

Presidential Ponderings

It was great to see many of you at our annual joint conference in Huron this past February. If you missed it, make sure you ask your principle before the end of the year for funding to attend some professional development next year in Huron on February 7-8. I hope to see some new faces there next year. For you regular attendees, invite a friend! We have some excellent speakers lined up for you. This coming year we have Howie Hua https://hwww.mathvalues.org/strom lined up for speakers. It promises to be another great conference. I know it is a lot easier and more comfortable to just stay home and teach your classes instead of



going out of your comfort zone and doing the extra work in preparing for a sub. However, I have found that at these events, one can really get reinvigorated by talking to colleagues and friends that help to encourage us in our jobs. We can also listen to excellent speakers and gain great ideas for our classrooms from them. I really do hope you make an effort to attend next February.

It is hard to believe the calendar says that we made it to the close of another school year. I hope you can all take assurance in that you did monumental work again this year in educating our youth and overcoming all the many obstacles that came your way throughout the year. I hope you get a chance to rest and recharge over the summer. However, I do want you to consider some professional growth opportunities. One such opportunity would be our Summer Symposium which will be held on July 16 from 8:00 am – 4:00 pm on the campus of Dakota Wesleyan University. See our website http://www.sdctm.org/ for registration information as it gets updated. This summer we have Stephanie Higdon, Circles Alliance Curriculum Development Facilitator and Library Director, who will be running the workshop.

Here is an advertisement for the workshop:

Come build your **identity** as a mathematical thinker, find **joy** engaging in math tasks and be a part of a **community** of current and future math educators! Learn wise practices to create inclusive, collaborative classroom environments where students feel brave to share their cultural identity, develop their mathematics identity and see themselves as critical thinkers, resilient problem solvers, and confident mathematicians. Educators will engage in rich mathematics tasks, reflect on practices that engage students to build their creativity and curiosity of mathematics and have conversations with colleagues that allow for deeper reflection.

Wishing you all a very well deserved restful and relaxing summer. I hope to run in to many of you again in the near future.

Sincerely,

President-SDCTM
Dan.VanPeursem@usd.edu

Fall 2023-2024

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Calendar Reminders

Summer Symposium July 16



9-12 Spotlight

AP Precalculus

This year, our school has piloted the newest Advanced Placement math course, AP Precalculus. The course was just launched for the 2023/2024 school year. Our school has learned a lot through our pilot program, so I thought I would share a few learnings with you here.

What is the benefit of AP Precalculus?

All students benefit from a 5-point grading scale for AP classes, increased level of difficulty on their transcript, and a common global curriculum with lots of online support.

There is also the possibility of earning college credit for taking the course. Of course, not every student will earn college credit, and not every student will need the college credit, but it can be helpful for certain students.

To earn college credit, students must pay to take the Advanced Placement test given each year in May. South Dakota Board of Regents schools have agreed to award credit for Precalculus for a score of 3 or higher on the test. Students going to an out-of-state school will need to check with that school about AP credits. Since this is the first year the test will be given, we are anxiously awaiting information about pass rates.

The college credit will be most useful for students who are not continuing with math beyond College Algebra. Precalculus will replace the College Algebra requirement for those students, allowing them to complete their required math credits while still in high school. For students required to take calculus in college, precalculus is necessary, but the first credit bearing course is usually calculus.

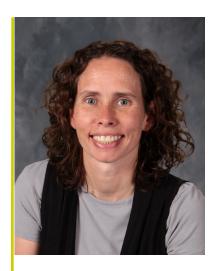
What is included in the course?

For the most part, the course covers the traditional precalculus topics including polynomial and rational functions, exponential and logarithmic functions, and trigonometric functions. New to most precalculus courses is a focus on limit notation to describe end behavior, a brief study of semi-log plots, and several lessons on polar functions. The College Board course consists of 4 units, but only the first 3 units are covered on the test. The 4th unit covers additional topics such as parameters, vectors, and matrices.

What support does College Board provide?

College Board provides a suggested curriculum and pacing for the course. Students and teachers get access to AP Classroom which provides videos and online practice assignments for each lesson, a test bank, progress checks, and practice exams.

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"...our school has piloted the newest Advanced Placement math course, AP Precalculus."

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9-12 Spotlight continued

Who should take AP Precalculus?

There has been a lot of debate about how to present the course. Should there be a "normal" precalculus course and an AP Precalculus course? College Board suggests that all precalculus students should take AP Precalculus. The course is designed to be approachable for all students and to provide an AP experience for students who may not yet have had that opportunity. At our school we converted all our precalculus sections to AP Precalculus and are happy to offer this new opportunity to our students.

Where can I learn more?

College Board has a wealth of information on its website including course curriculum and resources. I would start there. (https://apstudents.collegeboard.org/courses/ap-precalculus) We have also found great resources on CalcMedic (https://www.calc-medic.com/150-days-ap-pc) and Algebros (https://precalculus.flippedmath.com/ap-precalc-coming-sy23-24.html). If you are interested in pursuing this course, we would love to share resources with you, so just reach out.

Jennifer Haar SDCTM High School Liaison Jennifer.Haar@k12.sd.us

A Word from Stephanie

SDCTM Social Media Presence

You can follow SDCTM on the following social media platforms:



Instagram: SDCTM_Math



Facebook: South Dakota Teachers of Mathematics



X (Twitter): @SouthDakotaCTM



Stephanie Higdon Stephanie.Higdon@bhsu.edu SDCTM Public Relations / Social Media



"Let's make our social media presence heard SD Math Teachers!"



Presidential Award for Excellence in Mathematics and Science Teaching

2024 Mathematics Finalists

Michelle Stumpf, a middle school mathematics teacher at Belle Fourche, SD, has been teaching for 18 years. She currently teaches 5th grade. Michelle graduated from the University of South Dakota with a Bachelors degree in Elementary Education in 2003. Afterwards, she earned her Masters in Education for Technology and Training degree from the University of South Dakota in 2005. Michelle has participated in the South Dakota Mentor Teacher Program, supervised student teachers, and been recognized as Belle Fourche Middle School Teacher of the Year.



<u>Valerie Nelson</u>, an elementary school mathematics and science teacher at Chamberlain Elementary in Chamberlain, SD, has been teaching for 15 years. She currently teaches Kindergarten. Valerie graduated from Northern State University with a Bachelors degree in Elementary Education in 2009. She is now working toward completing a Masters in Education degree in Leadership and Administration from Northern State University. Valerie has served as Kindergarten Team Leader, has served on Chamberlain's Language Arts Curriculum Team, and has recently been recognized as a South Dakota Regional Teacher of the Year.



Kinlee Stetson, an elementary school mathematics teacher at Corral Drive Elementary in Rapid City, SD, has been teaching for 10 years. She currently teaches 4th grade. Kinlee graduated from the Chadron State College with a Bachelors degree in Elementary Education in 2013. Kinlee has participated in the Rapid City Area Schools Mathematics Leadership Cohort, served on the Corral Drive Leadership and Targeted School Improvement Teams, helped implement the Leader in Me project in her building, and has been nominated for Teacher of the Year for Corral Drive Elementary.





"Anyone-principals, teachers,
parents, students, or
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PAEMST continued

The Presidential Award for Excellence in Mathematics and Science Teaching (PAEMST) is the highest recognition that a kindergarten through 12th grade mathematics or science teacher may receive for outstanding teaching in the United States. Since 1983, more than 5,200 teachers have been recognized for their contributions to mathematics and science education. Awardees serve as models for their colleagues, inspiration to their communities, and leaders in the improvement of mathematics and science education.

Presidential awardees receive a citation signed by the President of the United States, a trip to Washington DC to attend a series of recognition events and professional development opportunities, and a \$10,000 award from the National Science Foundation.

Anyone--principals, teachers, parents, students, or members of the general public--may nominate a teacher by completing the nomination form available on the PAEMST website. For more information, please visit $\underline{www.paemst.org}$. The nomination window will be open this Fall to recognize $7^{\text{th}}-12^{\text{th}}$ grade mathematics and science teachers.

Allen Hogie SD PAEMST Mathematics Coordinator Allen.Hogie@k12.sd.us 605.553.8095



Jennifer Fowler SD PAEMST Science Coordinator DrRangerJen@gmail.com 605.431.5438



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Why Huron?

Every year, someone asks the question, "Why is the SD STEM Ed Conference always in Huron?" There are several reasons including: it is easier; it is cheaper; and Huron is so accommodating. For the past 20+ years, the Huron Chamber of Commerce, the Crossroads Hotel, and now the Huron Events Center have gone out of their way to accommodate the needs of an ever-changing conference.

In previous years, when our attendance went from 200 to over 700 in one year, the HCC/ Crossroads found us 14 extra meeting rooms within walking distance of the Crossroads at no extra cost to the Conference Committee. This included a longstanding agreement with the Presbyterian Church that ended only when the new Events Center was completed. They also helped us scale back when the NSF money dried up and we struggled to make ends meet and still keep a quality conference. Our liaisons with the Crossroads, especially Brenda and Maria, have helped us do what it takes to meet the needs of our organizations.

Another reason we stay in Huron is that it is just plain easier. SDSTA and SDCTM are organizations that are run by volunteers. We all know that doing something the second time is easier than figuring out how to do it the first time. Imagine trying to allocate space for sessions in a strange facility, or coordinating meals with someone you don't know, or straightening out the room situation when you discover that a featured speaker doesn't have a room with the third desk clerk you have talked to in two days. These are all things that the Joint Conference Committee does not have to deal with. One phone call or email usually takes care of any "crisis."

Finally, the bottom line usually ends up being money, and this is no exception. About every three years, representatives from Sioux Falls, Aberdeen, Pierre and Rapid City contact us trying to lure us away from Huron. What I do is send them a list of the things that Huron provides and ask them what incentive they can offer to make us consider changing our venue. Sometimes they don't even respond. Most of the time, they send me a polite note, suggesting that I am exaggerating what we get from the Crossroads/Huron Events Center. Trust me I am not. We pay nothing for meeting rooms, get reasonable rates on our meals, provide all available sleeping rooms at the Crossroads to our participants at the same rate, and we get complimentary suites to use as office space.

Until the last several years when we had so many requests for LCD projectors, they also provided all AV equipment, screens and microphones free. Even now, thanks to TIE and the HEC we still do not pay for AV equipment. Many national conferences now pass that cost on to presenters at anywhere from \$25-50/hour for the use of an LCD projector. These things add up to big dollars in the overall budget. Since we need this conference to be self-supporting, money MUST be a factor in our decision-making process.

That is why we stay in Huron. I realize that this may be more information than you really need or want, but I feel that it is important to address a question that doesn't seem to go away. I think you also need to go out of your way to thank any SDCTM or SDSTA Board member that you see for the time and energy that they put into making the SD STEM Ed Conference such a great event. We, in South Dakota, are unique in having an annual Joint Conference, especially one that is coordinated by volunteers. What is even more important is the quality of that conference. See you there in February of 2025.

Cindy Kroon, Conference Chair



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SDCTM Executive Board Members



www.sdctm.org

SDCTM President Dan VanPeursem University of South Dakota (605) 624 - 6368 Dan.VanPeursem@usd.edu

SDCTM Past President Sheila McQuade Sioux Falls O[†]Gorman High School (605) 336 - 3644 SMcQuade@sOGKnights.org

President-Elect Sharon Vestal South Dakota State University (605) 695 - 1489 Sharon.Vestal@sdstate.edu

Vice-President Mark Kreie Brookings High School (605) 696-4236 Mark.Kreie@k12.sd.us

Secretary Amy Schander Gayville-Volin High School (605) 267- 4476 Amy.Schander@k12.sd.us

Treasurer Jay Berglund Gettysburg High School (605) 765 - 2436 Jay.Berglund@k12.sd.us

Elementary Liaison Jodi Neuharth Freeman Public Schools (605) 933 - 0642 Jodi.Neuharth@k12.sd.us

Middle School Liaison Allison Schmitz Northwestern Area Schools Allison.Schmitz@k12.sd.us

Secondary Liaison Jennifer Haar Rapid City Stevens High School 605-394-4051 Jennifer.Haar@k12.sd.us Post-Secondary Liaison Chris Larson Department of Mathematics and Statistics South Dakota State University (605) 690 - 4957 Christine.Larson@sdstate.edu

NCTM Representative Susan Gilkerson Rutland School (605) 586 - 4352 Susan.Gilkerson@k12.sd.us

SDCTM Newsletter Editor Amy Schander Gayville-Volin High School (605) 267 - 4476 Amy.Schander@k12.sd.us

SDCTM Webmaster Cindy Kroon Montrose High School (605) 363 - 5025 Cindy.Kroon@k12.sd.us

Conference Coordinator Emeritus Jean Gomer (605) 629-1101

SD STEM Ed Conference Coordinator Cindy Kroon Montrose High School (605) 363 - 5025 Cindy.Kroon@k12.sd.us

SD STEM Ed Treasurer & Registrar Sheila McQuade Sioux Falls O[†]Gorman High School (605) 336 - 3644 SMcQuade@sOGKnights.org