

- Class :** This class is completely Online-Async
- Recordings on various topics each week will be available by Monday each week at 5:45pm (except for Exam and Memorial Day)
- We will stay engaged with each other using the following tools:
- Flipgrid – a video discussion forum.
 - D21 discussion forum in text
 - Zoom Office Hours
 - Emails
 - Announcements on d21
- It is highly recommended to subscribe to announcements and discussion forums to get latest information/discussion.
- Instructor :** Dr. Anthony Chung
Office : Online via Zoom (Link to join is in d21)
Office Hours : M 5:00-6:00 PM / W 3:00- 4:00 PM / F 10:00-11:00 AM
Email : achung@depaul.edu

IMPORTANT:

- **Cisco Modeling Lab (CML) Version 2.1.1** – we will be using this environment for the labs. The NET program committee has decided that this is the best solution for students to be able to remotely perform labs that involve configuration of Cisco devices. It is used in many NET courses. Students are responsible for purchasing a license (\$199 a year).
- **Eximity** – we will be using this live proctoring service for the Network Skill Exam. Students will be given a range of 3 days to schedule an exam. More detail will be provided when the exam study guide is provided.
- **Email and Other Forms of Communications -**
While email is a great means of communication, increasingly we are bombarded with a volume of emails that is getting difficult to manage. In order to manage emails to better serve both the students and the professor. **Pay attention to ALL of the following:**
 - **You MUST include NET594 (case insensitive) in the subject line of the email as they will be directed to the appropriate mailbox where I check for emails related to this course.**
 - I meet with students through Zoom, answer student emails, and respond to discussion forums etc **during my office hours**. In this way, you know exactly when you expect to hear from me by these means of communications. If you contact me close to the end of my office hours I may have to respond during the next office hours period. If you do not hear from me after two office hours periods, check to make sure that you include NET594 in the subject, and email me again, or call to leave a message.
 - I will be available through Zoom during the office hours. If I cannot make some office hours due to special circumstances, announcements will be made on d21.

Depending on the complexity of your questions, **sometime we can get more out of meeting by Zoom interactively rather than by emails.**

- Given my response time frame and office hours, you should **work on your assignments early so as to give yourself ample time to ask questions.**
- **Please observe the following email etiquette** so that we will be able to better focus our energy on learning and getting the most out of the class. It is also part of being professional. Some recruiters are abhorred at some of the emails received from recent recruits. It is important to form the good habit of writing appropriate emails in a professional setting.
 - Before sending questions via email or posting questions on the d2l discussion forum, make sure that your question is not already answered on the course syllabus, the d2l website (announcements, discussion forums, assignment information etc), or in the lecture (view the class recording if you missed a class, or if you are an OL student).
 - Questions that are of general interest to the entire class should be posted on the course discussion forum.
 - In addition to including NET594 in the subject line, **be specific about the subject of the email in the mail subject heading and use proper spelling, grammar, and punctuation. DO NOT respond to an old email with a different subject when asking a new question.**
 - **Include your full name in the message body.**
 - While you have my permission to address me as Anthony or Tony, you should not assume that you could address other professors on a first name basis unless you have their explicit permissions.

Course Home Page : <https://d2l.depaul.edu> (Open on or before March 27, 2021)

Prerequisites: NET/TDC 460, 463, 464, 477, 511, 560, 563.

Required Text: Top-Down Network Design, 3rd ed, Priscilla Oppenheimer, Cisco Press, 2010.

ISBN 9781587202834 (available on DePaul's E-Library – O'Reilly for Higher Education (Formerly Safari) - <https://go.oreilly.com/depaul/>)

Course Description and Objective:

In this course students will synthesize knowledge from previous courses to design and demonstrate a comprehensive network project. Topics introduced or reviewed, and used in completing the project, will include network requirement analysis, network architecture design, vendor evaluation, planning, experimental design, physical design, logical design, security design, testing strategy, documentation, change management, and network management strategy.

Grading

| | |
|---|------------|
| 7 Lab Exercises using CML (Two lowest scores dropped) | 25% |
| 2 Homework Assignments | 10% |
| Student Presentation | 15% |
| Network Skills Exam (must achieve 60% or more to pass this course) | 20% |
| Case Study Project | 30% |
| Participation | 12% |

| | |
|----|---------|
| A | 92-100% |
| A- | 90-91% |
| B+ | 88-89% |
| B | 82-87% |
| B- | 80-81% |
| C+ | 78-79% |
| C | 72-77% |
| C- | 70-71% |
| D+ | 68-69 |
| D | 60-67% |
| F | < 60% |

Important Notes on Grading:

- Student **must** score 60% or above in the Network Skills Exam to pass the course. This is a **strict requirement**.
- The total of everything is 112, but will be capped at 100.

Notes:

- **Tips for online learning:**

DePaul has created this document with tips to be a successful online student:

https://drive.google.com/file/d/1qGG_cnVtqknOp9ENRMl5yt51_gtY6-cO/view

This is DePaul's general website for student success:

<https://resources.depaul.edu/student-success/Pages/default.aspx>

Here is a useful link from Northwestern University -

<https://www.northeastern.edu/graduate/blog/tips-for-taking-online-classes/>

- **Changes to Syllabus:** This syllabus is subject to change as necessary during the quarter. If a change occurs, it will be thoroughly addressed during class, posted under Announcements in D2L and sent via email.
- **Penalty for late lab assignments:**
 - After the due time: -20%
 - After one day: -50%
 - After two days: -100%

Late submissions for assignments other than labs, including the final project, are not accepted.

All due dates and time are given in the submission boxes. Check the schedule and be sure of the due dates. You must use the homework submission system (submission box) through d2l. **If there are problems with the submission system, you may email me a copy of the assignment BEFORE the due time.**

Note that **assignments are due on Tuesdays.**

- **About Class Participation**
 - Viewing of recorded lectures is required.
 - Required video check-ins on <https://info.flipgrid.com/> More information on d2l's first announcement.
 - Failure to view recorded lectures and/or posting on flipgrid will result in lowered participation score for that week.
 - For every lecture module (which may include several videos) there will be a **participation quiz**. The questions will be on the exercises given in the recordings and certain points that we emphasized in all the recordings for that week. Students are allowed to take the quiz **up to 10 times** before the quiz is due and the **highest** score will be used towards the final grade. To do well in the quiz you are recommended to
 - Take notes while attending/viewing the lectures, especially on points not in the slides but were filled in within the lecture videos, and points where I emphasized that students should write down.
 - When an exercise is given, students should work through the exercise before checking solutions. This is part of how students learn.
 - Make sure that you get the answers of the in class exercises. Some quiz questions will be on the in class exercises.

Here's a link from Columbia about the importance of note taking (and resources)
<https://www.cc-seas.columbia.edu/node/31875>

Although you can choose to take notes using you laptop or by hand, here's an article on recent research showing the advantage of taking notes by hand.
<http://www.npr.org/2016/04/17/474525392/attention-students-put-your-laptops-away>

- Any grading questions **must be directed to me within 1 week of the posting of the grade. No grade adjustments will be made more than a week after the grade is posted. You should email me with the following information:**
 - **The assignment**
 - **The problem in question**
 - **Why you think you should get a grade rather than the one given.**

- About the Network Skills Exam (online through Examity live proctoring service):
 - Exams are closed books and notes.
 - You are given a **total of 2 ½ hours** for the exam. More details will be presented in the course.
 - The available window is **from 12:00 am on Monday April 19 to 11:59 pm on Wednesday April 21, 2021** (Week 4).

- Check DePaul's academic calendar
<https://academics.depaul.edu/calendar/Pages/default.aspx> for important dates such as last day to add/drop/withdraw from classes.

- **Make sure that you read and understand DePaul's academic integrity policy:**
https://offices.depaul.edu/academic-affairs/faculty-resources/academic-integrity/Documents/Academic%20Integrity%20Policy_Spring%202016.pdf

For additional resources concerning academic integrity, please check here:
<http://academicintegrity.depaul.edu/Resources/index.html>

- **All assignments are individual assignments. You should not work so close with another student as to produce solutions that are identical or almost identical.**

- **Sharing your work with other students, in or out of this class, is also a violation of academic integrity (called "complicity").** While you are encouraged to help fellow students understand course materials, you should not help them with individual assignments. If you want to help, encourage them to

ask questions about what they do not understand in the course materials presented, rather than asking questions directly about the assignment.

- **Under no circumstances should you copy or use simple paraphrasing of someone else's work, including course materials and lecture slides, without giving proper credits and references.**

- **Please be aware that any written work (assignments and exams) submitted in this course may be verified using *Turn-It-In* technology in order to ensure that the work is the student's own creation and not in violation of the University's Academic Integrity Policy. Submission of work in this course constitutes a pledge that the work is original and consent to have the work submitted to verify that fact.**

- **Publicly sharing or posting online any prior or current materials from this course is a violation of DePaul's academic integrity:**

All students are expected to abide by the University's Academic Integrity Policy which prohibits cheating and other misconduct in student coursework. Publicly sharing or posting online any prior or current materials from this course (including exam questions or answers), is considered to be providing unauthorized assistance prohibited by the policy. Both students who share/post and students who access or use such materials are considered to be cheating under the Policy and will be subject to sanctions for violations of Academic Integrity.

- **Respect for Diversity and Inclusion at DePaul University as aligned with our Vincentian Values:** At DePaul, our mission calls us to explore “what must be done” in order to respect the inherent dignity and identity of each human person. We value diversity because it is part of our history, our traditions and our future. We see diversity as an asset and a strength that adds to the richness of classroom learning. In my course, I strive to include diverse perspectives and teaching pedagogies. I also encourage open dialogue and spaces for students to express their unique identities and perspectives. I am open to having difficult conversations and I will strive to create an inclusive classroom that values all perspectives. If at any time, the classroom experience does not live up to this expectation, please feel free to contact me via email or during office hours.

- **Student Attitude:** A professional and academic attitude is expected throughout this course. Measurable examples of non-academic or unprofessional attitude include but are not limited to: talking to others when the instructor is speaking, mocking another's

opinion, cell phones ringing, emailing, texting or using the internet whether on a phone or computer. If any issues arise a student may be asked to leave the classroom. The professor will work with the Dean of Students Office to navigate such student issues.

- **Civil Discourse:** DePaul University is a community that thrives on open discourse that challenges students, both intellectually and personally, to be Socially Responsible Leaders. It is the expectation that all dialogue in this course is civil and respectful of the dignity of each student. Any instances of disrespect or hostility can jeopardize a student's ability to be successful in the course. The professor will partner with the Dean of Students Office to assist in managing such issues.

Schedule (Tentative):

Note: All assignments are due on Tuesday of the week at 11:59 PM.

| Week: Date | Topic | Readings | Assignments (due on Tuesday of each week) |
|-------------|---|------------------|---|
| 1: Mar 29 | Course overview; Network Design: Business Goals and Technical Goals | Chapters 1, 2 | |
| 2: April 5 | Performance Design; Redundancy and Scalability, Case Study Discussion | Chapters 3, 4 | <p><i>Non-graded, but required, assignments due:</i></p> <ul style="list-style-type: none"> • <i>Post a short introduction video on flipgrid;</i> • <i>Take the Academic Integrity Pledge Quiz; and</i> • <i>Submit in the submission box "Getting to know more about you")</i> <p><i>HW #1 out</i> <i>Case Study Project Assignment out</i></p> <p><i>Week 1 participation and video check in due</i></p> |
| 3: April 12 | Logical Network Design; Routing and BGP | Chapters 5, 6, 7 | <p><i>Labs out</i> <i>Student Presentations Assignment out</i></p> <p><i>Week 2 participation and video check in due</i></p> |

| | | | |
|-------------|--|-----------------|---|
| 4: April 19 | <i>Network Skills Exam</i> | | <i>Week 3 participation and video check in due on 4-20</i> <i>HW #1 due 4-23</i> |
| 5: April 26 | Design Optimization; QoS; Latency; Multicast | Chapter 13 | |
| 6: May 3 | Security Design; Firewalls; NAT/PAT | Chapter 8 | <i>Labs #1-#5 due</i> <i>HW #2 out</i> <i>Week 5 participation and video check in due</i> |
| 7: May 10 | Physical Network Design; IPv6 | Chapters 10, 11 | <i>Week 6 participation and video check in due</i> |
| 8: May 17 | Network Management Strategies | Chapter 9 | <i>Student Presentations due on May 20th</i> <i>Week 7 participation and video check in due</i> |
| 9: May 24 | Wrap-up and Summary | | <i>HW #2</i> |
| 10: May 31 | <i>Memorial Day – University Closed</i> | | <i>Labs #6-#7 due 6/2</i> |
| 11: June 7 | <i>Case Study Project due (June 8)</i> | | <i>Presentation Peer Reviews due 6/9</i> |

Online Instructor Evaluation

Evaluations are a way for students to provide valuable feedback regarding their instructor and the course. Detailed feedback will enable the instructor to continuously tailor teaching methods and course content to meet the learning goals of the course and the academic needs of the students. They are a requirement of the course and are key to continue to provide you with the highest quality of teaching. The evaluations are anonymous; the instructor and administration do not track who entered what responses. A program is used to check if the student completed the evaluations, but the evaluation is completely separate from the student's identity. Since 100% participation is our goal, students are sent periodic reminders over two weeks. Students do not receive reminders once they complete the evaluation.

Email

Email is the primary means of communication between faculty and students enrolled in this

course outside of class time. Students should be sure their email listed under "demographic information" at <http://campusconnect.depaul.edu> is correct. emic Integrity Policy

Academic Integrity Policy

This course will be subject to the faculty council rules on the [Academic Integrity Policy](#) agiarism

Plagiarism

The university and school policy on plagiarism can be summarized as follows: Students in this course, as well as all other courses in which independent research or writing play a vital part in the course requirements, should be aware of the strong sanctions that can be imposed against someone guilty of plagiarism. If proven, a charge of plagiarism could result in an automatic F in the course and possible expulsion. The strongest of sanctions will be imposed on anyone who submits as his/her own work a report, examination paper, computer file, lab report, or other assignment which has been prepared by someone else. If you have any questions or doubts about what plagiarism entails or how to properly acknowledge source materials be sure to consult the instructor.

Incomplete

An incomplete grade is given only for an exceptional reason such as a death in the family, a serious illness, etc. Any such reason must be documented. Any incomplete request must be made at least two weeks before the final, and approved by the Dean of the College of Computing and Digital Media. Any consequences resulting from a poor grade for the course will not be considered as valid reasons for such a request.

Students with Disabilities

Students who feel they may need an accommodation based on the impact of a disability should contact the instructor privately to discuss their specific needs. All discussions will remain confidential.

To ensure that you receive the most appropriate accommodation based on your needs, contact the instructor as early as possible in the quarter (preferably within the first week of class), and make sure that you have contacted the Center for Students with Disabilities (CSD) at:

Student Center, LPC, Suite #370

Phone number: (773)325.1677

Fax: (773)325.3720

TTY: (773)325.7296

* Last updated on 3/27/2021