

The Counseling Center at A&M-Commerce, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit [www.tamuc.edu/counsel](http://www.tamuc.edu/counsel)



## CSCI, 489, 01W, Progressive Web Apps

COURSE SYLLABUS: Fall 2021

### INSTRUCTOR INFORMATION

Instructor:	Dr. Srujan Kotikela, Assistant Professor
Office Location:	ACB2 #210
Office Hours:	Tuesday & Thursday 9AM – 12PM, Other times by appointment
Office Phone:	979-317-3429
Office Fax:	N/A
University Email Address:	srujan <b>dot</b> kotikela <b>at</b> tamuc <b>dot</b> edu
Preferred Form of Communication:	<b>EMAIL subject must contain</b> <i>Fall 2021 - (CSCI-489-01W)</i>
Communication Response Time:	Email response within 1~2 business days

### COURSE INFORMATION

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

Textbook(s) Recommended: NONE

### Course Description

This course will provide a hands-on introduction to Progressive Web Applications (PWA). It will include study of various web technologies to develop, deploy, and distribute progressive web applications. These technologies will include standard web technologies (HTML5, CSS3, JavaScript) along with app manifests, service workers, application shell, dynamic content, and cache.

Prerequisites: COSC 2336.

## Student Learning Outcomes

After taking this course, students should be able to:

1. Understand the purpose, design, and utility of PWA.
2. Identify, adapt, and use appropriate web development techniques for PWA.
3. Design and analyze web application technologies and frameworks for PWA.
4. Create, test, deploy, and distribute a PWA for practical use cases.

## 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 (future) 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.

## 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%
Documentation	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](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>

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## **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](mailto: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.

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## 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:

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## **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](mailto: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 PWA

1. What are Progressive Web Applications
2. Components of PWA

#### Part II: Designing a PWA

1. Web application (HTML, CSS, JavaScript)
2. App manifest, service worker, application shell, dynamic content, cache

#### Part III: Creating a PWA

1. Design and create a web application
2. Converting a web application into a PWA
3. Using PWA frameworks

#### Part IV: Deploy and distribute PWA

1. Make the PWA installable
2. Enable offline mode, and caching of static and dynamic assets
3. Make PWA multiplatform to run on desktop and mobile OS

#### Part V: Implement CRUD operations

1. Create new data records
2. Read existing data records
3. Update existing data records
4. Delete existing data records

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