Common Syllabus

This syllabus contains information common to all sections of IT 462 for the Spring 2018 semester. For each section, a customized syllabus with information specific to that section will be made available to registered students via the Blackboard Learning System.

University Policies

The University Catalog is the central resource for university policies affecting student, faculty, and staff conduct in university affairs. Unless explicitly noted, any conflict between the policies in the University Catalog and the content of this document are unintentional. Please notify the author to resolve any such conflicts.

Scheduled Sections

<table>
<thead>
<tr>
<th>Section</th>
<th>Instructor</th>
<th>Campus</th>
<th>Day</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>Dr. Leary</td>
<td>Prince William</td>
<td>Thursdays</td>
<td>7:20 – 10:00 PW BRH 257</td>
</tr>
<tr>
<td>DL</td>
<td>John Doyle</td>
<td>Online</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Course Description

IT 462 - Information Security Principles

Studies security policies, models, and mechanisms for secrecy, integrity, availability, and usage controls. Topics include:

Models and mechanisms for mandatory, discretionary, and role-based access controls; authentication technologies; control and prevention of viruses and other rogue programs; common system vulnerabilities and countermeasures; privacy and security policies and risk analysis; intellectual property protection; and legal and social issues.

Equivalent to INFS 462.

Prerequisites
Prerequisites

The prerequisites for this course are IT 212 and IT 223, or permission from the Department of Applied Information Technology. Unless a waiver is granted, a grade of "C" or better must be achieved in each prerequisite course before a student is qualified to take this course. The prerequisite courses must be completed prior to, not concurrently with, this course.

These requirements will be strictly enforced. Any student who does not meet the prerequisite requirements will be dropped from the course by the Instructor at the start of the semester and the student will be responsible for any consequences of being dropped.

Rationale

Computer security has evolved into a comprehensive discipline called “information security.” The increased reliance on automated systems and the lack of adequate security plans place privacy and organizational information at risk. “Information security” has become a greater concern and effective security is critical to an organization’s success. This course will build upon the student’s knowledge of technology-based controls by focusing on the management of threats to information.

This course is intended to develop a holistic approach to information security, thus preparing the student to assume a leadership or managerial role in an organization.

This course is an option in the Information Security (INFS) concentration of the IT major, and an elective in the IT minor.

Objectives

This course “drills down” on concepts that you have had before from a policy prospective. On successful completion of this course, students will be able to:

– Identify information assets.
– Identify and prioritize threats to information assets.
– Develop information security strategies, policies and plans.
– Respond to threats to information assets.
– Describe legal and public relations implications of information security issues.
References

Textbooks

There are two optional textbooks for this course:

**CISSP ALL-IN-ONE EXAM GUIDE 7th Edition**
Author: Harris, Shon
Publisher: McGraw-Hill
Format: Hardcover

Authors: Stewart, James Michael; Chapple, Mike; Gibson, Darril
Format: Softcover

The reading list for each week will be posted on Blackboard. Other readings will be assigned in the schedule or by the instructor during the course. Students are in no way expected to be prepared by the conclusion of this course for the CISSP certification exam. The textbooks provide a comprehensive review of critical security concepts that will be supplemented throughout the course.

Faculty and Staff

Instructor:

**Dr. Margaret Leary** (Instructor for Section 001)
Email: mleary@gmu.edu (subject: IT-462-001...)
Office hours: By appointment only

**Prof. John Doyle (DL Section)**
Email: jdoyle14@gmu.edu (subject: IT-462 DL...)
Office hours: By appointment only

**Dr. Tom Winston (Course Coordinator)**
Email: twinsto5@gmu.edu (subject: IT-462 [1/DL]...)

Teaching Assistant:

**TBD**
Grading

Grades will be awarded in accordance with the Mason Grading System for undergraduate students. See http://www.gmu.edu/catalog/apolicies/ under Grading System for more information.

The grading scale for this course is:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>97 – 100%</td>
<td>Passing</td>
</tr>
<tr>
<td>A</td>
<td>93 – 96%</td>
<td>Passing</td>
</tr>
<tr>
<td>A-</td>
<td>90 – 92%</td>
<td>Passing</td>
</tr>
<tr>
<td>B+</td>
<td>87 – 89%</td>
<td>Passing</td>
</tr>
<tr>
<td>B</td>
<td>83 – 86%</td>
<td>Passing</td>
</tr>
<tr>
<td>B-</td>
<td>80 – 82%</td>
<td>Passing</td>
</tr>
<tr>
<td>C+</td>
<td>77 – 79%</td>
<td>Passing</td>
</tr>
<tr>
<td>C</td>
<td>70 – 76%</td>
<td>Passing</td>
</tr>
<tr>
<td>D</td>
<td>60 – 69%</td>
<td>Passing</td>
</tr>
<tr>
<td>F</td>
<td>0 – 59%</td>
<td>Failing</td>
</tr>
</tbody>
</table>

Raw scores may be adjusted by the Instructor to calculate final grades.

Final grades will be determined based on the following components:

- Current Event: 10%
- Quizzes: 10%
- Assignments: 30%
- Mid-term exam: 25%
- Final exam: 25%

These components are outlined in the following sections.

Lectures – DL Section

In general, lectures will be recorded and posted on Sunday of each week. I will also provide the option to meet with you a few times during the semester. The week for DL section is from Sunday – Saturday with the exception of the FIRST week.

Current Events/Discussions (Section 01)

Section 001: Each student is required to research and prepare a preparation on current events related to course content. A written discussion will be posted in Blackboard and must consist of at least 250 words. As you select your topic for preparation to the class – be certain you address how you would manage the threat or other security-related event, assuming you were a security officer in charge of a security program at your organization. Students will summarize their article/report in class for discussion that week. For full credit, students must both post the summary and also perform the presentation in class.

Quizzes. Unannounced, “pop”, quizzes and classroom exercises will occasionally be provided. Quizzes will be weighted at 10% of your final grade. Pop quizzes are designed to promote attendance in class and can be given at the end of the class over content that was addressed that evening, or at the beginning of class over material from the previous week. They cannot be made up if missed.
**DL Section Current Events:** Students in the DL section are required to post a current event each week over a topic related to the lecture. This can be from an article or can be a discussion on the material covered in the lecture/text. **Students must select at least one other student post and respond appropriately to it in Blackboard.** Responses to other student posts must be at least 100 words. Work that is not substantive in response or is not properly cited to MLA or APA style where appropriate will not receive full credit. It is expected that students will post their current event by **Sunday** of each week and **will respond to another learner by Saturday at 11:59 p.m.** in order to give everyone a chance to read your post and respond. Late posts (both yours and your response to another learner) will be marked down.

**DL Section Quizzes:** Quizzes will be provided in Blackboard in the Assignments tab. These will be due each week **before Saturday 11:59 p.m.** Late quizzes will not be accepted. Recommend that students print the quiz, work it on paper, and then go back in to the quiz to enter in your answers, saving and submitting the quiz when you are done. You can enter the quiz only once.

**Assignments – all sections**

Students will be assigned various hands-on or written assignments by the instructor. Written assignments on security policy topics must be at least 3 – 5 pages (double-spaced) pages in length and appropriately address the requirement and be cited appropriately. These will be topical, in that they will reflect new trends in IA. **Other assignments will be assigned at the instructor’s discretion.**

**Mid-term exam**

The mid-term exam for the 01 Section will be conducted during the scheduled class session as **announced in class** and will be based on topics addressed in the previous weeks. The mid-term exam will be “closed book” – no reference materials other than those provided with the exam paper will be permitted. Mid-term exams will be returned to students once all mid-term exams for all sections have been graded.

DL Sections will receive instructions for the Mid-Term date when that has been provided. The exam will be scheduled as **announced in class.** DL students are encouraged to check early for conflicts and get them addressed as a few accommodations in the other class can be made if there is a valid reason for the request. **This requires at least 2 weeks notice.** Students who are not able to make the mid-term must have documented evidence and the Dean’s approval to schedule an alternate make-up exam.
Final exam

The final exam will be held during the scheduled final exam session (see http://registrar.gmu.edu/topics/final-exam-locator/) and will be based on topics addressed throughout the entire course. The final exam will be “closed book” – no reference materials other than those provided with the exam paper will be permitted. Final exams will be retained by the Department of Applied Information Technology and will not be returned to students. DL Sections will receive instructions for the Final Exam date when that has been provided. Students who are not able to make the exam must have documented evidence and the Dean’s approval to schedule an alternate make-up exam.

Students are expected to submit work as scheduled by the Instructor. **Late work may not be accepted – if accepted, a penalty may be applied.** Acceptance of late work and/or application of penalties will be at the sole discretion of the Instructor. In general it is better to submit an incomplete assignment on time for partial credit than to submit a complete assignment late and risk receiving no credit.

Final grades will be posted to PatriotWeb, which is the only vehicle for students to obtain those grades. A student with a "hold" on his/her PatriotWeb account will be unable to access grades until the hold has been removed by the Registrar.
**Schedule**

The reading assignment shown for each lecture is to be completed **prior to** that lecture.

*This schedule is subject to revision throughout the course. Registered students should see Blackboard for the latest class schedule.*

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic/Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/21</td>
<td>Week 0: Introductions in Blackboard; Logistics; Course Overview</td>
</tr>
</tbody>
</table>
| 1/28  | Week 1: Lecture 1: “Introduction to Security and Management”  
Assignment #1 Assigned |
| 2/4   | Week 2: Lecture 2: “Security Control Frameworks”      |
| 2/11  | Week 3: Lecture 3: “Access Control”                  |
| 2/18  | Week 4: Lecture 4: “Security Engineering”             
Assignment #2 Assigned |
| 2/25  | Week 5: Lecture 5: “Physical Security”                |
| 3/4   | Week 7: Midterm Exam                                |
| 3/11  | Week 8: Spring Break: No Class                      |
| 4/1   | Week 10: Lecture 10: “Security Assessment and Testing”  
Assignment #3 Assigned |
| 4/23  | Week 14: TBD/Reserved Make-up Day                    |
| 4/30  | Week 15: Final Exam Review                          |
| TBD   | Week 16: Final Exam                                 |
Important Dates

Please see the https://registrar.gmu.edu/calendars/spring-2016/ for important dates, including the last days to add and drop courses.

Religious Holidays

A list of religious holidays is published by University Life. Any student whose religious observance conflicts with a scheduled course activity must contact the Instructor at least 1 week in advance of the conflict date in order to make alternative arrangements.

Attendance Policy

Students are expected to attend every class, to complete any required preparatory work (including assigned reading – see above) and to participate actively in lectures, discussions and exercises. As members of the academic community, all students are expected to contribute regardless of their proficiency with the subject matter.

Students are expected to make prior arrangements with Instructor if they know in advance that they will miss any class and to consult with the Instructor as soon as possible if they miss any class without prior notice. Any student who expects to miss more than one class session is strongly advised to drop the course and take it in a later semester when he/she can attend every class.

Departmental policy requires students to take exams at the scheduled time and place, unless there are truly compelling circumstances supported by appropriate documentation. Except in such circumstances, failure to attend a scheduled exam will result in a score of zero (0) for that exam, in accordance with Mason policy on final exams. Students should not make travel plans or other discretionary arrangements that conflict with scheduled classes and/or exams. If the University is closed due to weather or other unforeseen conditions, final exams may be rescheduled – students are strongly advised not to make plans that would prevent them from attending exams that may be rescheduled during the entire exam period, including the scheduled make-up dates.

Classroom conduct

Students are expected to conduct themselves in a manner that is conducive to learning, as directed by the Instructor. Any student who negatively impacts the opportunity for other students to learn may be asked to leave the classroom.

Electronic devices are potential distractions in the classroom environment. Cell phones, pagers and other handheld devices must be turned off or set to "silent" mode and not used while class is in session. Laptop computers and similar devices may be used only if such use is directly related to the classroom activity in progress – for some activities the Instructor may require that such devices not be used in order to maximize student engagement.
Communications

Registered students will be given access to a Blackboard section for this course. Blackboard will be used as the primary mechanism (outside of lectures) to disseminate course information, including announcements, lecture slides, homework and other assignments, and scores for homework and exams.

Communication with the Instructor on issues relating to the individual student should be conducted using Blackboard Mail, Mason email, via telephone, or in person - not in the public forums on Blackboard. For this course, Blackboard Mail is the preferred method. Federal privacy law and Mason policy require that any communication with a student related in any way to a student's status be conducted using secure Mason systems – if you use email to communicate with the Instructor you MUST send messages from your Mason email account. Students must activate and monitor their Mason email accounts to receive important information from the University, including messages related to this class.

Lecture slides are complements to the lecture process, not substitutes for it - access to lecture slides will be provided in Blackboard as a courtesy to students provided acceptable attendance is maintained.

All course materials (lecture slides, assignment specifications, etc) are published on Blackboard in Adobe® Portable Document Format (PDF). This allows users of most computing platforms to view and print these files. Microsoft® Word (or a compatible word processing application) is required for preparing assignments – it is available on computers in the Mason open labs.
**Privacy**

Instructors respect and protect the privacy of information related to individual students.

As described above, issues relating to an individual student will be discussed via email, telephone or in person. Instructors will not discuss issues relating to an individual student with other students (or anyone without a need to know) without prior permission of the student.

Homework, quizzes, mid-term exams and other assessable work will be returned to individual students directly by the Instructor (or by a faculty or staff member or a Teaching Assistant designated by the Instructor, or via another secure method). Final exams are not returned. Under no circumstances will a student's graded work be returned to another student.

Instructors, staff, and Teaching Assistants will take care to protect the privacy of each student's scores and grades.

**Disability Accommodations**

The Office of Disability Services (ODS) works with disabled students to arrange for appropriate accommodations to ensure equal access to university services. Any student with a disability of any kind is strongly encouraged to register with ODS as soon as possible and take advantage of the services offered.

Accommodations for disabled students must be made in advance – ODS cannot assist students retroactively, and at least one week's notice is required for special accommodations related to exams. Any student who needs accommodation should contact the Instructor during the first week of the semester so the sufficient time is allowed to make arrangements.

**Campus Notifications**

Students are encouraged to subscribe to the Mason Alert system to receive notifications of campus emergencies, closings, and other situations that could affect class activities.

Each classroom has a poster explaining actions to be taken in different types of crisis. Further information on emergency procedures is available at http://www.gmu.edu/service/cert. In the event of an emergency, students are encouraged to dial 911.
Other Resources

Mason provides many useful resources for students. The following resources may be particularly useful:

- The Writing Center
- The Academic Advising Center
- The University Libraries
- Counseling and Psychological Services
- University Career Services

See [http://www2.gmu.edu/resources/students/](http://www2.gmu.edu/resources/students/) for a complete listing of Mason resources for students.

Academic Integrity

All members of the Mason community are expected to uphold the principles of scholarly ethics.

The IT program is designed to achieve several specific outcomes. One of those outcomes is: “An understanding of professional, ethical, legal, security, and social issues and responsibilities.”

Graduating students are bound by the ethical requirements of the professional communities they join. The ethics requirements for some of the communities relevant to IT graduates are available via the following links:

- ACM Code of Ethics and Professional Conduct
- IEEE Code of Ethics
- EC-Council Code of Ethics

On admission to Mason, students agree to comply with the requirements of the Mason Honor System and Code\(^1\). The Honor Code will be strictly enforced in this course. Honor Code cases are heard by a panel of students – students who meet the requirements are encouraged to nominate themselves to serve on the Honor Committee.

Any use of the words or ideas of another person(s), without explicit attribution that clearly identifies the material used and its source in an appropriate manner, is plagiarism and will not be tolerated. Dean Griffiths has mandated a "zero tolerance" policy for plagiarism within The Volgenau School of Information Technology and Engineering. The Instructor reserves the right to use manual and/or automated means (including such services as SafeAssign) to detect plagiarism in any work submitted by students for this course, and to direct Teaching Assistants and/or other faculty and/or staff members to do likewise in support of this course.
Instances of cheating whether perceived or real will result in actions to be determined by the instructor in accordance with University policies. This can include:

1. An Honor Code Violation
2. A failure for the assignment in question
3. A failure for the course.

For this course, the following requirements are specified:

- All assessable work is to be prepared by the individual student, unless the Instructor explicitly directs otherwise.
- No use of social media to post, discuss or share questions, answers or topics covered on exams, in any way, shape or form. Evidence of this will be considered an HCV. Some professors and course coordinators have special tools at their disposal to mine multiple social media outlets simultaneously; you have been warned. (Some examples include: Study Room, YikYak, and Reddit)
- No digital reproduction of any part of an exam or quiz. No posting quiz questions to online test outlets or social media sites. Electronic reproduction of any assessable work in this course is PROHIBITED, unless authorized by the course coordinator (not the section instructor).
- Usage of electronic devices is STRICTLY PROHIBITED during any period when there is assessable work in the students’ possession – this includes exams, quizzes, and any other type of assessable work.
- During exams, and quizzes, students MUST put their cellphones away, with volume or ringers turned off. Laptops must be stowed safely under desks to keep paths between rows clear. Instructors have the option to collect cellphones at the front of the room during exam or quiz periods.
- Individual students must create all new work individually for this semester. Any usage of work developed for another course, or for this course in a prior semester, is strictly prohibited without prior approval from the Instructor.

**George Mason requires instructors to report all instances of perceived cheating to the Office of Academic Integrity.**

For this course, the following requirements are specified:

- All assessable work is to be prepared by the individual student, unless the Instructor explicitly directs otherwise.
- All work must be newly created by the individual student for this course for this semester. Any usage of work developed for another course, or for this course in a prior semester, is strictly prohibited without prior approval from the Instructor.

Students may seek assistance with assigned work (and are encouraged to do so if they feel the need), **provided:**

- The directions for the assigned work do not prohibit such assistance.
- Such assistance is explicitly acknowledged in the submitted work, clearly identifying the person(s) giving assistance and the nature of the assistance given.
▪ Any work to be submitted is prepared entirely and exclusively by the student submitting it. Students are expressly prohibited from sharing any assessable work for this course in any manner with other students (except students assigned as Teaching Assistants or Undergraduate Peer Mentors to this course and the student’s section), unless all students involved have had their work graded and returned by the Instructor, or the Instructor has explicitly approved such sharing.

Another aspect of academic integrity is the free exchange of ideas. Vigorous discussion and debate 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.

Students are encouraged to ask for clarification of any issues related to academic integrity and to seek guidance from the Instructor, other faculty members or advisors, University staff, or the Office for Academic Integrity.

1 Available at http://catalog.gmu.edu/content.php?catoid=15&navoid=1039#Honor