San José State University
Department of Aviation &Technology
Tech 65 Networking Theory and Applications, Section 01, Fall 2018

Course and Contact Information

Instructor:	Prof. Ossie Rashel
Office Location:	Eng 245
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Class Days/Time:	Tue/Thu 10:30am – 11:20am Lecture Section 01 Thu 12:00pm – 2:45pm, Lab Section 11
Office Hours:	Tue 11:30am – 12:30pm (by appointment) Thu 3:00pm – 4:30pm (by appointment)
Classroom:	Eng 103 Lecture & Lab
Prerequisites:	Tech 60 or equivalent (proof is required by 8/21/2018) "Submit a copy of your unofficial transcript that includes Tech 60 or an equivalent course (a page is ok). Please make sure the submitted page clearly shows your name and student ID. See "**Assignments**" then "**Course preparation& Readiness"** in Canvas.

Course Format

Announcements and Communication via MYSJSU Messaging

Course materials such as syllabus, announcement, assignment instructions, etc. can be found on Canvas Leaning Management System course login website at http://sjsu.instructure.com. Students must have access to their Canvas registered email address and maintain their access for the entire semester. Additional communication such as change of schedule, etc. will be sent via Canvas "Announcement". To prevent miss communication please use an email address that shows your name as it appears on Canvas. Preferred email format is firstname.lastname@sjsu.edu

Course Contents

Introduction to Networking Concepts:
Networking Basics,
Cable and Connectors,

Networking Devices,
Ethernet,
IP Configuration,
Switch and Router Management,
Firewalls,
Network Customization,
Wireless Networking,
Wide Area Networks,
Network Policies and Procedures,
Network Security,
Network Hardening,
Network management & Optimization.

Required & Optional Course Materials & Resources

TestOut Network Pro, the (**Required**) software portal for the simulated lab assignments and to reinforce the lecture material can be purchased online at www.testout.com. Please read additional details and instruction about the software in the "**Assignment**" then "**Course preparation& Readiness"** section in Canvas.

Before visiting the vendor's website please make a note for the two following items:

1. **The promo code**: **14-380ta**

2. **The course title is:** **Tech 65 S-2018**

3. **The software version:** **Network Pro 5.0.2 (ISBN: 978-1-935080-43-5**)
   (Do Not purchase older versions)

Textbook (optional)
Tomsho, G. (2016). Guide to Networking Essentials, (7th Ed). Cambridge, MA: Course Technology. ISBN-13: 9781305105430. Available at Spartan Bookstore.

Textbook (optional)
Introduction to Networks v6 Companion Guide
by "Cisco Networking Academy" (Author)

Cisco Packet Tracer (**Required**)
Registration to Cisco Academy Learning Portal
Additional details and instructions about the portal registration and assignments will be discuss in class.

Course Learning Outcomes (CLOs)

Testout questions and labs (CLO 1) (Weekly Assignments)

As part of class participation students are required to complete "Class Participation Assignments" for each chapter of Testout per weekly schedule (published as google file).

It is strongly recommended that you complete these laboratory assignments on a continuous basis rather than all of them at once. All the scores you obtained will be kept by the program but only the highest score will be considered. Class Participation contributes to CLO 1, learning the fundamental concepts and network terminology, developing teamwork skills and discussing the course material. Class Participation assignments is submitted weekly and has a weight of 15% of the final grade.
All the lab assignments must be completed and each section is due before the following Saturday at mid-night.

Testout Weekly Quizzes on Tuesdays (CLO 2)

To reinforce learning of the course materials and to prepare you for the Testout certification exam, students are required to take a quiz every week. Each quiz included "few randomly selected questions from the Class Participation Assignments from the week prior. The weekly quizzes have a weight of 20% of the final grade.

Case Projects & Written Reports (CLO 3) (Periodically Assignments)
Case Projects contribute to CLO 2, applying the course material in solving proposed scenarios related to computer networks and developing teamwork skills. Case Projects are submitted per schedule and have a weight of 10% of the final grade.
Students may work individually or form small group of 2-4 to collaborate the case projects and conclude answer(s), however, **each student must write and answer the questions in his/her own words. All written answers to case projects are scanned by Turn-it-in via Canvas. Any duplicated assignments will automatically be graded 0 out of 100 and subject to "SJSU Academic Integrity Rules"**

Hands on Projects (CLO 4)
Design and setup of a small Computer Network
(Additional details and instructions for each project will be provided in class. The assignments have a weight of 20% of the final grade.

1. **Software Simulated Network – Cisco Packet Tracer**

By using Cisco Packet Tracer each student will design and setup a small wired network with computers, Switches, and Routers to practice network topologies and imitate modern computer networks.

2. **Hands on Experiment Using Cisco Hardware "Catalyst 3750 V2 PoE-24"**

Using actual Cisco hardware students in a group of 2 will setup and configure a small wired network and perform the required tasks

The small network designs contribute to CLO 4, developing teamwork skills and discussing the course material.

3. Configuration and Troubleshooting of Wireless Router " Linksys EA 6350"

Additional details will be provided in class.

Tests

You will take weekly quizzes, 1-2 midterms, and/or the Testout certification exam and the final exam. Tests will start and end at the indicated times per announcements. These tests contribute to CLO 1 and reinforcing the learning of the fundamental concepts and network terminology.

Final Exam and/or Testout Pro Certification Exam

Final Exam (or the Testout Pro Certification exam) will be taken on (TBD). The time frame is 120 minutes and the exam has a weight of 15% of the final grade.

Suggested study plan for the semester Fall 2018

To succeed the course students are highly encouraged to set their study plan and start reviewing each chapter lecture videos, summaries and practice the quizzes and labs before the lecture session. In the 50 minutes' lecture sessions, the instructor point out the highlights of the chapter and answer student's questions. At the lab sessions students should practice the labs and discuss their questions with the instructor.

Determination of Grades

Grades will be determined based on your performance in Lab Assignments, Class Participation, Case Projects, Small Network Design and Setup, Quizzes, Midterms and Final Exam. The final grade for the course will be based on the following items and weights:

Weekly Lab Quizzes (Testout)	20%
Class Participation & Testout (weekly dues)	15%
Case Projects & Reports	10%
Hand on Projects	20%
Midterms (I, II) Testout	20%
Final Exam (Ch1 through 16)	15%

Receive extra credit before the class starts. See "Preparation & Readiness" assignment on Canvas (up to 5%)

The final grade will be determined according to the following scale:

A+ = 96 - 100%	A = 93 - 95.9%	A- = 90 - 92.9%	B+ = 87 - 89.9%
B = 83 - 86.9%	B- = 80 - 82.9%	C+ = 77 - 79.9%	C = 73 - 76.9%
C- = 70 - 72.9%	D+ = 66 - 69.9%	D = 60 - 65.9%	F = 0 - 59.9%

Additional Notes

1. Check continuously your standing in the class on Canvas (https://sjsu.instructure.com). Notify the instructor immediately if there is an error in any of your grades. The last day to correct any discrepancy is the last day of instruction on **5/10/2018.** There will be no grade change after the final grade has been submitted to the university.

2. Attendance and class participation is fundamental to course objectives and CLOs. Due to full capacity enrollments, instructor will accept only one late return assignment per student. Additional late return assignments are subject to 50% grade deduction. Make up exams is only allowed if a student was permitted at a medical care emergency room, have a police incident report or provide other justifiable and verifiable documents.

3. Instructor will explain key points, answer questions and may add related learning materials (software, hardware, field trips and guest lecturer) to enrich the course contents. Since Instructor role is more of a facilitator of learning, you are encouraged to study and practice lab assignments continually and learn in teams. This is very important to be successful in the real IT world.

University Policies

Per University Policy S16-9, university-wide policy information relevant to all courses, such as **academic integrity**, accommodations, etc. will be available on Office of Graduate and Undergraduate Programs' Syllabus Information web page at:
http://www.sjsu.edu/gup/syllabusinfo/

To view course weekly schedule, click on the following link:
https://goo.gl/pg1gbV