CIT 240. INTRODUCTION TO LINUX.
Credit Hours: 3
Scheduled hours per week
  Lecture: 2
  Lab: 1
  Other: 0

Catalog Course Description: Students learn the basics of how to install, configure, and use the Linux operating system; learn the commands and graphical interfaces; and configuration and troubleshooting techniques.

Pre-requisites: CIT 114

Co-requisites: N/A

Course Learning Outcomes:
- To understand, describe, and demonstrate installation, configuration, and troubleshooting of the Linux operating system and related services.
- This course prepares the learner for the CompTIA Linux+ certification.

Topics to be studied:
- Introduction to the Linux operating system
- Installation and usage
- File system management and administration
- Server deployment
- BASH shell
- System Initialization and X Windows
- Managing Linux processes
- Common administrative tasks
- Compression, system backup, and software installation
- Network configuration
- Configuring network services
- Troubleshooting, performance, and security

Relationship of Course to Program or Discipline Learning Outcomes:

<table>
<thead>
<tr>
<th>Identify and describe layers of the OSI and TCP/IP models, and use them effectively in troubleshooting</th>
<th>Describe and apply LAN and WAN technologies in wired and wireless environments</th>
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</thead>
<tbody>
<tr>
<td>X Demonstrate ability to apply workstation and server installation, configuration, management and troubleshooting techniques</td>
<td>X Demonstrate ability to install, configure, manage, and maintain routing and switching technologies</td>
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<tr>
<td>X Describe and discuss different operating systems and their relationship with hardware, their functions, advantages and disadvantages, and their respective tools and software packages</td>
<td>X Explain Information Systems and choose appropriate systems based on requirements</td>
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<td>X Describe basic information security and computer ethics</td>
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### Relationship of Course to General Education Learning Outcomes:

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Required</th>
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</thead>
<tbody>
<tr>
<td><strong>Composition and Rhetoric</strong></td>
<td>Students illustrate a fundamental understanding of the best practices of communicating in English and meet the writing standards of their college or program-based communication requirements.</td>
<td>X</td>
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<tr>
<td><strong>Science &amp; Technology</strong></td>
<td>Students successfully apply systematic methods of analysis to the natural and physical world, understand scientific knowledge as empirical, and refer to data as a basis for conclusions.</td>
<td>X</td>
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<tr>
<td><strong>Mathematics &amp; Quantitative Skills</strong></td>
<td>Students effectively use quantitative techniques and the practical application of numerical, symbolic, or spatial concepts.</td>
<td>X</td>
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<tr>
<td><strong>Society, Diversity, &amp; Connections</strong></td>
<td>Students demonstrate understanding of and a logical ability to successfully analyze human behavior, societal and political organization, or communication.</td>
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<tr>
<td><strong>Human Inquiry &amp; the Past</strong></td>
<td>Students interpret historical events or philosophical perspectives by identifying patterns, applying analytical reasoning, employing methods of critical inquiry, or expanding problem-solving skills.</td>
<td>X</td>
</tr>
<tr>
<td><strong>The Arts &amp; Creativity</strong></td>
<td>Students successfully articulate and apply methods and principles of critical and creative inquiry to the production or analysis of works of art.</td>
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#### Special requirements of the course:
Students will be required to setup and configure the Linux operating system during their final in order to pass the class.

#### Additional information:
This course requires a C or better to enroll into CIT 340 (Advanced Linux Networking).

**Prepared by:** Doug Rhodes

**Date:** 10/20/2017