

THE UNIVERSITY OF TEXAS AT TYLER

DEPARTMENT OF COMPUTER SCIENCE

COSC 5364 CYBER RISK ANALYSIS

Instructor: Dr. Tom Roberts

Course Number: COSC 5364

Course Location: Online

Office: BUS 315:09

Office Hours: Daily Online by appointment. By email on daily basis.

Course Title: Cyber Risk Analysis

First Day of Class is Monday, May 9, 2022

Last Day to Withdraw for Summer 7-Week Session is June 10, 2022

Final Exam Date: Due Date June 25 – 11:59 p.m.

Course Description: Topics covered will include risk analysis basics, Assessment, Evaluation, Red Teaming.

Course Learning Objectives: To prepare students to be able to conduct Cyber Risk Analysis. Students should be able to understand Security Risk Assessment Basics, Security Risk Assessment Preparation, Security Risk Analysis, and Security Risk Mitigation

Text: Fundamentals of Information Systems Security, Fourth Edition

David Kim; Michael G. Solomon, PhD, CISSP, PMP, CISM

ISBN: 9781284220735 © 2023 550 pages

Selected Topics:

- Detailed Security Risk Analysis
- Contingency Planning
- Security Auditing
- Security Risk Assessment Basics
- Security Risk Assessment Preparation
- Security Risk Analysis
- Security Risk Mitigation

Grading and Evaluation

- 480 pts– Examinations
- 300 pts– Assignments
- 300 pts– Reading Quizzes
- 120 pts – HIPAA Project

Grading and Evaluation

A= 1080.00 - 1200.00

B=960.00 - 1079.99

C=840.00 - 959.99

D=720.00- 839.99

F= 719.99 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: Attendance is mandatory and attendance records will be kept. Notify the professor in advance if you must miss a class, be late for a class or leave early. The instructor should be notified in writing of all university excused absences prior to the affected date(s). 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 Schedule

Week 1

Assessment Module 1

Kim and Solomon Chapter 4 Business Drivers of Information Security

Week 2

Assessment Module 2

Kim and Solomon Chapter 3 Risks, Threats and Vulnerabilities

Week 3

Assessment Module 3

Kim and Solomon Chapter 6 Access Controls

Midterm Exam

Week 4

Evaluation Module 1

Kim and Solomon Chapter 7 Cryptography

Week 5

Evaluation Module 3

Kim and Solomon Chapter 8 Malicious Software and Attack Vectors

Week 6

Red Teaming Module

Kim and Solomon Chapter 9 Security Operations and Administration

Week 7

Final Exam Due June 25, 2022 11:59 pm

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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 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)
- UT Tyler 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 military-affiliated 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).

- FERPA:

UT Tyler follows the Family Educational Rights and Privacy Act (FERPA) as noted in University Policy 5.2.3. The course instructor will follow all requirements in protecting your confidential information.

- Recording of Class Sessions:

Class sessions may be recorded by the instructor for use by students enrolled in the course. Recordings that contain personally identifiable information or other information subject to FERPA shall not be shared with individuals not enrolled in the course unless appropriate consent is obtained from all relevant students. Class recordings are reserved only for the use of students enrolled in the course and only for educational purposes. Course recordings should not be shared outside of the course in any form without express permission.

- Absence for Official University Events or Activities:

All courses follow the practices related to approved absences as noted by the Student Manual of Operating Procedures (Sec. 1 -501).

- Absence for Religious Holidays:

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

- Campus Carry:

We respect the right and privacy of students who are duly licensed to carry concealed weapons in all courses. 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>.