UNIVERSITY OF WISCONSIN SYSTEM

Office of Academic and Student Affairs

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UW SYSTEM MATH INITIATIVE
Math Steering Committee Meeting

Friday, February 8, 2019
Check in 9-9:30 a.m.
9:30 a.m.-2:30 p.m.
Pyle Center, 702 Langdon Street, Madison

MEETING OBJECTIVES

- Assess and understand current gateway math requirements/recommendations for Business, Nursing and Education at UW institutions
- Further unpack placement recommendations for gateway NANS and Stats

PRE-WORK

- Submit Business, Nursing and Education gateway math syllabi
- Map out and submit current math pathway and placement for Business, Nursing and Education
- Submit any updates to placement for CA, QR and Stats made at your campus

AGENDA

Welcome

Assess and understand current gateway math requirements/recommendations for Business, Nursing and Education at UW institutions

- Review licensing and accreditation math requirements
- Small group work (Business Nursing, and Education)
    - What are the commonalities among institutions?
    - Where are the opportunities?
    - Discuss how licensing and accreditation factors in

Lunch - Assess whether there are advantages to having a uniform syllabus template for gateway math courses

Further unpack placement for NANS and Stats – Sonya Sedivy

- Discuss strategies to examine placement in Stats and NANS math courses

Next steps and closing

- Early enrollment in math foundational work
- March 14 MSC meeting
- ICT workshop April 18-19 at Madison Concourse
- Summer site visits

OPID 2019 Spring Conference on Teaching and Learning

Memorial Union, Madison, WI
For registration visit https://www.wisconsin.edu/spring-conference/

Abstracts for math sessions:

300 A gay elementary teacher: His identity and his mathematics teaching
Kyle Whipple UW-Eau Claire

I will present a case study I conducted with an elementary teacher focused on gay identity and intersectionality with mathematics teacher identity. Through this research, I learned this teacher makes decisions regarding curriculum and pedagogy he attributes to his gay and mathematics identities. This teacher believes growing up with an identity that placed him as an outsider to groups, including people who can do math, makes him sensitive to students' emotional responses to problem solving and arithmetic. This heightened awareness leads the teacher to make careful decisions about the problems he assigns to students, both in terms of the wording and the difficulty level. The teacher places students into groups with specific reasons, including community engagement with one another and mathematics ability. The results from the case study indicate that the intersectionality of this teacher's gay identity and his mathematics identity lead him to create an inclusive mathematics classroom.

351 Preparing Developmental Math Students for a STEM Pathway
Shubhangi Stalder UW-Milwaukee at Waukesha

This session will showcase open educational resources (OER) materials being developed for Developmental Math through Intermediate Algebra by Stalder and Martin and funded by a UW System OER grant. These materials include video lectures and align course content with accompanying exercises in a non-standard progression giving students a more in-depth understanding beyond the typical rote memorization encouraged in traditional texts. These materials also cultivate growth mindset and mindfulness to reduce students' math anxiety. While most mathematics OER materials compete with costly publisher-generated homework systems, this presentation will demonstrate "Mobius," a Maplesoft product incorporated into the OER materials by the authors and a team of programmers to create a less expensive algorithmically-generated homework-system alternative. Participants will be given an opportunity to interact with some of these materials.

287 Education Can Be Enjoyable in VR
Mehdi Roopaei UW-Platteville

Virtual Reality (VR) has a significant role in the natural next step for the advancement of education. This technology has long held promise as a tool to enhance education. The immersive and interactive experiences within VR can have educational applications in disciplines ranging from science and engineering to foreign languages and social sciences. VR can be used in classrooms to enrich student learning and engagement and can renovate the way educational content is delivered. Being fully immersed within a learning environment increases motivation to fully understand the concept. The goal of this proposal is to develop an easy to use and adaptable VR framework to visualize Math for undergraduate students. The proposed platform utilizes a hybrid approach of visual-based and immersive-based learning to: (i) improve engagement, and ultimately retention of students; (ii) give students a deeper understanding of Math, and ; (iii) move towards a more student-centered learning environment.