# **ITP 357 – Enterprise Network Design (3 Units)**

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| --- | --- | --- | --- |
| Instructor | Chi So OR TBA | Lecture | Tuesday 2:00PM – 3:20PM |
| Office | TBA | Lab | Thursday 2:00PM – 3:20PM |
| Office Hours | TBA | Location | OHE 406 (Lecture & Lab) |
| Email | [chiso@usc.edu](mailto:chiso@usc.edu) OR TBA |  |  |
| Phone | TBA |  |  |

## **Text:**

* Interconnecting Cisco Network Devices, Part 1 (ICND1)  
  McQuerry  
  ISBN 1587054620

## **Description:** This course focuses on the fundamentals of enterprise level networks. The course is designed to educate students on configuring routers and managed switches. The course is designed around laboratory exercises where students will design, deploy, and maintain a network capable of supporting thousands of users. Students will use the latest network technologies currently being used in companies and organizations around the world.

## **Goals:**

## Identify the various components of the OSI networking model

## Describe the different types of networks

## Deploy enterprise Ethernet LANs

## Understand and configure an enterprise router

## Properly configure and use an integrated operating system (IOS)

## Subdivide a network using subnets

## **Resources:**

* blackboad.usc.edu
* docs.google.com [ at the end of the semester for future use ]

## **Evaluation:** Grading will be based on percentages earned in assignments. Students will have structured labs throughout the semester, to be conducted during the scheduled lab time.

|  |  |
| --- | --- |
| Labs / Homework | 30% |
| Presentation / Project | 20% |
| Midterm | 15% |
| Final Exam | 25% |
| Participation | 10% |

## **Grading Scale:** The following is the grading scale to be used for the final grades at the end of the semester. Note all the numbers are represented in percentages.

|  |  |
| --- | --- |
| > 93 | A |
| 90 - 92.9 | A- |
| 87 - 89.9 | B+ |
| 83 – 86.9 | B |
| 80 – 82.9 | B- |
| 77 – 79.9 | C+ |
| 73 – 76.9 | C |
| 70 – 72.9 | C- |
| 67 -69.9 | D+ |
| 63 – 66.9 | D |
| 60 – 62.9 | D- |
| < 59.9 | F |

## **Polices:**

## Projects turned in after the deadline will automatically have 5% deducted per day. Projects will not be accepted after 1 week beyond the project’s deadline

## No make-up exams (except for medical or family emergencies) will be offered nor will there be any changes made to the Final Exam schedule.

## It is your responsibility to submit your project on or before the due date. It is not the responsibility of the lab assistant. Do not turn in anything to your lab assistant!

## All projects will be digitally submitted through blackboard except where specifically specified. Always keep a backup copy of your labs

## **Academic Integrity:**

## The use of unauthorized material, communication with fellow students during an examination, attempting to benefit from the work of another student, and similar behavior that defeats the intent of an examination or other class work is unacceptable to the University. It is often difficult to distinguish between a culpable act and inadvertent behavior resulting from the nervous tension accompanying examinations. When the professor determines that a violation has occurred, appropriate action, as determined by the instructor, will be taken.

## Although working together is encouraged, all work claimed as yours must in fact be your own effort. Students who plagiarize the work of other students will receive zero points and possibly be referred to Student Judicial Affairs and Community Standards (SJACS).

## All students should read, understand, and abide by the University Student Conduct Code listed in Scampus, and available at: http://www.usc.edu/student-affairs/SJACS/nonacademicreview.html

## **Students with Disabilities:**

## Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me (or to your TA) as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m. – 5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776.

## **Examinations:**

|  |  |
| --- | --- |
| Midterm | TBA |
| Final Class | TBA |
| Final Exam | TBA |

## **Course Schedule:**

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| --- | --- | --- |
| Lesson / Week | Topic | Required Reading |
| 1 | Introduction | TBA |
| 2 | Network Topology | TBA |
| 3 | OSI Networking Model | TBA |
| 4 | TCP/IP and Subnets | TBA |
| 5 | Routers and Integrated Operating Systems | TBA |
| 6 | Static Routing | TBA |
| 7 | RIP and IGRP | TBA |
| 8 | OSPF and EIGRP | TBA |
| 9 | Wide-Area Networks | TBA |
| 10 | Router Security | TBA |
| 11 | Advance Routing Concepts | TBA |
| 12 | Advance TCP/IP Concepts | TBA |
| 13 | LAN Switches | TBA |
| 14 | Virtual LANs and Trunking | TBA |
| 15 | IT Industry | TBA |