



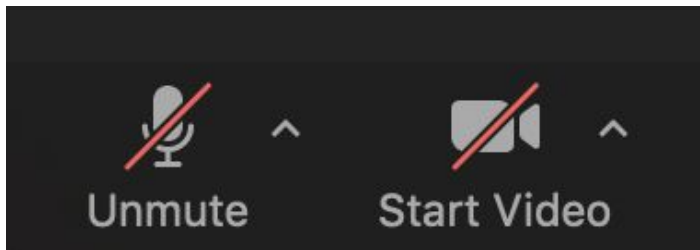
**Professional Certificate in
Coding: Full Stack
Development with MERN**
Welcome Webinar



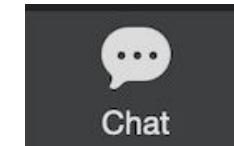
Zoom Best Practices

Audio & Video

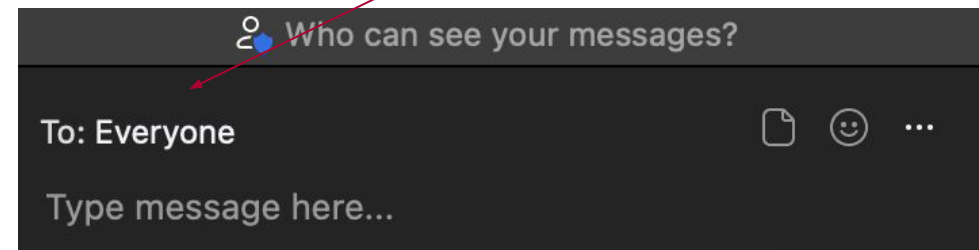
You may keep your camera on or off, but please keep your microphone muted when others are speaking



Use the **Chat** feature to ask questions throughout the presentation and to get to know each other!



Select **everyone** to make sure everyone can see your questions and comments



Agenda

1

Introductions

Learning Facilitator
Learning Support Specialist
Faculty

2

Learning Journey

Program Details & Office Hours
Program Overview & Outcomes
Graded Program Elements
Completion Requirements

3

Career Support

Career Coach Introduction

4

Canvas & Administrative Matters

Canvas Walkthrough
Administrative Matters

01 Introductions

01

INTRODUCTIONS: Learning Facilitator



Ghani Zahid

How I will interact with you:

- Hold office hours every week
- Host 30 min. 1:1 consultations near the end of the program regarding your capstone project
- Grade capstone assignments at the end of the course

01

INTRODUCTIONS: Learning Support Specialist



Manali Dubal

How I will interact with you:

- Answer your questions via Canvas Q&A tool and/or via support tickets
 - Within 24 hours M-F
 - 48 hours during weekends

01

INTRODUCTIONS: Faculty



JOHN R. WILLIAMS

Professor of Information
Engineering in MIT Department of
Civil and Environmental
Engineering



ABEL SANCHEZ

Research Scientist and Executive Director of
MIT's Geospatial Data Center

02 Learning Journey

02

LEARNING JOURNEY: Overview

Program Details

- **Modules Released:** Every **Thursday**
- **Office Hours:** Mondays at 6 pm ET/11 pm UTC
- **1:1s with Learning Facilitator:** July 10 - July 23, 2025
- **Break Weeks:**
 - December 19, 2024 - January 1, 2025 (Holiday Break)
 - February 13 - February 19, 2025
 - April 3 - April 9, 2025
 - May 22 - May 28, 2025

02 LEARNING JOURNEY: Outcomes

Market-ready developer skills, from front to back.

By the end of this program, you'll have the foundations to work confidently in the MERN technology stack, which is a popular JavaScript stack that is used for a smooth, ultra-efficient development process.

MERN consists of four different open-source components: **MongoDB, Express, React, and Node.js**. These components provide the end-to-end framework support for developers, and you will become well versed in them.

Key takeaways from this program include:

- Apply three web development languages: HTML, CSS, and JavaScript
- Build, test, and deploy a front-end web application using React
- Build, test, and deploy APIs
- Build, test, and deploy a web application using the MERN stack
- Create a GitHub portfolio of your work to present to potential employers

02 LEARNING JOURNEY

This program will be presented in three parts:

Part 1: Web Development	Part 2: Front-End Development	Part 3: Back-End Development
<p>In Part 1, you will develop foundational skills in web development with JavaScript, HTML, and CSS.</p> <p>You'll also create your own personal portfolio in GitHub, which you will add to as you progress through the program.</p>	<p>In Part 2, you will dive into front-end development.</p> <p>You will write clean, concise code with JavaScript ES6 and will use these skills to work with web components in React.</p> <p>You will also learn how to build React applications and how to test and deploy them.</p>	<p>In Part 3, you'll work on back-end development.</p> <p>You will work with MongoDB, Express.js, and Node.js to become confident in the MERN stack.</p> <p>You will learn the essentials for working in the cloud, automated testing, and deployment for a solid foundation in DevOps.</p>

02 LEARNING JOURNEY: Program Calendar

Module	Topic
0	Program Orientation
Holiday Break Week	
Holiday Break Week	
1	Getting Started with Web Development
2	Website Layouts
3	Introduction to JavaScript
4	Control Structures, Functions, and Data Structures
5	Advanced JavaScript: Arrays, Functions, Scopes, and Modules
6	The Document Object Model
Break Week	

02 LEARNING JOURNEY: Program Calendar

Module	Topic
7	Callback Functions and the DOM
8	Fetching Data and Recursive Functions
9	Creating a GitHub Portfolio
10	Introduction to Cybersecurity and ES6
11	Introduction to React and JSX
12	Objects in React and JSX
Break Week	

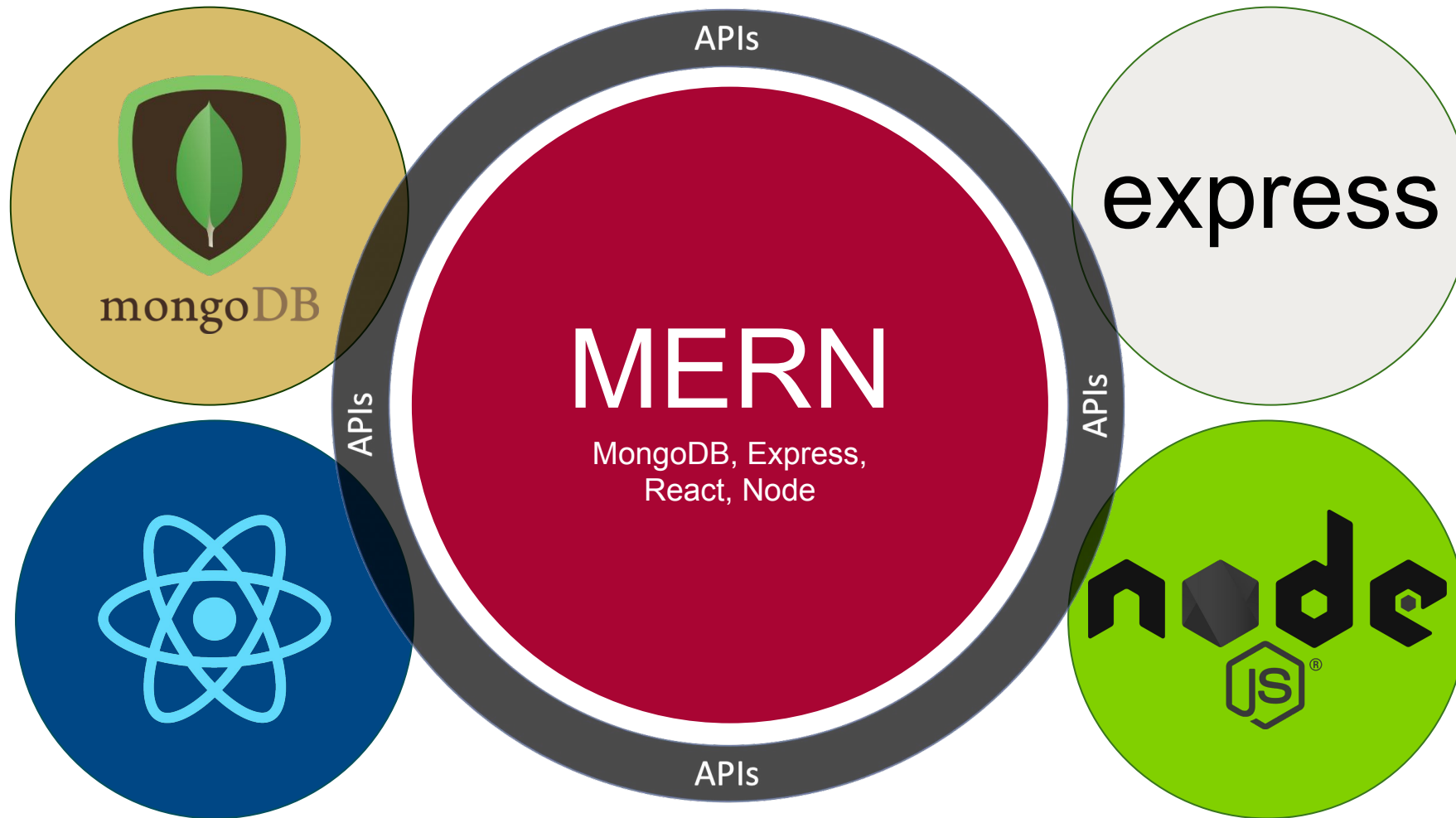
02 LEARNING JOURNEY: Program Calendar

Module	Topic
13	Working with Forms and CRUD Operations in React
14	Components in React
15	Fetching Data and Routing
16	Contexts and the Bad Bank Challenge
17	Back-End Development and Databases
18	Handling Databases
Break Week	

02 LEARNING JOURNEY: Program Calendar

Module	Topic
19	Working with APIs
20	Swagger and the Holy Grail of Web Design
21	Containers and Docker
22	Serverless Databases
23	Advanced Security and Testing
24	Continuous Integration, Continuous Deployment, and DevOps
25	Building a Full-Stack Application Using Next.js: Front-End
26	Building a Full-Stack Application Using Next.js: Back-End

02 LEARNING JOURNEY: Tools and Resources



02 LEARNING JOURNEY: Tools and Resources

You will also use the following applications throughout the program and should familiarize yourself with them as soon as possible.

Tutorials for each will be found in the Program Orientation module on Canvas.

- **VS Code:** Visual Studio Code is an easy-to-use code editor. It is perfect for coding beginners. It provides features debugging, task running, and version control. It provides simple tools for quick code–build–debug cycle.
 - *Complete tutorial before Module 1*
- **Codio:** Codio is a “helper” platform where you will complete assignments. As you practice writing code, you will be able to check your progress, and Codio will tell you whether your code is correct or, if necessary, describe any errors.
 - *Complete tutorial before Module 1*
- **CodePen:** CodePen is a simple-to-use collaboration application for coders. In this program, you will use CodePen to provide simple tasks to practice before you try coding on your own.
 - *Complete tutorial before Module 2*
- **GitHub:** GitHub is a web-based platform and service that offers a collaborative environment for software development and version control.
 - *Complete tutorial before Module 9*

02

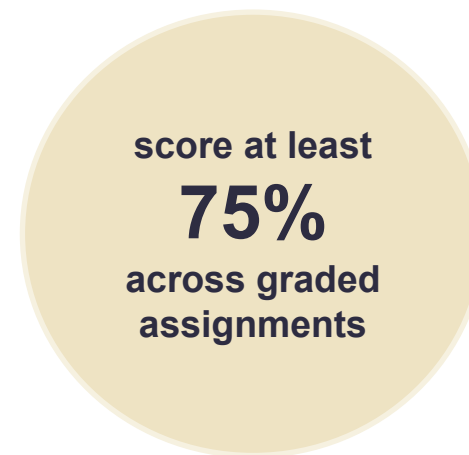
LEARNING JOURNEY: Graded Program Elements

	Required Discussions	Assignments	Cumulative Assignments	Capstone Project
Objective	Assess your understanding of the content and share your thoughts with your peers	Practice foundational coding skills before completing the end-of-the-week coding assignment	Demonstrate coding skills learned throughout the week	Develop a fully functional website using the MERN Stack to showcase your front-end and back-end skills
How many?	0-1 per module	4-8 per module	1-2 per module	1
Graded	Yes	Yes	Yes	Yes

02

LEARNING JOURNEY: Completion Requirements

Categories	Weight
Discussions and Knowledge Checks	30%
Assignments (including Cumulative Assignments)	35%
Capstone Project	35%



Calculate your score as:

$$\frac{\text{Earned points}}{\text{Available points}} \times \text{Proportional weighting}$$

02 LEARNING JOURNEY: Exemplary Assignment Badges

Special Recognition for Your Excellent Work

Our Grading Team will be awarding badges recognizing exemplary work on selected assignments in this program. We encourage you to share your badges on your professional social media to be recognized for your achievement.

Please note:

- Only on-time submissions will be considered for exemplary assignment badges
- Badges will be awarded for work that exceeds the requirements of the assignment or activity
- There is no maximum number of badges to be awarded
- Badges have no bearing on the completion requirements. No extra points will be awarded or deducted.

In this program, badges will be awarded for the following assignments:

- Required Assignment 9.2, Required Assignment 17.3, Required Capstone Project 25.2, Required Capstone Project 25.5, Required Capstone Project 26.4, Required Capstone Project 26.6



02 LEARNING JOURNEY: How to be a Successful Learner

GENERAL TIPS AND STRATEGIES

- Use a calendar and commit, at a minimum, 15-20 hours per week to this course.
- This is largely self-directed learning. What you put in will impact what you get out of the course.
- You will occasionally need to seek out external resources. Yes, that means Googling topics.
- Use the Canvas Q&A tool and support tickets when seeking help; the Canvas inbox is NOT monitored.
- Make sure @emeritus.org emails are not being sent to the spam folder.

03 Career Support

03 CAREER SUPPORT: Introduction



Carlos B. Martini
Career Coach

<https://www.linkedin.com/in/carlosbmartini/>
carlos.baldizonmartini@emeritus.org

Career Services Resources Offered:

- Career exploration
- Job search strategies
- Resume writing and cover letters
- Networking and LinkedIn
- Negotiating
- Interview prep and practice

03

CAREER SUPPORT: Recommendations

- Have your resume and LinkedIn ready
- Start researching positions now
- Create a list of targeted companies
- Network, network, network!
- Practice interviewing before your interview
- Connect with your Career Coach
- [Emeritus Career Center](#)



*Emeritus Career Center
Access Form*

https://join.slack.com/t/careerservice-tcj2984/shared_invite/zt-2uc0p0jxf-Kvwq4NLW990Lof_Qfv1zTg

*Career Services
Slack Workspace*

04 Canvas & Administrative Matters

04

CANVAS: Homepage



Professional Certificate in Coding: Full Stack Development with MERN - June 2024



Account



Dashboard



Courses



Calendar



Inbox



Help

Home

Course Dashboard

Announcements 0

Support

Modules

Classmates

Assignment Extension

My Grades

People

Q&A

Live Sessions

Peer-to-Peer Learning

Professional Certificate in Coding: Full Stack Development with MERN



04 CANVAS: Course Dashboard



Professional Certificate in Coding: Full Stack Devel... > Course Dashboard

- Account
- Dashboard
- Courses
- Calendar
- Inbox
- Help

- Home
- Course Dashboard
- Announcements 0
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< Orientation Week 1 Week 2 Week 3 Week 4 Week 5 Week 6 We >

Program Orientation

JUN 25, 2024 1:00 PM UTC - JUL 2, 2024 1:00 PM UTC

Resume

6 out of 11 module activities complete.

THIS MODULE DOES NOT CONTAIN ANY ACTIVITIES REQUIRED FOR CERTIFICATE.

Pre-Program Participant Expectations

JUN 25, 2024 1:00 PM UTC - JUL 2, 2024 1:00 PM UTC

04

CANVAS: Q&A Feature

[Home](#)
[Announcements](#)
[Modules](#)
[Live Sessions](#)
[Grades](#)
[Q&A](#)
[Assignment Extension](#)
[Classmates](#)
[People](#)
[Support](#)

Account
 Dashboard
 Courses
 Calendar
 Inbox

Assignment 1.1

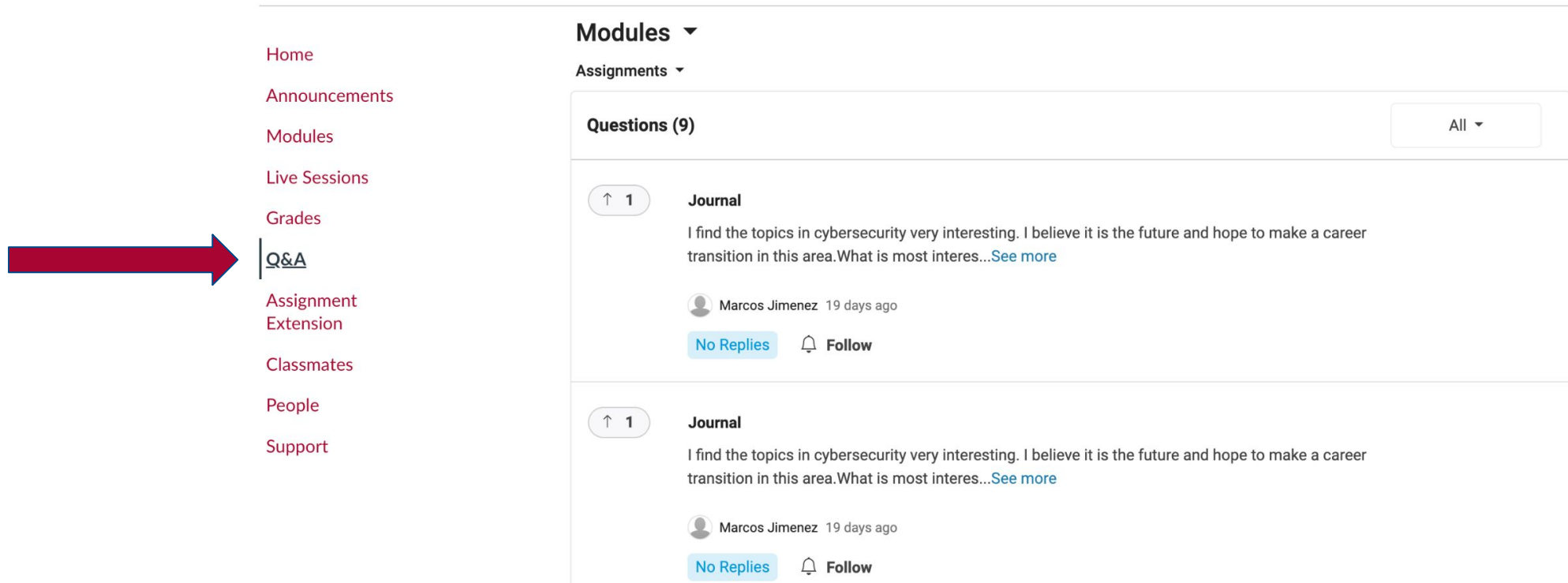
Criteria	Ratings			Pts
Protect, Detect, Respond, and Recover	20 pts Excellent The learner's submission addressed all of the principles to protect and safeguard the firm.	15 pts Proficient The learner's submission addressed two to three of the principles to protect and safeguard the firm.	0 pts Criterion Not Met The learner's submission did not address the prompt, or the learner did not submit an assignment.	20 pts
				Total Points: 20

Top Questions

Post New Question

Below each assignment page, you will be able to post a new question or comment (or respond to/comment on existing questions) about the content

04 CANVAS: Q&A Feature



Home

Announcements

Modules

Live Sessions

Grades

Q&A

Assignment Extension

Classmates

People

Support


Modules ▾


Assignments ▾

Questions (9) All ▾

↑ 1 **Journal**


I find the topics in cybersecurity very interesting. I believe it is the future and hope to make a career transition in this area. What is most interesting...[See more](#)


 Marcos Jimenez 19 days ago

[No Replies](#)  **Follow**

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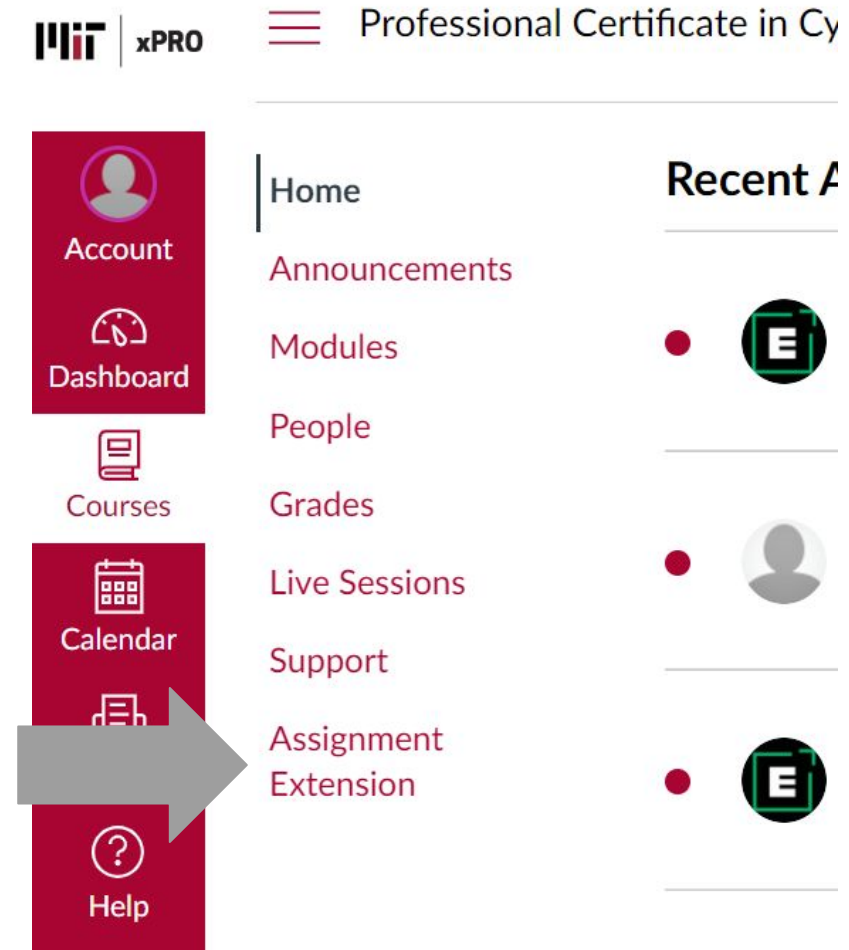
[No Replies](#)  **Follow**

You can also click on the Q&A tab in the course menu to navigate to the questions posted in each module/for each assignment

04

CANVAS: Assignment Extension

Locate the “Assignment Extension” menu bar item in your Canvas course page.



04

Administrative Matters

Assignment Grading

- Optional assignments - no submission required
- Auto-graded quizzes
- Some assignments graded by Grading Team (on Canvas)
- Some capstone assignments graded by Learning Facilitator (on Canvas)

Contacting Learning Facilitator or Learning Support Specialist

- Through attendance at Office Hours (LF)
- Post a question via Q&A tool on assignment pages (LSS)
- Submit a Support ticket, select “Understanding the content and assignment requirements” (LSS)

Questions?

As we field questions, take a moment to scan the code to complete the
Emeritus Career Center Access Form.



*Emeritus Career Center
Access Form*