



**Course Information**

<b>Course Title</b>	Advanced Linux
<b>Course Prefix, Num. and Title</b>	ITSC 2325 - Advanced Linux
<b>Division</b>	Business and Computer Science
<b>Department</b>	Computer Science
<b>Course Type</b>	WECM Course
<b>Course Catalog Description</b>	Provides instruction in advance open-source Linux operating system. Develops directory services for clients, support users remotely, and install and configure network services.
<b>Pre-Requisites</b>	ITSC 1307 or ITSC 1316
<b>Co-Requisites</b>	None

**Semester Credit Hours**

<b>Total Semester Credit Hours (SCH): Lecture Hours:</b>	3:2:2
<b>Lab/Other Hours</b>	
<b>Equated Pay Hours</b>	3
<b>Lab/Other Hours Breakdown: Lab Hours</b>	2
<b>Lab/Other Hours Breakdown: Clinical Hours</b>	0
<b>Lab/Other Hours Breakdown: Practicum Hours</b>	0
<b>Other Hours Breakdown</b>	0

**Approval Signatures**

<b>Title</b>	<b>Signature</b>	<b>Date</b>
<b>Prepared by:</b>		
<b>Department Head:</b>		
<b>Division Chair:</b>		
<b>Dean/VPI:</b>		
<b>Approved by CIR:</b>		

## 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).

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- Virtual Machines and Automated Installations
- Fundamental Command Line Skills
- RHCSA-Level Security Options
- The Boot Process
- Linux file system Administration
- Package Management
- User Administration
- RHCSA-Level System Administration Tasks

**Course Learning Outcomes:**

Learning Outcomes Upon successful completion of this course, students will	Methods of Assessment
<ul style="list-style-type: none"> <li>• Install, administer, and manage advanced network environment using a Linux system;</li> <li>• Demonstrate advanced skills and proficiency with Linux utilities and configurations;</li> <li>• Deploy secure networks;</li> <li>• Integrate Linux networks with existing networks.</li> </ul>	<p>All outcomes will be assessed by one or more of the following:</p> <p>Individual/Group Assignments</p> <p>Individual/Group Projects</p> <p>Reading Assignments Presentations</p> <p>Lab Works/Assignments</p> <p>Quizzes/Tests/Exams</p>

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

RHCSA/RHCE Red Hat Linux 7: Training and Exam Preparation Guide, 3rd Edition. ISBN: 9781495148200 or similar current Title

Suggested Course Maximum:

18

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 tester
- Instructor needs 2 monitors, 2 NICs, & Data projector

Current lab equipment has capability for 16 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...20-40%

Homework...20-40%

Tests& Final Exam...40-60%

Attendance & Participation...0-20%

#### Grading System

90 -100 = A

89 – 80 = B

79 – 70 = C

69 – 60 = D

Below = 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