

CIT 384–Advanced Network and System Administration

Spring 2008
MW 6:15-7:30

Instructor Information

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Summary

Description : Network and transport protocols (IP, TCP, UDP); hubs, switches, and routers; Network topologies, subnetting, and routing, including VLANs; capacity planning and redundancy; network troubleshooting using cable testers and network sniffers.

Prerequisites : INF 284

Textbooks : Wendell Odom, *CCNA Official Exam Certification Library, 2nd edition*, Cisco Press, 2008.

Student Learning Outcomes

By the end of the term, a successful student should be able to:

1. Configure and debug network devices using the IOS command line.
2. Understand switching, including MACs, STP, collision and broadcast domains, and VLANs.
3. Understand IP addressing and subnetting, including ARP, CIDR, DHCP, IPv6, and NAT.
4. Understand routing, including routing protocols like OSPF.
5. Design a reliable and scalable local area network.
6. Troubleshoot network problems at any layer in the protocol stack.
7. Understand the basics of 802.11 wireless networking.

Grading

Your grade in the course will be earned / calculated as follows:

midterm	30%	A	→	90	–	100
final exam	30%	B	→	80	–	89
labs	20%	C	→	70	–	79
quizzes	20%	D	→	60	–	69
		F	→	0	–	59

Students with Disabilities

Students with disabilities who require accommodations (Academic adjustments, auxiliary aids or services) for this course must register with the Disability Services Office. Please contact the Disability Service Office immediately in the University Center, Suite 320 or call 859-572-6373 for more information. Verification of your disability is required in the Disability Services Office for you to receive reasonable academic accommodations. Visit our website at <http://www.nku.edu/~disability/>.

Academic Dishonesty

The work that you submit in this course is subject to Northern Kentucky University's Student Honor Code (see <http://www.nku.edu/~deanstudents/documents/StudentHonorCode-Fall2007.pdf>.) Issues involving academic dishonesty are taken very seriously by this instructor and are dealt with according to College and Department policy. Academic dishonesty includes but is not limited to:

1. Improper access to evaluation material or records.
2. Submission of material which is not the student's own work.
3. Conduct which interferes with the work or evaluation of other students.

Some specific examples of dishonesty include:

1. Copying from another person, book, magazine, or other electronic or printed media.
2. Obtaining another person's exam answer or answers.
3. Assisting another student in submitting work that is not the student's own.

It is unacceptable to share program code. It is unacceptable to share homework solutions. It is acceptable and often a good idea to talk about program algorithms and homework solution strategies, but it is not acceptable to use the same code or code segments, or to share actual solutions to homework problems. Any act of academic dishonesty will result in a grade of zero (0) for that item for the first occurrence. An automatic F in the course will result for the second offense. This policy holds for homework assignments and programs, as well as for tests. In order to be fair, penalties will be applied to all parties involved regardless of culpability or fault.

Course Calendar and Class Structure

See the course web site, <http://faculty.cs.nku.edu/~waldenj/classes/2008/spring/cit384/> for a current course schedule.