

**Computer Programming Department**  
**Business/Public Service Division**  
**GREENVILLE TECHNICAL COLLEGE**

**COURSE SYLLABUS**

**Course Number:** IST 192

**Course Title:** Linux Network Applications

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

**Prerequisite:** IST 191

**Catalog Course Description:** This course will provide students with the skills necessary to deploy and administer the core network services in a Linux system, such as Apache Web Server, Samba File Server, BIND Domain Name Service, Network File Service (NFS), and others.

**Purpose of the Course:** Students will learn how to install and configure Linux network services including Apache Web Server, Squid Proxy Server, Berkley Domain Name Service (BIND), Network File Service (NFS), Dynamic Host Configuration Protocol (DHCP), Samba File Service (SMB), and Sendmail E-mail Service.

**Required text(s) or other materials:**

1. RHCE™ Red Hat® Certified Engineer Linux Study Guide (Exam RH302), Fifth Edition; Michael Jang; McGraw Hill/Osbourne; ISBN-13: 978-0-07-226454-8
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.

**Students for Whom the Course is Intended:** For individuals who design, implement, maintain, and administer Red Hat Enterprise Linux servers.

**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.

<b>COMPUTER PROGRAMMING PROGRAM STUDENT LEARNING OUTCOMES</b>
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Upon successful completion of the CPT/Programming program, the graduate will be able to:

1. Students will be able to analyze, design, develop, and document solutions that will satisfy the information needs of business users using established design methodologies and standards.
2. Students will be able to design, create, test, and document logical programming solutions to prescribed specifications following established standards and using current development environments and languages for application development and database management.
3. Students will be able to demonstrate the knowledge and ability to install and maintain microcomputer hardware and operating system software.
4. Students will be able to demonstrate the use of a minimum of three business application software packages.
5. Students will be able to demonstrate fundamental team building, project management, and presentation skills by participating in team projects that include team goals and values, a development methodology for documentation and coding, group presentations, and exposure to topics such as diversity, time management, and goal setting.
6. Students will be able to demonstrate the ability to take initiative, assume responsibility, and work under pressure with minimum supervision by successfully completing "hands-on" computer lab assignments.

<b>IST 192 COURSE OUTCOMES</b>
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Upon successful completion of this course, students will be able to do the following with 70 percent accuracy:

1. Install, configure, and administer Apache Web Server and Squid Proxy Server.
2. Install, configure, and administer Berkley Domain Name Service (BIND) and Dynamic Host Configuration Protocol (DHCP).
3. Install, configure, and administer Network File Service (NFS).
4. Install, configure, and administer Samba (SMB File Server).
5. Install, configure, and administer Sendmail E-mail Server.

*The outcomes of the IST 192 course are intended to meet the CPT/Networking Administration program outcomes numbered 2, 3, 7, and 9 above.*

## IST 192 – Linux Network Applications

The Red Hat Academy curriculum is available at the website [academy.redhat.com](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.

### Grading Policy

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

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

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

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.

### Departmental Policy for the Submission and Grading of Assignments

- All assignments (i.e., labs, projects, research papers, etc.) for this course must be completed and submitted to the instructor by the due date established in order to receive full credit for the assignment.
- Assignments not submitted by the due date can receive up to a maximum of 80 percent credit if it is submitted within one week of the due date.
- Assignments submitted after one week of the due date will have a zero (0) grade recorded for the assignment.
- In the event that an assignment is made less than one week prior to the end of the course, the assignment must be submitted by the last day of class prior to the beginning of the final exam period and will not be accepted late.

### Departmental Test Policy for Computer Technology Courses

- A minimum of three (3) tests and a Comprehensive Final Exam will be given.
- Test dates will be announced in class and posted on CampusCruiser or WebCT.
- Periodic announced and unannounced quizzes may be given to encourage attendance; make-ups are not allowed.
- The student assumes responsibility for materials and announcements missed when absent.
- **Tests must be taken on the announced day. Early tests may be arranged at the instructor's discretion.**
- **Only one make-up test without bonus options is allowed for the course; scheduling of the make-up test is at the instructor's discretion. If the first missed test is prior to the last date to withdraw for the course, the test must be completed prior to the withdrawal date. Bonus options will not be allowed on the make-up test. If a second test is missed, the student will automatically receive a failing grade for the course.**
- A failing grade will be given if two or more tests are missed.
- A comprehensive final exam must be taken as scheduled with no exemptions or exceptions.

Exceptions to the Departmental Test Policy will be made on an individual basis as a result of a decision involving the department head, instructor, student, and/or the Dean of Technical Business.

## Departmental Academic Honesty Policy for Cheating and Plagiarism

Cheating and Plagiarism will not be tolerated in any Computer Technology course. If cheating and/or plagiarism are found, the following grading penalty will be assessed:

1<sup>st</sup> Offense – A grade of zero (0) will be assessed for the assignment/test on which the incident occurred.

2<sup>nd</sup> Offense – A grade of zero (0) will be assessed for the entire assignment/test portion for the course in which the incident occurred. For this course the penalty would be 15 percent of the final grade for labs, 10 percent of the final grade for assignments, and 50 percent of the final grade for tests.

### Departmental Grading Scale

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

**INCOMPLETES:** An INCOMPLETE ("I") will only be approved if ALL of the following conditions exist:

- The student must have no more than 3 weeks (15-week term) or 1.5 weeks (8-week/10-week term) remaining to complete the course.
- The student must have a validated, documented reason why he/she cannot complete the course by the prescribed end date (illness, work situation, death, etc.).
- The student must be up to date with all work up to the point of the request for an Incomplete (no untaken tests or unsubmitted labs, homework, etc.), and the student must have a passing grade average (C or higher) for all work submitted.

**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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**Approved by:**

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**Approved by:**

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**Date**

*This syllabus will remain in effect until revised or reviewed no later than August 2011.*