

Network Systems Administration Department
Business/Public Service Division
GREENVILLE TECHNICAL COLLEGE

COURSE SYLLABUS

Course Number: IST 190

Course Title: Linux Essentials

Lecture hours per week: 3.0 **Semester credit hours:** 3.0

Prerequisite: CPT 257

Co-requisite: None

Catalog Course Description: This course will provide students with the fundamental knowledge and concepts of the Linux operating system including command line functions, file systems, user and group administration, process management, text editors, and network applications.

Purpose of the Course: Students will learn to be effective users of Linux systems acquiring skills and understanding of command line functions, file systems, users and groups, bash shell, process management, text editors, network applications, searching and organizing data, and graphical applications.

Required text(s) or other materials:

1. Lab Pack: Red Hat Academy RHA030 v6.1.2 Workbooks 1 through 11, published by the Red Hat Academy; only available through the Greenville Tech Bookstore or online in the Red Hat Academy.
2. NOTE: Students in traditional classes must access Blackboard for course-related information. Students in hybrid and online classes will access their online content through Blackboard.

COLLEGE-WIDE STUDENT LEARNING OUTCOMES

1. Communication – Students will demonstrate the ability to use active reading and listening skills and to produce effective written and oral communication for varying audiences.
2. Information Technology and Technological Literacy – Students will demonstrate competency in using computer technology within a field of study.
3. Critical Thinking/Reasoning – Students will demonstrate the ability to apply the scientific method, mathematical processes, and research skills to analyze and solve problems/issues by using reflection and reasoning to justify conclusions.
4. Professional and Personal Responsibility – Students will demonstrate the ability to exhibit conduct, attitudes, and etiquette appropriate to the student’s community and chosen career. Students will demonstrate the ability to manage time, to use effective interpersonal skills, and to display responsible behavior.

5. Diversity – Students will demonstrate the ability to recognize diversity and to demonstrate respectful conduct and attitudes toward all. Students will demonstrate the ability to explain how global issues impact life, work, and opportunities.

Approved March 26, 2009

NETWORK SYSTEMS ADMINISTRATION PROGRAM LEVEL STUDENT LEARNING OUTCOMES

Upon successful completion of the Network Systems Administration program, the student will be able to:

1. Set up, maintain, and troubleshoot computer and network hardware.
2. Install, maintain, and troubleshoot operating system and application software.
3. Construct and configure local area networks.
4. Administer and troubleshoot network operating systems.
5. Analyze and implement security measures for information technology.

IST 190 COURSE OUTCOMES

Upon completion of the course, the student will be able to successfully complete 70% of the following tasks:

1. Navigate and manage the Linux file system.
2. Administer Linux users and groups.
3. Manage Linux file ownerships and permissions.
4. Execute commands in the Bash shell.
5. Manage a Red Hat Enterprise Linux server using basic administrative skills.

The outcomes of the IST 190 course are intended to meet the Network Systems Administration program level student learning outcomes numbered 2 and 4 above.

Revised 1/2009

IST 190 – Main Topics

- Quick Tour (of Red Hat Enterprise Linux)
- File System Basics
- Linux Users and Groups
- Linux File Ownerships and Permissions
- The Linux File System
- The Bash Shell
- Standard I/O and Pipes
- String Processing Tools
- Managing Processes
- Network Applications
- Supplements: Shell Scripting, Character Encoding and Internationalization, and Package Manage

IST 190 – Course Specific Requirements

The Red Hat Academy curriculum is available at the web site <http://academy.redhat.com>. The text is a printed version of the online curriculum. The online curriculum and tests can be accessed with your user name and password. To receive full benefit from the online curriculum, be sure to visit links recommended.

Notebooks should be maintained containing notes from the Red Hat curriculum, the text, lectures, and labs.

There are 11 online tests. The tests are intended for the Red Hat Certified Technician (RHCT) exam preparation. The final exam will consist of a written assessment and a skill-based assessment.

IST 190 – EVALUATION AND GRADING INFORMATION

Grades will be calculated as follows:

A numeric grade will be given for each of the following items:

Workbook Tests (Red Hat Online Tests)	50 percent
Labs	15 percent
Workbook Assignments	10 percent
Final Examination	25 percent

(Written Final Exam 35% and Skill-Based Assessment 65%)

Final letter grades will be issued as follows:	A	=	90 - 100
	B	=	80 - 89
	C	=	70 - 79
	D	=	60 - 69
	F	=	0 - 59

READ THIS SYLLABUS CAREFULLY

You should read this syllabus carefully and ask your instructor about *any* aspects that you do not understand. The syllabus is an agreement between you and your instructor concerning course objectives, course content, grading, and other policies and procedures particular to this course. The above information is specific to the course. Three additional documents are provided as attachments and *are considered a part of this syllabus*:

Attachment 1:

Each instructor will provide a supplement to this syllabus. The supplement will include: a week-by-week plan of instruction based on the section in which you are enrolled; your instructor’s name, office hours and/or office location; and your instructor’s contact information and recommended best methods to contact your instructor.

Attachment 2:

The Department responsible for developing and teaching has policies and procedures in place to assure quality instruction for all students. These are attached as “Departmental Policies and Procedures.”

Attachment 3:

Please note that it is your responsibility to read the current Student Handbook included in Greenville Technical College’s Catalog. (See website.) The Student Handbook addresses specific academic and student conduct policies and procedures. Excerpts from the Student Handbook representing the policies and procedures most often referred to in working with students are provided for your convenience as “Attachment 3.”

Approved by:

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Date

This syllabus will remain in effect until revised or reviewed no later than August 2012.