CSCI, 489, 62B, Tech. Comm. for Computer Professionals
COURSE SYLLABUS: Spring 2021

INSTRUCTOR INFORMATION

Instructor:	Dr. Srujan Kotikela
Office Location:	ACB1-306
Office Hours:	Email or by appointment
Office Phone:	979-317-3429
Office Fax:	NA
University Email Address:	srujan.kotikela **at** tamuc **dot** edu
Preferred Form of Communication**:**	**EMAIL subject must contain** *Spring 2021 - (CSCI-489-62B)*
Communication Response Time:	Email response within 1~2 business days

COURSE INFORMATION

Materials – Research articles, Standards specifications, Open Source Software, Supplementary Readings

Textbook(s) Recommended:
   NONE

Course Description

This course will provide an overview of Decentralized Identity and Access Control Management (IAM). It will include study and analysis of various approaches to Decentralized IAM using Blockchain, Semantic Web, Modern Cryptography, and Open Standards like OAuth and OpenID.

Prerequisites: COSC 2336.

The *syllabus/schedule are subject to change.*

Student Learning Outcomes

After taking this course, students should be able to:
1. Understand the purpose, design, and utility of IAM.
2. Identify, adapt, and deploy appropriate cryptographic techniques for IAM.
3. Compare and discuss the benefits of Centralized IAM and Decentralized IAM.
4. Deploy and configure IAM infrastructure suitable for practical use cases.
5. Design and analyze a secure IAM leveraging the latest technologies and open standards. COURSE REQUIREMENTS

Minimal Technical Skills Needed

Programming fundamentals, reading comprehension, and technical writing.

Instructional Methods

This is a web assisted course (or a web based course for section 01W) which will require you to have a PC and access to the internet. You can also access this course in any computer lab on campus.

Student Responsibilities or Tips for Success in the Course

Instructor Availability:
To communicate with me about this course you are to use the email address on this syllabus. Please include the course number/name in the beginning of the subject field for every email message (**see the top of the first page of this syllabus for more information**). **Email messages that are missing this information are likely to be automatically redirected to a folder the instructor will seldom check, or will possibly be deleted**. During the week, you can generally expect a response to your emails within a day, though sometimes it may take longer. I do not normally log on over the weekends and check email. If you email me a question on Friday afternoon, I may not read that email until Monday morning. You can also call me at my office (prefer an email) or stop by my office during office hours.

Unless otherwise specified, all assignments are individual assignments, and thus must be completely the original work of the student submitting them.

Sharing Your Work - instructor
All work produced by students may be shared by the instructor with the class for purposes of example and training. Such work will be as anonymous as possible. Finally, the instructor may share your work anonymously with future classes or in his own writing and research.

The *syllabus/schedule are subject to change.*

Submitting Assignments:
Unless special instructions are provided, assignments are *NOT* to be posted on any discussion board. Your completed work must be placed in the appropriate *Dropbox* in D2L Online. DO NOT EMAIL ME ANY ASSIGNMENTS AS THEY WILL BE DELETED. Please follow the rules for naming and posting assignments.

Term Paper: You will need to write a term paper discussing Decentralized IAM approaches of your choice with a detailed analysis and comparison with other approaches.

Project: There is a coding project associated with this course and assignments. This project will be developed throughout the semester over several iterations. All the code should be properly versioned and documented as required for the associated assignments. Only code submitted via the version control system will be evaluated. Any project that lacks version history and revisions will lose points.

Late Work:
All assignments are due at the time specified. **Please keep in mind that no late work will be accepted without penalty.** If an assignment is turned in after the due date, **50%** of the grade will be forfeited for 1 day late and **75%** of the grade will be forfeited to 2 days late. **No assignment will be graded if submitted 3 or more days after it is due**. *An assignment must be submitted within 2 days of the due date if you want it graded*. If you have a problem, submitting an assignment on time you should contact me before the due date.

Cheating on Exams and assignments
Students who share information about answers on the exams and assignments or receive assistance from external sources during the exam or for an assignment will receive a zero grade for the exam/assignment.

Plagiarism is not permitted in this course and will result in a zero grade for the assignment and or failure in the course. Plagiarism occurs when a writer [1] copies verbatim from an author without quotation or attempts to disguise the act by selective omissions or alterations; [2] paraphrases from an author without naming the source in the text of the paper or providing a list of references at the end; [3] turns in a paper written by somebody else. As a point of academic integrity (see below), you are required to submit original material of your own creation. Plagiarism of any material is a serious offense and, if established with sufficient evidence, can result in failure of the course or dismissal from the university.

The *syllabus/schedule are subject to change.*

GRADING

Final grades in this course are based on the following scale:

A = 90%-100%
B = 80%-89.9%
C = 70%-79.9%
D = 60%-69.9%
F = 59.9% or Below

Assessments

Your Final Grade Distribution is as follows:

Assessment	Percent of Final Grade
Class participation	10%
Assignments	30%
Term Paper	30%
Coding Project	30%
Total	100%

There will be writing assignments and an exam. These methods are used to assess learning objectives (LO) and related level of learning.

Specific instructions for all assignments are located on D2L. They must be submitted on their respective due dates and times. After completing each assignment, go to the D2L and upload the file.

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:
https://community.brightspace.com/s/article/Brightspace-Platform-Requirements

LMS Browser Support:
https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

YouSeeU Virtual Classroom Requirements:
https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-System-Requirements

The *syllabus/schedule are subject to change.*

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu.

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your Instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

https://community.brightspace.com/support/s/contactsupport

Interaction with Instructor Statement

See Above

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

See Above

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

The syllabus/schedule are subject to change.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook.
http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum:
https://www.britannica.com/topic/netiquette

TAMUC Attendance

For more information about the attendance policy please visit the Attendance webpage and Procedure 13.99.99.R0.01.
http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf

Academic Integrity

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

Undergraduate Academic Dishonesty 13.99.99.R0.03

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf

Graduate Student Academic Dishonesty 13.99.99.R0.10

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf

Students with Disabilities-- ADA Statement

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 disabilities. If you have a disability requiring an accommodation, please contact:

The *syllabus/schedule are subject to change.*

Office of Student Disability Resources and Services
Texas A&M University-Commerce
Gee Library- Room 162
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
Email: studentdisabilityservices@tamuc.edu

Website: Office of Student Disability Resources and Services

http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/

Nondiscrimination Notice

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

COURSE OUTLINE / CALENDAR

Part I: Introduction to IAM
1. Purpose and practice of Identity and Access Management
2. OAuth and OpenID implementation

Part II: SOLID IAM Platform
1. Introduction to Semantic Web Technologies
2. SOLID Web Platform
3. POD, Web ID, and Web Authentication

Part III: Term Paper

Part IV: Block Chain Based IAM
1. Distributed Ledger Technology
2. Decentralized Identity Foundation
3. Sidetree and Universal resolver

Part V: Coding Project

The syllabus/schedule are subject to change.