

**Syllabus For
Clayton State University
College of Information and Mathematical Science**

CNET 2221

**WAN Technologies
Fall 2009 – Second Session (rev. 10/14/2009)**

INSTRUCTOR CONTACT INFORMATION

Scheduled Class Time: Wednesday 6:30 pm – 9:15 pm

Name: John Burningham, D.I.T.

Office: U-324

E-mail: JohnBurningham@Clayton.edu

(when emailing me, always include your course number and your full name).

URL: <http://cims.clayton.edu/jburningham>

Phone: (678) 466-4635 (please leave your full name, course number, and a callback number if you leave voicemail).
Only call me between 9:00am-11:59pm, as calls to my office are transferred to my cellphone.

Office Hours: Mon-Wed, 4:00pm-6:30pm (and also by appointment).

PREREQUISITES/COREQUISITES

Prerequisite(s): *CNET 1120 and CNET 2220 with grades of "C" or better; MATH 1101.*

Corequisite(s): *None.*

COURSE DESCRIPTION

In this hands-on course, students will learn a number of important technologies related to routers and will learn to configure routers to support those technologies. Topics include route summarization, VLSM, classless routing, NAT, ICMP, PPP, ISDN, frame relay, and network security.

NOTE: It is the student's responsibility to drop this course during the drop/add period if he or she has not properly satisfied the prerequisite/corequisite requirements. If the student has not satisfied the prerequisite/corequisite requirements and does not drop the course during the drop/add period, the instructor will advise the registrar's office to drop the student from the course. The student will receive a grade of "W" and no refund will be given. The student alone will be responsible for any loss of funds or financial aid that may result.

NUMBER OF REQUIRED ON-CAMPUS MEETINGS

The course meets weekly on Wednesday evenings 6:30pm – 9:15pm.

UNIVERSITY ATTENDANCE POLICY

Students are expected to attend and participate in every class meeting. Instructors establish specific policies relating to absences in their courses and communicate these policies to the students through the course syllabi. Individual instructors, based upon the nature of the course, determine what effect excused and unexcused absences have in determining grades and upon students' ability to remain enrolled in their courses. The university reserves the right to determine that excessive absences, whether justified or not, are sufficient cause for institutional withdrawals or failing grades.

COURSE OBJECTIVES AND/OR LEARNING OUTCOMES

Upon the completion of the course, students should be able to perform tasks related to the following:

1. WANs
2. PPP
3. Frame Relay
4. Network Security
5. ACLs
6. Telework Services

7. IP Addressing Services
8. Troubleshooting

TECHNOLOGY REQUIREMENTS

University policy states each CSU student is required to have ready access throughout the semester to a notebook computer that meets faculty-approved hardware and software requirements for the student's academic program (as part of the registration process, students agree to this). See ITP Choice at <http://itpchoice.clayton.edu> for full details of this policy. Your computer should meet the given minimum specifications for the Advanced level listed at <http://itpchoice.clayton.edu>.

This particular class has the following technology requirements:

1. You must have broadband access to the Internet, either through the local area network on campus, or through an Internet Service Provider (ISP) of your choice (the costs for the ISP are your responsibility). No excuses will be accepted for inability to access the Internet.
2. You must activate your CSU Student E-mail account. For directions on activation, go to <http://thehub.clayton.edu> and click on Guides.

COMPUTER COMPETENCIES

You need to be computer literate with Windows XP, including but not limited to using eMail and browsing the web.

COURSE REQUIREMENTS

1. Attendance, including listening and actively participating in classroom and laboratory activities.
2. Reading assigned material
3. Homework/Laboratory Assignments
4. Module exams (8), four practice Certification Exams
5. Completing Cisco and CSU course/instructor evaluations.
6. Final Exam
7. Cisco ICND1 Certification Exam

ON-LINE ASSESSMENTS (Examinations)

The module on-line assessments (exams) will be available for six days starting at midnight on the day after it is covered in class and ending at 11:59 pm on the following Sunday. You are allowed one attempt on the individual module assessments. Once you start an assessment (by selecting it on the assessment screen), it is important that you complete it within the specified time limit, if you get disconnected, you can log back in and continue; if you do not submit the assessment for grading within the specified time limit you may not be able to retake it without the instructor resetting your account. If you need an exam reset, you **MUST** contact the instructor by telephone or in-person, do **NOT** use email!

Since the on-line assessments are done outside of class time, they are more of a learning activity than a traditional examination. If you don't know the answer to a question, look it up, but you will **NOT** have time to look up every question so you must be prepared when you start the assessment! You scores and feedback are available to you within seconds after submitting your answers for grading, after the due date you will be able to review the specific questions you missed. If you disagree with an answer, please let the instructor know the wording of the question (the question number is not useful as questions are delivered randomly).

LABORATORY ACTIVITIES

Labs completed using Netlab do not require a printed submission. No labs will be accepted late without prior permission. Do not wait until the last day to work on labs as all time slots may be reserved. You may only reserve one Netlab time slot ahead of time so everyone has a fair chance. You may do labs with a partner if they are done live in the UC-311 lab; then you will need to submit configuration files for all routers and **ONE** lab document with both names on it.

EVALUATION

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|-------------------------------|--|
| Module Exams (8) | 32% |
| Practice CCENT Cert Exams (2) | 6% (Multiple attempts) |
| Practice CCNA Cert Exam (2) | 6% (Multiple attempts) |
| Lab/Homework Assignments | 20% (Listed as Custom Scores in gradebook) |
| Final Exam | 16% |
| ICND1 Certification Exam | 20% (Listed as Skills Exam in gradebook) |

Your final numerical grade will be converted to a letter grade based upon the following distribution:

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|---|---|
| A | 90-100 |
| B | 80-89.99 |
| C | 70-79.99 |
| D | 60-69.99 (Note: a course grade of C or better is required for all CNET courses) |
| F | 0-59.99 |

CERTIFICATION EXAM

640-822 ICND1 exam: <https://cisco.hosted.jivesoftware.com/community/certifications/ccna/icnd1?view=overview>

640-816 ICND2 exam: <https://cisco.hosted.jivesoftware.com/community/certifications/ccna/icnd2?view=overview>


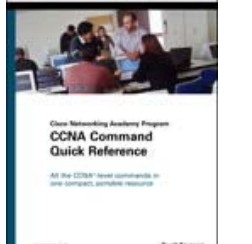
640-802 CCNA exam: https://cisco.hosted.jivesoftware.com/community/certifications/ccna/ccna_exam?view=overview

As a requirement for the course's requirement, you must take the ICND1 certification exam. As an option you may take the ICND2 (or CCNA) certification exams. Passing the ICND1 will earn you minimum course grade of "C"; as an option passing the ICND2 will earn you a minimum course grade of "B"; passing both the ICND1 and ICND2, or the CCNA will earn you a course grade of "A". You are responsible for the cost of all certification exams. Discount vouchers are available from Cisco based upon your first attempt on the final exam. Please note that Cisco requires a waiting period before you can retake a specific exam.

MID-TERM PROGRESS REPORT:

The mid-term grade in this course, which will be issued November 3rd will reflect ~24% of the entire course grade. Based on this grade, students may choose to withdraw from the course and receive a grade of "W." Students pursuing this option must fill out an official withdrawal form, available in the Office of the Registrar or online at <http://adminservices.clayton.edu/registrar/> by mid-term, which occurs on November 6th.

TEXTBOOK AND OTHER MATERIALS NEEDED

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|---|---|
|  | <p>CCNA Official Exam Certification Library (CCNA Exam 640-802), 3rd Edition By Wendell Odom. Published by Cisco Press. Series: Exam Certification Guide. ISBN-10: 1-58720-183-6 ISBN-13: 978-1-58720-183-7 Sep 4, 2007 Pages: 1475 Edition: 3rd</p> |
|  | <p>CCNA Command Quick Reference By Scott D. Empson ISBN-10: 1-58713-159-5 ISBN-13: 978-1-58713-159-2 (optional – STRONGLY Recommended)</p> |

Textbook Errata:

http://www.ciscopress.com/content/images/9781587201820/Errata/1587201828_Errata.doc

http://www.ciscopress.com/content/images/9781587201813/Errata/158720181X_Errata.doc

Cisco Academy Web Site: <http://cisco.netacad.net>

NetLab: <http://netlab.clayton.edu>

Learn-to-Subnet: <http://www.learnertosubnet.com/>

CLASS AND LABORATORY EXPECTATIONS

1. Attendance is MANDATORY! If you are not in class, you will have problems passing the course.
2. The laboratory will be available Monday-Wednesday 4:00 pm – 6:30 pm. If you want access earlier in the day please contact the instructor.
3. Students must abide by policies in the University Catalog, Student Handbook, and if applicable, program handbook. Academic misconduct will not be tolerated. I enforce a zero tolerance policy for academic dishonesty (including but not limited to cheating and plagiarism).
4. Students should read and understand the Basic Student Responsibilities policy posted at <http://adminsivices.clayton.edu/registrar/forms/BasicUndergraduateStudentResponsibilities.doc> and listed in the catalog under Academic Policies. These responsibilities should be considered part of this class syllabus and should be adhered to.
5. A student who stops attending class will receive a grade of "F". To receive a "W" grade, the student must officially withdraw from the course by November 6th.

STUDENTS WITH DISABILITIES

Students with disabilities who require accommodations need to register with Disability Services. Contact them at DisabilityServices@clayton.edu or visit their office in the Student Center Room 255. If you do qualify for services, please give your letter of accommodations to your instructor as soon as possible.

FINANCIAL AID

Financial Aid, including grants, scholarships and loans, can only be used to cover the costs of courses that are required for your currently declared major. If you are declared as a certificate major, your financial aid cannot be used for courses in an AAS or BAS major (or any major other than what is declared). It is your responsibility to contact the Office of Financial Aid to request an adjustment to your award if you register for courses that cannot be covered. If you do not do so, you will eventually be billed for any financial aid that you have received for courses that were not required for your declared major. It is also your responsibility to re-apply for financial aid each

academic year; applications become available January of each year for the following fall semester. If you are unsure about your major, go to the Duck to see how it is listed. If you are unsure about what is covered under financial aid, please call them or make an appointment with someone in financial aid.

APPLYING FOR GRADUATION

For a student to graduate from a program, he/she must apply to graduate by the dates indicated below. To obtain an application for graduation contact your advisor. This form must be completed for each certificate and/or degree in which the student plans to graduate. For students graduating at the end of Fall Semester, the graduation application is due to the registrar's office no later than June 1. For students graduating at the end of Spring Semester, the graduation application is due to the registrar's office no later than September 15. For students graduating at the end of Summer Semester, the graduation application is due to the registrar's office no later than January 30.

CENTER FOR ACADEMIC SUCCESS

Students are encouraged to visit Clayton State's Center for Academic Success (CAS). CAS offers a variety of personalized academic services to all Clayton State University students, including staff and peer tutoring in a variety of subjects and multimedia instruction. CAS tutors not only can help students understand the content of their classes, but also can help them develop the skills and strategies necessary to continue learning throughout their lifetimes. For further information visit the CAS website at <http://adminservices.clayton.edu/cas/>.

Class Schedule

CNET 2221

WAN Technologies
Fall 2009 (rev. 10/14/2009)
(Subject to revision by Instructor)

Students are assigned and expected to read the modules on-line and in the textbook BEFORE class.

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| Oct 14 | Module 1 – Intro to WANs. (exam due Oct 20 th) ICND1 – Chapter 16 – WAN Concepts CCENT Practice Exam 1 (exam due Oct 20 th , multiple attempts allowed) (Note: if you do NOT attend this class meeting, you will be listed as a NO-SHOW!) |
| Oct 21 | Module 2 – PPP (exam due Oct 27 th) ICND1 – Chapter 17 – WAN Configuration ICND2 – Chapter 12 – Point-to-Point WANs Lab 2.5.1 (due Oct 28 th) Lab 2.5.2 (optional) Lab 2.5.3 (due Oct 28 th) Module 3 – Frame Relay (exam due Oct 27 th) ICND2 – Chapter 13 – Frame Relay Concepts ICND2 – Chapter 14 – Frame Relay Configuration and Troubleshooting Lab 3.5.1 (due Oct 28 th) Lab 3.5.2 (optional) Lab 3.5.3 (due Oct 28 th) |
| Oct 28 | Module 4 – Network Security (exam due Nov 3 rd) Lab 4.6.1 (due Nov 4 th) Lab 4.6.2 (optional) Lab 4.6.3 (due Nov 4 th) Module 5 – ACLs (exam due Nov 3 rd) ICND2 – Chapter 6 – IP Access Control Lists Lab 5.5.1 (due Nov 4 th) Lab 5.5.2 (optional) Lab 5.5.3 (due Nov 4 th) CCENT Practice Exam 2 (exam due Nov 3 rd , multiple attempts allowed) |
| Nov 4 | Module 6 – Teleworker Services (exam due Nov 10 th) ICND2 – Chapter 15 – Virtual Private Networks Module 7 – IP Addressing Services (exam due Nov 10 th) ICND2 – Chapter 16 – Network Address Translation ICND2 – Chapter 17 – IP Versions 6 Lab 7.4.1 (due Nov 11 th) Lab 7.4.2 (optional) Lab 7.4.3 (due Nov 11 th) CCENT Practice Exam 2 (exam due Nov 10 th , multiple attempts allowed) |
| Nov 11 | Module 8 – Troubleshooting (exam due Nov 17 th) Certification Preparation CCNA Practice Exams Due Nov 17 th |
| Nov 18 | Certification Preparation On-Line Final Due (Available 11/11-11/18, 4pm-Midnight) |
| Dec 2 | Certification Preparation |
| Dec 11 | ICND1 (CCENT) Certification Exam Results Due |
| Dec 13 | ICND1 (CCENT) Certification Exam Retakes Due Note: Cisco has a 5-day waiting time between exam attempts! |