Computer Technology Department
Business/Public Service Division
GREENVILLE TECHNICAL COLLEGE

COURSE SYLLABUS

Course Title: Linux System Administration

Course Number: IST 191

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

Prerequisite: IST 190

Catalog Course Description: This course will provide students with the skills necessary to administer a Linux system including hardware/software configuration, user and group administration, Linux network configuration, and file system management.

Purpose of the Course: Students will learn to install and configure Linux, manage the Linux filesystem, understand the Linux boot process, administer Linux users and groups, and become familiar with various Linux administrative tools.

Required text(s) or other materials:

1. Lab Pack: Red Hat Academy RHA130 v5.0 Workbooks 1 through 10, 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

COMPUTER TECHNOLOGY - PROGRAM LEVEL STUDENT LEARNING OUTCOMES

1. Install computer and network hardware.
2. Install computer operating systems and application software.
3. Design, create and test computer programming solutions.
4. Demonstrate the ability to take initiative, assume responsibility, and work under pressure with minimum supervision by successfully completing "hands-on" computer assignments.
5. Analyze, troubleshoot, and correct computer related technical problems.

Revised August 2012

IST 191 COURSE OUTCOMES

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

1. Install Red Hat Enterprise Linux.
2. Troubleshoot the Linux boot process.
3. Add, modify, and delete Linux users and groups.
4. Use Linux System Administration tools to administer a Linux server.
5. Configure Linux kernel services.

The outcomes of the IST 191 course are intended to meet the Computer Technology program level student learning outcomes numbered 2 and 4 above.

Revised 1/2009

IST 191 – MAIN TOPICS

- Red Hat Linux Installation
- Hardware and Device Configuration
- Linux File System Management
- System Initialization (Linux Boot Process)
- User and Group Administration
- Network Configuration
- System Administration Tools (CUPS, syslog, cron, locate database, utilities)
- Package Management with RPM and YUM
- Kernel Services and Configuration
- The X Windowing System

IST 191 – COURSE SPECIFIC REQUIREMENTS

The Red Hat Academy curriculum is available at the website **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 191 – 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 65% and Skill-Based Assessment 35%)	

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 I:

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."

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6 Aug 12
Date

This syllabus will remain in effect until revised or reviewed no later than August 2013.