Syllabus

Network and Data Communication Systems Course (BACS 380) -- Fall 2016

This page contains the syllabus for Network and Data Communication Systems for Fall 2016. "The course syllabus contains important information regarding course requirements and the grading system utilized. It is the responsibility of the students to read the syllabus and consult the instructor if they have questions." (from UNC Undergraduate Catalog)

Course: BACS 380 025 - Network and Data Communication Systems, Fall 2016 - 3 credits

Class meeting time and location: Tuesday and Thursday, 11:00am - 12:15pm in Kepner Hall 0075

Instructor: Mehrgan Mostowfi, Ph.D. (mer-gone mos-tow-fee)

Department: Accounting and CIS, Monfort College of Business

Office location: Kepner Hall 0095C

Office hours:
- Tuesdays and Thursdays, 1:00pm - 2:00pm
- Wednesdays, 12:00pm - 3:00pm, or email to schedule an appointment.

Email: mehrgan.mostowfi@unco.edu

Catalog course description: This is an activity course involving the study of data communications and networks. Topics include history, media, hardware, software, standards, networks, analysis and design, distributed processing and network management.

Textbook:

Required textbook: There is a required online training solution called Network+ LabSim offered by TestOut. How to buy a license to this solution will be discussed in class.

Prerequisites:
- Business majors/minors and Software Engineering majors only.
- Juniors or above.

Course Objectives:

1. Provide the student with a professional, working data communications vocabulary.
2. Provide the student with a technical foundation in data communications hardware, software, and concepts.
3. Provide the student with fundamentals of data communications system design and evaluation.
4. Provide the student with a fundamental knowledge of local, value added, and wide area networks.
5. Qualify the student for more advanced education in the data communications field.
6. Enhance the student’s analytic skills.

MCB Assurance of Learning Goals and Objectives:

<table>
<thead>
<tr>
<th>Learning Goal</th>
<th>Learning Objective</th>
<th>Course Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Be knowledgeable of key concepts in core business curriculum</td>
<td>Students will demonstrate a firm understanding of core business concepts.</td>
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<tr>
<td>Be effective communicators</td>
<td>Students will prepare and deliver quality presentations on a business topic.</td>
<td>Objective 5</td>
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<tr>
<td></td>
<td>Students will prepare quality business documents.</td>
<td>Objective 5</td>
</tr>
<tr>
<td><strong>Demonstrate conceptual and analytical skills</strong></td>
<td>Students will analyze data &amp; information to identify key problems, generate and evaluate appropriate alternatives, and propose a feasible alternative.</td>
<td>Objective 6</td>
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<tr>
<td><strong>Be proficient with technology</strong></td>
<td>Students will demonstrate proficiency in common business software packages.</td>
<td>Objectives 1, 2, 3, 4, 5, 6</td>
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<tr>
<td><strong>Demonstrate ethical awareness</strong></td>
<td>Students will be knowledgeable about ethics and social responsibility.</td>
<td>Objectives 2, 3</td>
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<td></td>
<td>Students will identify the ethical issue or problem, analyze the consequences for various stakeholders, and develop an acceptable resolution.</td>
<td>Objectives 2, 3</td>
</tr>
<tr>
<td><strong>Be proficient with discipline-specific knowledge</strong></td>
<td>Students will demonstrate a firm understanding of discipline-specific knowledge within their emphasis.</td>
<td>Objectives 1, 2, 3, 4, 5, 6</td>
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<tr>
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<td>Students will demonstrate competency with advanced topics within their emphasis.</td>
<td>Objectives 1, 2, 3, 4, 5, 6</td>
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**Course topics:** This course will cover the following topics:

- Week 1 (August 22 – August 28): Introduction to Networks
- Week 2 (August 29 – September 4): The OSI and TCP/IP Models, Communication Protocols
- Week 3 (September 5 – September 11): The Application Layer protocols
- Week 4 (September 12 – September 18): The Application Layer protocols
- Week 5 (September 19 – September 25): The Transport Layer Protocols, Exam 1
- Week 6 (September 26 – October 2): The Transport Layer Protocols
- Week 7 (October 3 – October 9): The Network Layer, IP Addressing
- Week 8 (October 10 – October 16): IP Addressing, CIDR and Classfull Subnetting
- Week 9 (October 17 – October 23): DHCP, NAT
- Week 10 (October 24 – October 30): IPv6, DNS
- Week 11 (October 31 – November 6): Network Equipment and Hardware
- Week 12 (November 6 – November 12): Network Equipment and Hardware, Exam 2
- Week 13 (November 13 – November 19): The Link Layer, Switched LANs, Link-Layer Switches
- Week 14 (November 20 – November 26): MAC Addresses, ARP, and VLANs
- Week 15 (November 27 – December 3): Summary: A day in the life of a Web page request
- Week 16 (December 4 – December 10): No class, comprehensive final exam

**Grading:** Students will earn a grade based on quizzes, exams, participation in classes and labs, and a comprehensive final exam. The grade breakdown is:

- Exams: 40% (two exams, the dates will be announced)
- Comprehensive final exam: 30% (held in class on Friday, December 9, 10:45am – 1:15pm)
- Assignments: 30% (given after completing each major topic)

**Course policies:**

- I expect you to make sure your UNCO email works and check your email regularly. Email will be the main means of communication between you and me. Not having checked your email will not be accepted as an excuse for missing due dates.
- If you must submit work late you need to talk to me at least one-week before the due date in question. Otherwise, late work cannot be accepted except in cases of verifiable emergencies.
- Attending class and project meetings is mandatory and very important. I may choose to track attendance.
- Incomplete ("I") grades will only be given in the case of severe hardship including verifiable medical emergencies or legal troubles. Simply being "overloaded" and unable to complete your work is not grounds for an "I" grade.
- Out of courtesy to other students please make sure that you turn off, or place in silent mode, your cell phone.
**Students with Disabilities:** Any student requesting disability accommodation for this class must inform the instructor giving appropriate notice. Students are encouraged to contact Disability Support Services at (970) 351-2289 to certify documentation of disability and to ensure appropriate accommodations are implemented in a timely manner.

**Classroom Technology Guidelines:** Each student is required to review and become familiar with the following classroom technology guidelines: [http://mcb.unco.edu/Technology/Classroom-Technology-Guidelines.pdf](http://mcb.unco.edu/Technology/Classroom-Technology-Guidelines.pdf)

**Assessment Statement:** The Monfort College of Business may collect data in this course that will be used to assess student progress toward our program learning goals and objectives. Individual student performance information will be kept confidential; however, this data may be disseminated in an aggregate form to professional groups and through research publications. If you do not wish your performance in this class to be included in research about overall student performance (beyond the accreditation process), please inform your instructor in writing of this intent.

**Food and Beverage Guidelines:** Food is not allowed in classrooms. Only drinks in a container with a screw top lid are allowed.

**Kenneth W. Monfort College of Business Statement:**
The Kenneth W. Monfort College of Business students are expected to conduct themselves in accordance with the highest standards of academic honesty. Cheating, plagiarism, illegitimate possession and disposition of examinations, alteration, forgery, or falsification of official records and documents, and similar acts or the attempt to engage in such acts are grounds for disciplinary action. This action can include the following in addition to any University disciplinary action:
1. A failing grade for a particular assignment.
2. A failing grade for a particular course.
3. Suspension from the College of Business Administration.
4. Expulsion from the College of Business Administration.

Students are expected to complete all prerequisites for a business class prior to the first day of class. Students may not concurrently enroll in a class and its prerequisite(s) unless it is expressly stated in the bulletin that the class is a co-requisite. Any exception to this policy must be approved by the Chair of the School offering the class.

Students must submit original works for assignments required in this class. This includes term papers, cases and other course requirements. A student who submits a work that was previously submitted to another class without prior approval from the instructor is in violation of this policy. A student who violates this policy may receive a failing grade for the assignment, a failing grade for the class, and face termination of his/her business degree program. Additionally, the Dean of Students Office may be notified in writing of all violations of academic honesty in this class.

**Academic Integrity/Academic Dishonesty:** I expect students to be honest and not cheat on their assignments and exams. The exams must be completed without giving or accepting assistance from other students. Any source code copied from another source must be credited as such. Open source software used must maintain all headers and other information as required by the open source license used. I expect you to know the University's policies on student conduct, academic dishonesty, etc. UNC's policies and recommendations for academic misconduct will be followed. For additional information, please see the Dean of Student's website, Student Handbook link and current catalog.

**Monfort College of Business Student Code of Professional Conduct:**
Monfort College of Business students represent the professional and academic interests of the entire MCB & UNC communities. Accordingly, MCB expects all students to behave in a professional manner and adhere to high ethical standards in every business class and in every activity connected with the Monfort College of Business. This professional behavior is required not only in the classroom but also in all MCB-related interactions such as e-mails, conferences and use of technology.

MCB students should exhibit respectful behavior in classes. This behavior includes arriving on time to class, staying in class until the lecture ends, having the discipline to stay engaged in class, turning-off or silencing cell phones and pagers while in class, refraining from text-messaging, and avoiding coming to class wearing clothing that is unduly provocative or has written messages that are rude, insensitive or obscene. MCB students should engage in respectful behavior in all activities where they act directly or indirectly as a representative of the MCB. Respectful behavior creates a more desirable, civilized, and productive learning environment, and it models behavior that is both productive and pleasant when students transition from the classroom to the workplace.

MCB students should master and apply the fundamental skill of preparing and sending class or university related e-mails that are properly written, show professionalism and communicate a clear message. E-mails containing profanity, spelling
mistakes, punctuation errors, or poor composition evidence sloppiness and show disrespect to the recipient. MCB students should use proper forms of address when communicating orally or in writing with faculty or staff (i.e., Dr. Smith, Professor Jones, Ms. Abbot, etc.). If a student does not know how to address a faculty member, he or she should ask. This code of professional conduct complements, but does not replace, the Honor Code of the Monfort College of Business or the Honor Code of the University.

**Computer Utilization:** Students are encouraged to use the College's computing facilities to complete their assignments. The student computer labs in Kepner Hall provide support for word processors, spreadsheets, databases, writing-style checkers, and presentation graphics. Internet and e-mail access are available in the labs. Student consultants are on duty at the labs to assist with these applications.

**Library Utilization:** Students are encouraged to use the Michener Library collections and online subscription information resources to supplement readings and to complete assignments. Library databases are available at [http://libguides.unco.edu/business](http://libguides.unco.edu/business). The business reference librarian, Kendra Spahr, holds regular Kepner office hours. Find her contact information at [http://mcb.unco.edu/Faculty/ourPeople.cfm/Highlight/Kendra.Spahr](http://mcb.unco.edu/Faculty/ourPeople.cfm/Highlight/Kendra.Spahr).

**Global Dimension Coverage:** As appropriate, students are encouraged to consider the global dimension as they complete their outside readings and assignments.

**Ethical Dimension Coverage:** As appropriate, students are encouraged to consider the ethical dimension as they complete their outside readings and assignments.

Last Update: November 06, 2016

*Every part of this syllabus is subject to adjustment as the semester progresses. Please contact me as soon as possible if you have particular interest in material that is relevant to the class topic but not covered in enough detail; I will be happy to accommodate reasonable requests for modifications.*