Course Syllabus COSC 5341.460 Cyber Security MS CSDA Summer 2nd 7-Week Session 2024

Instructor:Dr. Tom L. RobertsOffice:SCOB 312-08E-Mail:tomroberts@uttyler.eduLocation:Online/VirtualOffice Hours:Online by appointment for Zoom Session.
By email on daily on 48-hour basis.

Last Day to Withdraw for Second 7-Week Session is Friday August 2, 2024

Final Exam Date: August 12-17, 2024

Required Text

Computer Security Principles and Practice 5e Authors: Stallings & Brown; 2023 Publisher: Pearson; ISBN: 9780138091712

Course Description

This course provides an overview of the fundamentals of cybersecurity with a focus on organizational cybersecurity issues.

Brief Course Objective and Overview

This course is designed to give students an understanding of computer security concepts. You are advised to pay careful attention to the class lectures and course exercises. Exam questions are based primarily on the material covered in class and are designed to test your *understanding of the underlying concepts of computer security*. It also covers information security management and much of the common Body of Knowledge of the CISSP Certification Exam.

Selected Topics:

- Overview of Cybersecurity
- Cryptographic tools
- User authentication
- Access control
- Database and cloud security
- Malicious software

Grading and Evaluation

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| Cases – | 300 Points |
| Reading Quizzes - | 300 Points |
| Homework - | 300 Points |
| Midterm Exam - | 250 Points |
| Final Exam - | 250 Points |
| Total | 1100 Points |

Grading and Evaluation

A = 990.00 - 1100.00 B = 880.00 - 989.99 C = 770.00 - 879.99 D = 660.00 - 769.99 F = 659.99 and below

Class Policies

Academic Dishonesty: Representation of other's work as your own will not be tolerated. Cheating on examinations, quizzes, and homework and the false representation of work will be interpreted as academic dishonesty. Academic dishonesty will be subject to disciplinary action as outlined by the UT Tyler Student Guide on Conduct and Discipline.

Attendance/Late Work Policy: Late work is not accepted for credit unless approved by the instructor.

University Policies: The University sets forth policies regarding students' rights and responsibilities in the classroom. These may be revised without notice.

These policies can be found on at the end of this document and the UT Tyler's website:

http://www.uttyler.edu/academicaffairs/files/syllabuspolicy.pdf

Tentative Course Schedule

Week 1: July 1-7 Chapter 1: Overview of Cybersecurity

Week 2: July 8-14 Chapter 2 Cryptographic Tools

Week 3: July 15-22 Chapter 3 User Authentication Midterm Exam: July 20-28 Covering Chapters 1-3

Week 4: July 22-28 Chapter 4 Access Control

Week 5: July 24 – August 4 Chapter 5 Database and Cloud Security

Week 6: August 5-11 Chapter 6 Malicious Software

W7 Final Exam – August 12-17 Covering Chapters Chapters 4-6

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Syllabus Information

A syllabus is a statement of intent by the course instructor to clearly explain what a student must do and the timeline for such tasks to complete the course. A syllabus protects students from arbitrary or untimely changes in course requirements and due dates. UT Tyler faculty shall provide students with a course syllabus in the Syllabus Module within Canvas (UT Tyler's Learning Management System). Faculty may also distribute syllabi in class if desired. Within the Syllabus Module, faculty provide students with their contact information and course-specific information. Undergraduate and Online Education staff will update the Student Resources and University Policies and Information pages in the Syllabus Module each semester. Undergraduate faculty are also required to provide their department/school with their syllabi for posting on the UT Tyler website as required by HB 2504. In the syllabi provided to the department, faculty may note that Student Resources and University Policies and Student Resources and University may note that Student Resources and University Policies and Information pages in the Syllabi provided to the department, faculty may note that Student Resources and University Policies and Information Policies and University Policies and University Policies and Information Policies and University Policies and University Policies and University Policies and University Policies and Information are in Canvas.

Syllabi for concurrently taught undergraduate and graduate courses (e.g., CENG 4314/5314) must clearly describe the different expectations of graduate students that are substantively and progressively more advanced than those of the undergraduates. The delineation of expectations can occur in a separate graduate syllabus or a combined syllabus.

Each syllabus MUST contain the following minimum information.

1. Instructor name, office, phone, and email contact 2. Office hours (3 hours minimum per week, plus by appointment) 3. TA Contact (if appropriate) 4. Course Overview 5. Student Learning Outcomes 6. Required Textbooks and Readings and Recommended (if applicable) 7. Special Course Notes (e.g., external websites or resources required, proctoring requirements, field trips, etc.) 8. Assignments with weights/point values and grading scales. Brief descriptions of significant assignments are required. 9. Late Work and Make-Up Exam expectations 10. Attendance policy (optional) 11. Calendar of Topics,

Readings, and Due Dates

The following information is provided within the Syllabus Module related to Student Resources and University Policies and Information.

Student Resources: Faculty can update student resources to provide additional supports appropriate for each course.

Resources to assist you in the course

• UT Tyler Student Accessibility and Resource (SAR) Office - (provides needed accommodations to students with document needs related to access and learning)

• UTTyler Writing Center

- The Mathematics Learning Center
- UT Tyler PASS Tutoring Center
- UT Tyler Supplemental Instruction
- Upswing (24/7 online tutoring) covers nearly all undergraduate course areas
- Robert Muntz Library and Library Liaison
- Canvas 101 (learn to use Canvas, proctoring, Unicheck, and other software)

• Digital Support Toolkit (for supported courses only. Students are automatically enrolled in the toolkit for supported courses)

- LIB 422 -- Computer Lab where students can take a proctored exam
- The Career Success Center
- UT Tyler Testing Center

• Office of Research & Scholarship Design and Data Analysis Lab Resources available to UT Tyler Students

• UT Tyler Counseling Center (available to all students) • TAO Online Support Center (online self-help modules related to mental & emotional health)

- Military and Veterans Success Center (supports for our military-affiliated students)
- UT Tyler Patriot Food Pantry.
- UT Tyler Financial Aid and Scholarships
- UT Tyler Registrar's Office
- Office of International Programs
- Title IX Reporting

• Patriots Engage (available to all students. Get engaged at UT Tyler.) University Policies and Information

• Withdrawing from Class - Students are allowed to withdraw (drop) from a course through the University's Withdrawal Portal. Texas law prohibits students who began college for the first time in Fall 2007 or thereafter from dropping more than six courses

during their entire undergraduate career. The number includes courses dropped at other 2-year or 4-year Texas public colleges and universities. Make sure to consider the impact withdrawing from any course has on your academic progress as well as the financial implications. We encourage you to consult your advisor(s) and financial aid for additional guidance.

CAUTION #1: Withdrawing before census day does not mean students receive a full refund. Please see the Tuition and Fee Refund Schedule.

CAUTION #2: All international students must check with the Office of International Programs before withdrawing. All international students are required to enroll full-time for fall and spring terms.

• Final Exam Policy Final examinations are administered as scheduled. If unusual circumstances require that special arrangements be made for an individual student or class, the dean of the appropriate college, after consultation with the faculty member involved, may authorize an exception to the schedule. Faculty members are required to maintain student final examination papers for a minimum of three months following the examination date.

• Incomplete Grade Policy If a student, because of extenuating circumstances, is unable to complete course requirements by the end of the semester, then the instructor may recommend an Incomplete (I) for the course. The "I" may be assigned in lieu of a grade only when all of the following conditions are met: (a) the student has been making satisfactory progress in the course; (b) the student is unable to complete all course work or final exam due to unusual circumstances that are beyond personal control and are acceptable to the instructor; and (c) the student presents these reasons prior to the time that the final grade roster is due. The semester credit hours for an Incomplete will not be used to calculate the grade point average for a student.

The student and the instructor must submit an Incomplete Form detailing the work required and the time by which the work must be completed to their respective department chair or college dean for approval. The time limit established must not exceed one year. Should the student fail to complete the work for the course within the time limit, the instructor may assign zeros to the unfinished work, compute the course average for the student, and assign the appropriate grade. If a grade has not been assigned within one year, then the Incomplete will be changed to an F or to NC, if the course was initially taken under the CR/NC grading basis.

• Grade Appeal Policy: - UT Tyler's Grade Appeal policy requires the completion of a Grade Appeal form for this action to take place. The grade appeal begins with the instructor of the course. If a student does not agree with the decision of the instructor, the student may then move the appeal to the department chair/school director for that course. If the student is still dissatisfied with the decision of the chair/director, the appeal moves to the Dean of the College offering that course, who has the final decision. Grade appeals must be initiated within sixty (60) days from the date of receiving the final course grade. The Grade Appeal form is found on the Registrar's Form Library.

• Disability/Accessibility Services: In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA), The University of Texas at Tyler offers accommodations to students with learning, physical

and/or psychological disabilities. If a student has a disability, including a non-visible diagnosis such as a learning disorder, chronic illness, TBI, PTSD, ADHD, or a history of modifications or accommodations in a previous educational environment, the student is encouraged to visit https://hood.accessiblelearning.com/UTTyler and fill out the New Student application. The Student Accessibility and Resources (SAR) office will contact the student when the application has been submitted and schedule an appointment with the Assistant Director Student Accessibility and Resources/ADA Coordinator. For more information, including filling out an application for services, please visit the SAR webpage at http://www.uttyler.edu/disabilityservices, the SAR office located in the University Center, # 3150 or call 903.566.7079."

• Military Affiliated Students: UT Tyler honors the service and sacrifices of our militaryaffiliated students. If you are a student who is a veteran, on active duty, in the reserves or National Guard, or a military spouse or dependent, please stay in contact with your faculty member if any aspect of your present or prior service or family situation makes it difficult for you to fulfill the requirements of a course or creates disruption in your academic progress. It is important to make your faculty member aware of any complications as far in advance as possible. Your faculty member is willing to work with you and, if needed, put you in contact with university staff who are trained to assist you. Campus resources for military-affiliated students are in the Military and Veterans Success Center (MVSC). The MVSC can be reached at MVSC@uttyler.edu or via phone at 903.565.5972.

• Academic Honesty and Academic Misconduct: The UT Tyler community comes together to pledge that "Honor and integrity will not allow me to lie, cheat, or steal, nor to accept the actions of those who do." Therefore, we enforce the Student Conduct and Discipline policy in the Student Manual Of Operating Procedures (Section 8).

SYLLABUS POLICY

A syllabus is a statement of intent by the course instructor that should clearly explain what a student must do and when they must do it to successfully complete the course and get a grade. A syllabus is intended to protect students from arbitrary or untimely changes in course requirements and due dates. A syllabus must also provide information about departmental and University policies governing conduct of the course.

All UT Tyler teaching faculty are required to distribute a course syllabus to their students on the first class meeting day. Faculty are also required to post their syllabi on the UT Tyler website, in a directory determined by the department or college.

Syllabi for concurrently taught undergraduate/graduate courses (ex: CENG 4314/5314) must clearly describe the additional expectations of graduate students that are substantively and progressively more advanced than those of the undergraduates. This can be done in a separate graduate syllabus or a combined syllabus.

Each syllabus MUST include the following minimum information:

1. Course number, title, section number (if applicable) and scheduled class time;

2. Instructor's name, office address, phone number and e-mail address, with recommendations on which method of contact the instructor prefers;

3. Office hours-- at least three per week and a provision for arranging office hours to accommodate students whose schedules conflict with regularly scheduled office hours.

4. Course content--should be consistent with the approved course description found in the current UT Tyler catalog;

5. Course learning objectives.

6. Grading policy and criteria to determine final course grade;

7. Date of final examination, scheduled according to the University final exam schedule. Reminder: any deviation from scheduled times must be approved by the college dean.

8. Date to withdraw without penalty (census date)—please include actual date, which can be found in the current Schedule of Classes.

9. Tentative dates of required assignments, quizzes, and tests, if applicable;

10. Attendance and make-up policy

11. Required textbooks, materials, and supplies;

12. Required field trips, rehearsals, etc., scheduled outside of regularly-scheduled class time, along with any accompanying fees and tickets; and/or course procedures unique to the course that might cause students to reconsider their enrollment in the course; and

13. Required university policies and additional information is provided on the following pages. The information contained in the course syllabus, other than the grading criteria and absence and make-up policies, may be subject to change with reasonable advance notice as long as the change is without prejudice to the students.

Instructors should also consider including:

- 1. Course Web site (if applicable);
- 2. Course prerequisites and restrictions, as they appear in the catalog;
- 3. Information about required learning-management software (Canvas)
- 4. Tentative deadlines for all assignments;
- 5. Tentative schedule of course topics

UNIVERSITY POLICIES AND ADDITIONAL INFORMATION THAT MUST APPEAR IN EACH COURSE SYLLABUS

UT Tyler Honor Code

Every member of the UT Tyler community joins together to embrace: Honor and integrity that will not allow me to lie, cheat, or steal, nor to accept the actions of those who do.

Students Rights and Responsibilities

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: <u>http://www.uttyler.edu/wellness/rightsresponsibilities.php</u>

Campus Carry

We respect the right and privacy of students 21 and over who are duly licensed to carry concealed weapons in this class. License holders are expected to behave responsibly and keep a handgun secure and concealed. More information is available at http://www.uttyler.edu/about/campus-carry/index.php

UT Tyler a Tobacco-Free University

All forms of tobacco will not be permitted on the UT Tyler main campus, branch campuses, and any property owned by UT Tyler. This applies to all members of the University community, including students, faculty, staff, University affiliates, contractors, and visitors. Forms of tobacco not permitted include cigarettes, cigars, pipes, water pipes (hookah), bidis, kreteks, electronic cigarettes, smokeless tobacco, snuff, chewing tobacco, and all other tobacco products. There are several cessation programs available to students looking to quit smoking, including counseling, quit lines, and group support. For more information on cessation programs please visit www.uttyler.edu/tobacco-free.

Grade Replacement/Forgiveness and Census Date Policies

Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the Census Date of the semester in which the course will be repeated. Grade Replacement Contracts are available in the Enrollment Services Center or at <u>http://www.uttyler.edu/registrar</u>. Each semester's Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar.

Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates are eligible to exercise grade replacement for only three course repeats during their career at UT Tyler; graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract. The Census Date is the deadline for many forms and enrollment actions of which students need to be aware. These include:

- Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.
- Receiving 100% refunds for partial withdrawals. (There is no refund for these after the Census Date)
- Schedule adjustments (section changes, adding a new class, dropping without a "W" grade)
- Being reinstated or re-enrolled in classes after being dropped for non-payment
- Completing the process for tuition exemptions or waivers through Financial Aid

State-Mandated Course Drop Policy

Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the census date (See Academic Calendar for the specific date).

Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Enrollment Services Center and must be accompanied by documentation of the extenuating circumstance. Please contact the Enrollment Services Center if you have any questions.

Disability/Accessibility Services

In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University of Texas at Tyler offers accommodations to students with learning, physical and/or psychological disabilities. If you have a disability, including a non-visible diagnosis such as a learning disorder, chronic illness, TBI, PTSD, ADHD, or you have a history of modifications or accommodations in a previous educational environment, you are encouraged to visit

<u>https://hood.accessiblelearning.com/UTTyler</u> and fill out the New Student application. The Student Accessibility and Resources (SAR) office will contact you when your application has been submitted and an appointment with Cynthia Lowery, Assistant Director of Student Services/ADA Coordinator. For more information, including filling out an application for services, please visit the SAR webpage at <u>http://www.uttyler.edu/disabilityservices</u>, the SAR office located in the University Center, # 3150 or call 903.566.7079.

Student Absence due to Religious Observance

Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.

Student Absence for University-Sponsored Events and Activities

If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.

Social Security and FERPA Statement

It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

Emergency Exits and Evacuation

Everyone is required to exit the building when a fire alarm goes off. Follow your instructor's directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services.

Student Standards of Academic Conduct

Disciplinary proceedings may be initiated against any student who engages in scholastic dishonesty, including, but not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.

i. "Cheating" includes, but is not limited to:

- copying from another student's test paper;
- using, during a test, materials not authorized by the person giving the test;
- failure to comply with instructions given by the person administering the test;

• possession during a test of materials which are not authorized by the person giving the test, such as class notes or specifically designed "crib notes". The presence of textbooks constitutes a violation if they have been specifically prohibited by the person administering the test;

• using, buying, stealing, transporting, or soliciting in whole or part the contents of an unadministered test, test key, homework solution, or computer program;

• collaborating with or seeking aid from another student during a test or other assignment without authority;

• discussing the contents of an examination with another student who will take the examination;

• divulging the contents of an examination, for the purpose of preserving questions for use by another, when the instructors has designated that the examination is not to be removed from the examination room or not to be returned or to be kept by the student; • substituting for another person, or permitting another person to substitute for oneself to take a course, a test, or any course-related assignment;

• paying or offering money or other valuable thing to, or coercing another person to obtain an unadministered test, test key, homework solution, or computer program or information about an unadministered test, test key, home solution or computer program;

• falsifying research data, laboratory reports, and/or other academic work offered for credit;

• taking, keeping, misplacing, or damaging the property of The University of Texas at Tyler, or of another, if the student knows or reasonably should know that an unfair academic advantage would be gained by such conduct; and

• misrepresenting facts, including providing false grades or resumes, for the purpose of obtaining an academic or financial benefit or injuring another student academically or financially.

ii. "Plagiarism" includes, but is not limited to, the appropriation, buying, receiving as a gift, or obtaining by any means another's work and the submission of it as one's own academic work offered for credit.

iii. "Collusion" includes, but is not limited to, the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any section of the rules on scholastic dishonesty.

iv. All written work that is submitted will be subject to review by plagiarism software.

UT Tyler Resources for Students

- UT Tyler Writing Center (903.565.5995), writingcenter@uttyler.edu
- UT Tyler Tutoring Center (903.565.5964), <u>tutoring@uttyler.edu</u>
- The Mathematics Learning Center, RBN 4021, this is the open access computer lab for math students, with tutors on duty to assist students who are enrolled in early-career courses.
- UT Tyler Counseling Center (903.566.7254)

Revised 1/18