

# Exploring Innovative Models for Microcredentials in Higher Education

Digital Credentials Roundtable

April 2023



# Presenters



**Andrew Sedillo**

Instructional Design Lead  
New Mexico State University



**Claire Sullivan**

Assistant Vice Chancellor for Innovation  
in Digital Badges and Micro-Credentials  
University of Maine System



**Tim Thomas**

AVP, Academic Affairs  
Mohawk Valley Community College



**Kelly Hoyland**

Director, Higher Education Programs  
1EdTech



# The University of Maine System Micro-Credential Initiative

**Claire Sullivan, Ph.D.**

Assistant Vice Chancellor for Innovation in Digital  
Badges and Micro-Credentials



# Background

- 01 UMaine Engaged Black Bear; MSOL
- 02 BOT Strategic Priorities, UMS ADC Plan, UMS Research & Development Plan
- 03 Statewide ecosystem developing via our ALC-ME work
- 04 Statewide Workforce Goals and Reports (Maine Economic Development, Maine Economic Recovery, WIOA)
- 05 UMS Strategic Plan (draft); Unified Accreditation



**Proof of concept**

**Pilot phase**

**Growing/Scaling**

# UMS Guidelines

- Collaboration
- Competency-based, Focus on Workforce Development
- Quality Assured, Assessment, Aligned to Standards
- Definitions & Unified Framework

**Decrease  
confusion about  
what a  
micro-credential  
represents**



# University of Maine System Framework



Level 1

## Introduction and Foundational

- Introduction to topic
- Foundational work needed to succeed at Level 2



Level 2

## Training and Practice

- Courses, Online Modules, Bootcamps, Certifications, Workshops, Training
- May earn micro-badges & Industry Credentials



Level 3

## Application and Feedback

- Internships
- Experiential learning/PBL/SL
- Apprenticeships
- Other Work-based learning/jobs



# Macro-badge

Micro-Credential

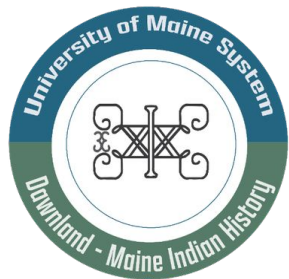


## Lead to:

- Continued learning opportunities
- Other micro-credentials
- Employment
- Promotions
- Onboard into degrees/certificates

The macro-badge indicates that the micro-credential was earned

# Micro-Badges: Flexibility



ORAL COMMUNICATION  
Education Design Lab  
issued by  
University of Maine System

- Granular skill/skill set or knowledge
- Assessment
- Stand-alone or embedded within a pathway
- Added value to courses/programs
- Internally or externally created & approved
- Industry-Recognized Certifications or Third-party badges



# Computer Support Specialist

Level 1

Level 2

Level 3

Macro Badge



# Flexibility in Skill Development



Hunter Safety, Boating Safety, ATV Safety

Wilderness First Aid

Red Cross or American Heart Association first aid/CPR

Other to be approved by 4-H staff

Lakeside Leadership I & II (Bryant Pond 4-H)

Junior Maine Guide

Leadership I, II, III (Tanglewood and Blueberry Cove 4-H)

Maine 4-H Camp and Learning Center Leadership Programs

KPE 209 Wilderness First Responder

KPE 265 Outdoor and Adventure Activities

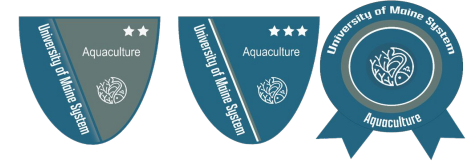
LDR 100 Foundations of Leadership

Relevant Certification



University of Maine Early College Program

# Youth Aquaculture & Aquaculture Pathway Integration



Youth Aquaculture Pathway

Aquaculture Level 1 Badge

Aquaculture Pathway

Enrollment in Youth Aquaculture Pathway

Youth Pathway completion results in Level 1 Aquaculture Badge

Level 1 badge results in Aquaculture Pathway Enrollment

# UMS Micro-Credential Development & Implementation: Training



Level 1



Level 2



Level 3



Macro Badge

## Overview

- Reflection
- Quiz

## Development

- Worksheets
- Assignments
- Meta-Data Template

## Implementation

### Issuing & Marketing

- Communication Plan
- Infographic
- Campus/Organization Website



# What We Are Working On

- Cluster Courses: Stacking toward certificates/degrees
- CPL/PLA (academic credits)
- More third-party certifications, IRCs
- Employer/Industry Partnerships
- Registration site
- Marketing/Communication
- Continuous improvement
- FUTURE: Comprehensive Learner Record



# Contact:

Claire Sullivan, Ph.D. - [claires@maine.edu](mailto:claires@maine.edu)

UMS Badging Public Page - [ums.badgr.com](https://ums.badgr.com)

UMS Micro-Credential website - <https://www.maine.edu/student-success/micro-credentials/>



# Microcredentialing & Incremental Credentialing

Tim Thomas—Chief Strategy Officer

[tthomas@mvcc.edu](mailto:tthomas@mvcc.edu)

315-792-5611



# MVCC

MOHAWK VALLEY COMMUNITY COLLEGE

Ad Hoc group presents white paper to College Senate

College Senate convenes faculty group to explore

College Senate charges ASPC to develop policy

College Senate approves micro-credential resolution

Board of Trustees approves micro-credential policy

First micro-credentials developed through NSF project & approved

Spring 2016

Fall 2016

Spring 2017

Fall 2017

Spring 2018

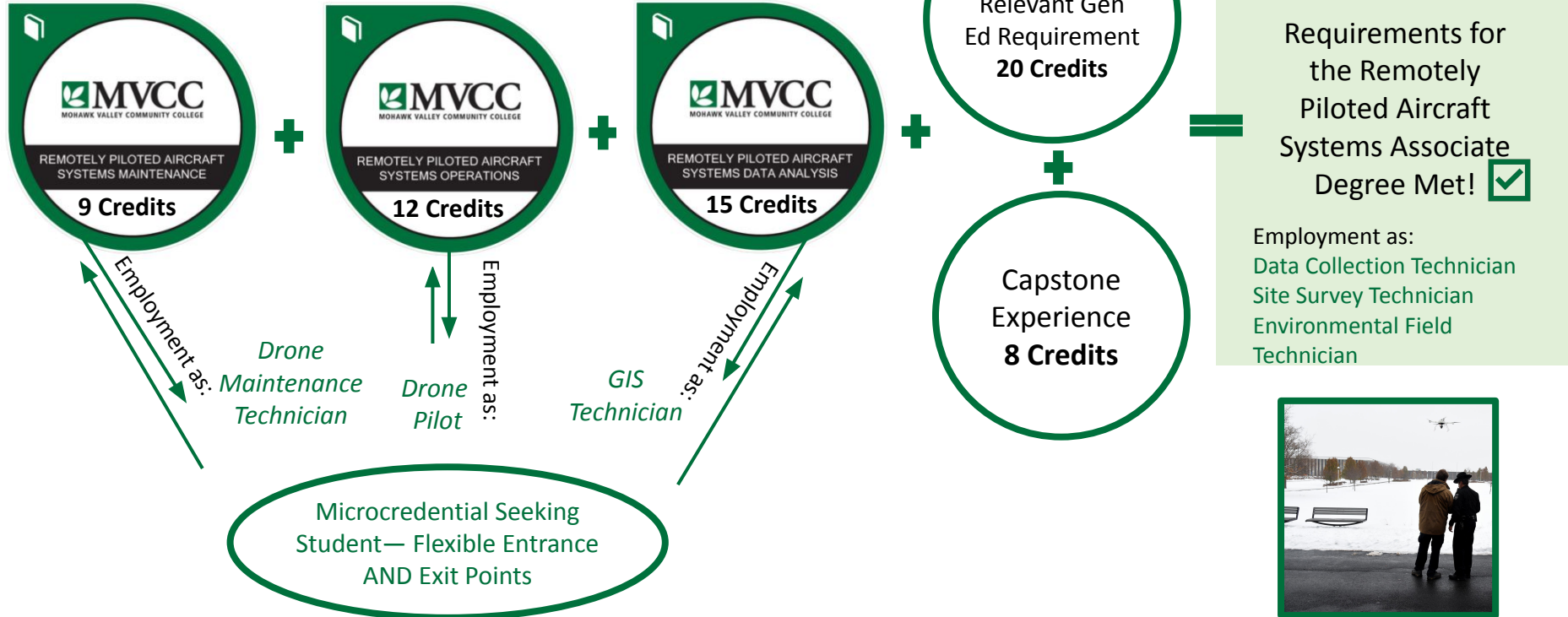
Fall 2018



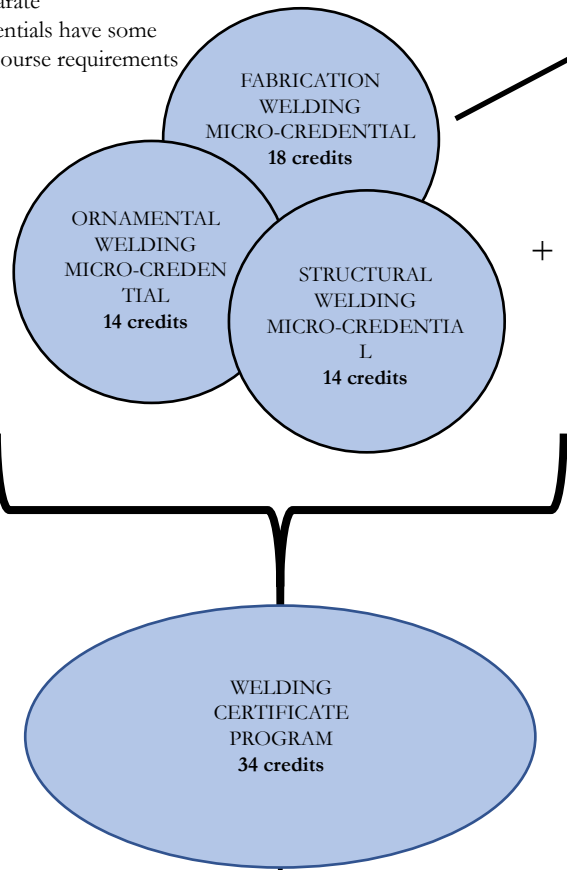
# Stackable Examples from SUNY

The National Science Foundation Funded Development of Three Remotely Piloted Aircraft System Microcredentials at SUNY's Mohawk Valley Community College (MVCC)

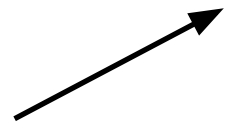
*Remotely Piloted Aircraft Systems (RPAS) Associate Degree Seeking Student Entrance Points*



\*Note: Separate micro-credentials have some overlap in course requirements



**Lead to employment as metal fabricators and ornamental & structural welders**

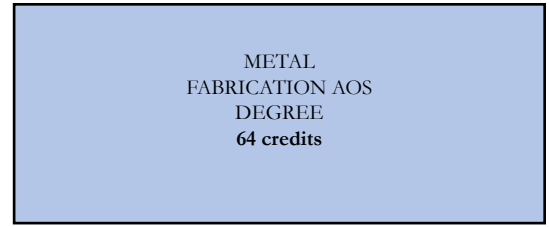


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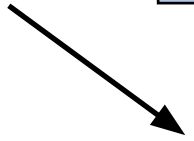


\*Note: CNC Machinist Technology certificate program shares 1-course in common with the Welding certificate program

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**Lead to employment as metal machinists and toolmakers**



13-Module, employer mandated, automation technician onboarding training

non-credit  
to  
credit  
pathway

Advanced standing in Electrical Service Technician program



Employer tuition reimbursement

Industrial Wiring Specialist Micro-credential (13-credits)

+

Motors and Controls Specialist Micro-credential (9-credits)

+

Programmable Logic Controllers Micro-credential (11-credits)

+

Mechanical coursework, math, & English (18-credits)

||

Electrical Service Technician Associate's Degree

NYSDOL Registered Apprenticeship  
Industrial Manufacturing Technician  
Trade



Electrical Theory & Modern  
Industrial Practices (9-credits)



NYSDOL Journeyworker  
credential



NYSDOL Registered Apprenticeship  
Electro-Mechanical Technician  
Trade



Industrial Controls & Mechanical  
Coursework (23-credits)



2<sup>nd</sup> NYSDOL Journeyworker  
credential & SUNY-recognized  
Mechatronics Certificate

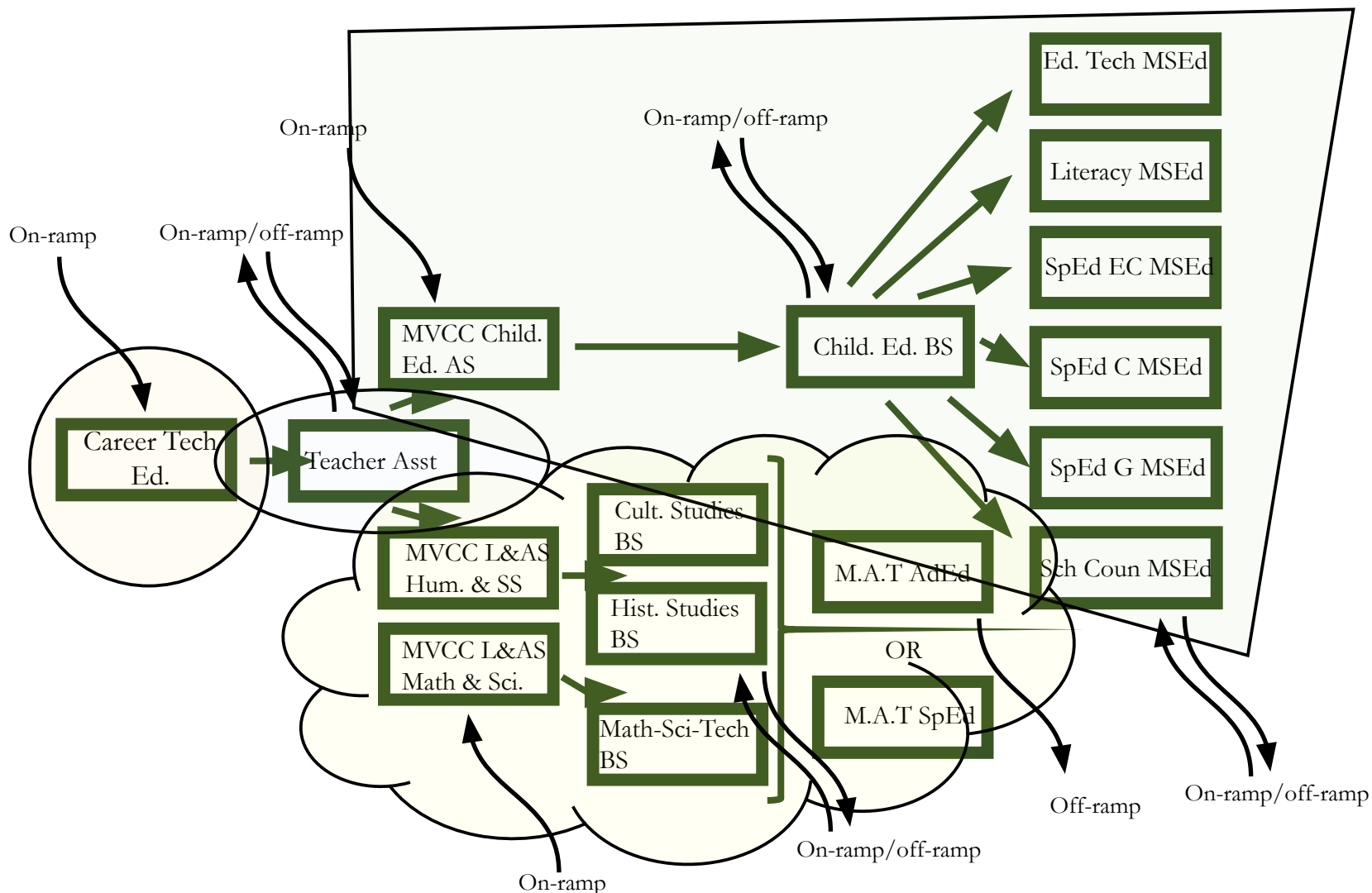


Employer tuition reimbursement

Advanced Electronics & Industrial  
Controls Coursework (32-credits)



Electrical Service Technician  
Associate's Degree





# Thank You

Tim Thomas—Chief Strategy Officer

[tthomas@mvcc.edu](mailto:tthomas@mvcc.edu)

315-792-5611

The background features two young women standing in a stadium. The woman on the left is wearing sunglasses and a dark t-shirt with a logo. The woman on the right is wearing glasses and a dark t-shirt with the word 'Aggies' written in a cursive font. The entire image is overlaid with a semi-transparent red filter. The text 'NMSU | Micro-Learning' is centered in white, with 'Andrew Sedillo' in yellow below it. At the bottom, the 'NM STATE' logo and 'GLOBAL CAMPUS' text are displayed in white.

# NMSU | Micro-Learning

Andrew Sedillo



**GLOBAL  
CAMPUS**

# About NMSU | Micro-Learning

- What is NMSU Micro-Learning
- Microcredentials Offered
- Learning Experiences
- Badging
- Teamwork Makes the Dream Work





# NMSU | Micro-Learning

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NMSU Micro-Learning is New Mexico State University's platform designed to provide relevant and flexible learning experiences that support market needs in the form of online courses using a **1 credit:1 competency learning model**. Our courses help learners develop new skills in specialized areas to support businesses that are looking to:

- Reskill, upskill, or develop new skills within their workforce.
- Recruit and retain highly skilled talent
- Reach strategic business goals
- Support growth

## MICROCREDENTIALS

Micro-credentials are qualifications that demonstrate...

★ **SKILL**

★ **COMPETENCY**

★ **ACHIEVEMENT**

★ **KNOWLEDGE**

# Micro-Learning Experiences

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**Micro-learning** is a short-term learning experience that provides essential information about a topic in engaging and practical ways.

- Micro-learning participants will **build skills in a specialized area** throughout the duration of the course and demonstrate they have mastered these skills through engaging activities and projects.
- As participants complete the course through NMSU On-Demand, they will earn micro-credentials that will be recognized through a digital badge.
- Customized length depending on necessary **engagement hours or competency attainment.**

# Storefront

The screenshot displays the NMSU On-Demand storefront. At the top, the header reads "NMSU On-Demand" with the tagline "UpSkill, Re-Skill & New Skill with Digital Badging". Below the header is a search bar and navigation links for "Categories" and "Refine". The main content area features four course cards, each with a "FREE" badge, a title, a description, a provider logo, and a "Self-paced FREE" label with a right-pointing arrow.

Course Title	Provider	Price
Canvas Student Orientation - Passport to Canvas	Academic Technology	FREE
Certified Pharmacy Technician Program	DACC	\$1,750
Introduction to Canvas	Academic Technology	FREE
NMSU-A Online Canvas Faculty Orientation Course	Alamogordo	FREE

- Alignment with degree programs.
- Tagged content, assessments, skills, competencies.
- High quality industry-driven and portable.



Digital Faculty Fellows  
Online Series

Creating a Supportive and  
Effective Learning Environment  
Through Zoom

New Mexico State University



Instructional Design Certificate

Producing Media for eLearning

New Mexico State University



## Badges

Electronic badges that allow sharing digital credentials in an industry-recognized format



## Certificates

Certificates for module, course, and program completion



## Long-life Skills

Long-life skills to apply in professional environments, to earn a promotion, or to enter a new field

# Value of the Digital Badge

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## What's the value?



Badges provide evidence of knowledge, skills, and accomplishments.



Badges recognize learning as a lifelong pursuit.




Badges can be shared on websites, blogs, social media profiles, online portfolios, and resumes


## What's in a NMSU On Demand Digital Badge?


Image with  
NMSU Brand





- ✓ Badge Name
- ✓ Description
- ✓ Earning Criteria
- ✓ Demonstrated Skills
- ✓ Standards Alignments
- ✓ Issuer & Organization
- ✓ Issued Date
- ✓ Expiration Date
- ✓ Recipient


 **Pesticide Resistances**


 **Pesticide in Aquatic Systems**

 **Soils Pesticides and Herbicides**

 **Insect Pest Management**

 **Bed Bugs**

 **New Mexico Laws and Regulations | Pre License**

 **Calibrations | Pre License**

 **Chile Pest and**

 **Pesticide Applicator Training**  
by [Digital Learning](#)  
Verified  
Published: Sep 14, 2021



Trusted By



A photograph of two women sitting on a stone ledge outdoors, looking at a tablet together. The image is overlaid with a semi-transparent red filter. The woman on the left is wearing a dark long-sleeved shirt and blue jeans, while the woman on the right is wearing a denim jacket and dark pants. They are both smiling and appear to be in a collaborative discussion. The background shows a large tree trunk and a stone building with a window.

# Teamwork Makes the Dream Work

# ID and the SME Relationship

- Instructional Designer Role
- Subject Matter Expert Role
- Collaboration
  - Audience
  - Learning Experiences
  - Future Planning



# Course Design

CRS 123

## Engage Students Online with Zoom and Canvas



Syllabus-Example Schedule-Example Modules Help & Resources

Welcome to this short course, **Engage Students Online Using Zoom and Canvas!**

This course will introduce you to research-based practices in online teaching and learning through the implementation of Zoom and Canvas technologies. Your participation in this course will not only orient you to online teaching, but it will also simulate the student experience as you participate in activities in the student role.

- Clear navigation
- Faculty engagement
- 1:1 consultation with instructional design staff
- Chunked content – ease of processing and applying

A photograph of three students sitting on concrete steps outdoors. A woman with glasses is on the left, a man is in the middle, and another man is on the right. They appear to be in conversation. The background shows a building with a large archway and some trees. The entire image has a semi-transparent red overlay.

# Interested in Learning More?

Contact:

Andrew Sedillo - [andrew10@nmsu.edu](mailto:andrew10@nmsu.edu)



**GLOBAL  
CAMPUS**



# Continuing the conversation

- [Share](#) any feedback
- [Register](#) for the next Digital Credentials Roundtable, May 22
- [Learning Impact Conference](#), June 5-8, 2023, Anaheim, CA

