

Aquaculture Workforce Development at the University of Maine

Dr. Scarlett Tudor

mary.tudor@maine.edu

Education and Outreach Coordinator

Aquaculture Research Institute



Development of Aquaculture Occupational Competencies

Need to come directly from aquaculture industry

Sea Vegetables



Shellfish



Finfish



Leading the development of these competencies for Maine



National recognition for these competencies used in Maine

Micro-credentials at the University of Maine



86% of hiring managers indicate that it is “very important” that recent graduates demonstrate the ability to apply knowledge and skills in real-world settings and only 39% think recent graduates are well-prepared to apply skills in real-world settings.



These digital badges can be shared on professional websites (e.g. LinkedIn) and employers can access information about exact requirements for each badge

Micro-credentials at the University of Maine

Level 1 Knowledge



Basic understanding of aquaculture with some basic skills proficiency

Level 2 Skills Development



Proficiency at a range of skills important to aquaculture

Level 3 Skills Proficiency



Ability to implement skills in a professional setting

Micro-credentials at the University of Maine

Adult Learner (HS and beyond) and Youth Learner (8-17) Tracks

Youth Earning Level 3 Automatically get Adult Level 1

Level 1
Knowledge



Basic understanding of aquaculture with some basic skills proficiency

Level 2
Skills Development



Proficiency at a range of skills important to aquaculture

Level 3
Skills Proficiency



Ability to implement skills in a professional setting

Micro-credentials at the University of Maine

Level 1 Knowledge



Take one of the following:

- Aquatic Animal Husbandry

OR

- Intro to Aquaculture

OR

Skills verification and training in a comparable program

Level 2 Skills Development



Take three of the following:

- Aquatic Animal Health
- Recirculating Aquaculture Systems
- Shellfish Hatcheries
- Seafood HACCP training

Developing:

- Fish Nutrition
- Sustainable Aquaculture
- Field Techniques in Aquaculture

Level 3 Skills Proficiency



Take three of the following:

- ARI Internship Program
- Work experience

Micro-credentials are earned through stacking micro-badges. Learners can decide to complete the micro-credentials in a timing that works for them

Diagnostic and Research Laboratory



Dr. Mathew Highland Food Pilot Plant



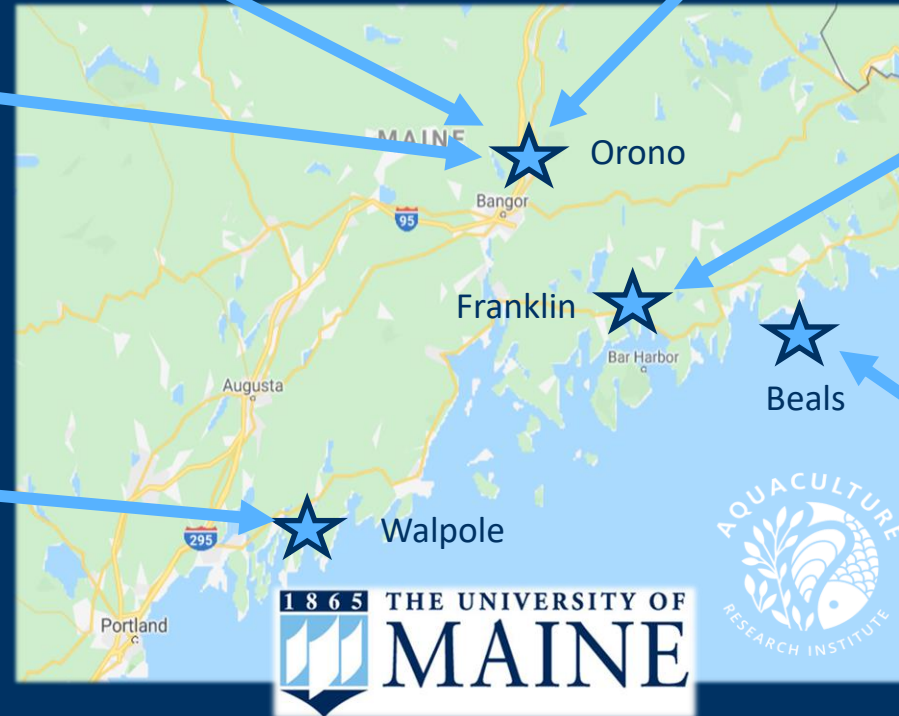
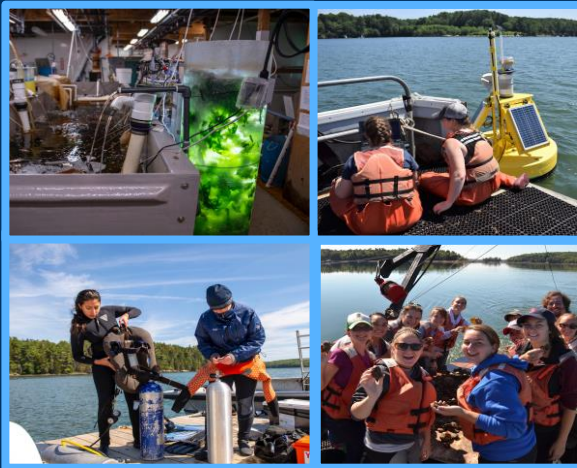
Sustainable Aq. WF and Innovation Center



Center for Cooperative Aquaculture Research



Darling Marine Center



Down East Institute



ARI's Certificate/Micro-credentials in Applied Sustainable Aquaculture

All courses are hybrid with
Online lectures and assessment materials

Virtual aspects of courses and evaluations
available to all students (professional
development and degree seeking)

Courses for credentials are “pass/fail”

RAS Course at CCAR 2020



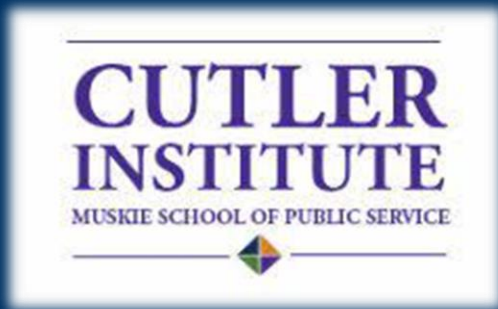
Student Engagement at DRL



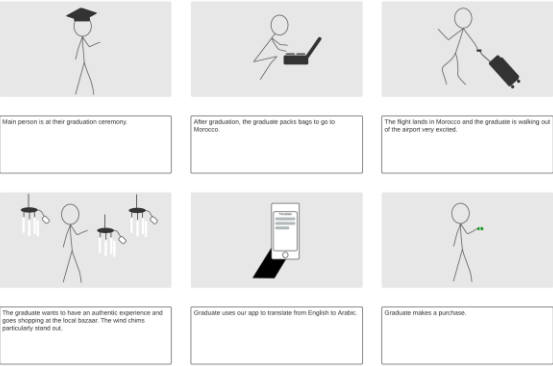
Development of an Evaluation and Program Tracking System



- Impact of the courses/workshops and internship on student competencies in aquaculture skills sets
- Ability of interns to work effectively within the aquaculture industry
- Industry partners feedback on student competencies and new skills needed in the evolving aquaculture industry



“Incorporates the use of a focus group in a facilitated storyboarding process to capture the major duties and related tasks included in an occupation including the necessary knowledge, skills, and traits”



Process

- Occupational Profile (developed by high-performing workers & managers)
- Validation and Review Process (peer and management)
- Curriculum Development (content and task analysis)

DACUM (Developing a Curriculum)