

# ONLINE LAKE LEARNING AT YOUR OWN PACE

## INTRODUCTION TO LAKES 6 WEEK ONLINE COURSE

NOW ENROLLING

LEARN ABOUT:  
LAKE ECOLOGY  
SHORELINES  
WATERSHEDS  
AQUATIC PLANTS  
AND MORE!

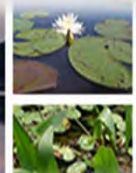
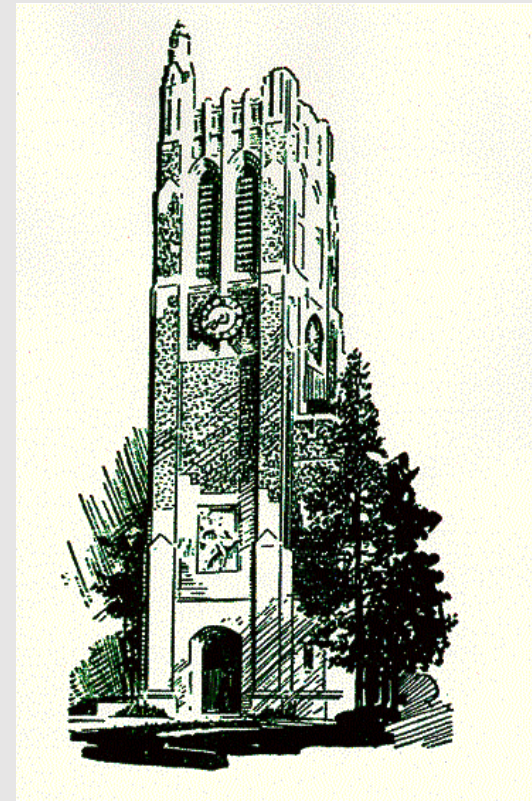
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UNIVERSITY | **Extension**

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# MSU EXTENSION MISSION

*Helping people to improve their lives through an educational process that applies knowledge to critical issues, needs and opportunities.*



**Introduction to Lakes  
Online Course**

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**“AND  
JUSTICE  
FOR ALL”**

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USDA UNITED STATES DEPARTMENT OF AGRICULTURE

Form AD-415-G (Revised 8/2009)

# PRESENTATION TODAY

- Course overview
- Course design
- 2015 course
- Future opportunities
- Find out more!



# COURSE OVERVIEW

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- 6 topics delivered online:
  - Lake Ecology
  - Watersheds
  - Shorelines
  - Water Law
  - Aquatic Plants
  - Citizen Involvement
- Cohort based course
- 3 opportunities to interact live with instructors



# COURSE OVERVIEW

- Each unit consists of:
  1. Unit overview
  2. Learning objectives & timeline
  3. Video lectures
  4. Activities (written/interactive/reading)
  5. Discussion forum questions
  6. Additional resources
  7. Unit quiz

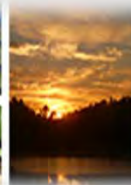
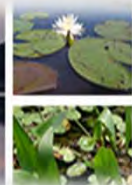


# COURSE OUTCOMES

## Participants will:

- Understand ecological & economic values associated with Michigan's inland lakes
- Recognize inland lake management is multifaceted
- Use federal, state and local resources to help improve water quality

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**Introduction to Lakes  
Online Course**

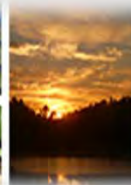
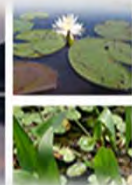


# COURSE HISTORY

- 1990's: original program developed by MSUE Educators Jane Herbert, Howard Wandell, Dean Solomon
- 6 topics offered in-person over 6 weeks
- Audience: lakefront property owners, lake associations/boards, local decision makers
- Program delivered where need identified, in partnership with MSU staff person
- Delivery model inefficient and unsustainable- “too many lakes, not enough staff to deliver education”



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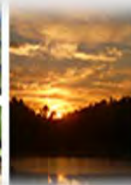
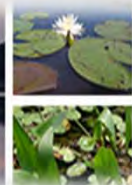
**Introduction to Lakes  
Online Course**

# COURSE DESIGN

# COURSE DESIGN

- Housed on Michigan State University's online course platform Desire2Learn
- Each unit takes 3-5 hours to complete
- Access to proceeding unit is based on previous unit quiz grade – must receive an 80% or higher
- Once a unit is available- it remains open for the remainder of the course
- Live chat sessions are available with instructors every two weeks (3 total)
- Receive a certificate of completion

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**Introduction to Lakes  
Online Course**

## COURSE CREDITS

- Michigan Department of Agriculture and Rural Development (MDARD)
  - 14 credits- pesticide applicator recertification
- Michigan Department of Education
  - 14 State Continue Education Clock Hours (SCECH)
- MSU Extension Citizen Planner
  - 7 Master Citizen Planner credits



Course Home | Content | Communication | Course Tools | Help | Edit Course | Admin Tools

Search Topics

## Unit 1: Lake Ecology

Print Settings

Add dates and restrictions... Published

**This week you will explore aquatic ecology and various factors which influence the water quality of inland lakes.**

New Add Existing Activities Bulk Edit Expand All Collapse All

### Overview & Objectives

New Add Existing Activities

- Unit 1: Overview
- Unit 1: Learning Objectives & Unit Timeline

### Activities

New Add Existing Activities

- Unit 1: Video Lecture, Part 1
- Unit 1: Lake Erie Eutrophication

Table of Contents: 86

- Getting Started: 7
- Unit 1: Lake Ecology: 10**
  - Overview & Objectives: 2
  - Activities: 7
  - Quiz: 1
- Unit 2: Lakes and Their Watershed: 10
  - Begins October 13
- Live Chat #1- Oct 21st: 3
- Unit 3: Lakes and Their Shoreline: 12
  - Begins October 20
- Unit 4: Lakes and the Law: 11
  - Begins October 27

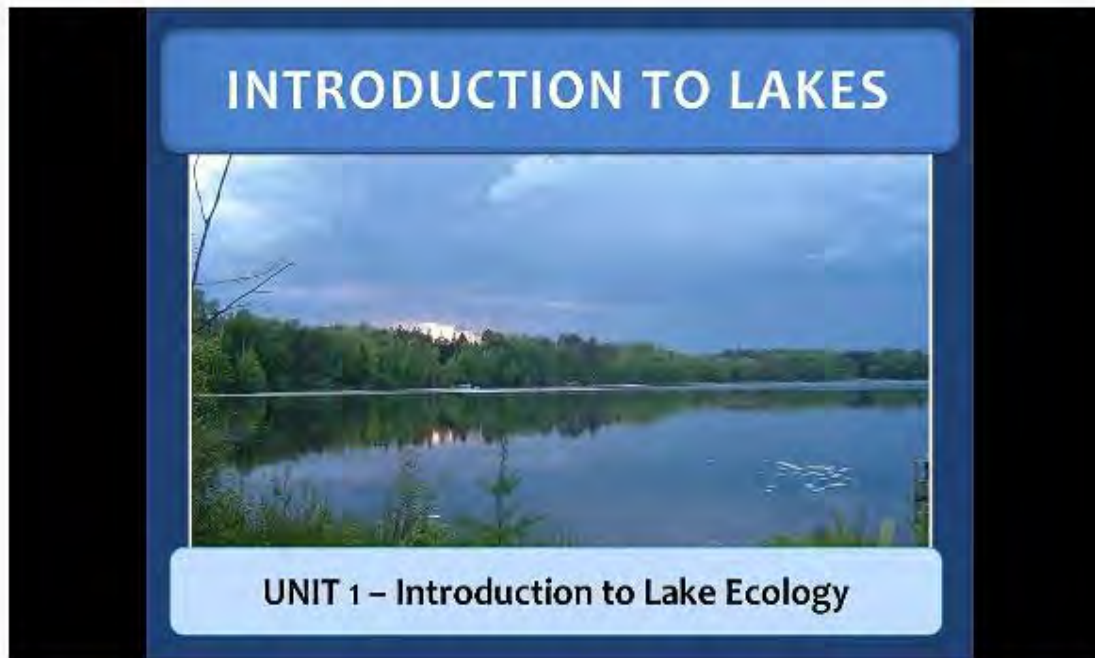
Units have similar layouts

Accessible for the remainder of the course once available

## Unit 1: Video Lecture, Part 1



This video will discuss key nutrients in lakes, describe the definition of lake ecology and inland lake food chains, and illustrate lake productivity via lake tropic status.



To view this lecture in full screen click [here](#).

A pdf of the presentation is available here for download: [Unit 1 Lake Ecology Part 1](#)

Videos are narrated PowerPoint Presentations & have closed captioning

Each video includes a PDF of the presentation

Videos are 10-15 minutes in length

Unit 3 Activity: Erosion and Shorelines

Erosion Photo #2



< PREV

NEXT >

Between  
video lectures  
are activities

Activities  
reinforce  
lectures

Various  
activities in  
each unit-  
including fun  
videos, guided  
images, recent  
news stories,  
and more!

## Getting Started ▾

Hide Topics for Getting Started

Topic	Threads	Posts
<b>Getting Acquainted ▾</b> Share with the class via this Discussion Forum why you decided to enroll in Introduction to Lakes and what you hope to gain from the experience. <b>Instructions:</b> To contribute to the discussion forum enter your response by selecting the "start a new thread" button. Return to "Getting Started" course page	69	89
<b>Questions for Instructors ▾</b> Do you have a question about the <i>Introduction to Lakes</i> course or specifically for an instructor? Please post your question(s) here and one of the instructors will respond. <b>Instructions:</b> To contribute to the discussion forum enter your question by selecting "start a new thread." To reply to an individual's post select "reply" under their statement. Return to "Getting Started"	39	119

Each unit contains at least one discussion forum question

Generally no right or wrong answer

Students are able to see other student's posts & reply



# Additional Resources

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## Unit 1: Lake Ecology

### Lecture References

- [Michigan Clean Water Corps \(MiCorps\) Cooperative Lakes Monitoring Program](#)
- [Michigan Inland Lakes Partnership](#)
- [Understanding Lake Ecology Primer](#)
- [Michigan Department of Environmental Quality \(MDEQ\) Inland Lakes Monitoring](#)
- [Water on the Web, University of Minnesota](#)

### Lake Ecology and Management

#### Websites

- [Michigan Lake and Stream Associations](#)
- [North American Lake Management Society](#)
- [Environmental Protection Agency \(EPA\) Clean Lakes](#)

#### Resource Manuals and Reports

- Michigan Department of Natural Resources: [SR38 Conservation Guidelines for Michigan Lakes & Associated Natural Resources](#)
- Michigan Chapter North American Lake Management Society: [Lake Management In Michigan with a Lake Improvement Board](#)
- University of Wisconsin: [Understanding Lake Data](#)

Downloadable  
PDF of  
additional  
resources  
related to the  
unit topics

1 hour live chat sessions offered every two weeks using Zoom

Students can see the instructors but cannot see each other

Opportunity to ask questions

Recorded and posted

Include Q&A document for those unable to attend

Some people on our lake go bonkers when they see people mowing in a way that grass clippings go in the lake and worse yet, at this time of the year, blowing leaves directly into the lake. We are told it is illegal to do so and that it may be a topic of non-point source pollution. So, what is the regulation that makes this a violation and what are the penalties if found doing so?	Answered live during meeting	
---	------------------------------	--

Is there anything the DEQ can do to help our association as far inspecting a property if we suspect one of our lake residents has a failing septic system and then requiring repair or replacement?	Answered live during meeting	
---	------------------------------	--

Would the DNR/DEQ be able to make a decision to remove a dam under the "public trust" doctrine regardless of public opinion?	Answered live during meeting	
--	------------------------------	--

What permit is required to set up a temporary (3-4 days) beverage and food station on the shallow bottomland of an inland lake?		
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Where would I go to find out how to write an anti-funneling ordinance?
--

If PA 56 does not address road ends on Great Lakes, what or who does?
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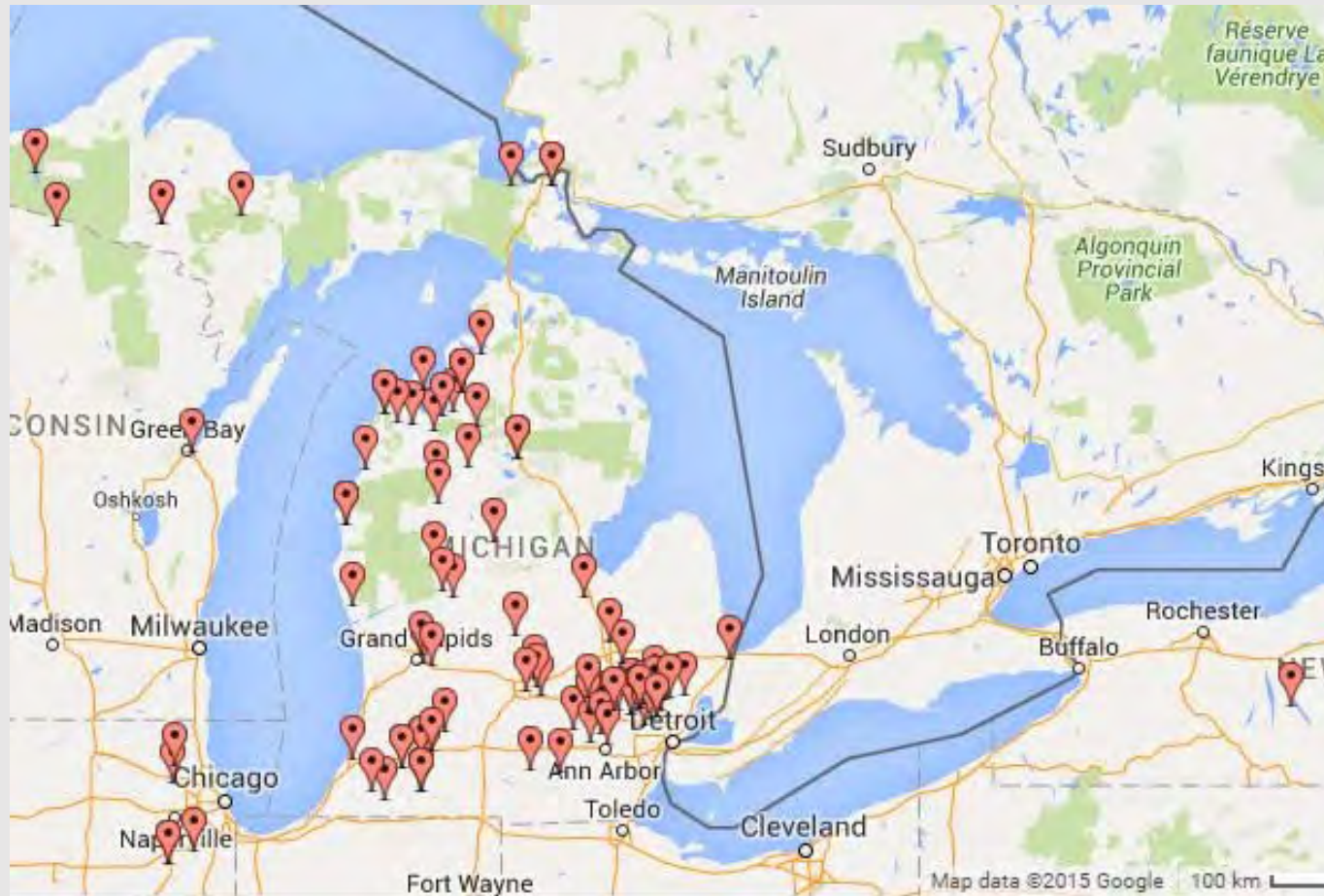
How can we determine the long term problems we need to address as a lake association? Septic? Fertilizers? Road runoff?
---

If one's dock is old and deteriorating, do one need a DEQ permit to replace it?
---

Live Chat #2 Video



2015 COURSE



Students from  
4 states  
participated in  
the course:

- 1- New York
- 2- Wisconsin
- 5- Illinois
- 89- Michigan  
(39 counties)

# 2015 COURSE

- Offered Fall 2015
- 99 students registered- 83 received Certificates of Completion
- 59 students were lakefront property owners
- 14 students were local government officials



## 2015 COURSE STATISTICS

- 610 posts in discussion forums
- 388 replies to posts (from students/instructors)
- On average over half of the students attended the live chats
  - 87 questions were asked



# COURSE EVALUATION HIGHLIGHTS

- Overall students seemed satisfied with both the content and format of the course
  - 97% of students would recommend the course to a friend or neighbor
  - 91% will use information from the course in lake management efforts
  - 97% were satisfied with the online format



# PRE AND POST COURSE QUESTIONNAIRE

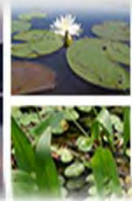
## Before the Course...

- 33% of students had educated neighbors and lake community members about lake stewardship.
- 43% had volunteered time to a lake association, conservation district, watershed council or other lake related organization
- 33% have participated in a lake or stream water quality monitoring effort

## After the Course...

- 69% plan to share what they learned with their neighbors and other community members
- 68% plan to volunteer and be more engaged
- 54% plan to get involved with water monitoring

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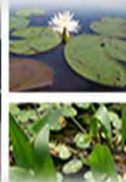
FUTURE OPPORTUNITIES

# MARKETING OF 2015 COURSE



- MSU Extension news article
- Michigan Lake and Stream Associations newsletter
- Michigan Riparian magazine
- Oakland Lakefront Lifestyles magazine
- Lake-oriented email LISTSERVs

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## Introduction to Lakes Online Course

# FUTURE OPPORTUNITIES



- Add additional resource experts to Live Chat sessions
- Pursue multi-state participation
- Target audiences who need education



## FUTURE OPPORTUNITIES

- Connect Introduction to Lakes with other MSUE lakes educational offerings
- Develop complimentary “Intro to-” course e.g. Introduction to the Great Lakes
- Restructure discussion forums to encourage greater participant interaction



FIND OUT MORE!

# PROGRAM PAGE

- MSU Extension Program Page

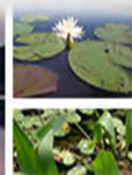
- Program page website:

[http://msue.anr.msu.edu/program/info/introduction\\_to\\_lakes\\_online](http://msue.anr.msu.edu/program/info/introduction_to_lakes_online)

- Registration now open!

<http://events.anr.msu.edu/IntroLakesOnline/>

The screenshot shows the MSU Extension website for the "Introduction to Lakes Online" course. The header includes the Michigan State University logo and the text "EXTENSION Michigan State University Extension helps people improve their lives by bringing the vast knowledge resources of MSU directly to individuals, communities and businesses." The main content area features a sidebar with navigation links for "Introduction to Lakes Online", "Events", "News", "Resources", "Newsletter Sign-Up", and "MSU Extension Bookstore". The main content area has a title "Introduction to Lakes Online" with social media sharing options. Below the title is a paragraph describing the course: "Michigan is blessed with more than 11,000 inland lakes, each providing unique recreational, scenic and environmental benefits. These inland lakes are complex ecosystems, and are often negatively impacted by both the people that live near them as well as the water that drains into them. Frequently, local communities struggle to protect and manage inland lakes in a way that incorporates the best available knowledge and resources. Concerned citizens, decision makers, local leaders, resource professionals and lakefront property owners can learn about inland lake management and protection by enrolling in the Introduction to Lakes online course." A small image of a lake with lily pads is shown. Below the paragraph is another paragraph: "Introduction to Lakes is a six-week online course specially designed for citizens and professionals alike that are interested in learning about inland lakes. From the comfort of home or office, participants have 24/7 access to six online units complete with closed captioned video lectures, interactive activities, additional resources, discussion forums, quizzes, and live chat sessions with classmates and Michigan State University Extension experts. Through this convenient format, participants increase their knowledge and understanding of the following topics." On the right side, there is an "Events" section with a calendar icon and a link to the "2016 Michigan Inland Lakes Convention" with details: "Apr 28, 2016 - Apr 30, 2016 | Boyne Mountain Resort, 1 Boyne Mountain Rd., Boyne Falls, MI 49713" and a "View more events" link.



## Introduction to Lakes Online Course

LEARN MORE

[www.msue.anr.msu.edu](http://www.msue.anr.msu.edu)

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Paige Filice- Clinton Conservation District

