional course information will be uploaded to Canvas (accessible at the bottom of the UofM homepage.

**Professional Conduct and Honor Code**
Students are expected to conduct themselves in a professional manner. Please familiarize yourself with the [Student Code of Rights and Responsibilities](#).
Collaboration Policy

Students are permitted and encouraged (but not required) to discuss the ideas and concepts of any classroom topic or assignment. Unless otherwise specified, the product of each assignment and test is expected to be sole, individual work each student. Specifically, students can discuss ideas and concepts but one student is not permitted to write code or prose for another student. All help is expected to be documented and credited appropriately.

Warning 1: Each student should accept help with care. It is very easy to mislead yourself into believing that you understand a concept when others are providing aid or assisting. In a crunch (such as an exam), this error can prove fatal.

Warning 2: Please give help with care. Collaboration is intended to improve understanding of a concept. If too much help is given, students may be enabled to fail!

Plagiarism or cheating behavior in any form is unethical and detrimental to proper education and will not be tolerated. All work submitted by a student (projects, programming assignments, lab assignments, quizzes, tests, etc.) is expected to be a student’s own original work. The plagiarism is incurred when any part of anybody else’s work is passed as your own (no proper credit is listed to the sources in your own work so the reader is led to believe it is therefore your own effort.

Students are allowed and encouraged to discuss with each other and look up resources in the literature (including the internet) on their assignments, but appropriate references must be included for the materials consulted, and appropriate citations made when the material is taken verbatim.

If plagiarism or cheating occurs, the student will receive a failing grade on the assignment and (at the instructor’s discretion) a failing grade in the course. The course instructor may also decide to forward the incident to the University Judicial Affairs Office for further disciplinary action. For further information on U of M code of student conduct and academic discipline procedures, please refer to the Student Code of Rights and Responsibilities.

Grading Policy and Point Distribution

The final grade will be calculated using the following point system and grading scheme.
<table>
<thead>
<tr>
<th>Category</th>
<th>Weight</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Attendance / Participation</td>
<td>5%</td>
<td></td>
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<tr>
<td>Exam I</td>
<td>20%</td>
<td>Monday, September 26, 2022 (Tentative)</td>
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<tr>
<td>Exam II</td>
<td>20%</td>
<td>Monday, October 24, 2022 (Tentative)</td>
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<tr>
<td>Exam III</td>
<td>20%</td>
<td>Monday, November 21, 2022 (Tentative)</td>
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<tr>
<td>Homework</td>
<td>15%</td>
<td>Due dates will be announced in class</td>
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<tr>
<td>Class Project</td>
<td>20%</td>
<td>Due date and details will be announced in class</td>
</tr>
<tr>
<td>Final Exam</td>
<td>0%</td>
<td>Wednesday, December 7, 2022 5:30 to 7:30 p.m. (Comprehensive)</td>
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**Total 100%**

**Grade Ranges**
The final grades will be assigned according the following correspondence of numerical ranges to letter grades.

- A+: 97 to 100%
- A: 93 to 96.9%
- A−: 90 to 92.9%
- B+: 87 to 89.9%
- B: 83 to 86.9%
- B−: 80 to 82.9%
- C+: 77 to 79.9%
- C: 73 to 76.9%
- C−: 70 to 72.9%
- D+: 67 to 69.9%
- D: 60 to 66.9%
- F: 0 to 59.9%

**Disability Resources**
Please see the instructor if you need accommodations for a disability, or to fulfill cultural or religious obligations. Students with requests for accommodations should contact Disability Resources for Students (https://www.memphis.edu/drs/) to register and learn about the services available to support their learning. Students with disabilities are encouraged to speak with us privately about academic and classroom accommodations. It is strongly encouraged that you register with Disability Resources for Students (DRS) to determine appropriate academic accommodations. Disability Resources for Students is located in 110 Wilder Tower, their phone number is (901) 678-2880 (V/TTY), their email is drs@memphis.edu, and their website is https://www.memphis.edu/drs/. Disability Resources for Students coordinates all accommodations for students with disabilities.

Qualified students with disabilities will be provided reasonable and necessary academic accommodations if determined eligible by the appropriate Disability Resources for Students staff at the University. Prior to granting disability accommodations in this course, the instructor must receive written verification of a student’s eligibility for specific accommodations from the Disability Resources for Students staff at the University. It is the student’s responsibility to initiate contact with University’s Disability Resources for Students staff and to follow the established procedures for having the accommodation notice sent to the instructor.