

# ***Moving from Disruption to Online Teaching***

**Eric Fredericksen, EdD**

Associate Vice President for Online Learning  
Associate Professor in Educational Leadership

**Lisa Brown, EdD**

Assistant Director  
University IT & URMCI Institute for Innovative Education

April 2020



# Agenda

- Faculty guest
- Misperceptions about Online Learning
  - Online Learning Research
- Designing instruction
- Online course template
- The Advanced Series in Online Teaching for UR faculty



# Our Faculty Guest



## **James M. Zavislan**

- *Associate Professor of Optics*
- *Associate Professor of Biomedical Engineering*
- *Associate Professor of Ophthalmology*
- *Associate Professor, Center for Visual Science*
- *Mercer Brugler Distinguished Teaching Professor 2018-2021*

PhD, University of Rochester, 1988



# The Difference Between Emergency Remote Teaching and Online Learning

Emergency Remote Teaching	Online Learning
Quick response, 1 week to launch	Thoughtful, reflection of affordance and constraints, planning, design, development over a semester or two
No time for design, a temporary shift of delivery mode due to a crisis	Careful instructional design and planning, using a systematic model for design and development
Instructor focused, and doing the best they can	Focus on interaction (Student-Instructor, Student-Student, Student-Content) increases learning outcomes
Traditional residential support for community is not available	Focus on Learning Community
No time for foundational experiences	Faculty development includes opportunity to experience student perspective, gain exposure to best practices
Short term course completion, student attitudes, focus on context/inputs/processes	Research on effectiveness, student and faculty experience, outcomes, comparisons to F2F
Consideration of other factors and stresses in life	Inherent flexible approach





# Misperceptions



#1 – There are basic and straightforward definitions for a f2f classroom and an online classroom.



# A variety of models of “Online” Learning

- Self paced ⇔ cohort based
- Instructor led ⇔ instructor-less
- Synchronous ⇔ asynchronous
- Open enrollment ⇔ semester based
- Non-credit ⇔ credit
- Length of semester ⇔  
Something less
- A course ⇔ complete degree
- Tuition ⇔ Free access



#2 – Online Learning is an isolating experience for students.



# Interaction

- Faculty were more than twice as likely to rate their interaction ***with*** online students as higher than their classroom students.
- Faculty were more than twice as likely to rate interaction ***between*** online students as higher than their classroom students.

Fredericksen, E., Pickett, A., Pelz, W., Swan, K., Shea, P., (2000)



# Student responses to online learning

## Compared to a traditional class:

- More interaction with faculty and other students
- Higher quality interaction with instructors and other students
- 93% are more likely to ask questions
- 2X as likely to actively participate in discussion
- 2X as likely to ask for clarification
- 83% improved their writing and communication skills
- 80% put more thought into online discussion
- 71% spent more time studying
- 69% more comfortable asking an awkward question

**Shea, Fredericksen, et al. 2002**



EDU591 April 9 2018



#3 – Online Learning is not as good as the traditional classroom experience.





# How does distance education compare with classroom instruction? A meta-analysis of the empirical literature.

- it is clear from the range of effect sizes (-1.31 to +1.41) that some applications of DE are far better than classroom instruction and that some are far worse.
- When achievement outcomes are allocated to modality, synchronous forms (same time videoconferencing) favored classroom instruction ( $g=-.1022$ ,  $p<.05$ ) and asynchronous methods (different time online courses) favored distance education ( $g=.0527$ ,  $p<.05$ ).
- Modest but significant results in favor of distance education in graduate schools.
- When attitude outcomes are investigated, their analysis suggested that the average effect size was significant ( $g=-.1846$ ,  $p<.001$ ) for synchronous distance education but it was not significant for asynchronous distance education.
- With regard to retention, the analysis had a significant effect size ( $g=-.0933$ ,  $p<.05$ ) for asynchronous distance education but not significant for synchronous distance education ( $g=.0051$ )
- This wide variability means that a substantial number of DE applications provide better achievement results, are viewed more positively, and have higher retention rates than their classroom counterparts. On the other hand, a substantial number of DE applications are far worse than classroom instruction in regard to all three measures.

It seems reasonable to conclude that online learning can be effective but that is not a guarantee that it will be effective

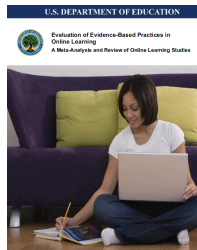
Bernard, et al., (2004)



# Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies.

U.S. Department of Education (2010)

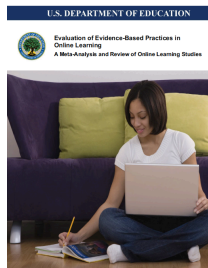
- “The meta-analysis found that, on average, students in online learning conditions performed modestly better than those receiving face to face instruction.”
- “Effect sizes were larger for studies in which the online instruction was collaborative or instructor-directed than in those studies where online learners worked independently.”
- “Online learning appeared to be an effective option for both undergraduates (mean effect of +0.30,  $p < .001$ ) and for graduate students and professionals (+0.10,  $p < .05$ ) in a wide range of academic and professional studies.”
- Nearly all the studies involved formal instruction, with the most common subject matter being medicine or health care.



# Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies.

U.S. Department of Education (2010)

- “No significant differences in effectiveness were found that related to the subject of instruction.”
- “Studies indicate that manipulations that trigger learner activity or learner reflection and self-monitoring of understanding are effective when students pursue online learning as individuals.”
- “The great majority of estimated effect sizes in the meta-analysis are for undergraduate and older students, not elementary or secondary learners.”
- (Sitzmann et al. 2006) were even more positive. They found online learning to be superior to classroom-based instruction in terms of declarative knowledge outcomes, with the two being equivalent in terms of procedural learning.
- “These studies found that a tool or feature prompting students to reflect on their learning was effective in improving outcomes.”
- **“The overall finding of the meta-analysis is that classes with online learning (whether taught completely online or blended) on average produce stronger student learning outcomes than do classes with solely face-to-face instruction.”**



# Research on Online Learning



## Online Learning

OLJ • THE OFFICIAL JOURNAL OF OLC

[HOME](#) [ABOUT](#) [LOGIN](#) [REGISTER](#) [CATEGORIES](#) [SEARCH](#) [CURRENT](#) [ARCHIVES](#) [ANNOUNCEMENTS](#) [OLC](#)

[HOME](#)

The [Online Learning Consortium's](#) premier journal dedicated to the development and dissemination of new knowledge at the intersection of pedagogy, emerging technology, policy, and practice in online environments. OLJ is indexed in the Web of Science (ESCI).

Vol 24, No 1 (2020)

Full Issue

[View or download the full issue](#)

[PDF \(\)](#)

Table of Contents

Introduction

[1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [11](#) [12](#) [13](#) [14](#) [15](#) [16](#) [17](#) [18](#) [19](#) [20](#) [21](#) [22](#) [23](#) [24](#) [25](#) [26](#) [27](#) [28](#) [29](#) [30](#) [31](#) [32](#) [33](#) [34](#) [35](#) [36](#) [37](#) [38](#) [39](#) [40](#) [41](#) [42](#) [43](#) [44](#) [45](#) [46](#) [47](#) [48](#) [49](#) [50](#) [51](#) [52](#) [53](#) [54](#) [55](#) [56](#) [57](#) [58](#) [59](#) [60](#) [61](#) [62](#) [63](#) [64](#) [65](#) [66](#) [67](#) [68](#) [69](#) [70](#) [71](#) [72](#) [73](#) [74](#) [75](#) [76](#) [77](#) [78](#) [79](#) [80](#) [81](#) [82](#) [83](#) [84](#) [85](#) [86](#) [87](#) [88](#) [89](#) [90](#) [91](#) [92](#) [93](#) [94](#) [95](#) [96](#) [97](#) [98](#) [99](#) [100](#)

[OPEN JOURNAL SYSTEMS](#)

[JOURNAL CONTENT](#)

Search

Search Scope

[SEARCH](#)

Browse

- [BY ISSUE](#)
- [BY AUTHOR](#)
- [BY TITLE](#)

[JOURNAL HELP](#)

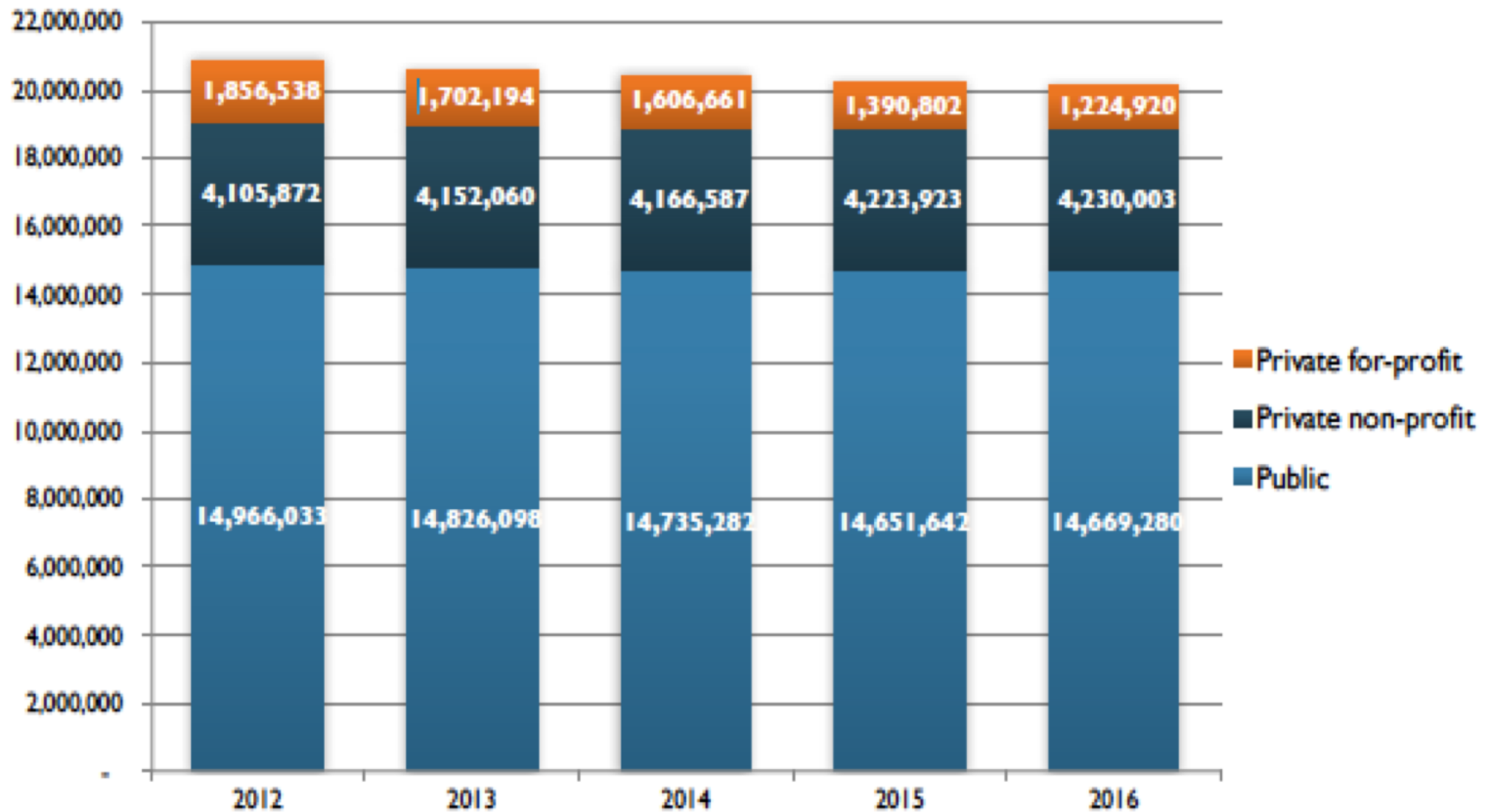


#4 – Online Learning is not a big deal in US Higher Education.



# Total Higher Education Enrollments in US

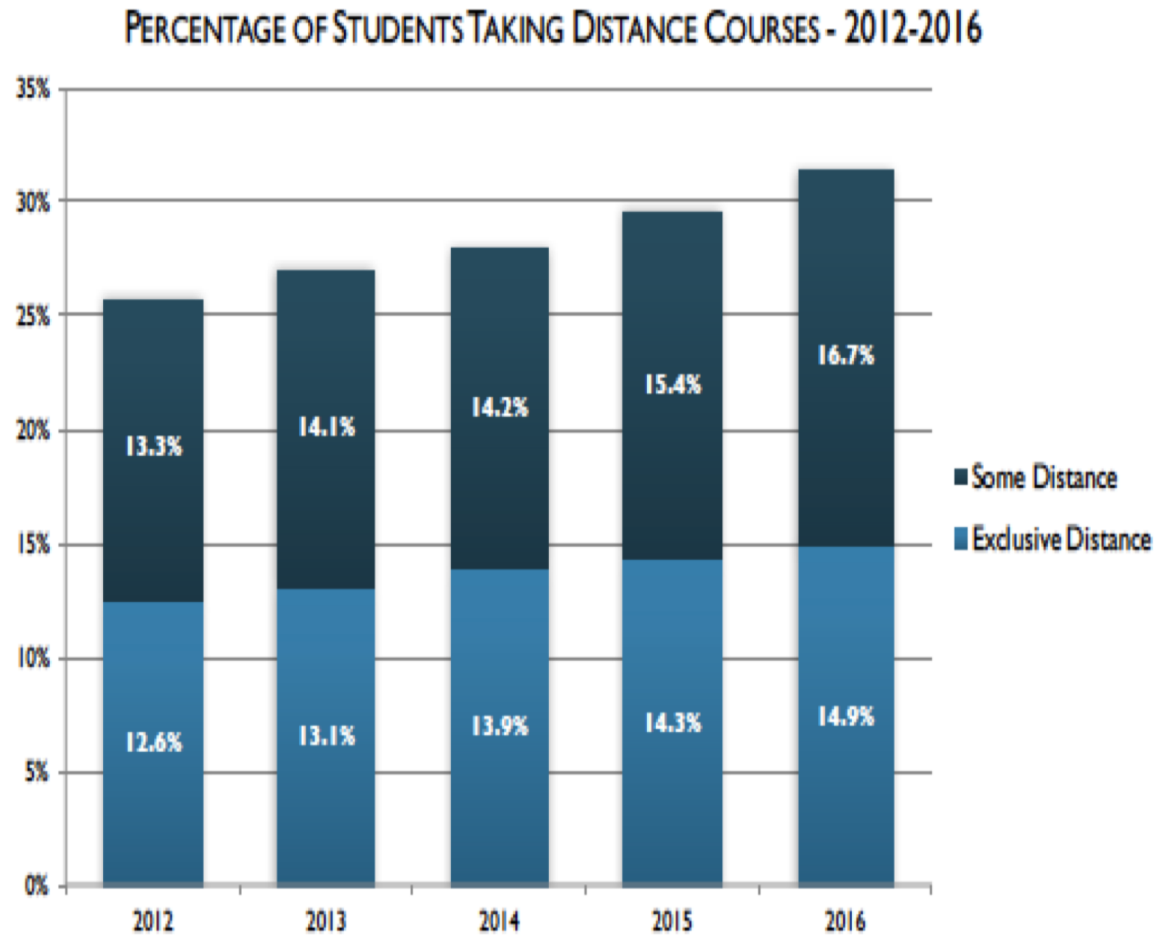
TOTAL ENROLLMENT - DEGREE-GRANTING INSTITUTIONS - 2012-2016



Grade Increase: Tracking Distance Education in the United States, 2018 (Seaman, Allen & Seaman)



# Online Education Enrollments in US



Grade Increase: Tracking Distance Education in the United States, 2018 (Seaman, Allen & Seaman)



#5 – Other elite universities are not offering online courses and programs.







# Instructional Design



# So what is “Instructional Design”?

- Strategic planning for a course
- A blueprint
- A clear picture of teaching and learning events
- A system of procedures for developing educational programs in a consistent and reliable fashion
- Creative and iterative
- → Use of systematic design procedures can make instruction more effective, efficient, and relevant...



# Understanding by Design

Wiggins & McTighe (1998)

## Backwards Design

- Stage 1: Identify desired results
- Stage 2: Determine acceptable evidence
- Stage 3: Plan learning experiences and instruction



# Learning Objectives Table

Learning Objectives	Assessment	Instructional Activities



# Introduction to the Online Course Template



# Getting Started with Blackboard

## *The basic course shell*

The screenshot displays the Blackboard course shell interface. At the top, the navigation bar includes the University of Rochester logo, the course name "EDE486 - Development Course (Warner.EDE486.Test)", and a user profile for "ERIC FREDERICKSEN" with a notification count of "29". The main navigation menu contains links for "Main", "Courses", "Instructor Access", "Student Access", "My Accounts", "Content Collection", "Libraries", and "Help". Below the navigation bar, a breadcrumb trail shows "(Course is unavailable to students) > Announcements". A "Create Announcement" button is visible, along with a "No Announcements found." message. A dashed line indicates where new announcements will appear. The left sidebar lists various course management tools such as "Control Panel", "Content Collection", "Course Tools", "Evaluation", "Grade Center", "Users and Groups", "Customization", "Packages and Utilities", and "Help".

UNIVERSITY OF ROCHESTER | my.rochester

ERIC FREDERICKSEN 29

Main Courses Instructor Access Student Access My Accounts Content Collection Libraries Help

(Course is unavailable to students) > Announcements

Edit Mode is: ON ?

### Announcements

*New Announcements appear directly below the repositionable bar. Reorder by dragging announcements to new positions. Move priority announcements above the repositionable bar to pin them to the top of the list and prevent new announcements from superseding them. The order shown here is the order presented to students. Students do not see the bar and cannot reorder announcements.*

Create Announcement

*New announcements appear below this line* -----

**No Announcements found.**

EDE486 - Development Course (Warner.EDE486.Test)

- Announcements
- Syllabus
- Course Materials
- Textbooks
- Email
- Course Tools
- Library Resources
- Reserves

COURSE MANAGEMENT

- Control Panel
- Content Collection
- Course Tools
- Evaluation
- Grade Center
- Users and Groups
- Customization
- Packages and Utilities
- Help



# Getting Started with Blackboard

## *The basic course shell*

The screenshot displays the Blackboard course shell for 'EDE486 - Development Course (Warner.EDE486.Test)'. The interface includes a top navigation bar with links for Main, Courses, Instructor Access, Student Access, My Accounts, Content Collection, Libraries, and Help. A breadcrumb trail shows '(Course is unavailable to students) > Course Materials'. The main content area features a 'Course Materials' header with sub-sections: Build Content, Assessments, Tools, and Partner Content. A central message reads: 'It's time to add content... Use functions above to add it.' The left sidebar contains a navigation menu with categories like Announcements, Syllabus, Course Materials, Textbooks, Email, Course Tools, Library Resources, Reserves, and COURSE MANAGEMENT (Control Panel, Content Collection, Course Tools, Evaluation, Grade Center, Users and Groups, Customization, Packages and Utilities, Help). The top right corner shows the user 'ERIC FREDERICKSEN' and a '20' notification.





# Getting Started with Blackboard

## *The Online Course Template*

The screenshot shows a Blackboard course page for Warner EDE486 2019 Spring Students. The top navigation bar includes links for Main, Courses, Student Access, Instructor Access, Advisor Access, Services, Activities, Libraries, Content Collection, and Help. The course title is "Warner EDE486 2019 Spring Students" with a sub-label "(Course is unavailable to students)". The page is titled "Course Home Page" and features a sidebar with navigation options like "Meet the Faculty", "Announcements", "Syllabus", "Learning Modules", "Course Schedule", "Faculty Resources", "Assignments", "Library Resources", "Textbooks", "Reserves", "Discussions", "Journals", "Groups", "Email", "Course Evaluations", "Student Support", "My Grades", "Tools", "Private Faculty Reflection", and "Course".

The main content area is titled "Read Me First!" and contains the following text:

**Welcome to Warner EDE486 2019 Spring Students**

*Use this space to provide guidance to students on what to do during different periods of your course. For example, at the beginning of the course, welcome them and tell them how to get started.*

**Hello ERIC FREDERICKSEN**

**Getting Started**  
Review the syllabus and course schedule.

Go to Learning Modules and review the Course Overview and Introduction.

**Date of Last Entry: DATE**

Below this, there are three sections:

- Meet the Faculty**: Includes instructions to "Insert your picture here" and "Include name, office location, phone, email address and any other contact information." It also mentions "URL for web link".
- Meet your Classmates**: Provides instructions for how students should introduce themselves and to "Start the first thread with your own introduction as a model!".
- Learning Modules**: States "All of your course materials can be found here."
- Ask a Question**: Instructs students to "Use this space to ask a question at any time during the course. By asking your question here, your classmates can benefit from the answers as well." It also advises to "Be sure to check here to see if the question you want to ask has already been asked and answered." and to "Please email the instructor directly for any questions regarding grades or personal issues."



# Getting Started with Blackboard

## *The Online Course Template*

The screenshot displays the Blackboard interface for a course. At the top, the University of Rochester logo is on the left, and the user name 'ERIC FREDERICKSE' is on the right. A navigation bar includes links for Main, Courses, Student Access, Instructor Access, Advisor Access, Services, Activities, Libraries, Content Collection, and Help. Below this, the course title 'Warner EDE486 2019 Spring Students' is shown, along with a status message '(Course is unavailable to students)' and 'Learning Modules'. A left-hand navigation menu lists various course components like 'Course Home Page', 'Meet the Faculty', 'Announcements', 'Syllabus', 'Learning Modules', 'Course Schedule', 'Faculty Resources', 'Assignments', 'Library Resources', 'Textbooks', 'Reserves', 'Discussions', 'Journals', 'Groups', 'Email', 'Course Evaluations', 'Student Support', 'My Grades', 'Tools', 'Private Faculty Reflection'. The main content area is titled 'Learning Modules' and contains a sub-menu with 'Build Content', 'Assessments', 'Tools', and 'Partner Content'. The main content area lists several folders: 'Course Overview and Introduction' (with a description: 'This folder contains overall course information. Please review this material before the start of the course.'), 'Module 1 - Title', 'Module 2 - Title', 'Module 3 - Title', 'Module 4 - Title', 'Module 5 - Title', and 'Module 6 - Title'. Each module folder has a description: 'Summary information about this module. Include timeframe for the module.'



# Getting Started with Blackboard

## *The Online Course Template*

Module 1 - Title

Build Content ▾ Assessments ▾ Tools ▾ Partner Content ▾

**Module Overview**

**Overview**  
Provide an overview of the module.

**Learning Objectives**  
At the end of this module, you will be able to:

1. Learning Objectives
2. Learning Objectives

**Learning Activities**  
During this module, you are expected to:

1. Task or Learning Activity
2. Task or Learning Activity

**Reading Assignments**  
Put information about reading assignments here, use the appropriate citation method for your discipline.  
Attach files or include links.  
Provide clear guidance on what is required and what is optional or supplemental.

**Module Content**  
Put information about other content (videos, audio, powerpoint) here.  
  
Note that you can also link directly to other materials using the tools provided:  
YouTube videos-Build Content - YouTube video  
URL -Build Content - Web Link

**Discussion - Module 1**  
This is currently a graded item (1 point).  
Put information about how you want students to participate in the discussion board here.  
Make sure that you start the first threads in your discussion board with the questions you want addressed.

**Assignment - Module 1**  
Place instructions for assignment here.  
Note, this is currently set for 1 point. You will need to determine how many points you want to assign to this assessment. It is also set to a single attempt - a student may only submit once.

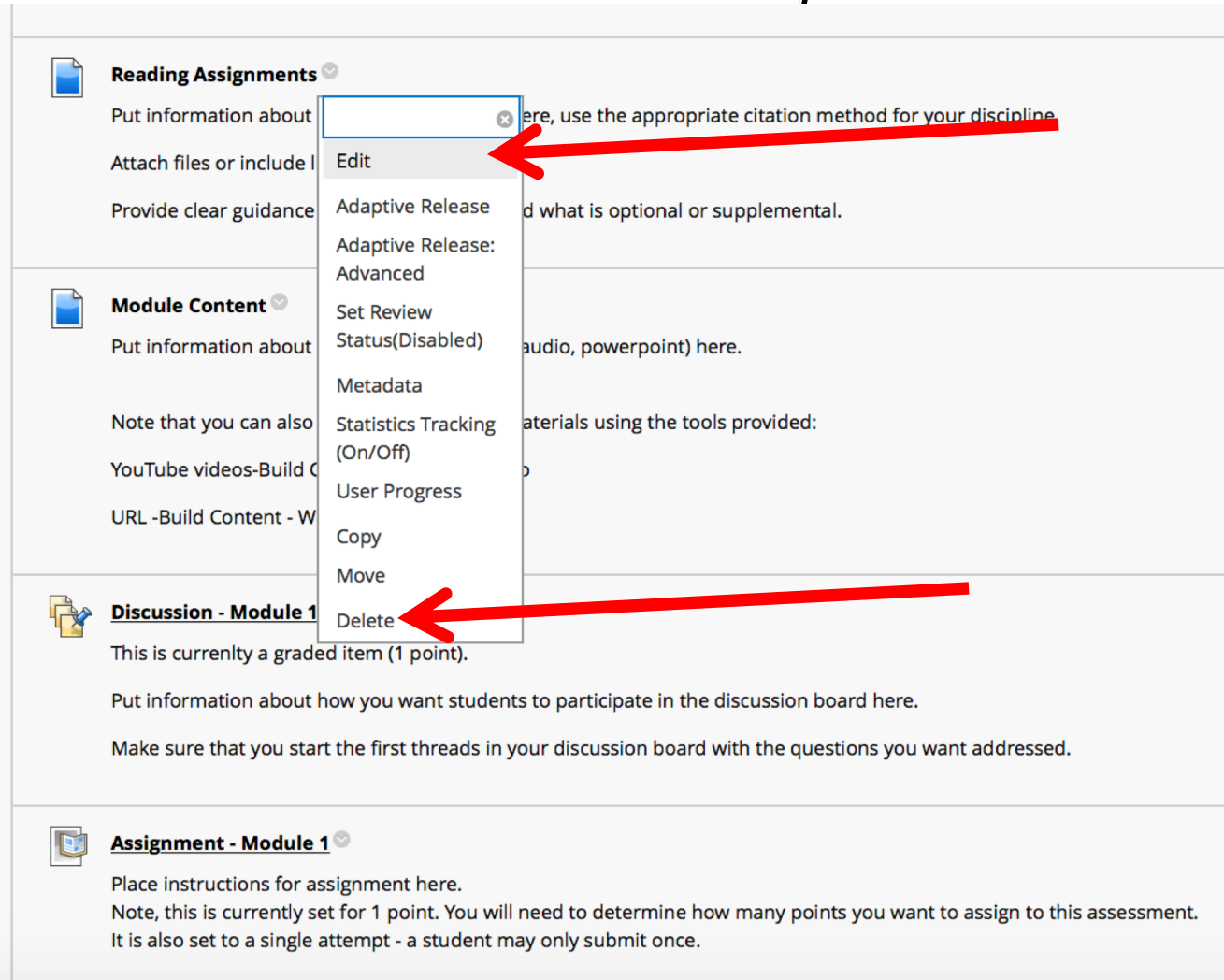
**Quiz - Module 1**  
Availability: Item is hidden from students.

**Reflection - Module 1**  
Place instructions for Reflection Assignment here.  
Include that students should include their journal entry in the "Write Submission" area rather than as an attachment for easy review and grading!  
  
This is currently worth 1 point, you can adjust that here.  
If you wish to have students create a running journal for Reflection, please use a Journal tool instead.



# Getting Started with Blackboard

## *The Online Course Template*



The screenshot displays the Blackboard course template interface. A context menu is open over the 'Reading Assignments' section, with red arrows pointing to the 'Edit' and 'Delete' options. The 'Discussion - Module 1' section is also visible, with a red arrow pointing to the 'Delete' option in its context menu.

**Reading Assignments** (dropdown arrow)

- Put information about [text] here, use the appropriate citation method for your discipline.
- Attach files or include [text]
- Provide clear guidance [text] d what is optional or supplemental.

**Module Content** (dropdown arrow)

- Put information about [text] audio, powerpoint) here.
- Note that you can also [text] aterials using the tools provided:
- YouTube videos-Build C [text]
- URL -Build Content - W [text]

**Discussion - Module 1** (dropdown arrow)

- This is currently a graded item (1 point).
- Put information about how you want students to participate in the discussion board here.
- Make sure that you start the first threads in your discussion board with the questions you want addressed.

**Assignment - Module 1** (dropdown arrow)

- Place instructions for assignment here.
- Note, this is currently set for 1 point. You will need to determine how many points you want to assign to this assessment.
- It is also set to a single attempt - a student may only submit once.



# Quality Matters



- A national program focused on quality online course design
- [www.qualitymatters.org](http://www.qualitymatters.org)
- A rubric with categories that include:
  1. Course Overview and Introduction
  2. Learning Objectives
  3. Assessment and Measurement
  4. Instructional Materials
  5. Learner Interaction and Engagement
  6. Course Technology
  7. Learner Support
  8. Accessibility

General Standards	Specific Review Standards from the QM Higher Education Rubric, Sixth Edition	Points
Course Overview and Introduction	1.1 Instructions make clear how to get started and where to find various course components.	3
	1.2 Learners are introduced to the purpose and structure of the course.	3
	1.3 Communication expectations for online discussions, email, and other forms of interaction are clearly stated.	2
	1.4 Course and institutional policies with which the learner is expected to comply are clearly stated within the course, or a link to current policies is provided.	2
	1.5 Minimum technology requirements for the course are clearly stated, and information on how to obtain the technologies is provided.	2
	1.6 Computer skills and digital information literacy skills expected of the learner are clearly stated.	1
	1.7 Expectations for prerequisite knowledge in the discipline and/or any required competencies are clearly stated.	1
	1.8 The self-introduction by the instructor is professional and is available online.	1
	1.9 Learners are asked to introduce themselves to the class.	1
	Learning Objectives (Competencies)	2.1 The course learning objectives, or course/program competencies, describe outcomes that are measurable.
2.2 The middle-/unit-level learning objectives or competencies describe outcomes that are measurable and consistent with the course-level objectives or competencies.		3
2.3 Learning objectives or competencies are stated clearly, are written from the learner's perspective, and are prominently located in the course.		3
2.4 The relationship between learning objectives or competencies and learning activities is clearly stated.		3
2.5 The learning objectives or competencies are suited to the level of the course.		3
Assessment and Measurement	3.1 The assessments measure the achievement of the stated learning objectives or competencies.	3
	3.2 The course grading policy is stated clearly at the beginning of the course.	3
	3.3 Specific and descriptive criteria are provided for the evaluation of learners' work, and their connection to the course grading policy is clearly explained.	3
	3.4 The assessments used are sequenced, varied, and suited to the level of the course.	2
3.5 The course provides learners with multiple opportunities to track their learning progress with timely feedback.	2	
Instructional Materials	4.1 The instructional materials contribute to the achievement of the stated learning objectives or competencies.	3
	4.2 The relationship between the use of instructional materials in the course and completing learning activities is clearly explained.	3
	4.3 The course models the academic integrity expected of learners by providing both source references and permissions for use of instructional materials.	2
	4.4 The instructional materials represent up-to-date theory and practice in the discipline.	2
	4.5 A variety of instructional materials is used in the course.	2
Learning Activities and Learner Interaction	5.1 The learning activities promote the achievement of the stated learning objectives or competencies.	3
	5.2 Learning activities provide opportunities for interaction that support active learning.	3
	5.3 The instructor's plan for interacting with learners during the course is clearly stated.	3
	5.4 The requirements for learner interaction are clearly stated.	2
Course Technology	6.1 The tools used in the course support the learning objectives or competencies.	3
	6.2 Course tools promote learner engagement and active learning.	3
	6.3 A variety of technology is used in the course.	1
	6.4 The course provides learners with information on protecting their data and privacy.	1
Learner Support	7.1 The course instructions articulate or link to a clear description of the technical support offered and how to obtain it.	3
	7.2 Course instructions articulate or link to the institution's accessibility policies and services.	3
	7.3 Course instructions articulate or link to the institution's academic support services and resources that can help learners succeed in the course.	3
	7.4 Course instructions articulate or link to the institution's student services and resources that can help learners succeed.	1
Accessibility* and Usability	8.1 Course navigation facilitates ease of use.	3
	8.2 The course design facilitates readability.	3
	8.3 The course provides accessible text and images in files, documents, LMS pages, and web pages to meet the needs of diverse learners.	3
	8.4 The course provides alternative means of access to multimedia content in formats that meet the needs of diverse learners.	2
	8.5 Course multimedia facilitate ease of use.	2
	8.6 Vendor accessibility statements are provided for all technologies required in the course.	2

\* Meeting QM Specific Review Standards regarding accessibility does not guarantee or imply that the specific accessibility regulations of any country are met. Consult with an accessibility specialist to ensure that accessibility regulations are met.

© 2016 MaryLandonline, Inc. All rights reserved. This document may not be copied or duplicated without written permission of Quality Matters. For more information or access to the fully annotated QM Rubric, visit [qualitymatters.org](http://qualitymatters.org) or email [info@qualitymatters.org](mailto:info@qualitymatters.org)



# Advanced Certificate in Online Teaching

## ***Program requirements:***

- Core courses:
  - EDE484: Online Teaching & Learning (OR: EDU497: *Teaching in Higher Education & Health Care Settings*)
  - EDE486: Designing Online Courses
- Practicum in Online Teaching (EDF488)
- Two specialization courses (*semi-electives*)
  - A “teaching methods” course in the area of specialization
  - Another course that can support the design and facilitation of online learning experiences appropriate to one’s own teaching interests and instructional context

***Approved by NYSED***



# Advanced Series Online Teaching for UR Faculty

- Core courses:
  - EDE470: Online Teaching & Learning – 1 credit for 3 weeks
  - EDE471: Designing Online Courses – 2 credits for a semester
- Practicum in Online Teaching (EDF488)
  
- No cost to the faculty member or the School/Department
  - *Use employee tuition benefits (covers 80 or 90 %)*
  - *Warner Schools provides special Dean's award to cover the difference*



# Why do we do this as a course?

- the ability to provide an experience as an online student
- the experience of using the online course template (which is based on Quality Matters) as a student
- gain exposure to best practices and examples of good online teaching
- **More efficient with your time...**





# Questions?

