

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

**Course and Contact Information**

<b>Instructor:</b>	Prof. Ossie Rashel
<b>Office Location:</b>	Eng 245
<b>Telephone:</b>	(408) 924-4124
<b>Email:</b>	<a href="mailto:ossie.rashel@sjsu.edu">ossie.rashel@sjsu.edu</a>
<b>Class Days/Time:</b>	Tue/Thu 10:30am – 11:20am Lecture Section 01 Thu 12:00pm – 2:45pm, Lab Section 11
<b>Office Hours:</b>	Tue 11:30am – 12:30pm (by appointment) Thu 3:00pm – 4:30pm (by appointment)
<b>Classroom:</b>	Eng 103 Lecture & Lab
<b>Prerequisites:</b>	Tech 60 or equivalent ( <b>proof is required by 8/21/2018</b> ) Submit (via Canvas or in person) a copy of your unofficial transcript showing Tech 60 or an equivalent course. Please make sure your name and student ID is included and clearly visible in the submitted copy.

**Course Format**

**Announcements and Communication via MYSJSU Messaging**

Course materials such as syllabus, announcement, assignment instructions, etc. can be found on [Canvas Learning Management System course login website](http://sjsu.instructure.com) 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](mailto:firstname.lastname@sjsu.edu)**

**Course Contents**

**Introduction to Networks and 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**

### **Textbook** (Optional)

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

Note: While there are many similarity between the 6 th and the 7 th editions, all assignments, quizzes, exams are created based on the 7 th edition.

**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](http://www.testout.com). Please read additional details and instruction about the software in the “Assignment” section in Canvas or click on the following link:

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 4.1.2**

<http://www.testout.com/resources/student-resources/student-purchase>

### **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 schedule (See Page 7-14). In addition, instructor may include additional questions draw from class lectures and discussions.** 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 10% of the final grade.

### **Case Projects (CLO 2) (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.**

### **Lab Assignments (CLO 3) (Weekly Assignments)**

You are required to complete the lab experiments in the TestOut Network Pro software. It is to your advantage and professional development to complete each lab assignment, do a conscious work and do not procrastinate. 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. Lab assignments contribute to CLOs 3, reinforcing the course material and developing teamwork skills.

All the lab assignments must be completed and each section is due on or before the following Saturday at mid-night. Lab Assignments have a weight of 30% of the final grade.

### **Design and setup of a small Computer Network (CLO 4)**

**(Additional details and instructions will be provided in lecture meetings)**

#### **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.

#### **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. The due date is **(TBD)** and has a weight of 20% of the final grade.

### **Tests**

You will take weekly quizzes, one midterm and the final exam that the Testout Pro Certification 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.

### **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 on Tuesdays. In the 50 minutes' lecture sessions, the instructor can only 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.

## Final Exam

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

## 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	20%
Case Projects & Reports	5%
Small Network Design (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) (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>