**COURSE: WIIT - 7780 Linux Essentials**

**DESCRIPTION OF COURSE**

This course provides a basic understanding of Linux major components and provides the technical proficiency to work on the Linux command line and text editors. The course provides the student with the ability to tackle system administration tasks, file management, and user/group management and permissions.

**SOFTWARE**

Linux Software. Free download or Cloud Linux instance. Columbus State provides an AWS Student Starter Account with $75 usage credit or an AWS Student Account (requires student credit card for overages) with $100 usage credit. The student may also use their own AWS personal account. The student may also use their own Azure personal account.

**TEXTBOOK, MANUALS, REFERENCES, AND OTHER READINGS**

Linux Essentials, 2nd Edition, by Christine Bresnahan & Richard Blum

ISBN: 978-1-119-09206-3

Publisher: John Wiley & Sons, Inc.

**UNITS OF INSTRUCTION**

* Command Line
  + Running Programs
  + Using Shell commands
  + Getting help using man pages
  + Getting help using info pages
* Managing Files
  + Understanding where things go
  + Navigating directories
  + Manipulating files
  + Manipulating directories
* Managing Data
  + Using regular expressions
  + Searching for and extracting data
  + Redirecting input and output
  + Archiving Data
* Using Programs and Processes
  + Understanding package management
  + Understanding the process hierarchy
  + Identify running processes
  + Using log files
* Understanding basic security
  + Understanding accounts
  + Using account tools
  + Working as root
* Setting ownership and permissions
  + Setting ownership
  + Setting permissions
  + Using special permission bits and file features
* Managing Network Connections
  + Understanding network features
  + Configuring a network connection
  + Testing a network connection