MIS 483: Intro to Networks and Data Communications
Spring 2016
San Diego State University
College of Business Administration

COURSE INFORMATION

Class Days: Mondays
Class Times: 4:00pm – 6:40pm
Class Location: GMCS 329
Office Hours Times (and by appointment): By Appointment – austin@mail.sdsu.edu
Office Hours Location: EBA-006G
Units: 3

Course Overview

Course Description:
Fundamental data communications concepts, including voice communications and carrier service offerings, communications hardware, and network design. Global, enterprise, workgroup, and local area networks. Protocols and network operating systems. Network security and control.

Program Learning Outcomes
BSBA students will graduate being:
• Effective Communicators
• Critical Thinkers
• Able to Analyze Ethical Problems
• Global in their Perspective
• Knowledgeable about the Essentials of Business

MIS 483 contributes to these goals through its student learning outcomes:
• Explain general networking terminologies.
• Describe software and hardware elements necessary to implement a network.
• Explain internetworking, transmission media, and network protocols.
• Discuss and compare major network standards for LAN and WAN and their technical differences.
• Develop preliminary competence to design, analyze, and implement small-scale networks.
• Articulate general approaches available to implement security measures on a computer network.
• Discuss standard architectures, layers, and key protocols of each layer. 8. Explain the Internet architecture.

Enrollment Information

Prerequisites: MIS 180; Approved upper division business major, business minor, or another major approved by the College of Business Administration.

Adding/Dropping Procedures –

Absence from Class, Student
1.0 Absence from First Class Meeting: If a student who is enrolled in a course does not attend the first class meeting of the semester or session and is not present at the start of the second meeting, the instructor may officially delete (drop) the student from the course roster, of which deletion the student shall immediately be notified.

Course Materials

• Bongsik Shin, A Practical Introduction to Computer Networking and Cybersecurity (2nd edition)
• Convenient access to high-speed Internet connectivity and computer (personal or library)
• Mac OSX users will require virtualization software (e.g., VMware Fusion, Parallels, VirtualBox)
• Optional: laptop to be used in class only to take notes, use network simulation software
• Optional: online references (e.g., Wikipedia, YouTube, HowStuffWorks, Protocols.com)
**Course Structure and Conduct**

- This course is a lecture supplemented by in-class discussion on the previously assigned readings
- It is essential that all assignments and readings be completed prior to class meetings to enable discussion
- Do not expect to understand the subject matter with just one reading; allow time for multiple re-readings and careful marginal notes and highlighting. This will serve as the basis of in-class discussion.
- Contemporary networking news articles and blog postings will be made available online for further analysis
- Several individual written assignments and one semester-long networking project

**Course Policies**

**Absence Policy**

Absences from class meetings will negatively affect your learning, comprehension, mastery of skills, and progress towards learning objectives. Reviewing slides, readings, or lecture notes alone does not substitute for the richness of the in-classroom experience. However, students are still responsible for assignments due, required readings, and any insights developed through in-classroom discussion. As such, students are responsible for making arrangements to obtain information they may have missed. Please notify the instructor as soon as you become aware of your upcoming absence. In very rare cases (and up to the discretion of the instructor), alternative attendance methods may be available through the use of online streaming services (e.g., Periscope, Google Hangouts).

**In-Class Courtesy Policy**

Students are expected to show the instructor, guests, and fellow students respect by their courteous behavior during class meetings, on-time arrival, and cleanliness. Disruptive behavior will result in removal from the classroom and potentially further administrative discipline. Examples of disrespectful or disruptive behavior include reading unrelated materials (e.g., newspapers, magazines, emails), working on unrelated assignments (e.g., for other courses or employers), listening or watching unrelated media (e.g., music with headphones, Snapchat), external communication (e.g., text messaging, Internet chat, phone calls), or sleeping. If you bring food or drink into the classroom (and if allowed by the facility), kindly clean up after yourself.

**Telephone Usage Policy**

Modern times dictate that almost all students (and instructors) will be carrying a mobile telephone with them during class meetings. You are required to silence the audible features (e.g., ringer on vibrate or silent) of your device. Sending messages or checking emails during class time is discourteous and disruptive, which may lead to expulsion from the classroom. If you must place or receive an urgent voice call or text message, silently exit the classroom and complete your communication outside (or during a break).

**Wifi Usage Policy**

During class time, wireless Internet (WiFi) capable devices (laptops, tablets, smartphones) may be used for purposes directly related to class activities, such as working on exercises, taking notes or referencing information that is relevant to the class. All other uses (e.g., chatting, texting, games, social networking, email, unrelated web browsing) are prohibited. Your use of WiFi is additionally governed by the terms, conditions, and acceptable use policy presented by the Internet service provider (the University). Confidentiality of any radio transmissions (including WiFi) is not assured so be cautious with your data privacy.

**Online Collaboration Policy**

Students should regularly interact with the course collaboration portal that provides online discussion and assignment submission capabilities. Instructors may also use email to send pertinent information. It is very important for students to regularly check email and adjust junk mail or spam settings such that important messages are not filtered. Content posted online or in email messages forms an important part of a course and should be treated as required reading unless otherwise specified.

**No Recording Policy**

Audio and/or visual recording of any instructor, classmate, or guest lecturer during classes is strictly forbidden, aside from disabilities that require the use of amplification or other recording devices. This course is intended to foster free discussion and recording devices produce a chilling effect on participation.
**Students with Disabilities**

If you are a student with a disability and believe you will need accommodations for this class, it is your responsibility to contact Student Disability Services at (619) 594-6473. To avoid any delay in the receipt of your accommodations, you should contact Student Disability Services as soon as possible. Please note that accommodations are not retroactive, and that accommodations based upon disability cannot be provided until you have presented your instructor with an accommodation letter from Student Disability Services. Your cooperation is appreciated.

**Academic Honesty**

The University adheres to a strict policy regarding cheating and plagiarism. These activities will not be tolerated in this class. Become familiar with the policy [here](http://www.sa.sdsu.edu/srr/conduct1.html). Any cheating or plagiarism will result in [insert your policy on cheating or plagiarism, e.g. failing this class and a disciplinary review by Student Affairs.]

Examples of Plagiarism include but are not limited to:

- Using sources verbatim or paraphrasing without giving proper attribution (this can include phrases, sentences, paragraphs and/or pages of work)
- Copying and pasting work from an online or offline source directly and calling it your own
- Using information you find from an online or offline source without giving the author credit
- Replacing words or phrases from another source and inserting your own words or phrases
- Submitting a piece of work you did for one class to another class

If you have questions on what is plagiarism, please consult the policy and this [helpful guide from the Library](#).

**Turnitin**

Students agree that by taking this course all required papers may be subject to submission for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. You may submit your papers in such a way that no identifying information about you is included. Another option is that you may request, in writing, that your papers not be submitted to Turnitin.com. However, if you choose this option you will be required to provide documentation to substantiate that the papers are your original work and do not include any plagiarized material.

**Assessments and Grading**

Course grades will be assigned in accordance with San Diego State University policy (see General Catalog, pp. 468-470). Undergraduate grades shall be: A (outstanding achievement, available only for the highest accomplishment), B (praiseworthy performance, definitely above average), C (average, awarded for satisfactory performance, the most common undergraduate grade), D (minimally passing, less than the typical undergraduate achievement), F (failing).

<table>
<thead>
<tr>
<th>A</th>
<th>A-</th>
<th>B+</th>
<th>B</th>
<th>B-</th>
<th>C+</th>
<th>C</th>
<th>C-</th>
<th>D+</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above 93%</td>
<td>90-93%</td>
<td>87-90%</td>
<td>83-87%</td>
<td>80-83%</td>
<td>77-80%</td>
<td>73-77%</td>
<td>70-73%</td>
<td>67-69%</td>
<td>Below 67%</td>
</tr>
</tbody>
</table>

**Grade of Incomplete.** A grade of Incomplete (I) indicates that a portion of required coursework has not been completed and evaluated in the prescribed time period due to unforeseen, but fully justified, reasons and that there is still a possibility of earning credit. It is your responsibility to bring pertinent information to the instructor and to reach agreement on the means by which the remaining course requirements will be satisfied. The conditions for removal of the Incomplete shall be reduced to writing by the instructor and given to you with a copy placed on file with the department chair until the Incomplete is removed or the time limit for removal has passed. A final grade is assigned when the work agreed upon has been completed and evaluated. An Incomplete shall not be assigned when the only way you could make up the work would be to attend a major portion of the class when it is next offered. Contract forms for Incomplete grades are available at the [Office of the Registrar website](#).
Table 1. Your course grade will be based on the following weighted components

<table>
<thead>
<tr>
<th>Component</th>
<th>Note</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written assignments</td>
<td>some using network simulation software</td>
<td>20%</td>
</tr>
<tr>
<td>Hands-on Project</td>
<td>start early and work consistently through semester</td>
<td>20%</td>
</tr>
<tr>
<td>In-Class Exams</td>
<td>three non-cumulative multiple choice</td>
<td>60%</td>
</tr>
</tbody>
</table>

- Assignments and Project will be submitted electronically (no paper submissions)
- Written assignments must be in English, with proper grammar, spelling, and academic tone
- Late submissions will not be accepted.
- Grading is numeric; letter grades will only be assigned at completion of the course and posted online.

**Tentative Course Schedule**

Table 2. The course schedule, including topics and class activities listed by week, is presented in the following table

<table>
<thead>
<tr>
<th>Week</th>
<th>Read</th>
<th>Submit</th>
<th>In-Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>§1: Fundamental Elements</td>
<td></td>
<td>Course Intro &amp; Packet Tracer demo</td>
</tr>
<tr>
<td>2</td>
<td>§2: Architectures and Standards</td>
<td>Basics</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>§3: Intermediary Devices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>§4: Elements of Data Transmission</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td>EXAM on §1 thru §4 inclusive</td>
</tr>
<tr>
<td>6</td>
<td>§5: IP Address Planning and Mgmt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>§6: Fundamentals of Packet Routing</td>
<td>Routing Table</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>§10: Internet and Client/Server Systems</td>
<td>Web Server</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>§12.5 thru §12.7: Crypto, Certs, Sigs</td>
<td>EXAM on §§5, 6, 10, 12.5-12.7</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>SPRING BREAK</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>§7: Ethernet LAN</td>
<td>VLANs</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>§8: Wireless + §11.12 + §12.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>§11: Cybersecurity Threats</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>§9: Wide Area Networking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>Project</td>
<td>Present Project + Final Review</td>
</tr>
</tbody>
</table>

**FINAL EXAM**

Changes to the course schedule, if any, will be announced in class.