USC Math Grad **TA**bloid

Weekly Newsletter for TA Teaching
Volume 12, Issue 21
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Announcements:

- For those wanting to be a mentor in the Peer-Mentor Program, please remember to apply soon.
- If you are teaching a course that is coordinated, please make sure to check with the coordinator before making exams open notes or open book.
- Lecturers have been told to observe their recitation instructors. If you have not been observed, and want to be, please contact Dr. Hong Wang or Dr. Sean Yee.

Upcoming Events:

CLICK the picture below for more information and to sign up if interested to register. All sessions are online.

OCT 28 — Mutual Expectations Discussion: Artificial Intelligence on the College Campus IP

OCT 28 — Reimagining Assessments with Generative Artificial Intelligence W

OCT 30 — Career Champions Level 3: Career Readiness Outcomes IP

OCT 30 — Unpacking USC Data to Support Experiential Learning and Career Readiness Across Transfer, Sophomore, and Junior Year Experiences IP

OCT 31 — HIDOC and Seek: The Blueprint for Highly Effective Online Course Design W

OCT 31 — Writing a Teaching Philosophy Statement for Graduate Students W

Teaching Tip of the Week:

All Mistakes Are NOT Created Equal

Dr. Ralph Howard was kind enough to share a part of his MATH 122 syllabus with the TAbloid. Many students are unaware of how certain mistakes are more "fatal" than others. Please give a read and see if this could be helpful to your students.

> **About partial credit and bad algebra:** Some arithmetic errors do not bother me much. If your get in a hurry and get $7 \times 8 = 48$ it is not going to cost you much, provided you are doing everything else correctly. However, there are certain mistakes (all involving misuse of high school in such a way that always gives wrong answers), that will not be tolerated. If you make these mistakes I will mark the entire problem wrong. Here are some examples of zero point errors:
>
> $$\sqrt{x+y} = \sqrt{x} + \sqrt{y}, \quad (x+y)^2 = x^2 + y^2$$
> $$\frac{\log(2x)}{2} = \frac{\log(\not{2}x)}{\not{2}} = \log(x), \quad \frac{2x+3y}{3z} = \frac{2x+\not{3}y}{\not{3}z} = \frac{2x+y}{z}$$
>
> This is not meant to scare you, but just to let you know where things stand.

Pedagogical Term of the Week:

Zone of Proximal Development (ZPD)

ZPD stems from the social cognitive theory asking, if students prior knowledge is very different, can you still teach students well? Essentially, given a mathematics class and curriculum, there exists an epsilon such that for any student in the class, if their prior knowledge and mathematical ability is within epsilon, the class can be taught. Otherwise, if the range of the classrooms' prior knowledge is greater than epsilon, then there will be problems with trying to remediate some while moving forward with other students. A revered Russian Education Theorist named Lev Vygotsky (taken far too early from this world) started the idea and the western world learned of his theories only after the Cold War. See **HERE** for more.

Budapest Semesters in Mathematics Education (BSME)

BSME is holding a free Zoom webinar for anyone wishing to learn more about Summer@BSME. Please forward to any students, faculty or alumni who may be interested.
Join us on Tuesday, November 11
Time:

- 9:00 am Pacific Time
- 10:00 am Mountain Time
- 11:00 am Central Time
- 12:00 pm Eastern Time
- 6:00 pm Hungarian Time

Find pre-registration link here!
Summer@BSME is a six-week summer program in Budapest, Hungary, designed for undergraduates, recent graduates, and in-service teachers interested in the learning and teaching of secondary mathematics. Participants take a variety of courses in mathematics education and complete a week-long field experience. Come experience the Hungarian pedagogy based on guided discovery—which emphasizes problem solving, creativity, and communication—as well as the rich and vibrant culture of Hungary. *Now offering graduate credits as well as undergraduate credits!* Learn more about credits here.

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News

Graduate Students as Part of the Instructional Workforce for Undergraduate STEM Education

The National Academy of Science, Engineering, and Medicine asked Dr. Victoria Chebotaeva (a grad of ours now at U of Southern California) and Dr. Yee to serve on a panel for the role of graduate students as an instructional workforce in STEM a few weeks ago. Many of you have asked to see that video. Here is the link:
https://mailchi.mp/nationalacademies/icymi-graduate-students-instructional-workforce-7271223?e=e636cbea97