

CS 2705 22573	Network Fundamentals and Design Fall Semester 2014
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Instructor	Kyle Feuz Office: TE 111C Phone: 801-626-7864 E-mail: kylefeuz@weber.edu Office Hours: T,TH:8:00 - 9:30 am Office Hours @ D2 314: T,TH: 5:00 -5:30 pm, 9:20 – 9:50
Classroom	D2 314
Days	T,TH
Time	7:30-9:20 PM
Texts	<i>TCP/IP Protocol Suite</i> (4th Edition) by Behrouz A Forouzan. ISBN 978-0-07-337604-2
Description	A comprehensive examination of the hardware and software components of a network and the practical techniques for designing and implementing computer systems in a network. Topics will include the purpose and use of various wide and local area Networks, Ethernet, TCP/IP UDP/IP and other protocols, media type and structures (repeaters, bridges, switches, hubs, routers with routing algorithms, and gateways), signaling/data encoding, multiplexing, error detection/correction and flow control, packet formats, network classes, and subnetting and network security.
Objective	<ul style="list-style-type: none"> • gain a sound understanding of the basic networking terminology • analyze the theory of networking • recognize types of network protocols • identify wide and local area networks
Class	Class will consist of lectures, discussions, assignments, quizzes and exams. Questions and comments are encouraged. It is expected that students will read the material related to each week's coursework.
Assignments / Discussions / Projects	There will be weekly assignments for the class. Assignments will consist of short answer, discussion topics, and projects. The specifics of each assignment will be posted weekly on Monday in the Coursework folder. The due date for each assignment will be the following week on Monday at midnight (unless otherwise specified.) Late assignments will be accepted with a 10% penalty per day for up to an additional week to provide for unforeseen circumstances. Assignments count for 40% of the final grade.
Quizzes	There will be weekly quizzes for the class, worth 10 points each. A quiz will be posted on Monday each week (with exception of the two weeks where we have exams.) Your lowest two quiz scores will be dropped to provide for unforeseen circumstances. Quizzes count for 20% of the final grade.
Exams	There will be three exams for the class. Exams count for 40% of the final grade (the Midterm Exams being worth 10% each, and the Final Exam being worth 20%.)
Accommodations for disabilities	Any student requiring accommodations or services due to a disability must contact Services for Students with Disabilities (SSD) in room 221 of the

	Student Services Center here at the Davis Campus. SSD can also arrange to provide course materials (including this syllabus) in alternative formats if necessary. You can also call 801-395-3524 or visit http://www.weber.edu/ssd for more details.																																				
Grading	<table border="1"> <tr> <td>Quizzes</td> <td>20%</td> </tr> <tr> <td>Assignments</td> <td>40%</td> </tr> <tr> <td>Exams</td> <td>40%</td> </tr> </table> <p>The final grade will be given based on points accumulated through quizzes, assignments and exams. Standard grading will apply:</p> <table border="1"> <tr> <td>94 – 100</td> <td>A</td> <td></td> <td>74 – 76</td> <td>C</td> </tr> <tr> <td>90 – 93</td> <td>A-</td> <td></td> <td>70 – 73</td> <td>C-</td> </tr> <tr> <td>87 – 89</td> <td>B+</td> <td></td> <td>67 – 69</td> <td>D+</td> </tr> <tr> <td>84 – 87</td> <td>B</td> <td></td> <td>64 – 67</td> <td>D</td> </tr> <tr> <td>80 – 83</td> <td>B-</td> <td></td> <td>60 – 63</td> <td>D-</td> </tr> <tr> <td>77 – 79</td> <td>C+</td> <td></td> <td>0 – 59</td> <td>E</td> </tr> </table>	Quizzes	20%	Assignments	40%	Exams	40%	94 – 100	A		74 – 76	C	90 – 93	A-		70 – 73	C-	87 – 89	B+		67 – 69	D+	84 – 87	B		64 – 67	D	80 – 83	B-		60 – 63	D-	77 – 79	C+		0 – 59	E
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Allocated Time	You should anticipate spending two to three hours of study per week for each credit hour of a university course. Computer and programming classes typically require time in the upper range.																																				
Canvas	<p>This course will have a strong online component via the Canvas course management system. To log on to the course, go to http://canvas.weber.edu, and follow the login instructions. You will need your WSU wildcat name and password to log in. You should have already received this information from the admissions department. If you still have problems getting into the course, please email me and I will see if I can resolve the issue.</p> <p>If you are unfamiliar with Canvas, go to https://learn-wsu.uen.org/courses/8878 for a student orientation. Click on the links on the left side of the page. PDF help documents are available at http://departments.weber.edu/ce/distancelearning/CanvasFAQ.aspx</p>																																				
Policies	Exams can only be taken on the days given unless arrangements are made to take them ahead of time.																																				
Cheating	<p>Students are expected to maintain academic ethics and integrity in regards to performing their own work. The WSU Student Code states clarifies cheating.</p> <ol style="list-style-type: none"> 1. Cheating, which includes but is not limited to: <ol style="list-style-type: none"> a. Copying from another student's test paper; b. Using materials during a test not authorized by the person giving the test; c. Collaborating with any other person during a test without authority; d. Knowingly obtaining, using, buying, selling, transporting, or soliciting in whole or in part the contents of any test, without authorization of the appropriate official; e. Bribing any other person to obtain any test; f. Soliciting or receiving unauthorized information about any 																																				

	<p>test;</p> <ul style="list-style-type: none">g. Substituting for another student or permitting any other person to substitute for oneself to take a test. <ol style="list-style-type: none">2. Plagiarism, which is the unacknowledged (uncited) use of any other person or group's ideas or work. This includes purchased or borrowed papers;3. Collusion, which is the unauthorized collaboration with another person in preparing work offered for credit;4. Falsification, which is the intentional and unauthorized altering or inventing of any information or citation in an academic exercise, activity, or record-keeping process;5. Giving, selling or receiving unauthorized course or test information;6. Using any unauthorized resource or aid in the preparation or completion of any course work, exercise or activity;7. Infringing on the copyright law of the United States which prohibits the making of reproductions of copyrighted material except under certain specified conditions; <p>CS Department policy dictates that any verifiable evidence of student academic cheating, as defined and determined by the instructor, will result in: 1) an automatic failing grade for the class and 2) a report to the Dean of Students that will include the student's name and a description of the student's dishonest conduct.</p>
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Class Schedule and Course Outline

Week of	Topic	Coursework
Aug 25 Week 1	Ch. 1: Introductions	
	Ch. 2: The OSI Model and the TCP/IP Protocol Suite	Quiz #1
Sept 1 Week 2	Ch. 3: Underlying Technologies	Assignment #1
	Ch. 4: Introduction to the Network Layer	Quiz #2
Sept 8 Week 3	Ch. 5: IPv4 Addresses	Assignment #2
	Ch. 6: Delivery and Forwarding of IP Packets	Quiz #3
Sept 15 Week 4	Ch. 7: Internet Protocol Version 4 (IPv4)	Assignment #3
		Quiz #4
Sept 22 Week 5	Ch. 26: IPv6 Addressing	Assignment #4
	Ch. 27: IPv6 Protocol	Quiz #5
Sept 29 Week 6	Ch 8: Address Resolution Protocol (ARP)	
	Ch. 9: Internet Control Message Protocol Version 4	Quiz #6
Oct 6 Week 7	Ch. 11: Unicast Routing Protocols	
	Ch. 12: Multicasting and Multicast Routing Protocols	Midterm Exam 1
Oct 13 Week 8	Ch. 13: Introduction to the Transport Layer	Assignment #5
	Ch. 14: User Datagram Protocol (UDP)	Quiz #7

Oct 20 Week 9	Ch. 15: Transmission Control Protocol (TCP)	Assignment #6
	Ch. 16: Stream Transmission Control Protocol(STCP)	Quiz #8
Oct 27 Week 10	Ch. 17: Introduction to the Application Layer	Assignment #7
	Ch. 18: Host Configuration: DHCP	Quiz #9
Nov 3 Week 11	Ch. 28: ICMPv6	
	Ch. 19: Domain Name System (DNS)	Midterm Exam 2
Nov 10 Week 12	Ch. 20: Remote Login TELNET and SSH	Assignment #8
	Ch. 21: File Transfer: FTP and TFTP	Quiz #10
Nov 17 Week 13	Ch. 22: World Wide Web and HTTP	Assignment #9
	Ch. 23 Electronic Mail: SMTP, POP, IMAP, and MIME	Quiz #11
Nov 24 Week 14	Ch. 24: Network Management: SNMP	
	Ch. 25: Multimedia Thanksgiving Break	
Dec 1 Week 15	Ch. 29: Cryptography and Network Security	Assignment #10
	Ch. 30: Internet Security	Quiz #12
Dec 8 Week 16	Final Exam – Comprehensive (Chapters 1-14) (Dec 8 – Dec 11)	Final Exam