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| Course Information | |
| Name, Credits | CT210 Open Server I, 3 credits |
| Pre-requisite | None |
| University Catalog Description | Introduces administration of open source operating systems and management of open servers. Topics covered include the boot process, and fundamental server concepts related to processing, memory and storage. Addresses use of a command line interface to manage processes, modify file permissions, examine configuration settings, and run utilities for server administration. |
| Purpose | The purpose of this course is to familiarize students with open source operating systems. This course uses both lecture and hands on lab exercises using the Linux operating system. It is a required course for all CST majors. |
| Statement of Expected Learning | Upon successful completion of this course, a student will be able to:   1. Describe fundamental components of servers and operating systems 2. Install the Linux Operating System 3. Utilize the Linux command line shell 4. Define and establish Linux file systems. 5. Create and modify Linux access permissions 6. Evaluate Linux processes. 7. Demonstrate the use of the BASH shell. 8. Configure and utilize network interfaces and network tools 9. Define basic system administration functions |
| Textbook | * Textbooks used in this course are available online in the Drexel Library (library.drexel.edu) * Mastering Ubuntu Server, Fourth Edition by Jay LaCroix, (ISBN-13:978-1-80323-424-3). Packt Publishing, 2022  Appendix A in text A Practical Guide to Linux Commands, Editors, and Shell Programming by Mark G. Sobell, Fourth Edition for Regular Expressions  * All other associated course materials will be posted in LEARN. * All lab homework assignments and any discussion boards will be available in LEARN. |

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| Assignments, Assessment, and Evaluation | | | |
| Week | **Chapter**  **Readings** | **Topics** | **Assessments** |
| 1 | Chapter 1 | Server Concepts | Homework 1  Discussion Board (Online Students) |
| 2 | Chapter 1 | Server Concepts; Deploying an Ubuntu Server | Lab 1 (vcenter lab) |
| 3 | Chapter 2 | Managing Users and Permissions | Lab 2,  Discussion Board (Online Students) |
| 4 | Chapter 3-4 | Managing Software Packages  Navigating and Essential Commands | Lab 3 |
| 5 | Chapter 5 | Managing Files and Directories | Mid-term Exam Weeks 1- 5 materials, Chapters 1-5 |
| 6 | Chapter 6-7 | Boosting your Command-line Efficiency  Controlling and Managing Processes | Lab 4, Homework 2  Discussion Board (Online Students) |
| 7 | Chapter 8 | Scheduling Processes  Monitoring System Resources | Lab 5 |
| 8 | Appendix A | Regular Expressions | Homework 3  Lab 6 (keep with regex)  Discussion Board (Online Students) |
| 9 | Chapter 10 | Networking Interfaces  Connecting to Networks  SSH | Lab 7 |
| 10 | Chapter 9 | Managing Storage Volumes  Review for the Final Exam | Study for the Final Exam |
| 11 |  |  | Final Exam  Chapters (6-10), Appendix A |

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| Assignments, Assessment, and Evaluation | | | | |
| Grading Breakdown | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | Grade | Numeric Range | Grade Points | Grade | Numeric Range | Grade Points | | A+  A  A-  B+  B  B- | 97 – 100  93 - 96  90 - 92  87 - 89  83 - 86  80 - 82 | 4.0  4.0  3.67  3.33  3.0  2.67 | C+ | 77 – 79 | 2.33 | | C | 73 – 76 | 2.0 | | C- | 70 – 72 | 1.67 | | D+ | 66 – 69 | 1.33 | | D  F | 60 – 65  < 60 | 1.00  0.00 | | | | |
| Grade Distribution | **Grades for Undergraduate Students** | | | |
| **Item** | **Point Values  for Each** | **Quantity** | **% of Grade** |
| Discussion Boards (Online Students)  or Participation (Classroom Students) | 10 | Discussion 4-8  or  Class Participation Exercises 2-3 | 5% |
| Lab Assignments | 100 | 5-7 | 35 % |
| Written Homework Assignments | 100 | 3-4 | 30 % |
| Mid Term Exam | 100 | 1 | 15 % |
| Final Exam | 100 | 1 | 15 % |
| Total % |  |  | 100 % |
| Penalties for Late Work: | As a general rule, late submissions will not be allowed. In cases where it is allowed, full credit may not be earned and the instructor reserves the right to modify makeup assessments relative to the version that was given to the rest of the class.  Late Work   * Assignments handed in late will receive deductions as follows: * 24 hours late – 10 % deduction (IE: a 100 point assignment will receive a 10 point deduction) * 48 hours late – 25 % deduction (IE: a 100 point assignment will receive a 25 point deduction) * More than 48 hours late – the assignment will receive an F or zero for the assignment | | | |

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| **Assignments,**  **Assessments and Evaluation** | **Grades**   * Course grade will be generally based on a final exam, midterm exam, a series of homework assignments, lab assignments and participation. More information about exams and assignments will be provided in class.   **Assignments**   * Assignment due dates do not fluctuate. All assignments are as posted in LEARN. Generally, assignments will not be accepted late unless PRIOR permission is granted by your instructor.   **Virtual Environments**   * All virtual environments used in this course along with data associated with these environments will be deleted at the end of the quarter. |
| **Academic Policies** | This course follows university, college, and department policies, including but not limited to:   * Academic Integrity, Plagiarism, Dishonesty and Cheating Policy: <https://drexel.edu/provost/policies-calendars/policies> * Students with Disability Statement: <http://drexel.edu/oed/disabilityResources/students/> * Course Add/Drop Policy   <https://drexel.edu/provost/policies-calendars/policies>   * Course Withdrawal Policy:   <https://drexel.edu/provost/policies-calendars/policies>   * Department Academic Integrity Policy: <http://drexel.edu/cci/resources/current-students/undergraduate/policies/cs-academic-integrity/> * Drexel Student Learning Priorities   <https://drexel.edu/institutionalresearch/assessment/outcomes/dslp>   * Office of Disability Resources: <http://www.drexel.edu/ods/student_reg.html>   Students requesting accommodations due to a disability at Drexel University need to request a current Accommodations Verification Letter (AVL) in the [ClockWork database](http://accommodate.drexel.edu/ClockWork/) before accommodations can be made. These requests are received by Disability Resources (DR), who then issues the AVL to the appropriate contacts. For additional information, visit the DR website, <http://www.drexel.edu/ods/student_reg.html> or by email at [disability@drexel.edu](mailto:disability@drexel.edu). |
| **Instructor Policy** | **Incomplete policy:** Incomplete (INC) grades are strongly discouraged and will only be given to students under *extraordinary* circumstances. Students applying for an Incomplete must have completed at least **70**% of the work in the course and should have earned a passing grade for that work. A request for an Incomplete *must be submitted before the end of week 10.* Furthermore, a written contract must be agreed to by instructor and student before the Incomplete will be granted.  **Permitted use of artificial tools in this course:** Artificial intelligence tools such as large language models (e.g., ChatGPT) are permitted to be used in preparing submitted work ***only when*** specified. In particular, please refer to the instructions on assignments for permitting the use of artificial intelligence tools. If an assignment or assessment ***does not specify*** that artificial tools can be used, assume that they ***cannot*** be used in preparing submitted work. |
| **Course Evaluation** | Your feedback about the course and instructor is the only way instructors and academic units can improve the quality of a course and its content. Courses administered by the College of Computing and Informatics are evaluated electronically via AEFIS. Students will receive all necessary information via email by the 8th or 9th week of classes. The evaluations are entirely confidential and will preserve your anonymity. |
| **Syllabus Changes** | The instructor reserves the right to make changes to this syllabus if circumstances warrant such change. All changes will be provided to students in writing. |

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| Certification | At the beginning of each term, each student must submit the following statement to your instructor:  I certify that   * My work in this course will be entirely my own work. * I will not quote the words of any other person from a printed source or a website without indicating what has been quoted and providing an appropriate citation. * I will not submit my work in this course to satisfy the requirements of any other course. * I will use AI tools and search engines to assist with assessments only when it is permitted.   Name/Signature : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |