

# **CIST 2451 – Introduction to Networks**

## **\*\*Disclaimer Statements\*\***

**\*\*\*Instructor reserves the right to change the syllabus and/or lesson plan as necessary.\*\*\***

**\*\*\*The official copy of the syllabus is located inside the student's online course shell or will be given to them during face to face class time the first day of the semester. The syllabus displayed in advance of the semester in a location other than the course you are enrolled in is for planning purposes only.\*\*\***



**CIST 2451 – Introduction to Networks**  
**COURSE SYLLABUS**  
**\*HYBRID**  
**Summer Semester 2016**

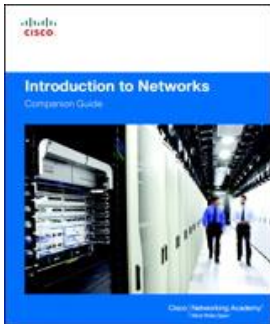
**\*\*Tentative – Subject to Change**

Semester: 2016 Summer 2016  
Course Title: Cisco Network Fundamentals  
Course Number: CIST 2451  
Credit Hours/ Minutes: 4 / 4500  
Class Location: 812 - Med. Tech Bldg  
Class Meets: T/R 10:15-12:00 / 16 wks  
(Lab) T 6:00 – 9:40pm / 16 wks  
CRN: 40051

Instructor: John Taylor  
Office Hours: 2:30-5:00 Mon/Wed/Thu  
Office Location: 810 - Med. Tech Bldg  
Email Address: jtaylor@southeasterntech.edu  
Phone: 912-538-3116  
Preferred method of contact: **STC Owl Mail**  
Tutoring Hours: Made by Appointment

**\*This course is taught in a hybrid format. Hybrid classes require students to complete a portion of the required contact hours traditionally by attending classes on campus while completing the remaining portion online at the student's convenience with respect to the instructor's requirements.**

**REQUIRED TEXT:**



**Introduction to Networks Companion Guide**

By Cisco Networking Academy.  
Published by Cisco Press.  
Published: Dec 20, 2013;  
Copyright 2014;  
Pages: 720; Edition: 1st.  
ISBN-10: 1-58713-316-4; ISBN-13: 978-1-58713-316-9;

You can purchase from the STC bookstore [stcbookstore@southeasterntech.edu](mailto:stcbookstore@southeasterntech.edu) or 912-538-3129.

**REQUIRED SUPPLIES & SOFTWARE:** Internet access.

**COURSE DESCRIPTION:** This course provides students with classroom and laboratory experience in current and emerging network technology. Topics include basics of communication, converged networks, OSI and TCP/IP network models, Application layer protocols, services, and applications, Transport layer protocols and services, Network layer addressing and routing concepts, IPv4 and IPv6, calculating IPv4 subnets, Data Link layer and the encapsulation process, Physical layer components and data encoding, Ethernet and network protocol analysis, network cabling, and basic network configuration.

**MAJOR COURSE COMPETENCIES:** Network Basics, Application Layer Protocol, Services, and Applications; Transport Layer Protocols and Services; Network Layer Addressing and Routing Concepts; Ethernet and Media Access Control; Network Cabling; and Basic Network Configuration.

**PREREQUISITE(S):** Program Admission

## COURSE OUTLINE:

1. Exploring the Network
2. Configuring a Network Operating System
3. Network Protocols and Communication
4. Network Access
5. Ethernet
6. Network Layer
7. Transport Layer
8. IP Addressing
9. Subnetting IP Networks
10. Application Layer

**GENERAL EDUCATION CORE COMPETENCIES:** STC has identified the following general education core competencies that graduates will attain:

1. The ability to utilize standard written English.
2. The ability to solve practical mathematical problems.
3. The ability to read, analyze, and interpret information.

**STUDENT REQUIREMENTS (Hybrid):** Students are expected to complete all work shown on the attached assignment sheet. Students are also expected to complete all tests and comprehensive problems on the dates specified on the attached calendar. **Students will have at least one week to complete tests and assignments. All tests and assignments are due at 11:55 PM on Thursday of each week. Assignments and tests will be submitted using Cisco's Network Academy NetSpace.** Assignments are given with numerous days to complete; therefore **no assignment will be accepted late. After the due date a grade of zero will be given.** Exceptions to the due dates of assignments due to jury duty, military duty, court duty, or required job training will be made at the discretion of the instructor. Students are responsible for policies and procedures included in the *STC Catalog*. **CIST program students must earn a minimum grade of C in this course. Unannounced quizzes/assignments may be given. Students who miss an unannounced quiz or assignment will receive a grade of 0.**

**ATTENDANCE GUIDELINES:** Class attendance is a very important aspect of a student's success. Being absent from class prevents students from receiving the full benefit of a course and also interrupts the learning process. Southeastern Technical College considers both tardiness and leaving early as types of absenteeism. Responsibility for class attendance rests with the student. Regular and punctual attendance at all scheduled classes is required for student success. Students will be expected to complete all work required by the instructor as described in the individual course syllabus.

Instructors have the right to give unannounced quizzes/assignments. Students who miss an unannounced quiz or assignment will receive a grade of 0. Students who stop attending class, but do not formally withdraw, may receive a grade of F and face financial aid repercussions in upcoming semesters.

Instructors are responsible for determining whether missed work may be made up and the content and dates for makeup work is at the discretion of the instructor.

**Students will not be withdrawn by an instructor for attendance; however, all instructors will keep records of graded assignments and student participation in course activities. The completion dates of these activities will be used to determine a student's last date of attendance in the event a student withdraws, stops attending, or receives an F in a course.**

**EMAILS: Preferred method of communication should be through OWL MAIL.** Make sure that you always type your name and class in the subject line of every email you send me so I know which class you are in. **For example: CIST2451 Taylor**

**CHECKING GRADES:** A grade book is made available in the NetSpace course on the main page by clicking the MY GRADES link when students log in. This grade book is for students to review and is continuously updated throughout the semester. Students can view their grades at any time to see the individual grades for each assignment. The overall percentage averages should display in the grade book to help track course progress.

**SURFING THE WEB WHILE IN CLASS:** For each time a student is caught on Facebook or a site that is not

approved by the instructor, student will be dismissed from class with an absence given for attendance.

**CELL PHONE USING IN CLASS:** Cell phone usage is not allowed in the classroom. Any student caught using a phone or answering a call during class will have a 5 point deduction on the next Exam/Test.

**SPECIAL NEEDS:** Students with disabilities who believe that they may need accommodations in this class based on the impact of a disability are encouraged to contact Jan Brantley, Room 1208 Swainsboro Campus, 478-289-2274, or Helen Thomas, Room 108 Vidalia Campus, 912-538-3126, to coordinate reasonable accommodations.

**SPECIFIC ABSENCES:** Provisions for Instructional Time missed because of documented absences due to jury duty, military duty, court duty, or required job training will be made at the discretion of the instructor.

**PREGNANCY:** Southeastern Technical College does not discriminate on the basis of pregnancy. However, we can offer accommodations to students who are pregnant that need special consideration to successfully complete the course. If you think you will need accommodations due to pregnancy, please advise me and make appropriate arrangements with the Special Needs Office. Swainsboro Campus: Jan Brantley Room 1208 (478) 289-2274 -- Vidalia Campus: Helen Thomas Room 108 (912) 538-3126.

**WITHDRAWAL PROCEDURE:** Students wishing to officially withdraw from a course(s) or all courses after the drop/add period and prior to the 65% portion of the semester (date will be posted on the school calendar) must speak with a Career Counselor in Student Affairs and complete a Student Withdrawal Form. A grade of "W" is assigned when the student completes the withdrawal form from the course.

Students who are dropped from courses due to attendance (see your course syllabus for attendance policy) after drop/add until the 65% point of the semester will receive a "W" for the course. Abandoning a course(s) instead of following official withdrawal procedures may result in a grade of 'F' being assigned.

After the 65% portion of the semester, the student will receive a grade for the course. (Please note: A zero will be given for all missed assignments.)

There is no refund for partial reduction of hours. Withdrawals may affect students' eligibility for financial aid for the current semester and in the future, so a student must also speak with a representative of the Financial Aid Office to determine any financial penalties that may be assessed due to the withdrawal. All grades, including grades of 'W', will count in attempted hour calculations for the purpose of Financial Aid.

**Remember** - Informing your instructor that you will not return to his/her course does not satisfy the approved withdrawal procedure outlined above.

**MAKEUP GUIDELINES:** Students are required to take all tests scheduled during the semester. Failure to take Tests/Exam(s), and assignments **will result in a grade of zero. There will be no makeup of assignments or EXAMS.** If Internet or browser failure occurs, contact instructor immediately. A decision will be made at that time if the assignment/exam will be reset. Instructor reserves the right to deduct points from the scores for exceeding the scheduled time limit on the assignment/exam. **Note: If student notifies instructor about problems because of technical issues after the due date or on the last day of the semester, the student will NOT be allowed to make-up the assignment. No exceptions!** **Assignments must be turned in on the assigned date and will not be accepted late, a grade of zero will be given. All assignments are due according to the lesson plan. The due dates are posted on the lesson plan. Weeks start on Tuesday and end on Monday with assignments due on Monday at midnight. See Lesson Plan. Makeups are not allowed for unannounced quizzes/assignments.**

**No Harm No Foul Policy:** It is the student's responsibility to drop courses during the first three days by completing a withdrawal form with a Counselor in Student Affairs. If a student comes to class during the first three days or any day during this time, the student will be dropped with no penalty **only if** they have completed the Withdrawal Form with Student Affairs by the close of business on the third business day of the quarter. (For

**SUMMER** semester, that day will be May 23, 2016.) The student must formally withdraw from classes in order to receive the no harm-no foul benefit.

**DROPPING COURSES BEFORE THE CLASS HAS BEGUN:** Students wishing to withdraw from one or all courses prior to the first day of class need to go to Banner Web and drop their classes. Please note that a registration access number will be needed as well as a student's ID number and PIN. If the registration access number is unknown, the student will need to contact the registrar.

**ACADEMIC DISHONESTY POLICY:** The STC Academic Dishonesty Policy states All forms of academic dishonesty, including but not limited to cheating on tests, plagiarism, collusion, and falsification of information, will call for discipline. The policy can also be found in the STC Catalog and Student Handbook.

**Procedure for Academic Misconduct**

The procedure for dealing with academic misconduct and dishonesty is as follows:

**--First Offense--**

Student will be assigned a grade of "0" for the test or assignment. Instructor keeps a record in course/program files and notes as first offense. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus. The Registrar will input the incident into Banner for tracking purposes.

**--Second Offense--**

Student is given a grade of "WF" for the course in which offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of second offense. The Registrar will input the incident into Banner for tracking purposes.

**--Third Offense--**

Student is given a grade of "WF" for the course in which the offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of second offense. The Vice President for Student Affairs, or designee, will notify the student of suspension from college for a specified period of time. The Registrar will input the incident into Banner for tracking purposes.

**STATEMENT OF NON-DISCRIMINATION:** Southeastern Technical College does not discriminate on the basis of race, color, creed, national or ethnic origin, gender, religion, disability, age, disabled veteran, veteran of Vietnam Era or citizenship status, (except in those special circumstances permitted or mandated by law). This school is in compliance with Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, or national origin; with the provisions of Title IX of the Educational Amendments of 1972, which prohibits discrimination on the basis of gender; with the provisions of Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of handicap; and with the American with Disabilities Act (ADA).

**GRIEVANCE PROCEDURES:** Grievance procedures can be found in the Catalog and Handbook located on STC's website.

**ACCESS TO TECHNOLOGY:** Students can now access Blackboard, Remote Lab Access, Student Email, Library Databases (Galileo), and BannerWeb via the mySTC portal or by clicking the Current Students link on the STC website at [www.southeasterntech.edu](http://www.southeasterntech.edu).

GRADING POLICY		GRADING SCALE		
Comprehensive Final	25%	A	Excellent	90-100
Hands-on/Skills Exam	20%	B	Good	80-89
Chapter Tests/Quizzes	25%	C	Satisfactory	70-79
Labs	10%	D*	Poor	60-69
Packet Tracers	15%	F*	Failing	0-59

Practice Exams	<u>5%</u> 100%	*Grade of D or below results in student repeating
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**TCSG GUARANTEE/WARRANTY STATEMENT:** *The Technical College System of Georgia guarantees employers that graduates of State Technical Colleges shall possess skills and knowledge as prescribed by State Curriculum Standards. Should any graduate employee within two years of graduation be deemed lacking in said skills, that student shall be retrained in any State Technical College at no charge for instructional costs to either the student or the employer.*

**CIST 2451 – Cisco Network Fundamentals  
SUMMER Semester 2016 Lesson Schedule (Fiscal Year 2016)**

Date	Chap / Less	Content  <b>** Light_Gray shaded sections indicate Hybrid (online) work</b>	Assignments & Tests Due	Competency Area
<p><b>You should have purchased a book and lab manual for this course. The curriculum can and should be accessed thru the Cisco NetSpace as well. This online curriculum includes all interactive learning activities and provides an additional way to help you learn the course material. You will complete your chapter quizzes, exams and comprehensive final using the Cisco Network Academy NetSpace website. You should have received an email with information on logging in and setting up your account. Once you get logged in, I encourage you to download and install the Packet Tracer software. This is an excellent program that you will need installed to complete assignments as well as learn the concepts covered in this course. Contact your instructor if you have any questions. All necessary Packet Tracer and Lab files will be located on the M: drive.</b></p>				
<b>Week 1 (Assignments due May 26)</b>				
<b>Thu May 19</b>		Class Introduction – Syllabi, Outline, Work Ethics, Rules, and Regulations Coverage	Verify NetSpace login. Review Web curriculum. Review Course Introduction (book) Read Chapter 1 (Use web curriculum if possible)	1 A,C
<b>Week 2 (Assignments due Jun 2)</b>				
<b>Tue May 24</b>	<b>1</b>	<b>Exploring the Network</b>	Lecture and Discussion. Read Chapter 2 (Use web curriculum if possible)	1,7 A,C
<b>Lab</b>			<b>Test Drive Packet Tracer.</b> Do Chapter 1 <b>Packet Tracer Activities</b> on NetSpace Complete <b>Hands-on Labs</b> for Chapter 1 in Networking Lab. Complete <b>Hands-on Labs</b> for Chapter 2 in Networking Lab.	1,7 A,C
<b>Thu May 26</b>	<b>2</b>	<b>Configuring a Network Operating System -</b>	Lecture and Discussion.	1,7 A,C
<b>**</b>			Take Chapter 1 <b>Exam</b> on NetSpace. Do Chapter 2 <b>Packet Tracer Activities</b> on NetSpace Read Chapter 3 (Use web curriculum if possible)	1,7 A,C
<b>Week 3 (Assignments due Jun 9)</b>				
<b>Tue May 31</b>	<b>3</b>	<b>Network Protocols and Communication</b>	Lecture and Discussion.	1,2,3 A,C
<b>Lab</b>			Complete <b>Hands-on Labs</b> for Chapter 3 in Networking Lab.	1,2,3 A,C
<b>Thu Jun 2</b>			Do Chapter 3 <b>Packet Tracer Activities</b> on NetSpace Take Chapter 3 <b>Exam</b> on NetSpace Read Chapter 4 (Use web curriculum if possible)	1,2,3 A,C
<b>**</b>			Take Chapter 2 <b>Exam</b> on NetSpace Take Chapter 3 <b>Exam</b> on NetSpace	1,2,3 A,C

Week 4 (Assignments due Jun 16)				
Tue Jun 7	4	Network Access	Lecture and Discussion	1,4,6 A,C
Lab			Complete <b>Hands-on Labs</b> for Chapter 4 in Networking Lab.	1,4,6 A,C
Thu Jun 9			Do Chapter 4 <b>Packet Tracer Activities</b> on NetSpace	1,4,6 A,C
**			Take Chapter 4 <b>Exam</b> on NetSpace Read Chapter 5 (Use web curriculum if possible)	1,4,6 A,C
Week 5 (Assignments due Jun 23)				
Tue Jun 14	5	Ethernet	Lecture and Discussion	1,5 A,C
Lab			Work on <b>Hands-on Labs</b> for Chapter 5 in Networking Lab.	1,5 A,C
Thu Jun 16			Do Chapter 5 <b>Packet Tracer Activities</b> on NetSpace	1,5 A,C
**			Take Chapter 5 <b>Exam</b> on NetSpace Read Chapter 6 (Use web curriculum if possible)	1,5 A,C
Week 6 (Assignments due Jun 30)				
Tue Jun 21	6	Network Layer	Lecture and Discussion.	1,4 A,C
Lab			Complete <b>Hands-on Labs</b> for Chapter 6 in Networking Lab.	1,4 A,C
Thu Jun 23			Do Chapter 6 <b>Packet Tracer Activities</b> on NetSpace	1,4 A,C
**			Take Chapter 6 <b>Exam</b> on NetSpace <b>Complete Ch 6 PT Practice Skills Exam</b> on NetSpace Read Chapter 7 (Use web curriculum if possible)	1,4 A,C
Week 7 (Assignments due Jul 14)				
Tue Jun 28	9 (**7)	Transport Layer(Netspace) <b>**Chapter 7 in book</b>	Lecture and Discussion	1,3 A,C
Lab			Complete <b>Hands-on Labs</b> for Chapter 9 in Networking Lab. Complete <b>Hands-on Labs</b> for Chapter 7 in Networking Lab.	1,3 A,C
Thu Jun 30	7 (**8)	IP Addressing(Netspace) <b>**Chapter 8 in book</b>	Lecture and Discussion	4 A,C
**			Do Chapter 9 <b>Packet Tracer Activities</b> on NetSpace Do Chapter 7 <b>Packet Tracer Activities</b> on NetSpace Take Chapter 9 <b>Exam</b> on NetSpace Take Chapter 7 <b>Exam</b> on NetSpace Read Chapter 8 (Use web curriculum if possible)	1,3,4 A,C



Week 8 (Assignments due Jul 21)				
Tue Jul 12	8 (**9)	Subnetting IP Networks(Netspace) <b>**Chapter 9 in book</b>	Lecture and Discussion	4 A,C
Lab			Work on <b>Hands-on Labs</b> for Chapter 8 in Networking Lab.	4 A,C
Thu Jul 14		<b>Sign up for Hands-on Final this week!!!!</b>	Do Chapter 8 <b>Packet Tracer Activities</b> on NetSpace	4 A,C
**			Take Chapter 8 <b>Exam</b> on NetSpace	4 A,C
Week 9 (Assignments due Jul 28)				
Tue Jul 19	10	Application Layer  <b>Sign up for Hands-on Final this week!!!!</b>	Lecture and Discussion Read Chapter 11 (Use web curriculum if possible)	1,2 A,C
Lab			Work on <b>Hands-on Labs</b> for Chapter 10 in Networking Lab. Work on <b>Hands-on Labs</b> for Chapter 11 in Networking Lab.	1,2 A,C
Thu Jul 21	11	It's a Network	Lecture and Discussion	1-7 A,C
**			Do Chapter 10 <b>Packet Tracer Activities</b> on NetSpace Take Chapter 10 <b>Exam</b> on NetSpace Do Chapter 11 <b>Packet Tracer Activities</b> on NetSpace <b>Complete PT Practice Skills Exam</b>	1-7 A,C
Week 10 (Assignments due Jul 28)				
Mon Jul 25		Must complete Hands-on Final this week	Hands-on Final	
Tue Jul 26			Hands-on Final Review for Final Exam	1-7 A,C
Lab			Review for Final Exam	1,2,3,4,5,6 A,C
**			Complete <b>PT Practice Skills Exam</b> Take Chapter 11 <b>Exam</b> on NetSpace	1-7 A,C
Finals				
Tue Aug 2		<b>Comprehensive Final in Classroom – No books!!!</b>	Take <b>Comprehensive Final Exam</b> in Room 812.	1-7 A,C

#### Competency Areas:

1. Network Basics
2. Application Layer Protocols, Services, and Applications
3. Transport Layer Protocols and Services
4. Network Layer Addressing and Routing Concepts
5. Ethernet and Media Access Control
6. Network Cabling
7. Basic Network Configuration

#### General Core Competency Areas:

- A. The ability to utilize standard written English.
- B. The ability to solve practical mathematical problems.
- C. The ability to read, analyze, and interpret information.