

Computer Science Technology

Houston Community College



UNIX System Administration 1 – ITSC 1458

CRN 12961

Spring 2022

Course Syllabus

Instructor	Hung M Le Tel: 832-766-0486 Email: hung.le8@hccs.edu		
Course Reference Number (CRN)	12961		
WECM Course Description:	Provide new system administrators the basics of administering UNIX/Linux workstations. Students will perform basic system administration tasks, such as installing a standalone system, adding users, configure tcp/ip for linux, compiling linux kernel. Emphasis on the procedures needed to perform these system administration tasks. Introduces the concept of the system and disk management.		
Course Prerequisite(s)	ITSC 1307 (A lot of the material in the early chapters of Admin 1 overlap with the UNIX OS 1 material so students can still do well by starting with Admin 1. It may be a steeper learning curve for students that have never used Linux.		
Course Semester Credit Hours (SCH) (Lecture, Lab) if applicable	Credit Hours 4 (Lecture 3, Lab 3)		
Course Location/Times	Online Anytime Class dates Jan 18 th – May 15 th , 2022	Total Course Contact Hours	96
Textbook	<p>You have the option to purchase the Red Hat Academy’s e-book or hardcopy version through a third-party vendor for \$50. Here is the registration URL (again, optional) -> https://www.gilmore.ca/RedHat/RegisterUser.aspx?17f454cfc43d3fc74f5b1660a9736f67 (Links to an external site.)Links to an external site.</p> <p>You should also have access to the NDG Netlabs. These are web-based labs that allow you to do the Red Hat labs. Please be sure to check your emails and the Eagle Online portal for the latest updates.</p> <p>Other optional textbook (chosen before we aligned with the Red Hat Academy) -> Linux Administration – A Beginner’s Guide by Wale Soyinka. ISBN-13: 978-0071845366 ISBN-10: 0071845364</p>		
Instructional Methods	Distance	Type of Instruction	Online
Course Length (number of weeks)	16		

Course Requirement, Policy, and Course Calendar

Course Requirement, Policy, and Course Calendar															
Course Requirements and Expectations	<ul style="list-style-type: none"> • You are expected to read and study the course materials in a timely fashion • You are expected to login to Eagle Online and/or the Red Hat Academy at least once a week for attendance purposes • Make-up tests are allowed only due to emergencies • You are encouraged to practice (Install VMware workstation and boot-up a UNIX-based VM for practice). You will have access to the VMware Academy to download the software (VMware Workstation for Windows users and Fusion for Mac users) • Have fun and ask lots of questions (seriously!) • Respect and help your peers • No cheating allowed 														
Make-up Exam Policy	<ul style="list-style-type: none"> • Make-up tests are allowed only due to emergencies 														
Academy Dishonesty	Academic dishonesty is not a substitute for a successful completion of this course in any manner. Your independent work is accepted and credited accordingly and you must not engage in an activity that will jeopardize this.														
Use of Personal Communication devices in class	<ul style="list-style-type: none"> • Not allowed during exams 														
Instructor Grade Criteria	<table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <thead> <tr style="background-color: #e0e0e0;"> <th colspan="2" style="text-align: center;">Course Grading</th> </tr> </thead> <tbody> <tr> <td style="text-align: left;"><i>Midterm Exam</i></td> <td style="text-align: right;">25%</td> </tr> <tr> <td style="text-align: left;"><i>Final Exam</i></td> <td style="text-align: right;">25%</td> </tr> <tr> <td style="text-align: left;"><i>Quizzes</i></td> <td style="text-align: right;">20%</td> </tr> <tr> <td style="text-align: left;"><i>Discussions</i></td> <td style="text-align: right;">10%</td> </tr> <tr> <td style="text-align: left;"><i>Project(s)</i></td> <td style="text-align: right;">16%</td> </tr> <tr> <td style="text-align: left;"><i>Attendance</i></td> <td style="text-align: right;">4%</td> </tr> </tbody> </table>	Course Grading		<i>Midterm Exam</i>	25%	<i>Final Exam</i>	25%	<i>Quizzes</i>	20%	<i>Discussions</i>	10%	<i>Project(s)</i>	16%	<i>Attendance</i>	4%
Course Grading															
<i>Midterm Exam</i>	25%														
<i>Final Exam</i>	25%														
<i>Quizzes</i>	20%														
<i>Discussions</i>	10%														
<i>Project(s)</i>	16%														
<i>Attendance</i>	4%														

Course Calendar

Last update 01-14-2019

Session	WK	Topics	Reading Assignments
Jan 18 – Jan 22	1	Class acquaintance / Welcome Chapter 1 – Access the Command Line	Chapter 1 material Student intro discussion

Jan 24 – Jan 30	2	Chapter 2 – Managing Files From the Command Line	Chapter 1 quiz Chapter 2 material
Jan 31 – Feb 5	3	Chapter 3 – Getting Help in Red Hat Enterprise Linux	Chapter 2 quiz Chapter 3 material
Feb 13 – Feb 19	4	Chapter 4 – Creating, Viewing, and Editing Text Files	Chapter 3 quiz Chapter 4 material
Feb 20 – Feb 26	5	Chapter 5 – Managing Local Linux Users and Groups	Chapter 4 quiz Chapter 5 material
Feb 18 – Feb 22	6	Chapter 6 – Controlling Access to Files and Linux File System Permissions	Chapter 5 quiz Chapter 6 material
Feb 27 – Mar 5	7	Chapter 7 – Monitoring and Managing Linux Processes	Chapter 6 quiz Chapter 7 material
Mar 6 – Mar 12	8	Chapters 1 – 7 MIDTERM EXAM Chapter 8 – Controlling Services and Daemons	Chapters 1-7 Midterm exam review Midterm jeopardy game
Mar 13 – Mar 19	9	SPRING BREAK	
Mar 20 – Mar 26	10	Chapter 9 – Configuring and Securing OpenSSH Service Chapter 10 – Analyzing and Storing Logs	Chapters 9 & 10 material Chapter 8 quiz
Mar 27 – Apr 2	11	Chapter 10 – Analyzing and Storing Logs (cont'd) Chapter 11 – Managing Red Hat Enterprise Linux Networking	Chapter 9 & 10 quiz Chapter 11 material
Apr 3 – Apr 9	12	Chapter 12 – Archiving and Copying Files Between Systems	Chapter 11 quiz Chapter 12 material
Apr 10 – Apr 14	13	Chapter 13 - Installing and Updating Software Packages Chapter 14 – Access File Systems	Chapter 12 quiz Chapter 13 material
Apr 15 – Apr 16	14	Spring Holiday - No Class	Chapter 13 quiz Chapter 14 material
Apr 17 – Apr 23	15	Chapter 14 – Access File Systems (cont'd) Chapter 15 – Using Virtualized Systems	Chapter 14 quiz Chapter 15 material
Apr 24 – Apr 30	16	Chapter 16 – Comprehensive Review	Chapter 16 material Chapter 16 quizzes

May 6 – May 10	17	Final EXAM Date 5/10 ; Location: West Loop 155	Chapters 9-16 Final exam review Final jeopardy game
----------------	----	---------------------------------------------------	-----------------------------------------------------------

Learning Objective, Students Learning Outcome, and Program Spec

Note: This section of the syllabus provides the general course learning objectives, the expected students learning outcome, the course scope in terms of the department program, and the instrument used to evaluate the course. If you have any question, contact the instructor or the department for answers.

HCC Grading Scale																			
	<table border="1"> <thead> <tr> <th style="background-color: #cccccc;">Grade</th> <th style="background-color: #cccccc;">GPA Points</th> </tr> </thead> <tbody> <tr> <td>A = 100- 90</td> <td>4 points per semester hour</td> </tr> <tr> <td>B = 89 - 80:</td> <td>3 points per semester hour</td> </tr> <tr> <td>C = 79 - 70:</td> <td>2 points per semester hour</td> </tr> <tr> <td>D = 69 - 60:</td> <td>1 points per semester hour</td> </tr> <tr> <td>59 and below = F</td> <td>0 points per semester hour</td> </tr> <tr> <td>IP (In Progress)</td> <td>0 points per semester hour</td> </tr> <tr> <td>W(Withdrawn)</td> <td>0 points per semester hour</td> </tr> <tr> <td>I (Incomplete)</td> <td>0 points per semester hour</td> </tr> </tbody> </table>	Grade	GPA Points	A = 100- 90	4 points per semester hour	B = 89 - 80:	3 points per semester hour	C = 79 - 70:	2 points per semester hour	D = 69 - 60:	1 points per semester hour	59 and below = F	0 points per semester hour	IP (In Progress)	0 points per semester hour	W(Withdrawn)	0 points per semester hour	I (Incomplete)	0 points per semester hour
Grade	GPA Points																		
A = 100- 90	4 points per semester hour																		
B = 89 - 80:	3 points per semester hour																		
C = 79 - 70:	2 points per semester hour																		
D = 69 - 60:	1 points per semester hour																		
59 and below = F	0 points per semester hour																		
IP (In Progress)	0 points per semester hour																		
W(Withdrawn)	0 points per semester hour																		
I (Incomplete)	0 points per semester hour																		

	<table border="1"> <tr> <td>AUD (Audit)</td> <td>0 points per semester hour</td> </tr> </table> <p>IP (In Progress) is given only in certain developmental courses. The student must re-enroll to receive credit. COM (Completed) is given in non-credit and continuing education courses. To compute grade point average (GPA), divide the total grade points by the total number of semester hours attempted. The grades "IP," "COM" and "I" do not affect GPA.</p>	AUD (Audit)	0 points per semester hour
AUD (Audit)	0 points per semester hour		
EGLS3 -- Evaluation for Greater Learning Student Survey System	At Houston Community College, professors believe that thoughtful student feedback is necessary to improve teaching and learning. During a designated time, you will be asked to answer a short online survey of research-based questions related to instruction. The anonymous results of the survey will be made available to your professors and division chairs for continual improvement of instruction. Look for the survey as part of the Houston Community College Student System online near the end of the term.		
Course Student Learning Outcomes (SLO):	<ol style="list-style-type: none"> 1. Develop essential operating systems skills including how to use, setup, configure, troubleshoot and maintain a current microcomputer operating system 2. Use and configure essential office applications and Help other technology users, develop training and maintenance plans and to translate new technical knowledge so that others can use it 3. Install, Configure, and Administer Linux/UNIX and other systems 4. Document work log, write clearly and appropriately in an Information Technology context, respect user's data, including backup and security 		
Learning Objectives	<ol style="list-style-type: none"> 1. Develop essential operating systems skills including how to use, setup, configure, troubleshoot and maintain a current microcomputer operating system 2. Use and configure essential office applications and Help other technology users, develop training and maintenance plans and to translate new technical knowledge so that others can use it 3. Install, Configure, and Administer Linux/UNIX and other systems 4. Document work log, write clearly and appropriately in an Information Technology context, respect user's data, including backup and security 		
Student Assignments	Refer to the Course Calendar		
Student Assessment(s)	<p>Use basic UNIX commands; No assessments selected for this outcome</p> <p>Apply terminal emulation; No assessments selected for this outcome</p> <p>Use a system editor; No assessments selected for this outcome</p> <p>Manage individual user accounts and files; No assessments selected for this outcome</p>		
Program/Discipline Requirements:	Instructors will use syllabus that will satisfy CurricuUNET requirements and improve on-going assessment of student-centered learning and teaching.		
Academic Discipline/CTE Program Learning	<ol style="list-style-type: none"> 1. Develop essential operating systems skills including how to use, setup, configure, troubleshoot and maintain a current microcomputer operating system 		

Outcomes	<p>2. Use and configure essential office applications and Help other technology users, develop training and maintenance plans and to translate new technical knowledge so that others can use it</p> <p>3. Install, Configure, and Administer Linux/UNIX and other systems</p> <p>4. Document work log, write clearly and appropriately in an Information Technology context, respect user's data, including backup and security</p>
SCANS and/or Core Curriculum	<p>Use basic UNIX commands;</p> <p>Apply terminal emulation;</p> <p>Use a system editor;</p> <p>Manage individual user account and files.</p>
HCC Policy Statement	
Access Student Services Policies on their Web site:	http://www.hccs.edu/district/students/student-handbook/
Distance Education and/or Continuing Education Policies	
Access DE Policies on their Web site:	http://de.hccs.edu/media/houston-community-college/distance-education/student-services/pdf/2015-HCC-DE-Student-Handbook-(Revised-5_28_15)_will.pdf
Title IX of the Education Amendments of 1972	<p>Title IX of the Education Amendments of 1972 requires that institutions have policies and procedures that protect students' right with regard to sex/gender discrimination. Information regarding these rights are on the HCC website under Student-Anti-discrimination. Students who are pregnant and require accommodations should contact any of the ADA Counselors for assistance.</p> <p>It is important that every student understand and conforms to respectful behavior while at HCC. Sexual misconduct is not condoned and will be addressed promptly. Know your rights and how to avoid these difficult situations.</p> <p>Log in www.edurisksolutions.org. Sign in using your HCC student email account, then go to the button at the top right that says Login and enter your student number.</p>