Michigan State University Forestry Department

Forest Carbon & Climate Program

Welcome! We will start in a few minutes.

MSU FCCP Mini Course:
Forest Certification and Climate Change

Michigan State University Forestry Department

Forest Carbon & Climate Program

Professional Mini Course:

Forest Certification and Climate Change

Forest Carbon and Climate Program
Department of Forestry
MICHIGAN STATE UNIVERSITY

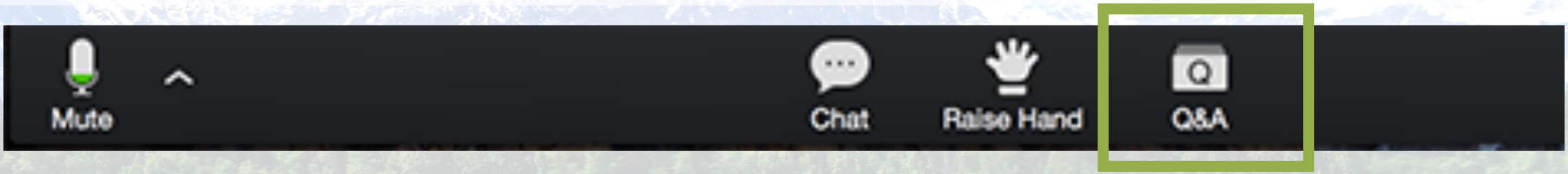
A Few Technical Details:

- Information session recording will be available on FCCP website
- If you experience any technical issues, please send us an email at forestc@msu.edu and we will respond promptly

http://canr.msu.edu/fccp

A Few Technical Details:

- Q+A
  - Submit questions using the Zoom “Q&A” feature by clicking on the icon located at the bottom of your screen.
  - We will collect all questions to answer at the end of this webinar



Agenda

Part 1 **FCCP Program Background**

Part 2 **Short Course Overview**

Part 3 **Online Learning Environment**

Part 4 **Content Preview**

Part 5 **Registration/Enrollment**

Forest Carbon and Climate Program (FCCP) Background

Forest Carbon and Climate Program
Department of Forestry
MICHIGAN STATE UNIVERSITY

FCCP Program Background

2012

Established Online

Global Participation

Updated, Adaptable Programming

Responsive to Participant Feedback

Forest Carbon and Climate Program

Certification

Carbon Storage + Emissions

Conservation

Wood Utilization + HWPs

Biodiversity

Human Dimensions

Interdisciplinary Interpretation, Analysis, and Content

Outputs

Learning materials

Interactive videos

Professional conferences

Scientific writing

Short writing pieces

Research

FCCP Program Activities

1 **Formal Education**
The Graduate Certificate in Forest Carbon Science, Policy, and Management

2 **Non- Formal Education**
Short courses, workshops, and webinars that are eligible for continuing education units

3 **Research & Projects**
Collaborative project-based work with strategic partners

4 **Stakeholder Engagement**
Meeting and event participation, published writing, engagement through the Forest Carbon & Climate Community

Program Background

- Boosting capacity for natural resource professionals
  - NGOs, governmental agencies, consultants
- Competitive edge for those in forest carbon project development, policy-making, and carbon offset investment advising
  - Industry, government actors, natural resource managers
- Interdisciplinary focus – bridging expertise silos and advancing solution-based planning

Forest Certification and Climate Change Mini Course Overview

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Forest Carbon & Climate Program

Mini-course

Forest Certification and Climate Change

Learners will develop a robust understanding of forest land values and ecologic services linking carbon management and climate change mitigation activities with forest certification.

Graduates will be able to:

1. Speak fluently and confidently about main concepts, science, and rationale behind carbon considerations in forest management
2. Develop awareness of key issues in valuing working forests for carbon sequestration
3. Incorporate climate change adaptation and mitigation strategies in forest certification standards
4. Assess climate benefits of certified sustainable harvested wood products and chain of custody tracking

Course Sections

- **Conceptual Introduction and Overview**
- **Physical Science of Forests and Climate**
- **Forest Certification and Climate Change**

Timeline

Online
Self-paced
2-3 Weeks

Audience

Landowners
Natural Resource Professionals
Conservationists
Educators
Extension Agents

Start Dates

September 9
November 4

Contact

canr.msu.edu/fccp
forestc@msu.edu

Register: https://www.canr.msu.edu/fccp/

Course Description

This mini course is offered with support from SFI as part of a collaborative research project to identify connections between forest certification and climate change mitigation and adaptation.

Overall Course Objectives

1. Speak fluently and confidently about main concepts, science, and rationale behind carbon considerations in forest management
2. Heightened awareness of key issues when managing forest carbon stocks and ways to address them
3. Ability to incorporate climate change adaptation and mitigation strategies in forest certification standards
4. Increased capacity to assess climate benefits of certified sustainable harvested wood products and chain of custody tracking

SUSTAINABLE FORESTRY INITIATIVE

Does Forest Certification = Climate-Smart Forestry?

Fundamental concepts including climate change, mitigation, carbon, and adaptation

Core considerations for managing, measuring, protecting and planning for carbon storage in forested landscapes

A broader array of best practices that provide, link to, or allow for climate benefits

Online Learning Environment

Accessing the online course, navigating online, contacts for assistance

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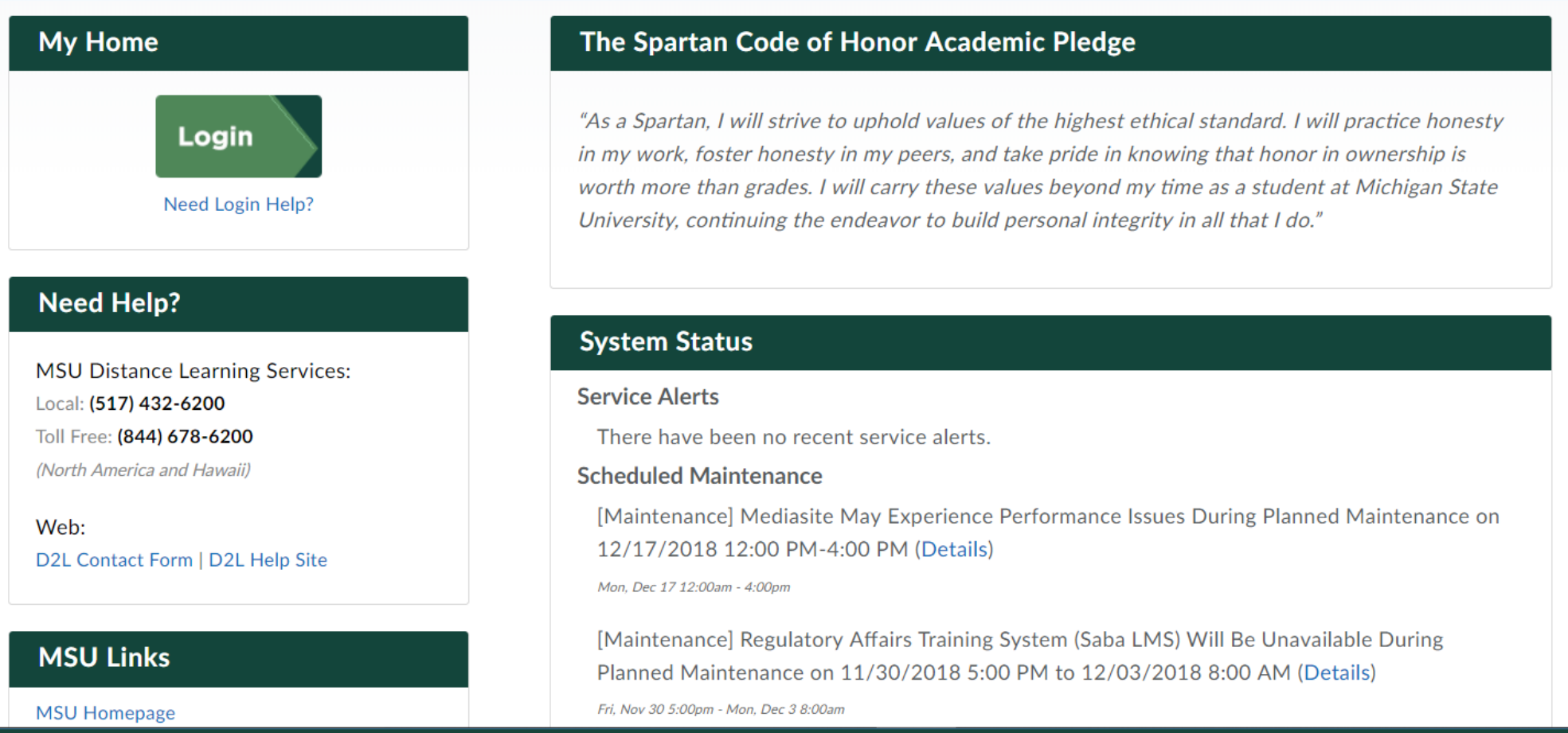
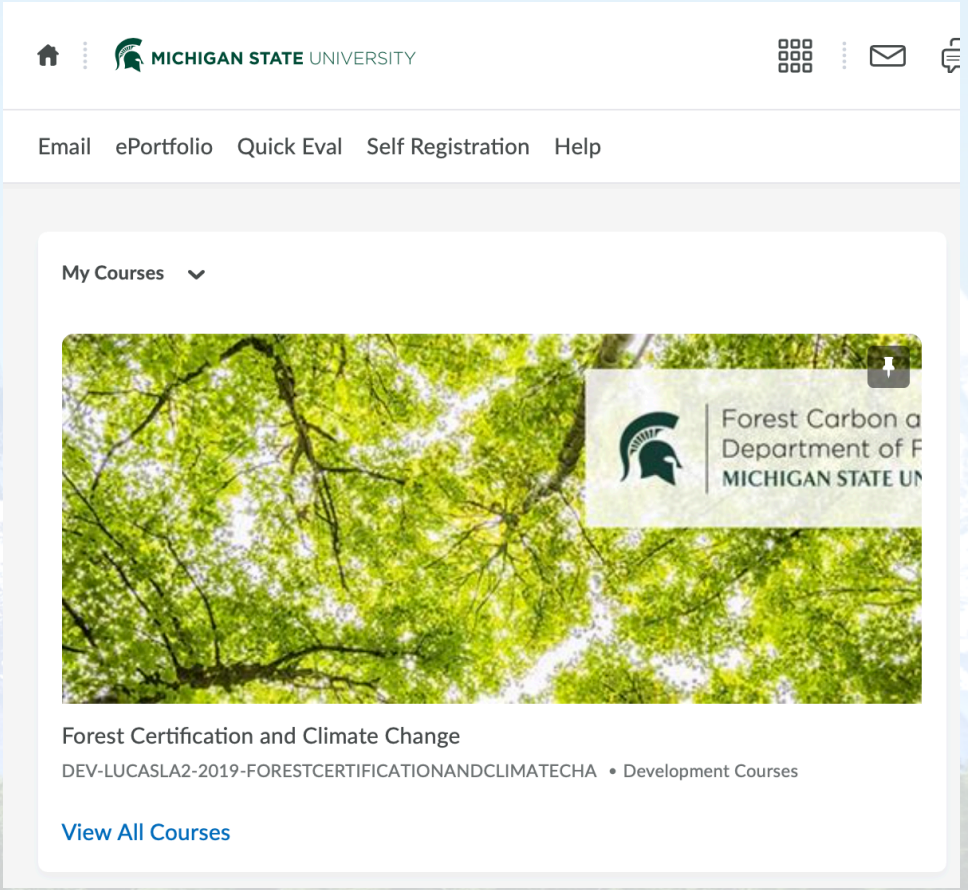
Course Delivery & Online Environment

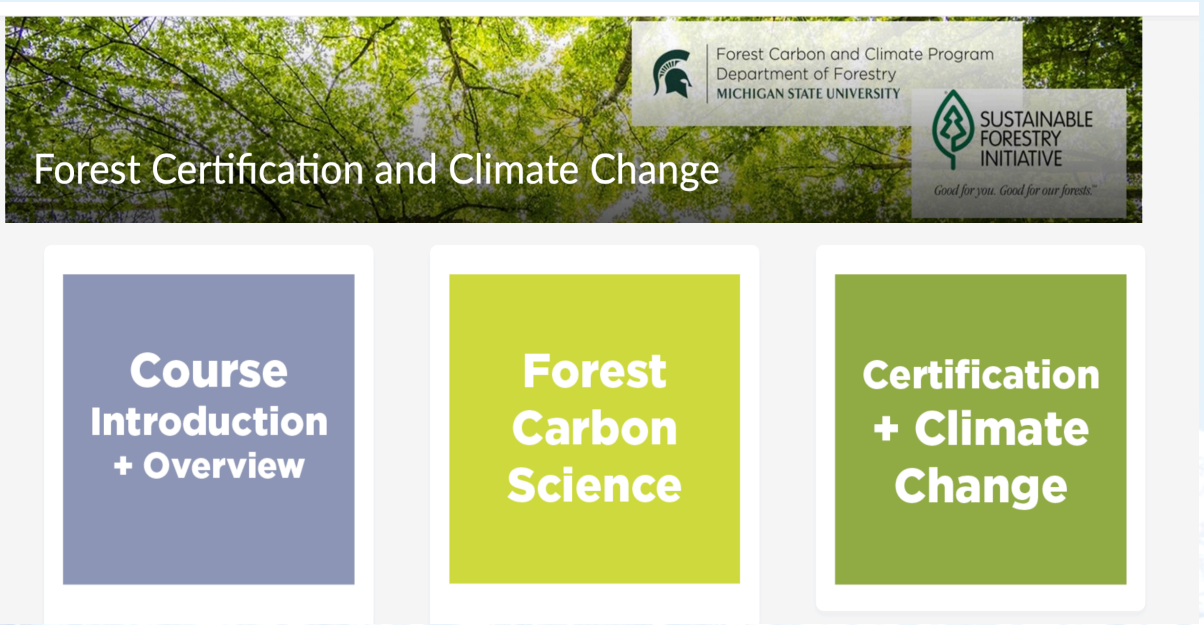


Course Delivery & Online Environment



Course Format

- This mini course consists of 3 modules with multiple sections
- Each section has a presentation, handout, terms and definitions, and suggested reading
- Completion of one section unlocks the next



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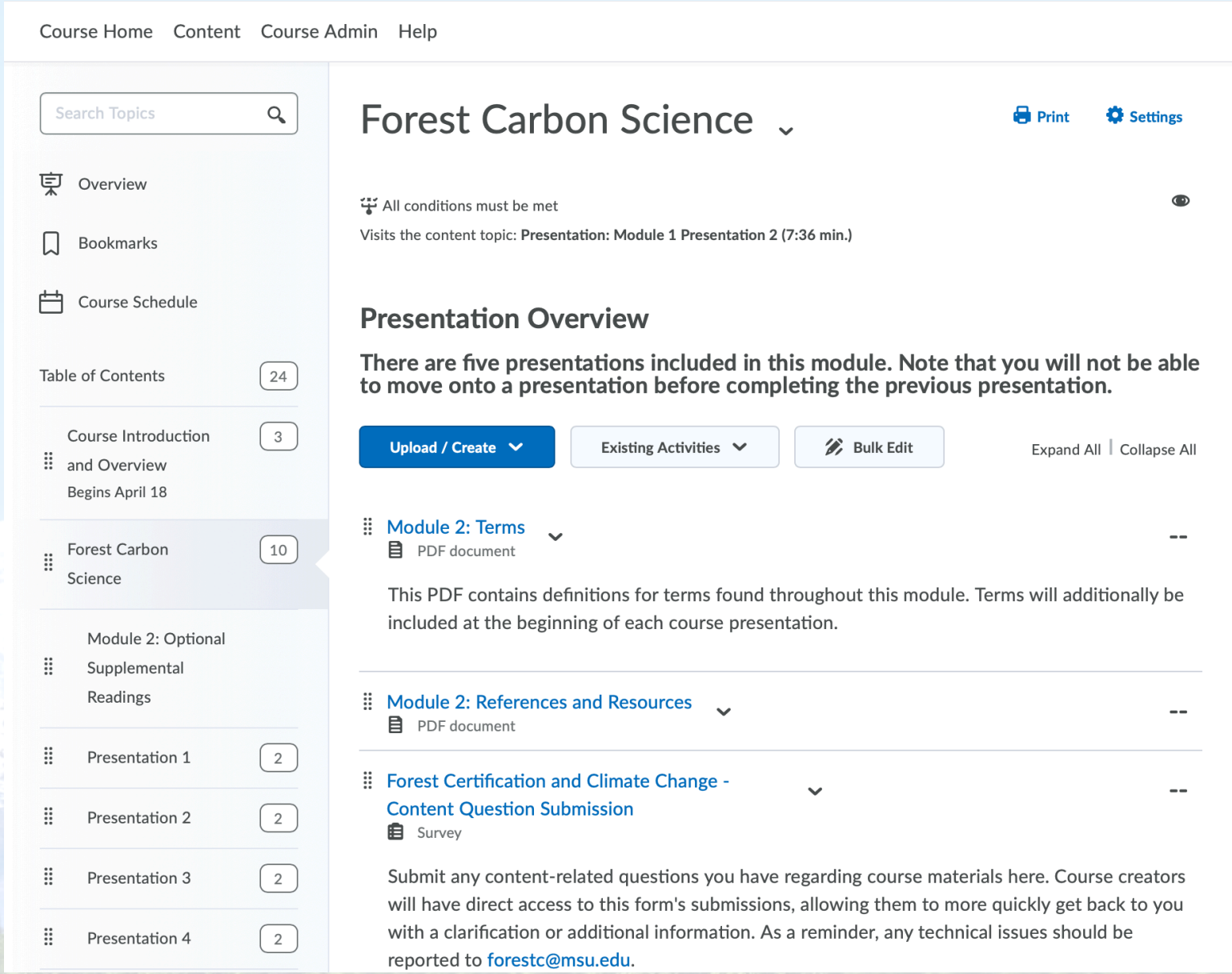

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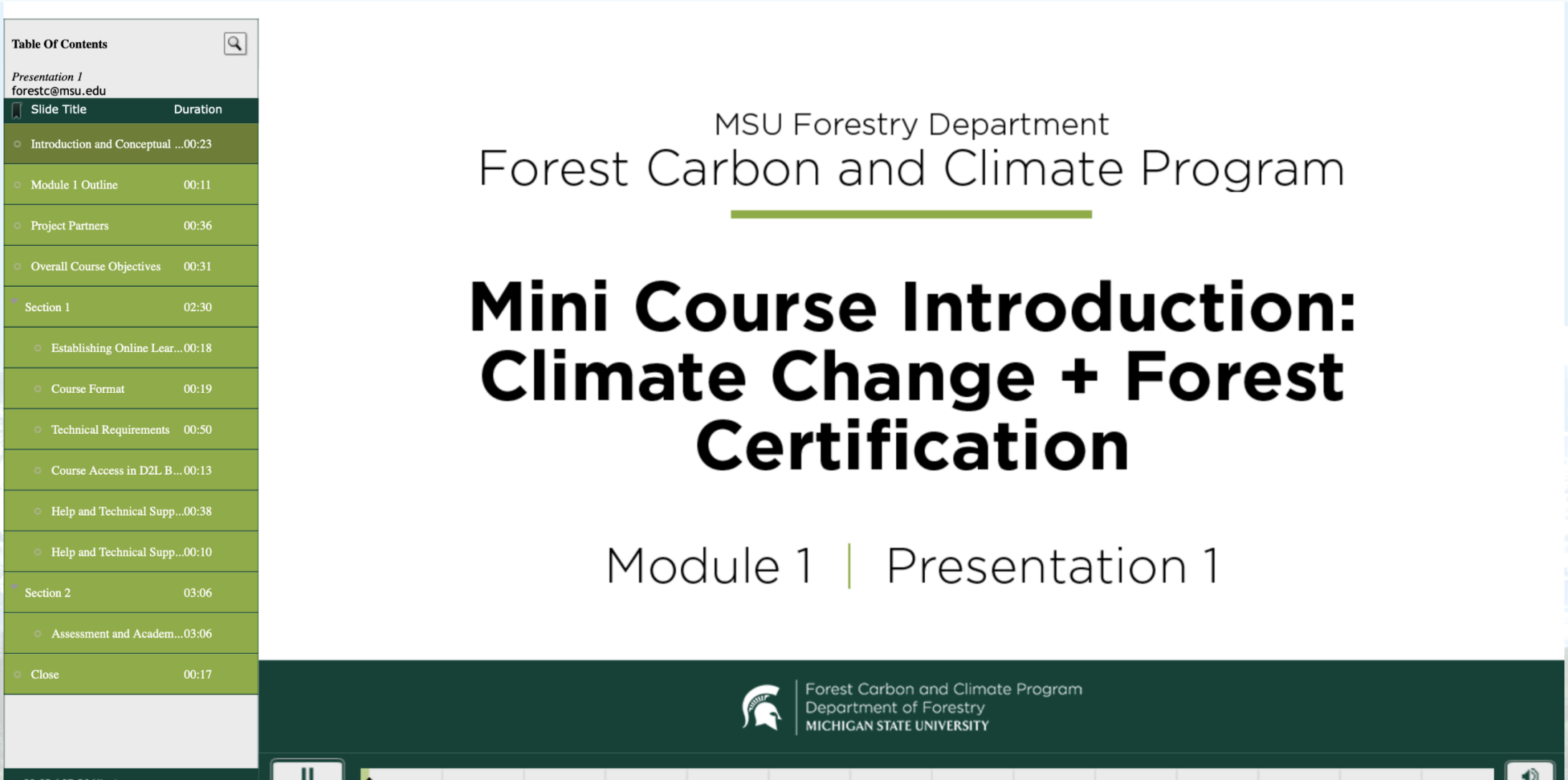

Technical Requirements

- Computer and internet access
- Enabled JavaScript and Cookies
- Adobe Flash Player 10.1 or greater
- This course requires streaming capabilities for the presentations as they run on the browser and cannot be downloaded.
- Two-factor authentication

Technical Requirements are listed in full at: http://help.d2l.msu.edu/technical-requirements.

Content Sneak Peek

Module 1

Introducing core concepts

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Image source: Metsawood.com

© The Nature Conservancy (Patrick Cavan Brown).

SUSTAINABLE FORESTRY INITIATIVE

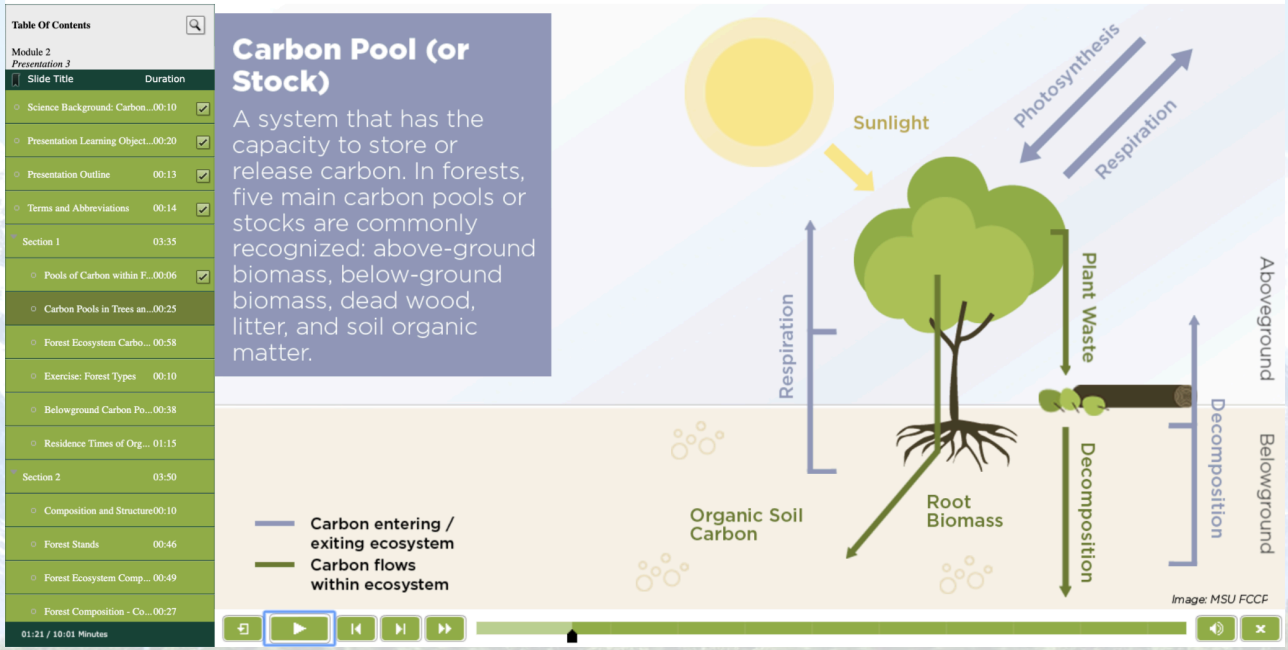
Does Forest Certification = Climate-Smart Forestry?

Fundamental concepts including climate change, mitigation, carbon, and adaptation

Core considerations for managing, measuring, protecting and planning for carbon storage in forested landscapes

A broader array of best practices that provide, link to, or allow for climate benefits

Module 2 – Physial Science



Module 2.3

Science Background: Carbon Cycle and Storage

Forest Ecosystem Carbon Pools

Image: http://www.forestryimages.org/

1. Living Biomass: Leaves, twigs, stems, coarse roots and fine roots of trees, shrubs and herbaceous plants
2. Dead Biomass: Standing dead trees, downed trees, leaf litter (forest floor), dead roots
3. Soil Carbon or Soil Organic Matter (SOM): Humus, microbial biomass

Forest Types

1. Boreal: large accumulations of moss and undecomposed organic matter on the forest floor that are characteristic of these ecosystems
2. Tropical: multiple layers of vertical structure in aboveground biomass
3. Temperate: biomass pools associated with standing living trees, dead trees, and downed woody debris
4. Savannah: some aboveground carbon storage with a larger accumulation of belowground carbon storage

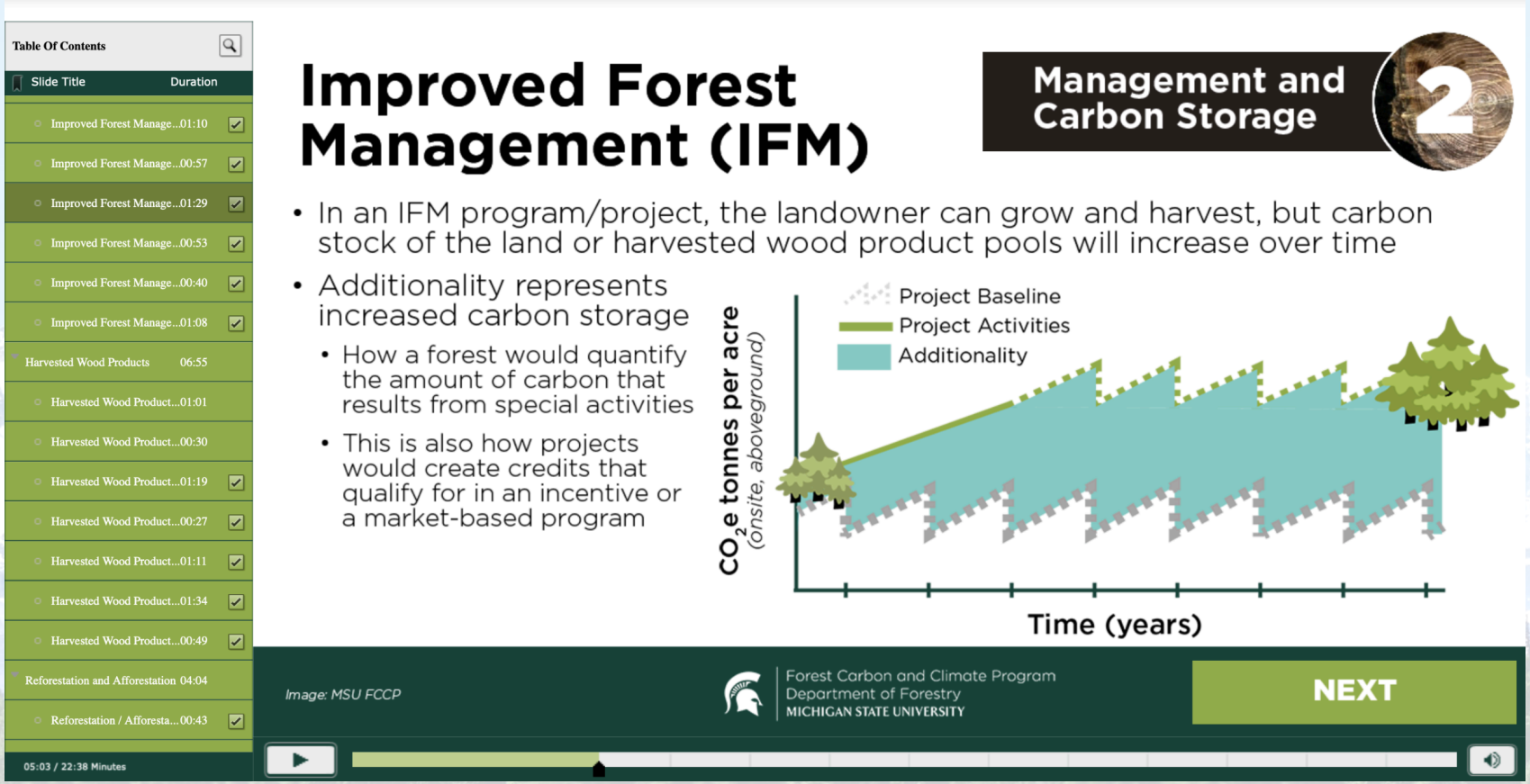
Images: http://www.forestryimages.org/

Residence Times of Organic Matter

Plant Residues	Residence Time
Leaf litter	Months to years
Root litter	Years
Bark	Decades to centuries
Wood	Decades to centuries
Soil organic matter (SOM)	Years to millennia

Source: Lorenz, K., & Lal, R. (2009). Carbon sequestration in forest ecosystems. Springer Science & Business Media

Module 3 - Certification



Mitigation & Adaptation

1. Core Carbon and Climate Concepts

- Harvested wood is part of the climate solution – but ONLY if it is sustainable
- Certification can ensure sustainability in management and procurement (and in climate benefits!)

SFI example:
Obj. 2: Forest Productivity and Health
- to protect forests from economically or environmentally undesirable levels of wildfire, pests, diseases, invasive exotic plants and animals, and other damaging agents and thus maintain and improve long-term forest health

SFI Core Principles

Resilient, healthy forests = climate adaptation

Registration / Enrollment

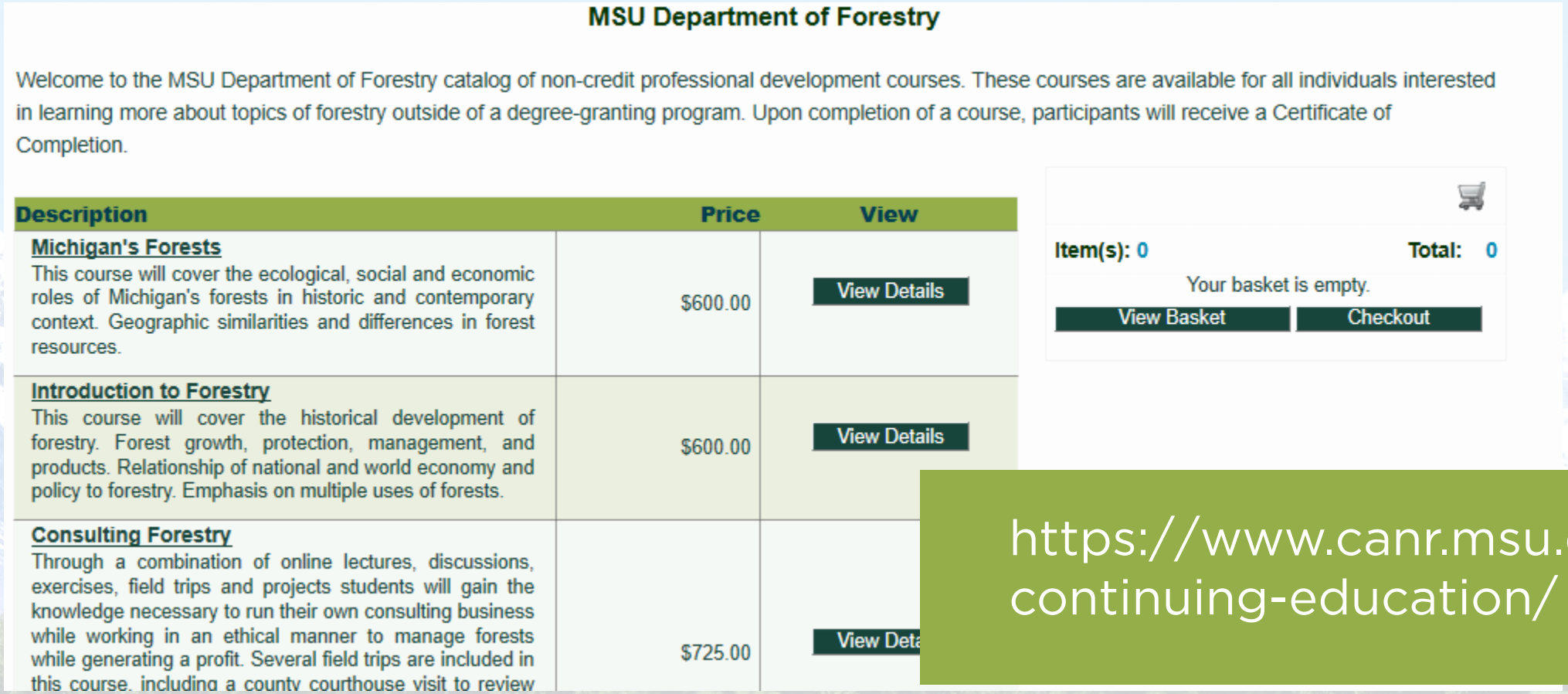
How to Enroll

1. Purchase the course in our official MSU storefront

2. Receive a MSU Community ID from the online education specialist, who will reach out to you after your purchase has been made

3. Access your course in D2L (Desire 2 Learn) on the date the course opens

MSU Forestry Official Storefront



https://www.canr.msu.edu/for/continuing-education/

Course Fees

Regular Pricing	$250
Returning Participants Pricing	$188

Upon Short Course Completion

Certificate of Completion

Discounted Access to Future FCCP Training Materials

Continuing Education Credits

- SFI Continuing Education (# of credits being verified)
  - Currently approved at the state level
  - If you are a state SFI Implementation committee, we need to know if your state is approving these credits
  - MSU Forestry handles tracking and reporting to state ICs
- Other types of credits available
  - SAF: 5.5 category 1 hours

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Questions?

Contact information:

- Lauren Cooper, FCCP Program Director
- forestc@msu.edu
- canr.msu.edu/fccp