CSCI 4321:800, Computer Security, Spring 2026, CRN:
Department of Computing, Engineering and Mathematical Sciences

Course Syllabus

Class Meeting Time and Place: T 7:00 pm - 9:45 pm PM, STEM 263
Class Duration: 01/13-05/12
Instructor: Dr. Izzat Alsmadi
Office: STEM 211F
Tel: 210-784-2313
E-Mail: ialsmadi@tamusa.edu
Student emails will receive a reply within two business days.
Course Website: https://tamusa.blackboard.com/
Office Hours: T   5:00 pm - 7:00 pm STEM 211F
W   2:00 pm – 4 pm STEM 211F
Th   2:00 pm – 4 pm STEM 211F
and by appointment.

Catalog Course Description: This course examines the concepts, principles, and applications of computer including Privacy, Information Security, and Critical Infrastructure. This course explores the knowledge and skills needed to ensure security of information and information systems within organizations. It focuses on concepts and methods associated with security across several systems platforms, including internal and Internet-based systems. The course utilizes a world view to examine critical infrastructure concepts as well as techniques for assessing risk associated with accidental and intentional breaches of security in a global network. It introduces the associated issues of ethical uses of information and of privacy considerations. Prerequisite: CSCI 1336 or equivalent.

Course Objectives: Students will learn about:
- Implement security configuration parameters on network devices and other technologies.
- Given a scenario, use secure network administration principles.
- Explain network design elements and components.
- Given a scenario, implement common protocols and services.
- Given a scenario, troubleshoot security issues related to wireless networking.
- Explain the importance of risk related concepts.
- Summarize the security implications of integrating systems and data with third parties.
- Given a scenario, implement appropriate risk mitigation strategies.
- Given a scenario, implement basic forensic procedures.
- Summarize common incident response procedures.
- Explain the importance of security related awareness and training.
- Compare and contrast physical security and environmental controls.
- Summarize risk management best practices.

Prerequisites: Grade of C or better in each of: MATH 1314, CSCI 1436 (or CSCI 1136 and 1336), CSCI 1437 (or CSCI 1137 and 1337), (CSCI 2436 or (CSCI 2336 and CSCI 2136)), CSCI 3321, CSCI 4406 (or CSCI 4306 and CSCI 4106), and MATH 3340..

Student Learning Outcomes:

After successful completion of this course, students will be able to:

1. Explain risk analysis, probability trees, event trees, simulation models, and influence diagrams.
2. Verify the security posture of systems and networks using penetration testing techniques.

3. Explain the legal and ethical responsibilities of penetration testers

4. Demonstrate risk communication, control implementation, and monitoring of risk management strategies.

AACSB Assessment:

The College of Business is in the process of applying for AACSB accreditation. As part of that process, students will be assessed on program level outcomes based on course outcomes from various courses. The materials from this course may be used for assessing such program level outcomes, and hence students must follow the necessary rigor to ensure mastery of the above course outcomes.

Required Materials:

- **TEXTBOOK(S):**

Computer Security: Principles and Practice, 4th Edition, William Stallings, Lawrie Brown, ©2018, Pearson

- ☐ **Blackboard:** Connect to http://tamusa.blackboard.com. **You** will have lecture notes, solutions to problems, multimedia materials and other supplementary materials in Blackboard.

- **Software:**
  a. You will need VM Workstation and/or MSDNAA software to complete class assignments. You will be able to download the installation software from the TAMU-SA MSDNAA software center. You will receive your login name and password via your Jaguar email address once your access has been activated. Additional software required for the course:
  a. VMware Workstation
  a. Kali Linux
  b. Wireshark
  c. Metasploitable2 image
  d. SoftEther Client or other appropriate VPN client.

- **Computer Hardware:** You will need a computer with an internet connection.

- **Time:** You are expected to spend 9 hours per week outside of class for the course. Based on the background, some student may require more time. Time spent may be longer when assignment/exams are due.

Other Recommended / Reading Materials: Additional reading materials are available on the course website as recommended by the instructor.

Course Requirements every student must fulfill in order to succeed in course:

1. Students should check the Course Calendar, Announcements, and Messages (e-mail) systems in Blackboard on a regular basis.
2. Students should keep current with all course assignments, quizzes, and examinations.
3. If the course uses remote proctoring for exams, ensure that students schedule their exam early in the semester.
4. Students should ask questions and communicate with the instructor either online or off-line

Grading Policy: The final course grade will be based on your performance on the quizzes, exams, assignments and class participation using the following weights:

Midterm and Final, 20% each.
Labs and assignments 60%.

The final letter grades will be assigned as follows: Above 90% $\Rightarrow$ A; 80 – 89% $\Rightarrow$ B; 70 – 79% $\Rightarrow$ C; 60 – 69% $\Rightarrow$ D; Below 60% $\Rightarrow$ F.

Examinations and Quizzes: Exams will be based on reading materials, lectures, and class discussions. The exam format will consist of multiple choice, short answer, essay questions, and practical exercises. As a general rule, no make-ups will be offered for any missed exam/quiz. Make-ups may be administered only in extra-ordinary circumstances such as an excused official university activity, a severe illness, or a dire emergency. However, you must provide comprehensive documentation within a few days of the missed exam. Team quizzes will be given at the beginning of the class and can cover topics from the current or any previous reading assignments. Students will complete the quiz as a team. External resources (books, notes, Internet, etc.) may **NOT** be used. Individual students must be present to receive a grade from the Team Quiz.

Assignments/ Research papers:

Discussions are due prior to the start of class on the day of class. **Discussions will not be accepted after class starts**. Discussions will be evaluated by the depth of logic and quality of support. Citations are encouraged. **Discussions are limited to 300 words**.

Participation/Attendance: Class attendance is expected. Attendance will be taken at each class session. Points will be added for attendance. There will be no opportunity to make up those points if you miss class.

Homework:
Homework assignments and labs will be available in Blackboard, and must be submitted

in Blackboard. Unless otherwise stated, homework assignments must be submitted in a *single* Microsoft Word document. Do NOT submit multiple documents. **Name all documents as follows: *assignment_lastname.***

Make up and Late Assignment/exam/quiz policy: All assignments have a due date. Lab assignments will only receive full credit if they are turned in by the due date. All lab assignments are due at 11:59 on their due date. Lab assignments that are late up to 48 hours lose 10 percent of the maximum grade, 48 hours to 1 week lose 20 percent of the maximum, 1 week to 2 weeks lose 30 percent of the maximum, 2 weeks to 3 weeks lose 40 percent of the maximum, and more than 3 weeks lose 50 percent of the maximum. **Lab a**ssignments **submitted at least 48 hours early will receive a 5 percent bonus**

Homework assignments are due at noon on the day of class. Homework assignments will be accepted until the start of class with a 20% deduction from the maximum possible grade. **Homework assignments will not be accepted after class starts**. **Homework assignments submitted at least 48 hours early will receive 1 point extra credit** (10-20%, depending on total possible points).

The security assessment report will be accepted late. However, a 10% penalty from the maximum possible points will be assessed each day the investigation report is late. For example, if an investigation report is submitted seven days late, graded an 85 out of 100 points, the final grade will be 15 (70 point penalty). **A 10 percent bonus will be given for research papers submitted at least 48 hours early**.

Class conduct and civility code: Everyone in class is expected to follow all rules in the student handbook, as well as common courtesy during classroom lectures and discussions in class and online, including the following:

1.   Attendance may be taken at the beginning or the end of the class.
2.   It is the students' responsibility to obtain and be able to use the required materials and software for this class.
3.   Student must retain copies of all assignments and graded work for verification purposes. Keep copies of all computer files and e-mails.
4.   Talking while the instructor is lecturing is extremely disruptive and discourteous to the instructor and other students.
5.   Using computers or phones (except for a valid urgent need) during class for a purpose not related to class is disruptive. All cell phones and gadgets should be turned off and headphones removed.
6.   For any questions about the exams and assignments, a student should contact the instructor, before the day they are due, so the instructor may have enough time to provide feedback.
7.   All communications will be via e-mail communications to the Texas A&M University e-mail account, and students are expected to use their school provided email account. The

instructor will reply to a student e-mail messages and voice messages within 24 hours during week days (Monday-Friday).

8.   All assignment submissions must be uploaded to Blackboard by the due

date. Anyone violating these policies may be subject to disciplinary actions.

Class attendance and Participation: A vital part of every student's education is regular attendance of class meetings. Any absences tend to lower the quality of a student's work, and frequent or persistent absences may result in a failing grade. Students are responsible for the materials covered in class. The course covers a lot of material and most students find at least some parts of it difficult. Class participation is highly encouraged as it makes the class more interesting and enhances the learning experience. Students are strongly encouraged to ask questions and participate in class discussions and problem solving. Good attendance and participation will be rewarded when final grades are assigned.

The course is intensive and challenging and you are expected to master the materials presented in class. The structure of the class makes your individual study and preparation outside of class extremely important. Reading the assigned chapter(s) and having some familiarity with them before class will be very useful for understanding lectures.

Attendance will be taken at each class session. Points will be added for attendance. There will be no opportunity to make up those points if you miss class.

Spring 2020 CSCI 4321:800 Class Schedule

The provisions and information set forth in the schedule below are intended to be informational and not contractual in nature. The instructor reserves the right to amend, alter, change, delete or modify the provisions of the schedule.

Drop Policy

You may drop the course with an automatic grade of W on or before the date listed in the academic calendar at www.tamusa.edu. The last date to drop a course, or withdraw from the University is also indicated in the academic calendar on the university website (www.tamusa.edu). If you wish to drop the class, you must submit the necessary paperwork to the proper authority. Students dropping a course are subject to all conditions listed in the university catalog.

Financial Aid and Verification of Attendance

According to the following federal regulation, 34 CFR 668.21: U.S. Department of Education (DoE) Title IV regulation, a student can only receive Title IV funds based on Title IV eligibility criteria which includes class attendance. If Title IV funds are disbursed to ineligible students (including students who fail to begin attendance), the institution must return these funds to the U.S. DoE within 30 days of becoming aware that the student will not or has not begun attendance. Faculty will provide the Office of Financial Aid with an electronic notification if a student has not attended the first week of class. Any student receiving Federal financial aid

who dos not attend the first week of class will have his/her aid terminated and returned to the DoE. Please note that any student who stops attending at any time during the semester may also need to return a portion of his/her federal aid.

Jaguar Writing Center

The Jaguar Writing Center provides writing assistance to graduate and undergraduate students in all three colleges. Writing tutors work with students to develop reading skills, prepare oral presentations, and plan, draft, and revise their written assignments. Students can make individual or group appointments with a writing tutor. The Writing Center can be contacted by

email at: Student.Success@tamusa.edu or by phone at (210) 784-1307, or by visiting its web page from www.tamusa.edu.

Jaguar Tutoring Center

The Tutoring Center at Texas A&M University–San Antonio provides academic assistance to students in TAMU-SA's schools of Business, Education, and Arts and Sciences. Literacy tutors help students develop reading skills, prepare oral presentations, and plan, draft, and revise their papers. Business tutors provide individual assistance in statistics, accounting, and math. The goal of TAMU-SA tutors is to empower students to succeed academically. The tutoring center can be contacted by email at: Tutoring@tamusa.edu or by phone at: (210) 784-1332, or by visiting its web page from www.tamusa.edu.

University Email Policy and Course Communications

All correspondence between professors and students must occur via University email accounts. You must have Jaguar email account ready and working. If it is not working, contact the help desk at 210-784-4357.

The Six-Drop Rule

Students are subject to the requirements of Senate Bill (SB) 1231 passed by the Texas Legislature in 2007. SB 1231 limits students to a maximum of six (6) non-punitive course drops (i.e., courses a student chooses to drop) during their undergraduate careers. A non-punitive drop does not affect the student's GPA. However, course drops that exceed the maximum allowed by SB 1231 will be treated as "F" grades and will impact the student's GPA.

Students with Disabilities

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disability. If you believe you have a disability that may require accommodations, please contact Disability Support Services (DSS) for the coordination of services. The phone number for DSS is (210) 784-1335 and email is dsupport@tamusa.edu.

Academic Misconduct Policy

Students at Texas A&M University-San Antonio are expected to adhere to the highest standards of academic honesty and integrity. Academic misconduct for which a student is subject to penalty includes cheating, plagiarism, fabrication, multiple submissions, misrepresentation of academic records, facilitating academic dishonesty, unfair advantage, violating known safety requirements and ethical misconduct. Students are expected to do their own course work. Simple cases of first offense cheating or plagiarism by an individual student may be handled by

the instructor after consultation with the department chair. The student is usually confronted with the evidence in private and advised of the penalty to be assessed. The evidence will be retained for at least one full year. For more serious cases, such as those involving repeated offenses, conspiracy with other students or the theft and selling of examination questions, a report should be made by the instructor via the department chair and college dean to the Office of Student Rights and Responsibilities. Academic dishonesty is a violation of the Student Code of Conduct; therefore, the instructor **WILL** report any form of academic dishonesty to the Office of Student Rights and Responsibilities. Please review the Student Handbook for a complete description of the process. Penalties for academic dishonesty may range from a grade of F on the particular paper or in the course to expulsion from the University.

Considering the potential consequences of academic misconduct, it is obviously in students' best interests to avoid even the appearance of such behavior. If a student is unclear whether a specific act might constitute academic misconduct, please she/he should contact the instructor for an assessment of the situation.

All student term papers and other written assignments are subject to analysis by anti-plagiarism software.

Key Dates
The complete academic calendar is available online:
http://www.tamusa.edu/provost/academicresources/FallSpringSummerCalendars/fall.html

Jan. 13	Classes begin
Jan. 18	Weekend Classes Begin
Jan. 20	Martin Luther King Day - A&M-SA Closed
Jan. 21	Last day to register for Spring 16-week Session
Jan. 29	Census Date
Jan. 29	Students dropped for Non-Payment will be assessed a $363 Reinstatement Fee if reinstating on or after this date
Jan.	Deadline for students who have applied for Spring 2020 graduation to complete Change of

29	Name and/or Change of Major form(s) at the Welcome Center
Jan. 29	Last day for students to apply for Spring 2020 graduation
Jan. 29	Last day for students to apply for Summer 2020 graduation and participate in Spring 2020 Commencement ceremony
Feb. 19	Spring 2020 Graduation Application Fee Payment Deadline
Mar. 3	Application for Fall 2020 Graduation can be submitted
Mar 9-15	Spring Break (University offices will remain open)
Mar. 27	Last day to drop with an automatic "W"
Mar. 30	Title IV 60% of the semester (Financial Aid)
May 1	Last day to drop a course or withdraw from the University
May 2	Last day of Scheduled Classes
May 4-5	Reading Days
May 6-12	Final Examinations - See your A&M-SA catalog for schedule
May 12	End of Spring Semester
May 15	All grades for Spring 16-week session due by Noon via JagWire
May 15	Spring Commencement