Wharton County Junior College

# Administrative Master Syllabus

## Course Information

| | |
|---|---|
| **Course Title** | Linux Installation and Configuration |
| **Course Prefix, Num. and Title** | ITSC 1316 - Linux Installation and Configuration |
| **Division** | Business and Computer Science |
| **Department** | Information Technology and Networking |
| **Course Type** | WECM Course |
| **Course Catalog Description** | Introduction to Linux operating system. Includes Linux installation, basic administration, utilities and commands, upgrading, networking, security, and application installation. Emphasizes hands-on setup, administration, and management of Linux. |
| **Pre-Requisites** | None |
| **Co-Requisites** | None |

## Semester Credit Hours

| | |
|---|---|
| **Total Semester Credit Hours (SCH): Lecture Hours: Lab/Other Hours** | 3:2:2 |
| **Equated Pay Hours** | 3 |
| **Lab/Other Hours Breakdown: Lab Hours** | 2 |
| **Lab/Other Hours Breakdown: Clinical Hours** | 0 |
| **Lab/Other Hours Breakdown: Practicum Hours** | 0 |
| **Other Hours Breakdown** | 0 |

## Approval Signatures

| Title | Signature | Date |
|---|---|---|
| **Department Head:** | Muna Saqer, Comp Sci and IT&N Program Director | 11-16-2023 |
| **Division Chair:** | David Kucera, Technology & Business Division | 11-16-2023 |
| **VPI:** | Leigh Ann Collins Digitally signed by Leigh Ann Collins Date: 2024.06.27 16:40:58 -05'00' | |

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# Additional Course Information

**Topical Outline:** Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, and clinical or other non-lecture instruction).

- Install Linux Operating System
- Perform basic user-level commands
- Perform system administration level commands
- Create a basic shell script
- Create basic text files
- Assign appropriate file permissions to file and folders
- Edit documents and perform searches
- Create and manage user accounts
- Assign password policies to users
- Delegate “administrator” (root) privileges to users
- Create virtual network interfaces
- Install the desktop
- Perform basic network troubleshooting commands

## Course Learning Outcomes:

**Learning Outcomes – Upon successful completion of this course, students will:**

- Install, administer, and manage a Linux system
- Demonstrate proficiency with Linux utilities, commands, and applications
- Identify and resolve security-based issues
- Integrate a Linux system into an existing network

**Methods of Assessment:**

All outcomes will be assessed by one or more of the following:
Individual/Group Assignments
Individual/Group Projects
Reading Assignments
Presentations
Lab Works/Assignments
Quizzes/Tests/Exams

## Required text(s), optional text(s) and/or materials to be supplied by the student:

Linux+ Guide to Linux Cert (w/CD & Access Code) Author: Eckert Publisher: Course Technology; (Third or latest edition)

## Suggested Course Maximum:

18

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## List any specific or physical requirements beyond a typical classroom required to teach the course.

- Current Linux operating system software (64 bit) for each student and instructor
- Current VMware Workstation for each student and instructor
- Antivirus software for each student and instructor
- Computer (64-bit CPU, 12 GB Ram, graphics cards, monitors, for each student
- Removable hard drive for each student and instructor (1 TB hard drive)
- Laser Printer
- Cat 5 network cable, RJ-45 jacks and crimper for each student and 2 cable testers
- Instructor needs 2 monitors, 2 NICs, & Data projector

Current lab equipment has the capability for 18 students

## Course Requirements/Grading System: Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course.

Labs ..... 0-10%
Homework..... 0-10%
Tests& Final Exam ..... 40-50%
Attendance & Participation.50-60%

Grade System:
90-100% ..... =A
80-89% ..... =B
70-79% ..... =C
60-69% ..... =D
Below 60%..... =F

## Curriculum Checklist:

☐**Administrative General Education Course** (from ACGM, but not in WCJC Core) – No additional documents needed.

☐**Administrative WCJC Core Course**. Attach the Core Curriculum Review Forms

- ☐Critical Thinking
- ☐Communication
- ☐Empirical & Quantitative Skills
- ☐Teamwork
- ☐Social Responsibility
- ☐Personal Responsibility

☒**WECM Course** -If needed, revise the Program SCANS Matrix and Competencies Checklist