Instructor Information:

Someswar Kesh
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Office Hours: 8:30 -10:30 A.M. M, W; 8:30-11:30 Tu or by appointment

CCNA guide to Cisco Networking – Fourth Edition
Kelly Caudle and Kelly Cannon
Publisher: Thomson Course Technology

Mark Ciampa
Publisher: Thomson Course Technology

Course Description:
This course will provide the student with in-depth knowledge on the theory and applications of wide area networking, routing and wireless networks. Topics on network protocols, network topology and design, Cisco routers, routing protocols, router security, and wide area networking technologies will be covered. Various wireless LAN devices and standards (IEEE 802.11, for example), planning, deploying, and managing wireless LANs, wireless security will also be covered.

Course Objectives:
1. To learn networking fundamentals including in-depth knowledge of TCP/IP and the OSI model
2. To learn how to deploy, and manage WANs with Cisco routers
3. To learn and implement routing and switching
4. To learn about various Wide-Area Networking (WAN) Technologies
5. To learn about planning, deploying, and managing wireless networks
6. To learn about router and wireless security
7. To learn how to use the knowledge to solve business problems
8. To learn how to research material related to the course
9. To learn how to present research material and laboratory work to a group

Course Outcomes:
After successful completion of the course, students will be able to:
1. Understand and apply TCP/IP and OSI models
2. Be able to interconnect multiple LANs using Cisco routers
3. Select and apply different routing and switching protocols
4. Apply appropriate WAN technologies
5. Select and apply various wireless technologies
6. Select and apply security in routers and wireless devices
7. Apply the knowledge to solve business problems.
8. Research material related to the course.
9. Present course material and laboratory work to a group

Outcome measurement:
All outcomes will be measured by tests and successful completion of laboratory exercises and other assignments.

**Teaching philosophy and methods:**

Four components will be used for teaching. These are; lectures, class-discussions, research and applications. A quick lecture on a particular topic or chapter will be followed by class discussions. These discussions may involve student or professor initiated questions or topics, or topics related to student research. Students will be asked to research topics where the text-book coverage is not adequate, newer developments have taken place or more critical thinking is required. Laboratory exercises will further the understanding of the material through applications to solve business problems. **Students are urged to actively participate in class-discussions. Critical thinking and communication skills are essential for success in today’s world, and class discussions provide an excellent opportunity to hone those skills.**

**Attendance policy:**

Students are expected to attend classes on a regular basis and participate in class discussions. If more than one class is missed without the instructor’s permission, 10 points will be deducted for each class missed beyond the one.

**Honesty policy:**

Students are expected to follow the university regulations and policies. Consult the student handbook for further information.

**Tests and assignments policy:**

Assignments are due on the date announced in the class. For late assignments, there is a ten percent grade penalty for submissions made within two days of the due date. Late assignments after that will not be accepted.

**Grading:**

Quizzes (M/C): 200 points
Examinations (one mid-term and one final): 200 points
Laboratory/ Research (group)/Presentations: 50 points each, 100 points total
Individual Research paper: 100 points.

**Total: 600 points**

Grading: A: >90, B: 80-89%, C: 70-79%, D: 60-69%, F: <60%

The instructor reserves the right to curve the grades, if necessary. You may be given extra credit for attending some professional events. These events and the credit will be announced by the instructor.
Schedule of Topics:
Routing: Chapters 1, 2, 4
Wireless: Chapters 2 and 3

Quiz 1
Routing: Chapters 3, 5, 6
Wireless: Chapters 4 and 5

Quiz 2 and Test 1
Routing: Chapter 7, 10
Wireless: Chapter 6 and 7, 8

Quiz 3
Routing: Chapters 9, 12
Wireless: Chapter 9-10

Quiz 4 and Final Exam.

This class has a prerequisite of CIS 2665; Principles of Data Communications and LAN

Assessment Matrix:

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<th>CIS3665 Outcomes</th>
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