## Wright State University

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College of Engineering & Computer Science

Fall 2013

# CEG 2400-01: Introduction to PC Networks

Jerry Hensley Wright State University - Main Campus, jerry.hensley@wright.edu

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## Course Syllabus – Effective August 26, 2013 CEG 2400 Introduction to PC Networks Fall 2013

### **General Course Information**

Instructor:

Jerry Hensley

Office:

LX 040H Library Annex

Office Hours:

After class and by appointment

Phone:

937-775-2349

E-mail:

jerry.hensley@wright.edu

Web site:

http://www.wright.edu/~jerry.hensley

Classroom:

346 Russ Engineering Center

Class Times:

MW 4:40 – 6:00 PM

**Credit Hours:** 

3

Prerequisites: Undergraduate level CS 1150 Minimum Grade of D or Undergraduate level CS 1160 Minimum Grade of D or Undergraduate level CS 1180 Minimum Grade of D or Undergraduate level CEG 2170 Minimum Grade of D

**Textbook**: Tamara Dean, Network+ Guide to Networks, Sixth Edition, Course Technology Incorporated, 2013 ISBN-13: 978-1-133-60819-6 or 10: 1-133-60819-1.

#### **Additional Materials**

Slides, Reference material, lab assignments, and drop boxes found on http://pilot.wright.edu/

### **Course Description**

Introduction to networking technologies including infrastructure and architectures, standards, protocols and directory services, administration, security and management. Integrated lecture and lab.

#### Course Format:

A combination of lecture, demonstration and lab activities will be used during class. Typically, the first part of the class will be dedicated to lecture and the remainder of the class will be used to complete lab-based assignments and cases.

### **Topic Coverage:**

This course first introduces the fundamental building blocks that form a modern network, such as protocols, topologies, hardware, and network operating systems. It then provides coverage of important concepts in contemporary networking, such as TCP/IP, Ethernet, wireless transmission, and security. The course will prepare you to select the best network design, hardware, and software for your environment. You will also learn the skills to build a network from scratch and maintain, upgrade, and troubleshoot an existing network. Specific topic coverage includes:

- An Introduction to Networking
- Networking Standards and the OSI Model
- Transmission Basics and Networking Media
- Introduction to TCP/IP Protocols
- Topologies and Ethernet Standards

- Network Hardware
- Wireless Networking
- Network Operating Systems
- In-Depth TCP/IP Networking
- Network Security
- Troubleshooting Network Problems
- Ensuring Integrity and Availability
- Network Management

#### Grading and Evaluation Criteria

Exam 1	25%
Exam 2	25%
Exam 3	25%
Labs / Homework	25%

The following tentative scale will be used to calculate your grade:

90 – 100 % A 80 – 89 % B 70 – 79 % C 60 – 69 % D 59 and below F

**Assignment and Exam Policy:** 10 % will be deducted for each day an assignment is late. No credit will be given for assignments over 2 days late. Lab assignments/cases/activities done *in class* cannot be made up for credit.

If you know that you will miss an exam, you may take it early, otherwise exams *may* be made up at discretion of the Instructor - if advance notice is given and proper documentation is supplied. Generally, make-up exams are given before or after scheduled class time. If you are not present during an exam, you may be required to take an alternate version of the exam over the same course materials.

You will have card access to this lab (346 Russ Center) and may use the lab when there is not another class in session.

Link to 346 Class/Lab Schedule: http://www.cs.wright.edu/cse/students/lab-schedules.shtml

#### Academic Integrity

It is the policy of Wright State University to uphold and support standards of personal honesty and integrity for all students consistent with the goals of a community of scholars and students seeking knowledge and truth. Furthermore, it is the policy of the university to enforce these standards through fair and objective procedures governing instances of alleged dishonesty, cheating, and other academic misconduct. The following recommendations are made for students:

- 1.Be honest at all times.
- 2. Act fairly toward others. For example, do not disrupt or seek an unfair advantage over others by cheating, by talking, or by looking at other individuals' work during exams.
- 3. Take group as well as individual responsibility for honorable behavior. Collectively, as well as individually, make every effort to prevent and avoid academic misconduct, and report acts of misconduct that you witness.

- 4.Do not turn in the same work in more than one class unless permission is received in advance from the professor.
- 5.Unless permitted by the instructor, do not collaborate with others on graded course work, including in class and take home tests, papers, or homework assignments.
- 6. Know what plagiarism is and take steps to avoid it. When using the words or ideas of another, even if paraphrased in your own words, cite the source(s).
- 7. Know the policy-ignorance is no defense. If you have any questions regarding academic misconduct, contact your instructor. Those who violate campus rules are subject to disciplinary action.

This information was obtained form Wright State's Office of Judicial Affairs. Complete information may be referenced at: http://www.wright.edu/students/judicial/integrity.html

## Responsible Use of Information Technology

Wright State University provides computing, information, and communications resources for its students to support their learning and research. Access to these information technology resources is a privilege and requires adherence to this Information Technology policy as well as to other University policies, including but not limited to: World Wide Web (Wright Way 2001), Copyrighted Materials (Wright Way 2303), WSU Student Handbook, WSU Student Organization Handbook, and Student Housing Data Network Acceptable Use Policy.

Users of the University's information technology resources are also bound not only by those laws, policies, and regulations that are specific to computing, telecommunications, and networks, but also by all other international, federal, state, and local regulations and statutes that apply.

This policy applies to all use of the University's computing, information, and communications resources, whether administered by Computing and Telecommunications (CATS), by individual University colleges and departments, or by off-campus units that connect remotely to the University's network and operate under the aegis of Wright State University. Privately-owned machines, while attached to the University network, are subject to the same policies as University-owned computer systems.

Responsibility for the use of the University's computing, information, and communications resources by minors (persons under 18 years of age) rests with their parents or legal guardians.

This information was obtained form Wright State's Office of Judicial Affairs. Complete information may be found at: http://www.wright.edu/cwis/policies/itpolicy.html

#### Students With Disabilities

Students with documented disabilities that require physical or academic accommodations must contact their Instructor during the first week of classes. To receive more information, or to apply for services, contact the Office of Disability Services 775-5680.

	CEG2400-01 Fall 2013 Course Outline		
Effective: August 26, 2013			
DATE	CLASS SESSION TOPIC	READING	LAB
8/26/2013	Course Introduction	Chapter 1	LAB 1
8/28/2013	An Introduction to Networking		LAB 1 Due
9/2/2013	LABOR DAY – NO CLASS	Chapter 2	NONE
9/4/2013	Networking Standards and the OSI Model		LAB 2
9/9/2013	Networking Standards and the OSI Model	Chapter 3	Lab 2 Due
9/11/2013	Transmission Basics and Networking Media		LAB 3
9/16/2013	Transmission Basics and Networking Media &	Chapter 4	LAB 3 Due
	Introduction to TCP / IP Protocol	_	& LAB 4
9/18/2013	Introduction to TCP / IP Protocol		LAB 4 Due
9/23/2013	Topology and Ethernet Standards	Chapter 5	LAB 5
9/25/2013	Topology and Ethernet Standards		LAB 5 Due
9/30/2013	EXAM 1 – Chapters 1 – 5 ONLY	Chapter 6	LAB 6
10/2/2013	Network Hardware, Switching and Routing		LAB 6 Due
10/7/2013	Network Hardware, Switching and Routing &	Chapter 7	LAB 7
	Wide Area Networks		
10/9/2013	Wide Area Networks		LAB 7 Due
10/14/2013	Wireless Networking	Chapter 8	LAB 8
10/16/2013	Wireless Networking		LAB 8 Due
10/21/2013	In Depth TCP / IP Networking	Chapter 9	LAB.9
10/23/2013	In Depth TCP / IP Networking		LAB 9 Due
10/28/2013	Virtual Networks and Remote Access	Chapter 10	LAB 10
10/30/2013	Virtual Networks and Remote Access		LAB 10 Due
11/4/2013	EXAM 2 – Chapter 6 - 10 ONLY	Chapter 11	LAB 11
11/6/2013	Network Security		LAB 11 Due
11/11/2013	VETERAN'S DAY – NO CLASS	Chapter 13	NONE
11/13/2013	Network Security & Troubleshooting Network Problems		LAB 12
11/18/2013	Troubleshooting Network Problems	Chapter 14	LAB 12 Due
11/20/2013	Ensuring Integrity and Availability		LAB 13
11/25/2013	Ensuring Integrity and Availability	Chapter 15	LAB 13 Due
11/27/2013	NO CLASS MEETING		LAB 14
12/2/2013	Network Management		LAB 14 Due
12/4/2013	LIVE DEMOS – EXAM REVIEW		
12/9/2013	FINAL EXAM - CHAPTERS 11, 13, 14, 15 ONLY		
	5:45PM-7:45PM - 346 Russ Center		