Lone Star College – North Harris
Cisco 3 – ITCC2378
Spring 2016: Tentative Schedule

Week	Date	Topic	Exams
1	1/19	Ch 1 Intro to Scaling Networks	
	1/21	Ch 2 STP	
2	1/26	Ch 2 STP	Exam Ch 1
	1/28	Ch 3 Link Aggregation	
3	2/2	Ch 4 Wireless LANS	Exam Ch 2 and 3
	2/4	Ch 5: Adjust and Troubleshoot Single-Area OSPF	
4	2/9	Ch 6 Multi-area OSPF	Exam Ch 4 and 5
	2/11	Ch 6 Multi-area OSPF	
5	2/16	Ch 7 EIGRP	Exam Ch 6
	2/18	Ch 7 EIGRP	Case Studies Handouts
6	2/23	Ch 8: EIGRP Advanced Configurations and Troubleshooting	Exam Ch 7
	2/25	Ch 9: IOS Images and Licensing	
7	3/1	Case Study	Exam Ch 8 and 9
	3/3	Case Study	
8	3/8	Skills Based Final	SBF or Final
	3/10	Final Exam	SBF or Final

Computer Information Technology

Scaling Networks
ITCC 2378

CATALOG DESCRIPTION:

This course describes the architecture, components, and operations of routers and switches in a larger and more complex network. Students learn how to configure routers and switches for advanced functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, STP, and VTP in both IPv4 and IPv6 networks. Students will also develop the knowledge and skills needed to implement DHCP and DNS operations in a network.

Course Title:	Scaling Networks
Course Number	ITCC 2378
Credit/Contact Hours:	3 semester credit hours/80 contact hours 8 week class
Prerequisites	ITSC 1301 or Equivalent, ITCC1375, ITCC1376
Instructor	Willie May
Class/Lab Days and Times	Tue/Thur 5:30p to 9:50p
Class Room Location	DTEC 216
Office Hours:	Monday Wednesday 1pm to 5pm at Creekside
E-mail	William.H.May@Lonestar.edu
Phone:	832.761.6634
Division Contacts	**Dean**: Dr. Cindy Casparis – 281.351.3339 Cynthia.A.Casparis@lonestar.edu **Chair**: Lindell Chapman – 281.357.3756 Lindell.Chapman@lonestar.edu **Director**: Willie May – 832.761.6634 Willie.May@lonestar.edu

Learning Outcomes:

1. Configure and troubleshoot DHCP and DNS operations for IPv4 and IPv6.
2. Understand and describe the operations and benefits of the Spanning Tree Protocol (STP).
3. Configure and troubleshoot STP operations.
4. Understand and describe the operations and benefits of link aggregation and Cisco VLAN Trunk Protocol (VTP).
5. Configure and troubleshoot VTP, STP, and RSTP.
6. Configure and troubleshoot basic operations of routers in a complex routed network for IPv4 and IPv6: A. Open Shortest Path First (OSPF) protocol (single-area OSPF and multi-area OSPF). B. Enhanced Interior Gateway Routing Protocol (EIGRP).
7. Configure and troubleshoot advanced operations of routers and implement RIP, OSPF, and EIGRP routing protocols for IPv4 and IPv6.
8. Manage Cisco IOS Software licensing and configuration files.

REQUIRED MATERIALS:

1 package of laser printer paper (prefer 3-hole punched)

Optional Materials

• Cisco CCNA Routing and Switching 200-120 Official Cert Guide Library, By Wendell Odom, Published May 23, 2013 by Cisco Press. Part of the Official Cert Guide series. ISBN-10: 1-58714-387-9 or ISBN-13: 978-1-58714-387-8

LETTER GRADE ASSIGNMENT:

Final letter grades will be assigned after computing individual final averages in percent as follows:

Final Average in Percent	Letter Grade
90 - 100	A
80 - 89	B
70 – 79	C
60 – 69	D
Below 60	F

Grades will be determined as follows:

Labs & Assignments	20%
Chapter Exams	10%
Case Study	20%
Skills Based Final	25%
Final Exam	25%
Total	100%

ATTENDANCE AND PARTICIPATION POLICY:

The maximum number of absences allowed before a reduction in the final grade average is 4. After the Fourth absence, 5 points will be deducted from the final grade average for each additional absence. A student will be considered absent if he is not present when the roll is called BOTH at the beginning of class (even if he should show up later) and at the time of dismissal of class. The student should realize that an excessive number of absences will prohibit the completion of course objectives. If a student should miss a class lecture, it is the student's responsibility to contact another student to obtain the lecture notes and any assignments. Students are expected to assume the responsibility for learning. Your instructor will assist you, but the actual responsibility rests with you. Students are expected to devote their energy to attaining the skills and knowledge required for their particular career goals. The Lone Star College - Tomball Policy and Procedure Manual [Student Conduct Section 562.01d] states, "Disruptive activity that hinders other students' learning or deters an instructor from effective teaching will not be tolerated under any circumstances."

To provide an equal-opportunity learning situation for all students enrolled in this class, children are not allowed in the labs or classrooms.

ASSIGNMENTS:

All assignments are to be completed and submitted to the instructor on the scheduled due date. No late assignments will be accepted. You must demonstrate mastery of all **Basic Skills** for each section of the lab to earn credit for the course. Your instructors will supply detailed testing and grading procedures. Homework assignments will be made by the instructor. They may consist of exercises in the textbook or lab exercises. Five points will be deducted from the homework grade for each class day the homework is turned in late. Homework is due at the start of class on the day it is due. Homework may be turned in early but must be turned in at the start of the class when it is due.
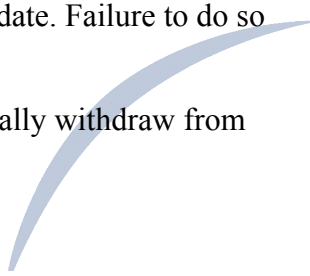
MAKE-UP EXAMS:

Students should contact the instructor prior to missing a scheduled examination by phone, in-person, by e-mail, or by voice mail. An opportunity to take an alternative examination will be offered to those who make **prior** contact with the instructor. All make-up exams will be administered during normal class time. All makeup exams must be completed by the second class meeting of the scheduled class.

WITHDRAWAL POLICY:

Withdrawal from the course after the official day of record and prior to "W" day (see current catalog) will result in a final grade of "W" on the student transcript and no credit will be awarded. . If you stop attending class, you must withdraw at the Registrar's office before the official drop date. Failure to do so will result in an "F" for the course.

Should a student decide to drop this course, it is the student's responsibility to officially withdraw from the course.

ACADEMIC INTEGRITY:

The Lone Star College is committed to a high standard of academic integrity in the academic community. In becoming a part of the academic community, students are responsible for honesty and independent effort. Failure to uphold these standards includes, but is not limited to, the following: plagiarizing written work or projects, cheating on exams or assignments, collusion on an exam or project, and misrepresentation of credentials or prerequisites when registering for a course. Cheating includes looking at or copying from another student's exam, orally communicating or receiving answers during an exam, having another person take an exam or complete a project or assignment, using unauthorized notes, texts, or other materials for an exam, and obtaining or distributing an unauthorized copy of an exam or any part of an exam. Plagiarism means passing off as his/her own the ideas or writings of another (that is, without giving proper credit by documenting sources). Plagiarism includes submitting a paper, report or project that someone else has prepared, in whole or in part. Collusion is inappropriately collaborating on assignments designed to be completed independently. These definitions are not exhaustive. When there is clear evidence of cheating, plagiarism, collusion or misrepresentation, a faculty member will take disciplinary action including but not limited to: requiring the student to retake or resubmit an exam or assignment, assigning a grade of zero or "F" for an exam or assignment; or assigning a grade of "F" for the course. Additional sanctions including being withdrawn from the course, program or expelled from school may be imposed on a student who violates the standards of academic integrity.

SOFTWARE PIRACY:

Law strictly prohibits unauthorized copying of software purchased by Lone Star College - Tomball for use in laboratories. Lone Star College - Tomball administration will take appropriate disciplinary action against anyone violating copyright laws.

COMPUTER VIRUS PROTECTION:

Computer viruses are, unfortunately, a fact of life. Using the diskettes on more than one computer creates the possibility of infecting computers and diskettes with a computer virus. This exposes the computers of the college, your personal computer, and any others you may be using to potentially damaging viruses. The college has aggressive anti-virus procedures in place to protect its computers, but cannot guarantee that a virus might not temporarily infect one of its machines. It is your responsibility to protect all computers under your control and use and ensure that each electronic removable device you use, whenever or wherever you use it, has been scanned with anti-virus software. Since new viruses arise continually, your anti-virus software must be kept current. And, since no anti-virus software will find every virus, keeping copies of data (backups) is extremely important.

EQUAL OPPORTUNITY STATEMENT:

It is the policy of the Lone Star College System to provide equal employment, admission and educational opportunities without regard to race, color, religion, national origin, sex, age, or disability. Lone Star Colleges strive to provide an excellent learning environment free from harassment or intimidation directed at any person's race, color, religion, national origin, sex, age, or disability. Any form of harassment will not be tolerated

ADA STATEMENT:

The Lone Star Colleges are dedicated to providing the least restrictive learning environment for all students. The college district promotes equity in academic access through the implementation of reasonable accommodations as required by the Vocational Rehabilitation Act of 1973, Title V, Section 504 and the Americans with Disabilities Act of 1990 (ADA) which will enable students with disabilities to participate in and benefit from all post-secondary educational activities.

If you require reasonable accommodations because of a physical, mental, or learning disability, please notify the instructor of this course as soon as possible and preferably before the end of the first two weeks of class to arrange for reasonable accommodations.

GUARANTEED GRADUATE POLICY:

The Lone Star College System guarantees that graduates of its Associate of Arts, Associate of Science, or Associate of Applied Science and all Certificate programs, providing under certain circumstances, additional education and training tuition free to students lacking appropriate mastery of specified competencies. For additional information, refer to the Lone Star College catalog.

INTERNET AND E-MAIL:

The District provides computing and network resources to students. Students are encouraged to use the computers, software packages, and electronic mail (e-mail) for educational or District-related activities and to facilitate the efficient exchange of useful information. However, the equipment, software, and network capacities provided through the district computer services are and remain the property of the District. Use of the equipment and networks is to comply with the policies and procedures of the District and access may be denied to any student who fails to comply with the District's policies and procedures regarding its use.

Access to the District's e-mail and similar electronic communications systems are a privilege and certain responsibilities accompany that privilege. District users are expected to demonstrate the same level of ethical and professional manner, as is required in face-to-face or written communications. Anonymous or forged messages will be treated as a violation of this policy.

Statement of Workplace and Foundation Competencies (SCANS Skills)

The Lone Star COLLEGE is committed to prepare you with the knowledge and skills you need to succeed in today's dynamic work environment. Towards this end, the following workplace competencies and foundation skills have been designed into the curriculum for this course:

SCANS

The Secretary's Commission on Achieving Necessary Skills (SCANS) has researched and listed the skills and competencies that employees will need for workplace success. The SCANS skills that are found in the course learning outcomes are:

1. **Resource Allocation**
    Students who commit themselves to take this course display a level of skill at allocating time and money in the pursuit of a goal. They learn to take advantage of available resources, human (instructor, librarians) as well as material (laboratory hardware, network applications, publications, Internet). This is further enhanced during the semester, as students must apply their knowledge to life-like laboratory experiments, study for tests, and prepare for technical exams.
2. **Information Collection and Gathering**
    Class attendance, note taking and research develop the students' ability to collect data and extract information. The skill developed is necessary for understanding the course material and working on laboratory assignments.
3. **Interpersonal Communication**
    The instructor routinely quizzes students both during lecture and in the form of take home essay exams, to develop verbal and written communication skills. They are also encouraged to work in groups, participate in class discussion, and share their knowledge of system software.
4. **System Understanding**
    This course is highly technical and teaches students the concepts of personal computer operating system installation and management.
5. **Technology Understanding**
    This course teaches students technology concepts, which include the nature of personal computer operating systems, control of PC systems through commands, file handling, back-up/restore features, system tuning and utilities.
6. **Basic Skills**
    A course of this level requires listening and speaking, reading and writing skills, and comprehension, for traditional or Internet class attendance as well as for the research and conduct of laboratory assignments. A solid background in mathematics gives the students the analytical and logical training required for troubleshooting such a complex environment as a personal computer operating system with both graphical and command line utilities.
7. **Thinking Skills**
    Class discussions, tests, and assignments are designed to enhance students' thinking skills rather than emphasize rote memorization.
8. **Personal Qualities**
    Responsibility, self-esteem, sociability, self-management, integrity and honesty are emphasized and developed in the course of the semester as students learn to apply the skills they are practicing in the classroom, on the Web and in laboratory experiments..

Lone Star College – North Harris
ITCC 2378 – STUDENT PROFILE-Spring 2016

I have viewed the syllabus for this course.	Yes _____	No _____

Name:	

Address:	

City & Zip:	

Phone:	Day	Evening
	Cell Phone/Other	

1.	***Tell me about your semester:***	
	A. How many hours are you taking?	
	B. What other courses are you taking (if any)?	
	C. Are you working?	If so, how many hours?
	Where & doing what?	

2.	***How many hours have you completed in college?***
	A. What certificate or degree are you working towards?
	B. Would you like information on the degrees and certificates offered in Computer information Systems?

3.	Do you have any special needs that you wish your instructor to know about?

4.	***Why are you taking this class? Check all that apply.***	
	Personal knowledge	Required course
	Building skills for present job	Building skills for future job

5.	We will develop a list for student reference of our class phone numbers. If you wish to participate, please write the number you want fellow students to use to contact you. Phone:

6.	If you have an Internet e-mail address you check frequently, please indicate the address. (If you are interested in obtaining a free e-mail address through the college, ask your instructor for directions or visit http://www.lonestar.edu and follows applying for email instructions.)
	E-mail address:

7.	Alternative Contact	

Please provide a name and address of a person or persons that can be contacted in event you can not be located with the information you have provided with this document.

Name _____

Address _____

City/St/Zip _____

Phone # _____

Relation _____