Course title: Network Processing

Class Time: Monday and Wednesday 3:30 –4:45 pm

Room: 200 Carroll Hall

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| --- | --- |
| Instructor: Marguerite Doman, PhD |  |
| Office: 518 Thurmond | Email: domanm@winthrop.edu |
| Phone: 323-2692 | Skype address: marguerite.doman |
| Web Address: faculty.winthrop.edu/domanm/csci566 | |

Office Hours:

Monday 4:00 PM – 5:00 PM

Tues: 9:00 AM – 11:00 AM and 2:00 – 3:00 PM

Thurs: 9:00 AM – 11:00 AM

By Appointment and through Skype or Google Hangouts

Course Description: An overview of modern computer network concepts, including principles of communication networks, network configurations, communication protocols, and network security. Notes: Offered in fall,

Prerequisites: QMTH 205 and any of CSCI 271, 325, or 555.

Credit Hours: This course is worth 3 credit hours

Text: *Computer Networking – a top-down approach (7rd ed)*, Kurose and Ross, Pearson/Addison-Wesley, 2013; ISBN 978-0-13-607967-5

Course Goals: Provide an introduction to networking terminology and concepts. Develop an understanding of network architectures, protocols, and operational issues.

Course Content: The course introduces computer networking for communication and application support. Coverage includes: network concepts and designs, commonly used architectures and protocols, data transmission techniques and media, and operational issues such as performance and security.

Assessment Responsibility-student learning outcomes: Students will be able to understand network communication protocols layers and the protocols required to make a successful and complete network connection through the internet.

Learning Activities required in the course: Students are asked to demonstrate knowledge and understanding of communication networking by correctly completing exams. Labs are given to provide more hands on exercises involving networking. In lab write-ups, students are asked to describe the exercise and to analyze the objective and outcome of the lab.

Course Deliverables/Requirements

* Exams
* One final project
* Labs:
  + Students may discuss the lab with each other. However, everyone is to complete the lab independently.
  + Late labs: Late labs will be accepted up to one week after the due date. Late labs will be docked at least 10 points, more at the discretion of the instructor.
* Homework will be assigned. Homework will not be graded. Homework submitted on that date will be corrected and returned. This will be advantageous to your studies.

Grading Policy:

Undergraduate students:

20% Labs

20% Exam 1

20% Exam 2

20% Final Project

20% Cumulative final exam.

Your course grade will be determined by a 90/80/70/60 scale, that is,

course average >= 90% A

90% > average >= 80% B

80%> average >= 70% C

70%> average >= 60% D

average < 60% F

Attendance Policy:

Attendance is encouraged and will be monitored.  You are responsible for the information provided in every class.  Missed classes may negatively affect grades on tests, assignments, and quizzes. .  If you must miss a test or be late on an assignment, notify the instructor as soon as possible.

Syllabus Change Policy

The grading and attendance policies for this course, as described above, will not change and are adhered to strictly. The schedule of class meetings, listed below, may change due to unexpected events such as class cancellation

TENTATIVE SCHEDULE OF TOPICS AND COVERAGE

|  |  |  |  |
| --- | --- | --- | --- |
| Week | DATES | TOPIC | READING |
|  |  |  |  |
| 1 | Aug 23 | Course introduction; Computer networks & the Internet | K&R chapter 1 |
| 2 | Aug 28 | Application Layer | K&R chapter 2 |
| Aug 30 |
| 3 | Sept 4 | **Labor Day** |  |
| Sept 8 | Application Layer  In class/ | K&R chapter 2 |
| 4 | Sept 11 | Transport Layer | K&R chapter 3 |
| Sept 13 |
| 5 | Sept 18 |
| Sept 20 |  |
| 6 | Sept 25 |  |
| Sept 27 | **Exam 1** | **Chapters 1, 2, 3** |
| 7 | Oct 2 | Network Layer | K& R chapter 4 - 5 |
| Oct 4 |  |
| 8 | Oct 9 | Link Layer | K&R chapter 6 |
| Oct 11 |
| 9 | Oct 16 |
| Oct 18 | Link Layer | K&R chapter 6 |
| 10 | Oct 23 |
| Oct 25 | Homework Review | K&R chapters 4-6 |
| 11 | Oct 30 | **Exam 2** | **Chapters 4,5** |
| Nov 1 | Guest Speaker |  |
| 12 | Nov 6 | Wireless and mobile networks | K&R chapter 7 |
| Nov 8 | Security | K&R chapter 8 |
| 13 | Nov 14 |
| Nov 16 | MultiMedia Networking | K&R chapter 9 |
| 14 | Nov 21 |
| Nov 23 |
| 15 | Nov 28 | TBD |  |
| Nov 30 | SNMP | Handouts |
|  | Dec 5 |  |  |

**COLLEGE OF BUSINESS EXPECTATIONS REGARDING PROFESSIONALISM IN THE CLASSROOM**

The College of Business Administration is a professional organization with a well-defined and widely disseminated mission of student development. Accordingly, each class represents a gathering of professionals and professionals-in-training.  The instructor’s job as a professional is to deliver quality instruction in each class, to start and end each class on time, to be responsive to student perspectives, issues and questions, and to treat each student respectfully.  The student’s job, as a professional-in-training is to be prepared for class, to be on time, to attend all classes, and to be respectful of others in the classroom.

In accordance with and pursuant to these roles the following guidelines were established to specify to students (both present and prospective) faculty expectations regarding their behaviors

1. **Students will attend all class meetings.** There are no automatically “excused” absences. In the event that you will be unable to attend a class session, you should inform your professor in advance as a matter of professional courtesy just as you would/should with an employer.
2. **Students will arrive in advance of the beginning of the class session.** Late arrivals are disruptive, inconsiderate and unprofessional. Professors may make arrangements for delinquents, but are not obliged to do so.  Those not present at the beginning of the classroom period will be considered absent.
3. **Students will not converse among themselves during class except when instructed to do so.** When a student creates a disturbance in the classroom, instructors will either ask the student to desist immediately or speak to the student at the conclusion of class. Repeat offenders will be sanctioned.
4. **Students will not leave class before its conclusion.** Early departures are disruptive, inconsiderate and unprofessional. Professors may make arrangements under some circumstance, but are not obliged to do so.  Those not present at the conclusion of the classroom session will be considered absent.

5.     **Students will have procured textbook/materials prior to the first class.** Instruction will begin with the first class meeting and consume the remainder of the class period.

**Students with Disabilities/Need of Accommodations for Access**

Winthrop University is committed to providing access to education.  If you have a condition which may adversely impact your ability to access academics and/or campus life, and you require specific accommodations to complete this course, contact the Office of Accessibility (OA) at 803-323-3290, or, [accessibility@winthrop.edu](mailto:accessibility@winthrop.edu). Please inform me as early as possible, once you have your official notice of accommodations from the Office of Accessibility.

**THE OFFICE OF VICTIMS ASSISTANCE SYLLABUS STATEMENT**

**The Office of Victims Assistance (OVA)** provides services to survivors of sexual assault, intimate partner violence, and stalking as well as educational programming to prevent these crimes from occurring. The staff assists all survivors, regardless of when they were victimized in obtaining counseling, medical care, housing options, legal prosecution, and more.  In addition, the OVA helps students access support services for academic problems resulting from victimization.  The OVA is located in 204 Crawford and can be reached at (803) 323-2206.  In the case of an after-hours emergency, please call Campus Police at (803)323-3333, or the local rape crisis center, Safe Passage, at their 24-hour hot-line, (803)329-2800.For more information please visit: [http://www.winthrop.edu/victimsassistance/](http://www2.winthrop.edu/victimsassistance/)

**ACADEMIC SUCCESS CENTER**

**Winthrop’s Academic Success Center** is a free resource for all undergraduate students seeking to perform their best academically.  The ASC offers a variety of personalized and structured resources that help students achieve academic excellence, such as tutoring, academic skill development (test taking strategies, time management counseling, and study techniques), group and individual study spaces, and academic coaching.  The ASC is located on the first floor of Dinkins, Suite 106.  Please contact the ASC at 803-323-3929 or [success@winthrop.edu](mailto:success@winthrop.edu).  For more information on ASC services, please visit [www.winthrop.edu/success](http://www.winthrop.edu/success).

**OFFICE OF NATIONALLY COMPETITIVE AWARDS (ONCA)**

**Winthrop’s Office of Nationally Competitive Awards (ONCA)** identifies and assists highly motivated and talented students to apply for nationally and internationally competitive awards, scholarships, fellowships, and unique opportunities both at home and abroad.   ONCA gathers and disseminates award information and deadlines across the campus community, and serves as a resource for students, faculty, and staff throughout the nationally competitive award nomination and application process. ONCA is located in Dinkins 222. Please fill out an online information form at the bottom of the ONCA webpage [www.winthrop.edu/onca](http://www.winthrop.edu/onca) and email [onca@winthrop.edu](mailto:onca@winthrop.edu) for more information.