University of Wisconsin-Stevens Point
College of Letters and Science
Department of Computing and New Media Technologies
Computer Information Systems
Networking Track

CIS360:
Data Communications and Networks

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Course Description

Our world today largely depends on the exchange of information using the Internet. But how does everything work together? In this course, you will find an answer to the question "What makes the Internet tick? "

We will look at the various aspects of internetworking, following the general ISO/OSI layer model and the actual implementations in the TCP/IP protocol to answer that question.

The course is structured into modules, with each module covering a part of the overall course content. You will gain an understanding of the major principles of data communications with several hands-on sections in the lab.

- **Prerequisites: CIS210 or instructor approval**
- **Rental course text: Kurose/Ross: Computer Networks – A Top-Down Approach, 5e**

Gathered data from student activities in this course will be part of an anonymous evaluation for research purposes. Please contact the instructor if you do not wish to have your data included.

Course Goals

This course will give you an understanding of the ISO/OSI layer model and what takes place on each of the different layers using TCP/IP as de-facto standard of today's Internet.

Course Activities

Reading

You will need to perform a large amount of textbook reading as part of the course. Make sure that you keep up with reading assignments and come prepared to class.

Homework

Several ungraded homework assignments/reviews will be posted in class. You should try your best at solving them yourself first.

Labs

Several instructor-prepared labs allow you to get a hands-on experience in this course. These labs should be performed using only the virtual environment prepared by the instructor. You can use the environment either at home or on any campus computer if you copy the files into your personal file storage area at UWSP. For more details, refer to the course documents in D2L.

Programming Assignments

This course will require you to perform several programming assignments using JAVA as programming language. The rules for labs apply to programming assignments as well.

Student Projects

Student projects are group-based and you are to work as a team – every team member has to know what and how the project goals were fulfilled. Questions will be asked from each team member.

> ***You are encouraged to develop your own ideas for projects!***

Online Discussions and Chats

The course will utilize online discussions/forums and/or chats during the course and especially for the student projects. Please limit your discussions to the appropriate sections. You are to solemnly use the online discussion and/or chat to communicate for your projects using the assigned project spaces in the discussion/chat areas of D2L.

> ***The instructor will monitor conversations for appropriate content and reserves the right to delete inappropriate postings.***

Professional Responsibilities

Upon graduation, you will be the amongst less than 30% of Americans that hold an academic degree. It is part of the responsibilities and duties of that degree to uphold high ethical and moral standards in society.

You should follow the outlined reading, class activities, and homework assignments, and be prepared for class. You are solely responsible for class attendance and participation and you are responsible for anything you missed. No make-up examinations will be given unless approved before the scheduled date or for validated medical or personal emergencies.

All assignments, quizzes, and lab sheets have a due date. You will typically have several days for their completion. If you do not complete items by the assigned due date, you have 2 additional days to submit late, but with reduced grade, see below.

Please see the University of Wisconsin-Stevens Point Student Academic Standards document for an overview of the university's policies and requirements. Also, refer to the professional societies of our area for definitions and how to properly cite other people's work:

- The IEEE: The Five Levels Of Plagiarism
- The ACM: ACM Policy and Procedures on Plagiarism

Written assignments will be checked for plagiarism and collaboration. Unless noted, you are to complete your assignments individually.

> ***If you use other people's work, you have to clearly point this out in any submitted work. Cheating and plagiarism will not be tolerated.***

Assessment, Points, and Grading

This course will use the features of the D2L learning system for all course assessments and grading.

Each section of the course will have one or more online quizzes, which you are required to take in the allotted time frame, a maximum of 60 minutes. By their nature, online quizzes are open-book, which means that you are assumed to have fulfilled all reading assignments and know the content. Each quiz will be made available online at the end of a module and is worth 10 points. The quizzes will be available for multiple days; no submissions are allowed after the due date.

There will be several hands-on experiences allowing you to use your theoretical knowledge in a practical context. Each of these labs has additional graded questions and/or exercises. Lab worksheets will be made available online and the questions will have to be answered online as well. Each lab will be pass/fail and you will have several days to complete the lab's assignments. If you submit late, you need to do so by email; on the first additional day, all points will be divided by 2; on the second day by 3; no submissions are allowed after the second day. You may only miss one of the labs. If you miss more than one lab, 4% of your points will be deducted for each additionally missed lab.

There will be a comprehensive final exam, which will be completely online and cover the entire material of the course, including any assignments and labs.

Mapping to Letter Grade

Your final letter grade will be awarded according to the following mapping scheme, based on the percentage of points that you have earned during the course. Please do not ask me to calculate this percentage for you – it's straightforward as follows.

Let P_t denote the maximum number of points that you could have achieved up to the current point in time during the course t and A_t denote the points that you actually achieved. Your current percentage of points is then calculated as

$$\frac{P_t}{A_t} \cdot 100$$

When mapped to letter grades, the following fixed mapping scheme will be applied.

Letter Grade	*Percent of Points*
A	>= 94
A-	>= 90
B+	>= 87
B	>= 84
B-	>= 80
C+	>= 77
C	>= 74
C-	>= 70
D+	>= 67
D	>= 60
F	< 60