Online Teaching Essentials

City Tech Mathematics Department
Faculty Development Workshops, August 2020

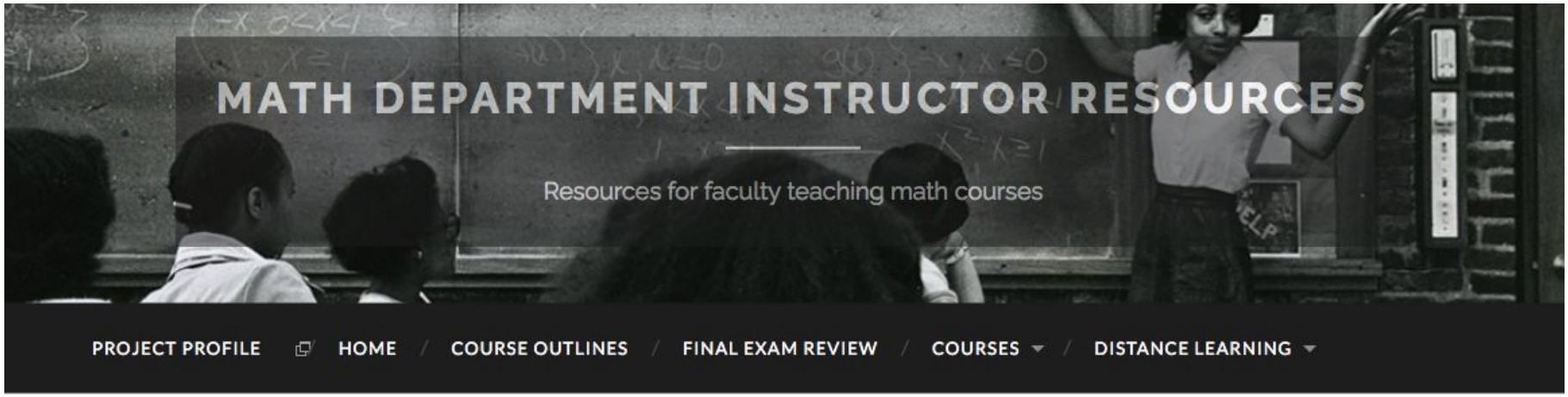
Presenters: Jonas Reitz, Samar ElHitti, Bruce Kan

Slides available: https://openlab.citytech.cuny.edu/mathinstructorresources/

Welcome!

- Welcome & Overview
- Best Practices
- Introducing Course Hubs
- Best Practices in Practice
- Help & Resources
- Q&A

Best Practices



Best Practices for Distance Learning

These recommendations are designed to help faculty follow best practices in their teaching and ensure that your Department meets its obligations to students regarding delivery of instruction, as required by the U.S. Department of Education (USED) and the Middle States Commission on Higher Education (MSCHE). These recommendations apply to all courses, whether web-enhanced, hybrid, or fully online.

IMAGES

Creative commons header image and project avatar courtesy of Flickr user Phillips Academy Archives

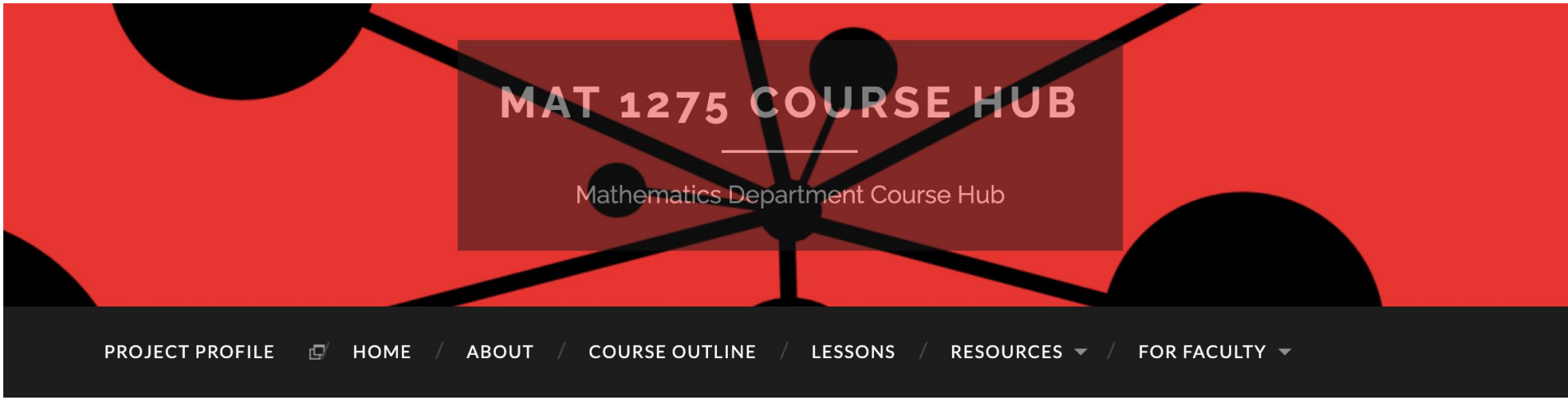
Common-Sense Best Practices

From established sources at City Tech and beyond; see Math Instructor Resources Project on OpenLab

Best Practices

- Course Information (Setting up your Course)
- Course Content:
  - Posting Materials
  - Working with Assignments
- Communications & Interactivity
- Assessment & Evaluation
- *Applicable whether you're teaching online, in hybrid mode, or in person*

Introducing Course Hubs



Welcome MAT 1275 students and faculty

JUNE 15, 2011 / JONAS REITZ / 1 COMMENT / EDIT

This site collects resources and information about the course MAT 1275 College Algebra and Trigonometry.

If you are a current or future student in MAT 1275, you will find basic course information (like the syllabus), online lessons for each day of the course, and

MAT 1275 COLLEGE ALGEBRA AND TRIGONOMETRY COURSE HUB

This site contains resources for the course *MAT 1275 College Algebra and Trigonometry*, including the syllabus, lessons, help and support materials, and more. It is intended for both students

Introducing Course Hubs

Freely available resources for use by all faculty and students

What is a Course Hub?

- Central resource for a course with syllabus, lessons, review sheets, WeBWorK and other resources for students and faculty
- Created by your colleagues & peer reviewed
- Freely available on the OpenLab so it can be used by everyone, regardless of teaching platform
- **Not** the place that you use for interactions with your students (more on that in a moment)

Using a Course Hub

- Link to the resources from your own course in Blackboard or OpenLab
- Use it to support a “flipped classroom” model
- Direct your students there to find additional materials to supplement your own instruction
- Find course coordination information, announcements for faculty, etc.
- **Students** can use it to catch up, check out a course, and prepare for a course or exam

Available Course Hubs

- Course Hubs are currently available for:
  - MAT 1275/CO
  - MAT 1375
  - MAT 1475
  - MAT 1575
  - MAT 1372
  - MAT 2680
- *Feedback on a Course Hub? Interested in creating one for another course? Let us know!*

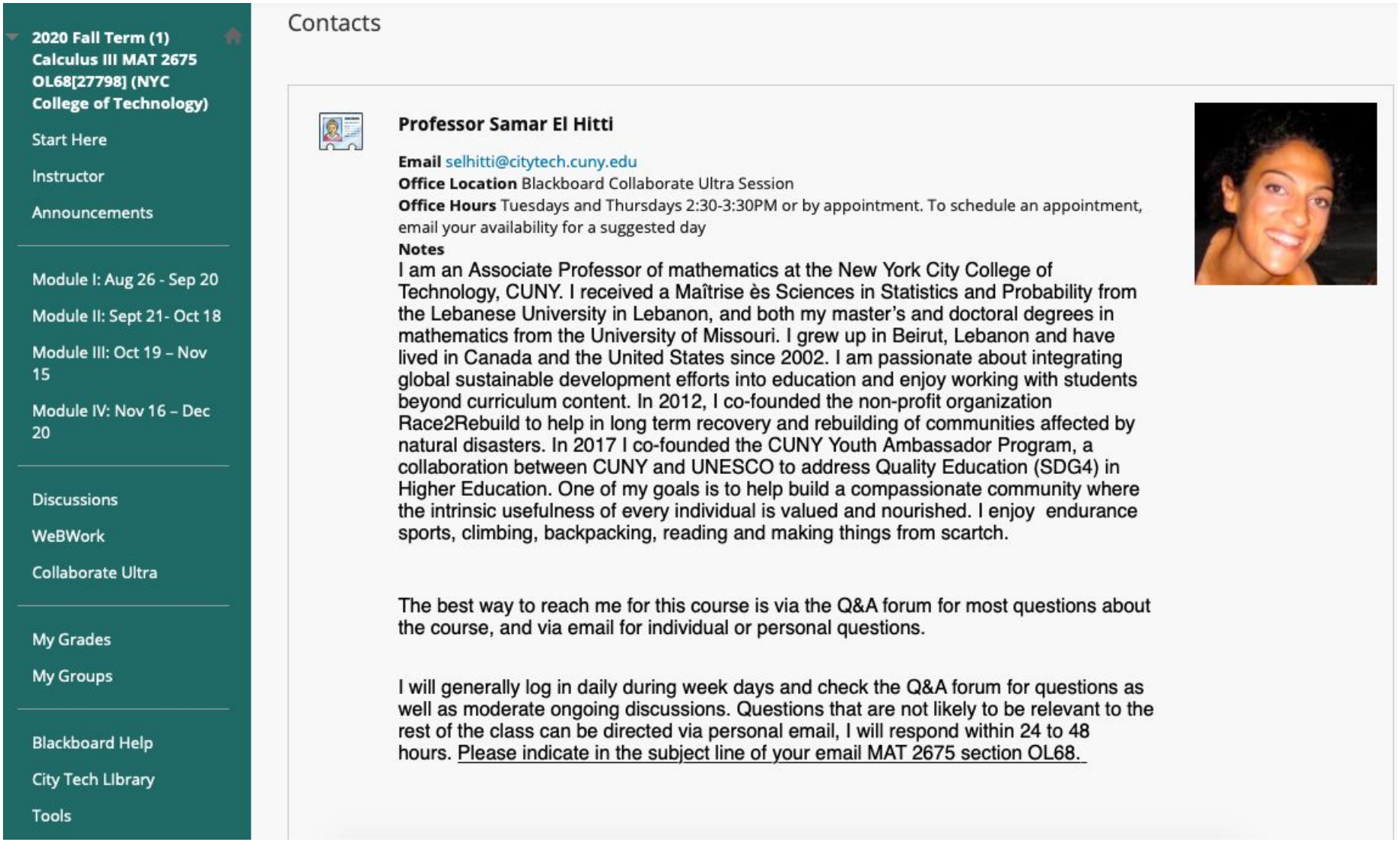
Best Practices: Course Information

Course Information

- **An online course space is provided, maintained, and is accessible to all students in the course**
  - Blackboard, OpenLab
- It's well-organized and up-to-date, and provides:
  - Your contact information and availability
  - Course information: syllabus, policies, etc.
  - Details of synchronous meetings (if any)
  - Instructions for using communication tools
  - Info about help and resources for students

In Practice: Blackboard Menu

- **Start Here:** syllabus, schedule, checklists
- **Instructor:** contact information, short bio
- **Announcements:** welcome, upcoming due dates
- **Course Content:** modules, course material
- **Discussions:** forums and threads, Q&A
- **Collaborate Ultra:** direct link to course room
- **My Grades:** graded activities, due dates, rubrics, student grades

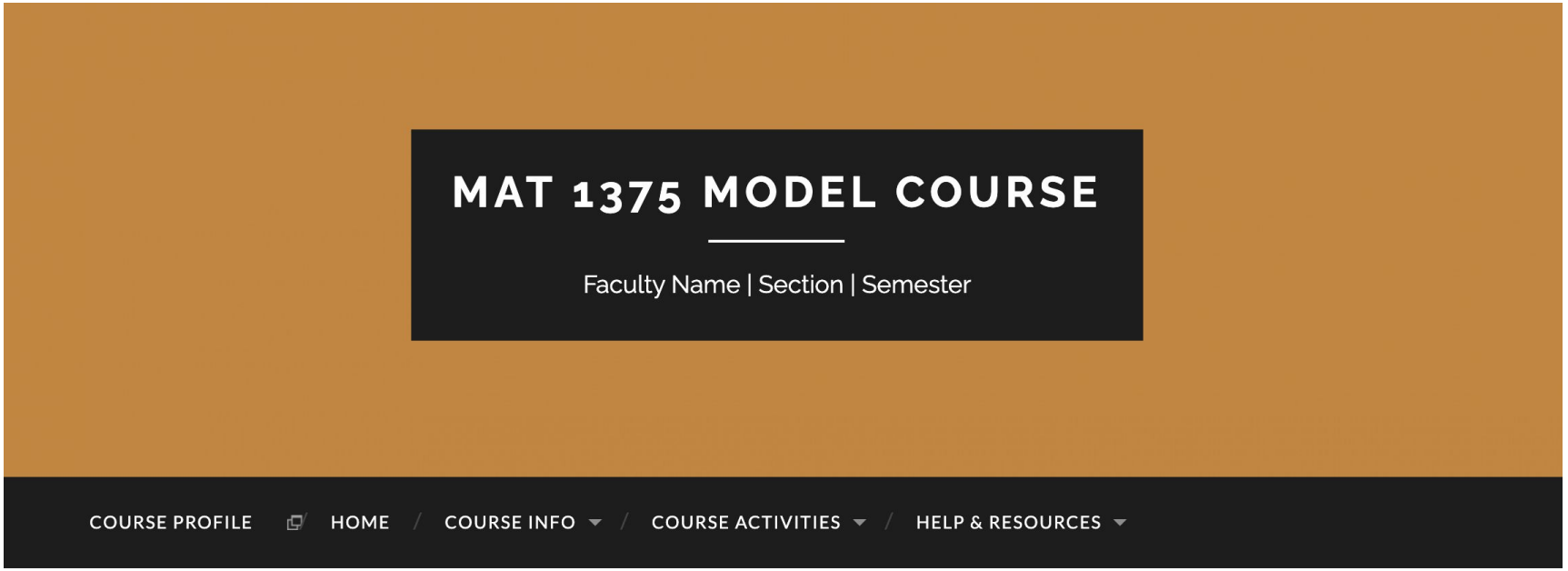


Example: Blackboard Course

Main Menu and Instructor Contact Card

In Practice: OpenLab

- Use a Model Course! Model Courses are available for all the Course Hubs
- Provides a template that will help you meet all the Best Practices
- No Model Course for your course? No problem! Use a regular OpenLab course instead: they now have templates too (though not customized for Math)
- Come to the workshop on Friday for more info



Example: OpenLab Model Course

Complete the template, following the instructions

Best Practices: Communicating with Your Students

Communicating with Your Students

- **Instructor and students regularly use the online course space for asynchronous communications (discussions, blog posts, peer feedback, etc.)**
  - Faculty welcome students & facilitate introductions
  - Faculty communicate clearly, actively, and regularly
  - Faculty provide clear instructions for synchronous and asynchronous communications
  - Students have frequent opportunities to interact
  - Everyone follows best practices for communicating online

In Practice: Blackboard

- Discussion Board Forums (optional email alerts)
  - Introductions
  - Q&A Forum
  - Topic Specific Threads
- Announcements (date restricted, email copy)
- Email (all student users or select users)

in-class announcemnets Tuesday, April 14

Posted on: Tuesday, April 21, 2020 2:32:55 PM EDT

Posted by: Samar EL Hitti
Posted to: 2020 Spring Term (1) Calculus II MAT 1575 E581[24394] (NYC College of Technology)

1. Weekly Check-in updates – thank you!
2. Exam 3 new date: April 30 – Sequences and Series
3. Exam 2 grades / Drop lowest exam grade / BB Discussions Board / Extra credit
4. Locating graded work on BB
5. Useful YouTube Channel for Calc II: http://www.mathispower4u.com/calc-ii.php

Welcome back from the break!

Posted on: Monday, April 13, 2020 9:59:44 AM EDT

Posted by: Samar EL Hitti
Posted to: 2020 Spring Term (1) Calculus II MAT 1575 E581[24394] (NYC College of Technology)

Hope you had a good break! Please check this week's calendar in the Content folder on BB. Office hours and class as usual this week! Make sure you finish the pre-class assignment (short video) before class tomorrow. See you soon!

CUNY conversion date, spring break and calendars ...

Posted on: Monday, April 6, 2020 9:21:52 AM EDT

Posted by: Samar EL Hitti
Posted to: 2020 Spring Term (1) Calculus II MAT 1575 E581[24394] (NYC College of Technology)

This week's updated calendar and next week's calendar are on BB. Check them out for details -- no class this week due to CUNY conversion day and spring break! Reach out if you have any questions. Stay strong, stay safe, see you next week!

Example: Blackboard

Announcements

In Practice: OpenLab

- OpenLab is designed for connection and communication
- Math Model Courses and regular OpenLab courses offer templates for:
  - Welcome post
  - Announcements
  - Discussions
- *Teaching with the OpenLab* site provides advice on communications best practices

OpenLab #1 – Introduce Yourself

Jonas Reitz

January 27, 2019

Assignments

Edit

Your first OpenLab assignment is to introduce yourself to your classmates. This assignment is due Thursday, February 6th, at the start of class. Late submissions will receive partial credit.

Assignment. Write a comment in reply to this post (scroll to the bottom to find the "Leave a Reply" box). Your comment should be at least 2 paragraphs in length. In the first paragraph, introduce yourself in whatever way you wish (what do you want your classmates to know about you?). In the second paragraph, choose ONE of the following two topics and write a response. Don't forget to tell us which topic you chose.

Topics (choose ONE).

1. Was math ever your favorite subject? If so, when was it? What about math made it your favorite? If math has never been your favorite subject, what about it do you not like?
2. Sometimes people can recognize a time when their opinion of math dramatically changed either for the better or the worse. Tell us about it.

Example: Introductions on the OpenLab

FROM MAT 1375, SPRING 2020, REITZ

Best Practices: Preparing Course Materials

Preparing Course Materials

- **Instructional materials are provided for each class meeting or project milestone**
  - Materials should be current and relevant
  - Use open educational resources (OER) if you can
  - Make sure materials comply with accessibility standards and copyright law
  - If you present materials synchronously (via video conferencing), provide recordings of class meetings, lecture slides, and/or notes for students who are unable to attend

In Practice: All Platforms

- If a Course Hub is available, much of your work is done for you!
- For help following Accessibility standards, see the Library's *Introduction to Accessibility*
- Consult the Center for Student Accessibility if you need guidance
- For help understanding Fair Use and Copyright, see *CUNY Fair Use & Copyright Guide*

Best Practices: Working with Assignments

Working with Assignments

- **Coursework includes scaffolded assignments designed to help students achieve the course learning objectives**
  - Students have opportunities to work in multiple modes and media, share their work with one another, and get peer feedback - all with clear written instructions
  - Student work complies with accessibility standards and copyright law
- **Coursework requirements overall comply with the College's credit hour policy**

In Practice: Blackboard

- Assignments (Mashups)
- Test / Survey
- Adaptive Release
- Single vs multiple submission attempts
- Reminders
- Graded discussion forums
- Graded group work
- Wikis

Group Assignment Module I

You will create a review for the end-of-module exam with your group by each choosing 1 different problem from the different homework sets. As a group you will discuss your choices and submit a narrative explaining why your group chose these problems for the exam review.
Your group will also write and submit the solution

WeBWorK Module I hw3

Log on to WeBWorK to access and submit your hw. A quick link to WeBWork is in the green menu to your right

Example: Blackboard

Graded Assignments

In Practice: OpenLab

- Built-in Surveys & Quizzes
- Model Course provides:
  - Sample Assignment: “Crowd-Sourced Exam Review” *(Kate Poirier)*
  - Structured Template includes Overview, Learning Outcomes, Due Date, Instructions, Grading Rubric, and Resources

Assignment: Crowd-Sourced Exam Review

JUNE 2, 2020 / JENNA SPEVACK / 0 COMMENTS / EDIT

Faculty: Below is an example of an OpenLab Assignment that encourages students to take a more active role in preparing for their first exam. It demonstrates how you can provide instructions for each assignment. It uses the category "Assignment Instructions" and can be found under Course Activities > OpenLab Assignments > Assignment Instructions" in the site menu. Please customize the assignment by updating the due date and other highlighted information below, and make any other changes you wish. Don't forget to delete this informational block when you are ready to share your site with your students. For help working with OpenLab Course sites, visit OpenLab Help.

Overview

Your first exam will take place on Tuesday, February 23rd. To prepare for the test, you as a class will construct a crowd-sourced review sheet. Each of you is responsible for choosing one question and creating a post with the question and its solution on the OpenLab. Try to pick questions that you think make good test questions (not too easy); try to pick topics that haven't been posted by your classmates. Select the category "Exam 1 Review" from the right side of the screen

Example: Assignments on the OpenLab

CROWD-SOURCED EXAM REVIEW, MAT 1575 CALC II, SPR 2020, POIRIER

In Practice: WeBWorK

- WeBWorK
  - Scaffolded assignments aligned with City Tech curriculum.
  - Immediate feedback to students.
  - Multiple attempts allow for “productive failure.”
  - “Show me another” for skills reinforcement.
  - Homework help for students on “Q&A site.”

Polynomials - Division: Problem 2

Previous Problem | Problem List | Next Problem

(1 point)

Compute the quotient and the remainder of $\left(20x^3 + 48x^2 + 48x + 28\right) \div (5x + 7)$

▾ Long Division: Eliminating the first term

$$\begin{array}{r|llll} & \square & & & \\ \hline 5x+7 & 20x^3 & +48x^2 & +48x & +28 \\ & -(\square & \square) & & \\ \hline & 0 & \square & & \end{array}$$

Long Division: Eliminating the second term

Long Division: Eliminating the third term

The steps above are provided to help you compute the quotient and remainder.

If you can find the quotient and remainder without using the steps above, you may input your answer here for full credit:

The quotient of $\left(20x^3 + 48x^2 + 48x + 28\right) \div (5x + 7)$ is ☐ with remainder ☐

Note: *You can earn full credit by answering just the last part.*

Preview My Answers | Check Answers | Show me another

Example: WeBWorK

Long Division of Polynomials, MAT 1375

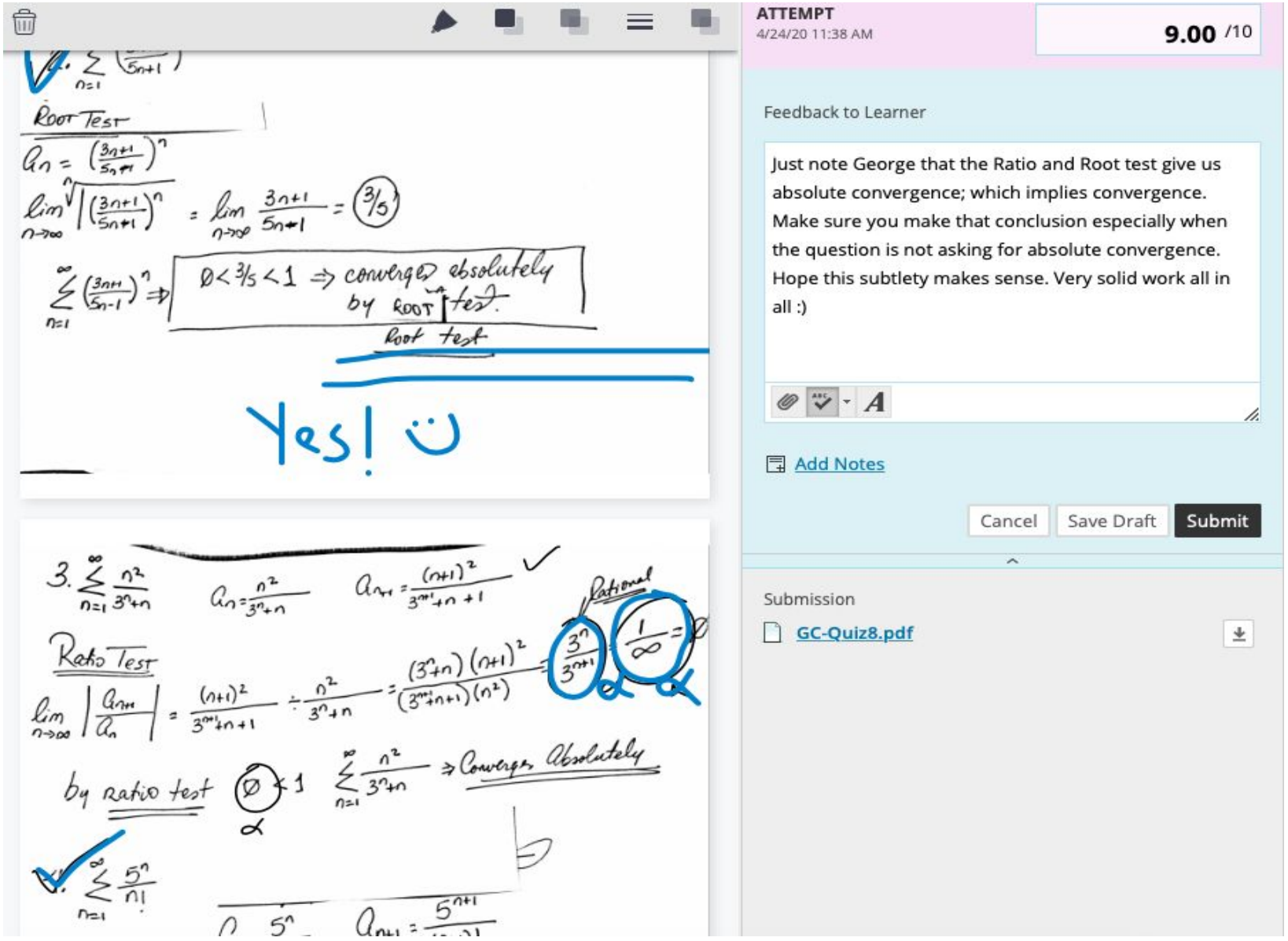
Best Practices: Assessment & Evaluation

Assessment & Evaluation

- **Feedback about student performance is provided in a timely manner throughout the course**
  - Provide multiple opportunities for assessment in different modes
  - Provide clear written instructions
  - Provide accommodations as needed
  - Respect student privacy
  - Refer students who need it to support services
  - And let students provide feedback too!

In Practice: Blackboard

- My Grade to track grades progress
- Attach rubric to assignments
- Inline grading (Box) or download/upload option
- Feedback to user (private)
- Returns graded work (private)
- Feedback on Discussion Forum threads (private/public)
- Deadline extensions and additional attempts



Example: Blackboard

Inline grading

In Practice: OpenLab

- The OpenLab provides two tools (plugins) for feedback and grading:
  - Private grades and comments on posts
  - OpenLab Gradebook
- Also for quizzes, polls, and surveys
- See the *Teaching with the OpenLab* site for how-tos
- Model Course has links to resources for students, including support services

In Practice: WeBWorK

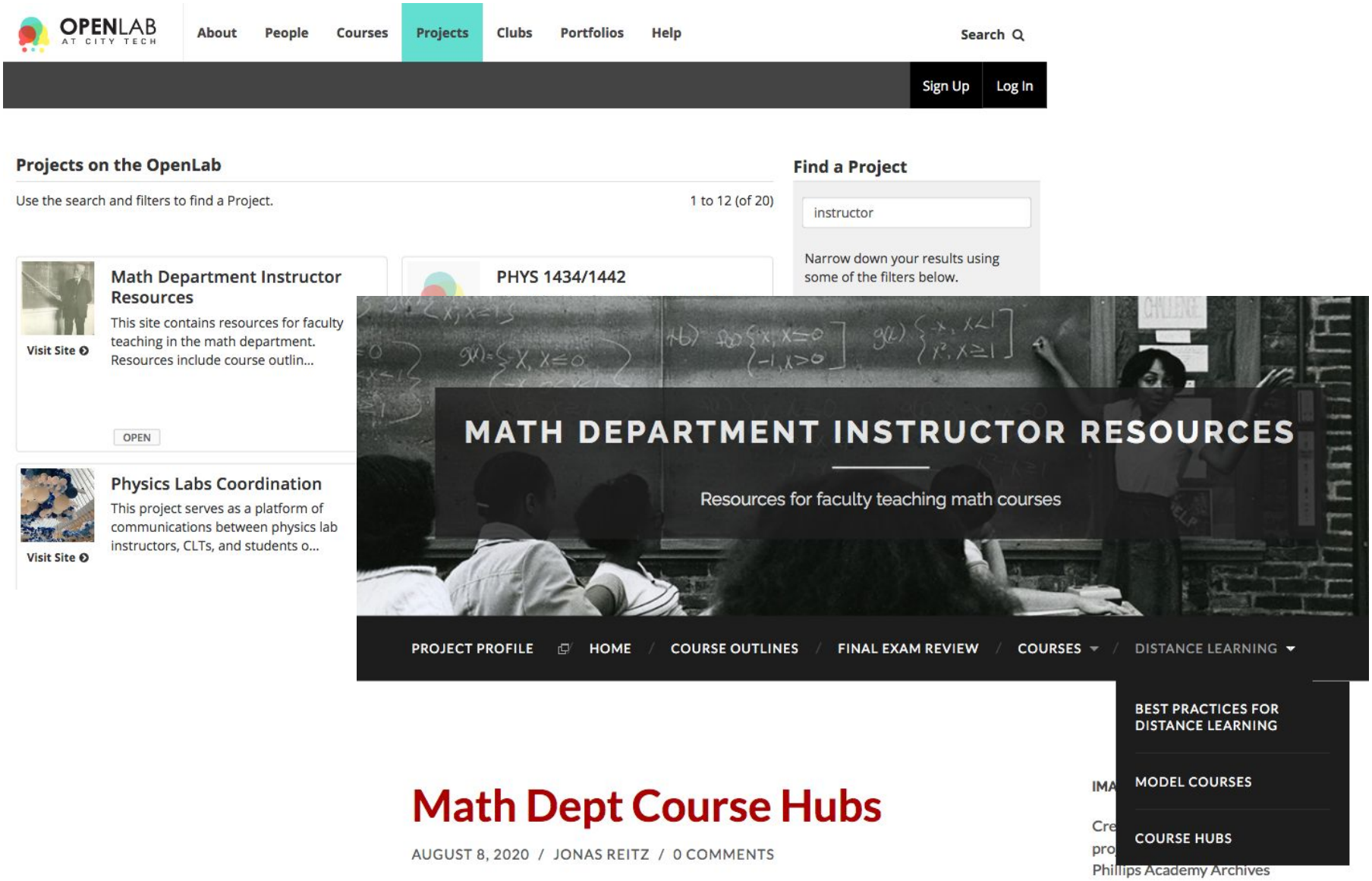
- WeBWorK
  - Realtime student progress - always available
  - Track individual students or entire class
  - Easily identify the problems/topics that students are struggling with

Score	Out Of	Problems									
		1	2	3	4	5	6	7	8	9	10
8	10	100	100	100	100	100	100	100	100	0	0
		11	4	6	5	0	1	0	1	2	1
8	10	100	100	100	0	100	100	100	100	100	0
		6	3	3	5	1	0	0	0	0	2
7.5	10	83	100	67	0	100	100	100	100	100	0
		2	1	4	4	0	1	2	0	0	3
7	10	100	100	.	.	100	100	100	100	100	.
		2	0	0	0	0	0	0	0	0	0
4.67	10	67	100	100	100	100	0	.	.	.	.
		1	1	1	0	0	2	0	0	0	0

Example: WeBWorK

Student progress detail

Help & Resources



Math Department Instructor Resources Site

Find it on the OpenLab!

Q&A

Thank you!