Course Syllabus
MIS 320 Section DL3 – Networks and Security
CRN 83747 – Fall 2020 (24 August to 16 December) Online: Distance Learning

Instructor Information
Name: Jon Adams
Email: 
Office: Virtual | Telephone: 
Office Hours: By Appointment 12:00PM-1:00PM Fridays
Course Website: https://mymason.gmu.edu

Meeting Time and Place
Time: Online | Synchronous Sessions TBD, weekly or bi-weekly

Required Prerequisites:
A minimum grade of C in MIS 301, L301, MIS 303, or L303; Students with a class of Freshman may not enroll. Non-Degree level students may not enroll. Students with the terminated from BU major attribute may not enroll.

Required Course Materials
No text purchase is required. Materials provided via Blackboard;
Two texts are offered as recommended supplemental material

Course Description: Introduces students to fundamentals of networking technologies and their role in businesses. Emphasis is on understanding the business implications of different networking technologies and solutions. Students learn to identify and understand business requirements and bring together different technical components to design communication solutions. Also focuses on security threats to business network infrastructure and mitigating such threats with business practices combined with technical solutions. Offered by School of Business. May not be repeated for credit.

Course Objectives
Upon completion of this course, student should be able to:
• Discuss network architectures and technologies as well as their applications in businesses
• Describe the principles, functions, and standards of communication networks
• Explain the OSI 7-layer reference model as well as the related standards/protocols/applications
• Evaluate and select appropriate network devices to satisfy the business requirements
• Assess and manage the network security related risks • Apply basic techniques in monitoring network operations and security
• Create, review, evaluate, and refine network security policies and procedures

Mason Core Learning Outcomes:
• Students will understand the principles of information storage, exchange, security, and privacy.
• Students will become critical consumers of digital information; they will be capable of selecting and evaluating appropriate, relevant, and trustworthy sources of information.
• Students can use appropriate information technologies to organize and analyze information and use it to guide decision-making.
• Students will be able to choose and apply appropriate algorithmic methods to solve a problem.

ISOM Learning Goals:
• Apply knowledge of information technology, operations, and business functions to assess, design and improve business processes.
• Develop data organization, storage, and processing solutions to support organizational needs for information management. Also develop skills in the area of business intelligence.
• Use knowledge of computer networks as part of IT solutions for improving business processes.

Course Format:
This course consists of a combination of lectures, discussions, and hands-on practice sessions. Please see the topical outline for a tentative list of topics. There will be individual assignments, quizzes, and exams.

Computer Use Policy:
Access to the internet and a computer is required. All official course materials will be online in our Blackboard course. Communication will be via Blackboard and/or your GMU e-mail only. The instructor can only respond to GMU e-mails and will not be able to respond to e-mails written on a private account.

We will use one piece of specialized software in the course, WireShark. This is free software that works on Windows, MacOS X, and Linux. Students are responsible for submitting files in an acceptable format that can be processed.

Important Logistics Information:
• The schedule in the syllabus is subject to change at the instructor’s discretion.
• Check email and Blackboard often for regular updates to class activities.
• Please allow up to 24 hours for a response to e-mail or blackboard messages.
• Unfortunately, E-mail sent from non-GMU email addresses cannot be acknowledged nor responded to (FERPA). Use official channels (GMU Email/Blackboard) can be used.
• Policy on Electronic Devices: Now OBE by transition to online course delivery; Please turn devices on silent/vibrate or mute your call during any live class session

Grading:
- Student-submitted assignments are solely posted on and submitted through Blackboard.
- Late homework is accepted up to 2 days after the due date. Late assignments are subject to a score deduction of up to 10 pts. In order to turn in late work without penalty the following must be true: student informs instructor in advance of a valid reason (instructor’s discretion) and receives approval or student provides documented proof (instructor’s discretion) of an emergency precluding prior notice and on-time submission.
- Grade review: Students may request review (at instructor discretion) of grades only within 2 days of the day the graded assignment is returned.
- Exams (2): Each exam is not cumulative and covers ½ the course. Each will include materials covered in lectures, the texts, and other readings.
- Quizzes (4): Each quiz will consist of approximately ten questions (multi-choice, true/false or short-answer) based on the lectures, textbook, and required readings.
- Homework (6): Instructions for HW will be posted on BB. The top 5 scores will be counted.

Participation: Grade is based on participation in discussions and interactive activities not otherwise discretely graded. Includes participation in discussion, group activity, etc. Examples: adding informed discussion points, asking questions, connecting course materials to news, experiences, actively listening and sharing. A rubric will be applied to forum posts. Students may earn additional participation points for contributions to class discussions at instructor’s discretion.

Grading Policy: Instructor reserves right to adjust scoring for assignments

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Value</th>
<th>Semester Grade Scale</th>
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<tbody>
<tr>
<td>Exams (2)</td>
<td>40%</td>
<td>A+ 97% to 100%</td>
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<td></td>
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<td>C+ 77% to 79.99%</td>
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<tr>
<td>Quizzes (5)</td>
<td>20%</td>
<td>A 93% to 96.99%</td>
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<td>C 70% to 76.99%</td>
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<tr>
<td>Homework (6)</td>
<td>20%</td>
<td>A- 90% to 93.99%</td>
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<td>D 60% to 69.99%</td>
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<tr>
<td>Participation</td>
<td>20%</td>
<td>B+ 87% to 89.99%</td>
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<td>F Below 60.00%</td>
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Inclement Weather and Other Emergencies: Class will be cancelled when the campus is closed, either due to inclement weather or other situations. Please check GMU website for up-to-date information. Please register Mason Alert so that you can receive timely emergency notifications and warnings. In the event of a cancellation, make sure to check email and Blackboard for instructions – there will be an alternate class activity.

Course Schedule (Subject to change @Instructor Discretion)

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<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Assessment</th>
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<tbody>
<tr>
<td>Aug 24-30</td>
<td>Syllabus / The OSI Model (Meyers, Ch. 2);</td>
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<tr>
<td>Date Range</td>
<td>Course Topic and Reading</td>
<td>Assignment(s)</td>
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<tr>
<td>Aug 31 - Sep 6</td>
<td>Cabling and Topology (Meyers, Ch. 3)</td>
<td>Homework #1 due (6 Sep)</td>
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<tr>
<td>Sep 7 - Sep 13</td>
<td>Installing a Physical Network (Meyers, Ch. 6)</td>
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<td>Sep 14 - Sep 20</td>
<td>Ethernet (Meyers, Ch. 4 &amp; Ch. 5)</td>
<td>Quiz 1 due (20 Sep) Homework #2 due (20 Sep)</td>
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<tr>
<td>Sep 21 - Sep 27</td>
<td>TCP/IP Basics (Meyers, Ch. 7) Routing (Meyers, Ch. 8)</td>
<td>Homework #3 due (27 Sept)</td>
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<tr>
<td>Sep 28 - Oct 4</td>
<td>Review for Exam 1</td>
<td>Quiz 2 due (4 Oct)</td>
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<td>Oct 5 - Oct 11</td>
<td>Exam 1</td>
<td></td>
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<tr>
<td>Oct 12 - Oct 18</td>
<td>TCP/IP Applications (Meyers, Ch. 9)</td>
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<tr>
<td>Oct 19 - Oct 25</td>
<td>Network Naming (Ch. 10)</td>
<td>Homework #4 due (25 Oct)</td>
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<td>Oct 26 - Nov 1</td>
<td>IPv6 (Ch. 13)</td>
<td>Quiz 3</td>
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<td>Nov 2 - Nov 8</td>
<td>Wireless Networking (Ch. 15)</td>
<td>Homework #5 due (8 Nov)</td>
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<td>Nov 9 - Nov 15</td>
<td>Cybersecurity Topics (Meyers, Ch. 11 + 18-20)</td>
<td>Homework #6 due (15 Nov)</td>
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<td>Nov 16 - Nov 22</td>
<td>Remote Connectivity (Meyers, Ch. 14)</td>
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<td>Nov 23 - Nov 29</td>
<td>Cloud Computing + Virtualization (Meyers, Ch. 16) - Thanksgiving Holiday (W-F)</td>
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<tr>
<td>Nov 30 - Dec 6</td>
<td>Privacy and Compliance Laws / Review for Final Exam</td>
<td>Quiz 4 due (6 Dec)</td>
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<tr>
<td>Dec 9 - Dec 16</td>
<td>Final Exam Period</td>
<td>Final Exam</td>
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- Link to academic calendar: [https://registrar.gmu.edu/calendars/](https://registrar.gmu.edu/calendars/)
- Religious Calendar: [https://ulife.gmu.edu/religious-holiday-calendar/](https://ulife.gmu.edu/religious-holiday-calendar/)

Key Dates – Adjusted for Corona Virus/COVID-19 Pandemic

- First Day of Class: Mon, 24 August 2020
- Last Day to Add/Drop: Wed, 26 August 2020
- Labor Day Holiday: Mon, 7 September 2020
• **Fall Break:** Mon, 12 October 2020
• Last Day to Drop 50% Liability: Wed, 15 September 2020
• Withdrawal Period: Wed, 29 September – 28 October 2020
• **Thanksgiving Recess:** Wed, 25 – Sun, 29 November 2020
• Last Day of Class: Sun, 6 December 2020
• Exam Period: Thu, 9-16 December 2020

**Disability Accommodations:** If you are a student with a disability and you require academic accommodations, please see me and contact the Office of Disability Services (ODS) at (703) 993-2474 (http://ods.gmu.edu/), at the beginning of the semester. All academic accommodations due to disability must be arranged through the ODS and should be made during the first two weeks of the semester.

**Academic Integrity:** GMU is an Honor Code university; all students are responsible for knowing and following the GMU Honor Code Statement: “**Student members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work.**”

In the event of a violation of the GMU Honor Code, the violating student will be reported to the GMU Honor Committee. Another aspect of academic integrity is the free play of ideas. Discussions are encouraged in this course, with the firm expectation that all aspects of the class will be conducted with civility and respect for differing ideas, perspectives, and traditions. Please refer to http://honorcode.gmu.edu for further details. When in doubt (of any kind), please ask for guidance and clarification.

**School of Business Standards of Behavior:**
The mission of the School of Business at George Mason University is to create and deliver high-quality educational programs and research. Students, faculty, staff, and alumni who participate in these educational programs contribute to the well-being of society. High-quality educational programs require an environment of trust and mutual respect, free expression and inquiry, and a commitment to truth, excellence, and lifelong learning. Students, program participants, faculty, staff, and alumni accept these principles when they join the School of Business community. In doing so, they agree to abide by the following standards of behavior:

• Respect for the rights, differences, and dignity of others
• Honesty and integrity in dealing with all members of the community
• Accountability for personal behavior

Integrity is an essential ingredient of a successful learning community. Ethical standards of behavior help promote a safe and productive community environment, and ensure every member the opportunity to pursue excellence. School of Business can and should be a living model of these behavioral standards. To this end, community members have a personal responsibility to integrate these standards into every aspect of their experience at the School of Business. Through our personal commitment to these Community Standards of Behavior, we can create an environment in which all can achieve their full potential.

**Honor Code Statement:**

As a student, you are responsible for upholding these standards for this course. It is your responsibility to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. In your work on all written assignments, keep in mind that you may not present as your own the words, the work, or the opinions of someone else without proper acknowledgement. You also may not borrow the sequence of ideas, the arrangement of material, or the pattern of thought of someone else without proper acknowledgement. Faculty are obligated to submit any Honor Code violations or suspected violations to the Honor Committee without exception. Any suspected case of honor code violation will be reported to the Office of Academic Integrity immediately. In such a case, I will withhold from grading your assignments until after the case is cleared by the Office of Academic Integrity. All students are expected to adhere to this code. All acts of academic dishonesty will be dealt with in accordance with the provisions of this code.

**Business Library Liaison Information:**
Jo Ann J. Henson, MLIS Business and Economics Liaison Librarian Fenwick Library Fairfax Campus: [http://infoguides.gmu.edu/business](http://infoguides.gmu.edu/business)