Syllabus: Course INFSYS 6888, CMP SCI 5888
Capstone in Information Systems Security

About this course:

Required texts:
There are no required textbooks for this course.

Zoom Room: Will be distributed prior to class via Canvas

Course Description
Prerequisites: INFSYS 6828 and one of either INFSYS 6858 or CMP SCI 5782

The Capstone in Information Security, is a Group Project with a real-world organization. This course provides students an opportunity to participate in the Information Security discipline in an applied setting. Students from technical and non-technical backgrounds will work together in teams to apply their knowledge to solve challenges associated to a relevant and comprehensive cybersecurity project. Over the course of the semester, students will research and build a detailed report on a cybersecurity project. The report and associated presentation shall be designed to inform decision-making by executive leadership of the sponsoring organization.

Learning Objectives
1. Demonstrate application of cybersecurity domain knowledge in real-world scenario
2. Demonstrate usage of technical and managerial skills to solve challenges
3. Demonstrate ability to research and develop novel solutions to cybersecurity challenges
4. Demonstrate skills in creating executive communications and presentations

Project Management
The research project will be developed and delivered using Agile Scrum methodology. Two-week Sprints will be used to make incremental progress towards project completion. Each team will designate a Scrum Master to organize and coordinate activities of the Scrum team. Instructor will act as the Technical Product Owner and the Sponsoring Organization will act as the Business Product Owner for the research project. Further details around how to organize work will be delivered as a lecture session.

Teaching Style
Lectures, group discussions and bi-weekly Sprint review meetings will be used for accomplishing learning objectives. Lectures will be used to introduce topics and group discussions will be used to further the learning process. Sprint review meetings will be used for demonstrating work outputs from the previous Sprint and planning for next Sprint cycle.
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Course schedule
The schedule below is tentative. Updated schedule will be distributed prior to course start date

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Tasks</th>
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<tbody>
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Assessment/Grading
Grades will be calculated as follows:

<table>
<thead>
<tr>
<th>Course Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Attendance</td>
<td>10%</td>
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<tr>
<td>Class Participation</td>
<td>10%</td>
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<tr>
<td>Group Project</td>
<td></td>
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<tr>
<td>Peer Evaluation</td>
<td>20%</td>
</tr>
<tr>
<td>Research Paper</td>
<td>30%</td>
</tr>
<tr>
<td>Final Presentation</td>
<td>30%</td>
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Maximum Possible Final Score: 100%

Letter grades will not be assigned to individual components of the course. Only points (numeric scores) will be assigned. These scores will be combined into a ‘Weighted Total’ out of 100, rounded to one decimal place. Depending on this final score, your overall letter grade for this course will be determined as follows:

<table>
<thead>
<tr>
<th>Final score ranges and corresponding letter grades</th>
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<tbody>
<tr>
<td>&gt;=94</td>
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<tr>
<td>90-93.9</td>
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<tr>
<td>86-89.9</td>
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<tr>
<td>82-85.9</td>
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<tr>
<td>78-81.9</td>
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<tr>
<td>74-77.9</td>
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<tr>
<td>&lt;54</td>
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<table>
<thead>
<tr>
<th>Final score ranges and corresponding letter grades</th>
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<tbody>
<tr>
<td>70-73.9</td>
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<tr>
<td>66-69.9</td>
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<tr>
<td>62-65.9</td>
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<td>58-61.9</td>
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<td>54-57.9</td>
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<td>&lt;54</td>
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Grading Scale: The UMSL Grading System is based on a four-point scale. The grade value for each letter grade is as follows:

A = 4.0
A- = 3.7
B+ = 3.3
B = 3.0
B- = 2.7
C+ = 2.3
C = 2.0
C- = 1.7
D+ = 1.3
D = 1.0
D- = 0.7
F = 0
EX = Excused
DL = Delayed
FN = Failure/Non Participation
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Attendance
Students are expected to attend all classes. Two (2) excused absences are allowed. Absences after the allowable limit will result in 2% deduction up to a maximum of 10% of overall grade.

Class Participation
Class participation is a vital component to learning. Quality over quantity is used to gauge participation. Cold calling may occur in the event where students do not participate adequately. Critical thinking is a key aspect of information security and students are expected to think critically and articulate their thoughts in a manner consistent with a real-world work environment.

Peer Feedback & Evaluation
Students are expected to contribute equally to the research project. Hence, each student will rate their peers for contribution. The ratings are required to be substantiated by sound reason and constructive feedback. Feedback will be anonymized and be made available to your peers for their improvement. An average score of all ratings will be used to determine the final peer rating. Instructor reserves the right to override peer rating in situations where peer rating was not completed, or if the feedback is not constructive.

Research Paper
The research paper should be comprehensive and well laid out consistent with the level of quality required from a graduate student. The research paper should contain at a minimum; an outline, executive summary, clearly defined problem statement, well-formed research with supporting analytics and data visualization, conclusions derived from research, business case supporting the group’s recommendations, a plan on how to implement the recommendations, and proper references and citations.

Final Presentation
The final presentation will be a summary of the research paper and will be delivered to the executives of the sponsoring organization. As such, students are expected to communicate clearly and concisely with necessary data and justification. No more than 20 slides shall be used for the final presentation and students are required to include the problem statement, summary of research findings, why the researched topic is a solution to the problem, a business case for implementing (or not implementing) the recommendations, supporting data, and an implementation plan if applicable. Going over the 20 slide limit, or inability to fully deliver the presentation to sponsoring organization will result in reduction of points.

Course Policies

Academic Integrity/Plagiarism

- You are responsible for being attentive to and observant of University policies about academic honesty as stated in the University’s Campus Policies and Code of Student Conduct found in the UMSL Bulletin
- Academic dishonesty is a serious offense that may lead to probation, suspension, or dismissal from the University. One form of academic dishonesty is plagiarism – the use of an author’s ideas, statements, or approaches without crediting the source. Academic dishonesty also includes such acts as cheating by
using any unauthorized sources of information and providing or receiving unauthorized assistance on any form of academic work or engaging in any behavior specifically prohibited by the faculty member (e.g., copying someone else’s answers on tests and quizzes). Unauthorized possession or distribution of academic materials is another type of academic misconduct. It includes the unauthorized use, selling or purchasing of examinations or other academic work, using or stealing another student’s work, unauthorized entry or use of material in a computer file, and using information from or possessing exams that an instructor did not authorize for release to students. Falsification is any untruth, either verbal or written, in one’s academic work. Facilitation is knowingly assisting another to commit an act of academic misconduct. Plagiarism, cheating, and falsification are not acceptable.

- All instances of academic dishonesty will be reported to the Office of Academic Affairs who will determine whether you will appear before the Student Conduct Committee for possible administrative sanctions such as dismissal from the university. The instructor will make an academic judgment about the student’s grade on that work in this course. The campus process regarding academic dishonesty is described in the “Policies” section of the Academic Affairs website.
- Follow the AMA style for your reports.
- Plagiarism is the use of another person’s words or ideas without crediting that person.
- Plagiarism and cheating will not be tolerated and may lead to failure on an assignment, in the class, and dismissal from the University, per the UMSL academic dishonesty policy.
- Students are responsible for being attentive to and observant of campus policies about academic honesty as stated in the University’s Student Conduct Code.
- To avoid accusations of academic dishonesty, please submit all written work to the Turnitin System before finalizing what you submit for evaluation. Check information about The Writing Center on UMSL’s website.

Title IX Policies
In adherence to the policies of Title IX and to promote a safe and secure educational environment, it is strongly recommended statements similar to those below be added to your course syllabus:

- **Mandatory Reporting:** Under Title IX, all UMSL faculty, staff, and administrators (with limited exception) are obligated to report any incidents of sexual harassment, sexual misconduct, sexual assault, or gender discrimination to the Student Affairs office and/or other University officials. This ensures that all parties are protected from further abuses and that victim(s) are supported by trained counselors and professionals. Note: There are several offices at UMSL (e.g., Counseling Services, Health Services, Community Psychological Service, Center for Trauma Recovery, and Student Social Services) whose staff are exempt from Title IX mandated reporting, when the information is learned in the course of a confidential communication.

- **Content Advisory:** The course requires good logical skills and knowledge of materials from the prerequisite courses. Some of the concepts require abstract thinking and ability of apply college level algebra.
Student Resources

Access, Disability and Communication

Your academic success is important. If you have a documented disability that may have an impact upon your work in this class, please contact Disability Access Services (DAS) immediately. Students must provide documentation of their disability to the office of Disability Access Services in order to receive official University services and accommodations. The staff is available to answer questions regarding accommodations or assist you in your pursuit of accommodations. Information about your disability is confidential. Once DAS reviews your medical documentation, they will provide you with the information and steps to inform me about the accommodations to which you are entitled. Your accommodations will begin as soon as we discuss your approved accommodations.

- 144 Millennium Student Center (MSC)
- Phone: (314) 516-6554
- Email: Tara Cramer, cramert@umsl.edu
- Website: http://www.umsl.edu/services/disability/

Office of International Students and Scholar Services

If you have difficulty communicating in English with the instructor of this course, contact ISS.

- 362 Social Sciences & Business Building (SSB)
- Phone: (314) 516-5229
- Email: iss@umsl.edu
- Website: http://www.umsl.edu/~intelstu/contact.html

Student Enrichment and Achievement

SEA provides comprehensive support and intervention strategies that support your road to graduation!

- 107 Lucas Hall
- Phone: (314) 516-5300
- Email: umslsea@umsl.edu
- Website: https://www.umsl.edu/services/sea/

Office of Multicultural Student Services (MSS) and the University Tutoring Center (UTC)

MSS provides comprehensive student retention services to diverse student populations; through their tutoring center, the MSS offers comprehensive tutoring services free to students at UMSL.

- 225 Millennium Student Center (MSC)
- Phone: (314) 516-6807
- Email: multicultural@umsl.edu
- Website: https://www.umsl.edu/~mcraa/index.html

More Student Resources are on the Learning Resource Lab website.
Technical Support

Canvas
If you have problems logging into your online course, or an issue within the course site, please contact the

Technology Support Center:
- Phone: (314) 516-6034
- Email: helpdesk@umsl.edu
- Website: http://www.umsl.edu/technology/tsc/

If you are having difficulty with a technology tool in Canvas, consider visiting the Canvas Student Guides, which has overviews of each tool and tutorials on how to use them.

If you continue to experience problems or just have questions, you can also contact the Learning Resource Lab:
- Phone: (314) 516-6704
- Email: lrl@umsl.edu
- Website: http://www.umsl.edu/technology/lrl/

VoiceThread
- Online Contact Form: https://voicethread.com/support/contact/
- Website: https://voicethread.com/howto/

Academic Support

Math Academic Center (Math Lab)
The Math Academic Center offers free individual assistance on a walk-in basis to students needing help with any mathematics from basic math through calculus or any course involving mathematical skills.
- 222 Social Sciences and Business Building (SSB)
- Website: http://www.umsl.edu/mathcs/math-academic-center/

Tutoring Services
- NetTutor: Online tutoring tool in many subjects is now available through NetTutor. Students can get real-time, personal tutoring via video conference.

MyConnect: Provides you with a central location to connect to the support services on campus. MyConnect makes it easy to schedule a meeting with your instructor, advisors or counselors. It can help you manage the steps you need to take to stay on track and meet your educational goals. Log in to your UMSL MyConnect Home page by going to Current Students from the UMSL website. Then, access MyConnect through the MyGateway Student Portal.
Student Enrichment and Achievement offers assistance tailored to specific student needs.

- 107 Lucas Hall
- Phone: (314) 516-5300
- Email: umslsea@umsl.edu
- Web: http://www.umsl.edu/services/sea