

## CRITICAL PATH

## COURSE EVALUTION

Evaluation	Weight	Notes
Exercises (10)	20%	Worth 2% each
Midterm Test	20%	Week 7
Final Exam	20%	Week 14
Assignments (4)	28%	Worth 7% each
Quizzes (2)	12%	Worth 6% each (Week5, Week12)
	100%	

**Exercises** - Must be submitted IN-PERSON at the end of each weekly lecture.

**Assignments** – Must be submitted by the deadline (provided by the instructor)

## CLASSROOM POLICIES

- **Attendance:** In-class presentations are an important part of the course and students are expected to attend all classes unless they can provide medical documentation or evidence of bereavement. Students who fail to present paperwork will receive a mark of zero on the work they were expected to present.
- **Late Policies:**
  - **Assignments:** A penalty of 5% per day up to 5 days. After that grade of Zero will be assigned.
- **Communication:** Send all email communication for the instructor to **FACULTY EMAIL**

## COURSE AGENDA

Week & Date	Topics	Evaluation
<p>Week 1</p> <p>Jan 10 – Jan 16</p>	<ul style="list-style-type: none"> <li>- Introduction, Course outline.</li> <li>- Introduction to Operating Systems, the Unix architecture. <ul style="list-style-type: none"> <li>• History of Linux</li> <li>• Concept of Operating System</li> <li>• Hardware and software components</li> </ul> </li> <li>- Unix Logon process <ul style="list-style-type: none"> <li>• How to connect to a remote server using Mac/Windows</li> <li>• SSH connection</li> <li>• Accessing the terminal</li> </ul> </li> </ul>	<p><b>Exercise1</b></p>
<p>Week 2</p> <p>Jan 17 – Jan 23</p>	<ul style="list-style-type: none"> <li>- General Format of unix commands</li> <li>- Basic Unix Commands <ul style="list-style-type: none"> <li>• pwd</li> <li>• ls</li> </ul> </li> <li>- Paths and pathnames : the pwd command, Wildcard <ul style="list-style-type: none"> <li>• Concept of absolute path/relative path</li> <li>• Difference between '.' And '..'</li> </ul> </li> </ul>	<p><b>Exercise 2</b></p> <p>Assignment 1: posted</p>
<p>Week 3</p> <p>Jan 24 – Jan 30</p>	<ul style="list-style-type: none"> <li>- Navigating the file system: <ul style="list-style-type: none"> <li>• cd</li> </ul> </li> <li>- Listing directory contents <ul style="list-style-type: none"> <li>• ls and various options</li> </ul> </li> <li>- Creating directories <ul style="list-style-type: none"> <li>• mkdir</li> </ul> </li> <li>- Removing Directories <ul style="list-style-type: none"> <li>• rm and rmdir</li> <li>• preventing accidental deletion</li> </ul> </li> </ul>	<p><b>Exercise 3</b></p>
<p>Week 4</p> <p>Jan 31 – Feb 06</p>	<ul style="list-style-type: none"> <li>- Manipulating files:</li> <li>- Creating files <ul style="list-style-type: none"> <li>• touch</li> </ul> </li> <li>- Deleting files, Sorting files <ul style="list-style-type: none"> <li>• rm</li> <li>• sort alphabetically/numerically</li> <li>• cut and paste</li> </ul> </li> <li>- Basic Unix Admin Utilities <ul style="list-style-type: none"> <li>- Basic introduction of Permissions</li> </ul> </li> </ul>	<p><b>Exercise 4</b></p>
<p>Week 5</p> <p>Feb 07—Feb 13</p>	<ul style="list-style-type: none"> <li>- Unix/ Linux file types <ul style="list-style-type: none"> <li>• Extensions</li> <li>• File command</li> </ul> </li> <li>- File and directory permissions <ul style="list-style-type: none"> <li>• Symbolic/numeric notation</li> <li>• chmod</li> <li>• chown</li> </ul> </li> <li>- Getting help <ul style="list-style-type: none"> <li>• man</li> <li>• info</li> <li>• apropos</li> <li>• whatis</li> </ul> </li> </ul>	<p><b>Quiz 1 (6%)</b></p> <p><b>Assignment 1- due</b></p> <p>Assignment 2: posted</p>

Week 6 Feb 14—Feb20	<ul style="list-style-type: none"> <li>- Advance file processing: <ul style="list-style-type: none"> <li>- Introduction to text filtering</li> <li>• grep</li> <li>• uniq</li> <li>• comm</li> <li>• diff</li> <li>• tr</li> <li>• wc</li> <li>• head/tail</li> </ul> </li> </ul>	<b>Exercise 5</b>
Week 7 Feb 21—Feb 27* <i>*(Feb 21 Family Day)</i>	<ul style="list-style-type: none"> <li>- Using the vi Editor: <ul style="list-style-type: none"> <li>• Entering and navigating text</li> <li>• Insert mode</li> <li>• Command mode</li> <li>• Save/Modify text in a file</li> </ul> </li> <li>Copy, cut and paste in vi Editor</li> </ul>	<b>Exercise 6</b> <b>Assignment 2- due</b> Assignment 3: posted
<b>Reading Week</b> <b>Feb 28—Mar 06</b>	<b>Study Week</b>	
Week 8 Mar 07—Mar 13	<b>midterm</b>	
Week 9 Mar 14 –Mar 20	<ul style="list-style-type: none"> <li>- Redirection/Piping in Unix <ul style="list-style-type: none"> <li>• Input redirection</li> <li>• Output redirection</li> <li>• Arrow redirection</li> </ul> </li> <li>- Process management in Unix <ul style="list-style-type: none"> <li>• ps command</li> </ul> </li> </ul>	<b>Exercise 7</b>
Week 10 Mar 21 –Mar 27	<ul style="list-style-type: none"> <li>- Introduction to Shell Script <ul style="list-style-type: none"> <li>• Different types of shell</li> <li>• Shell environment</li> <li>• Shell variables</li> <li>• env command</li> <li>• echo command</li> </ul> </li> <li>- Shell Programming <ul style="list-style-type: none"> <li>• Using variables and operators</li> </ul> </li> </ul>	<b>Exercise 8</b>
Week 11 Mar 28 –April 03	<ul style="list-style-type: none"> <li>- Shell logic structure <ul style="list-style-type: none"> <li>• If command</li> <li>• If else</li> <li>• If else if</li> <li>• Case logic</li> </ul> </li> <li>- Shell loops <ul style="list-style-type: none"> <li>• For</li> <li>• While</li> <li>• Do while</li> </ul> </li> </ul>	<b>Exercise 9</b> <b>Assignment 3- due</b> Assignment 4: posted
Week 12 April 04 – April 10	<ul style="list-style-type: none"> <li>- Shell Functions <ul style="list-style-type: none"> <li>• Global variables</li> <li>• Local variables</li> </ul> </li> <li>- Basic discussion (awk, sed)</li> </ul>	<b>Quiz 2 (6%)</b>
Week 13 April 11 –April 17* <i>*(April 15 Good Friday)</i>	Final Exam Review	<b>Exercise 10</b>
Week 14 April 18—April 24	<b>Final Exam</b>	<b>Assignment 4 – due</b>