



FALL 2023



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In this Issue:

- ⇒ Nominations open for FTYCMA Officers (Pg. 3)
- ⇒ Highlights of Fun in the Sun XXI 2023 (Pg. 4)
- ⇒ Focus on the Great 28: Florida Gateway College (Pg. 3)
- ⇒ Focus on the Great 28: Gulf Coast State College (Pg 9)
- ⇒ Article: Students Understand Calculus Better When Lessons are Active (Pg. 8)
- ⇒ Winner of Outstanding Service Award 2023 (Pg. 7)
- ⇒ Nominations Open for Outstanding Teaching Award 2024 (Pg. 3)
- ⇒ Appeal for Discrete Mathematics to Remain GenEd (Pg. 9)

The Florida Two-Year College Mathematics Association

is a non-profit, education association with the expressed purpose to:

- ★ encourage the development of effective mathematics programs,
- ★ afford a statewide forum for the sharing of ideas,
- ★ further develop and improve the mathematics curricula,
- ★ further mathematics-related experiences of students in two-year colleges,
- ★ promote the professional welfare and development of our members.

Upcoming Events

December 1, 2023
MAA Suncoast Conference
Polk State College
Lakeland, FL

February 23-24, 2024
MAA/FYCMA
Joint Meetings
Ft. Myers, FL

November 14 – 17, 2024
50th AMATYC
Annual Conference
Atlanta, GA

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AMATYC Corner

Congratulations to Alvina Atkinson!

Alvina will serve as our Southeast Vice President for AMATYC for 2024 and 202. We look forward to working with you once again!!

AMATYC Traveling Workshops

An AMATYC Traveling Workshop is professional development tailored for you, offered at your institution or affiliate conference, and the Traveling Workshop Facilitator (presenter) is of your choosing. For more information visit www.amatyc.org/TravelingWorkshops or email Mari Menard at tw@amatyc.org.

How to Study to Learn Videos

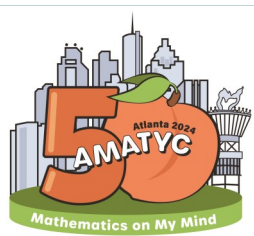
AMATYC has created a series of videos intended to provide students tips on “How to Study to Learn”. To access the videos visit www.amatyc.org/howtostudy.

Teaching Tip Videos

These 15-minute teaching tip videos were created just for you to answer specific questions related to teaching and learning. Visit www.amatyc.org/TeachingTipVideos.

AMATYC Volunteer Opportunity

AMATYC is searching for members who are interested in getting more involved with the organization by volunteering for leadership positions. For more information, please visit the [AMATYC Volunteer Positions page](#).



The 50th AMATYC Annual Conference: Mathematics on my Mind!

The 50th Annual AMATYC Conference gets underway November 14-17, 2024 in Atlanta, GA with Mathematics on my Mind!

Proposals are being accepted to present or preside during the 2024 AMATYC Annual Conference in Atlanta, Georgia. The deadline for submission of presentation proposals is February 15, 2024.

For more information, go to <https://amatyc.org/page/2024ProposalCall>

FTYCMA Officer Nominations Now Open

“We are looking for a few good people”

The FTYCMA Board is looking for nomination for officers to serve from February 2024 to February 2026. Self nominations are requested on or before November 23, 2023. If you feel that a person would make a good fit for any position, encourage them to fill out the nomination form. Only current FTYCMA members are eligible to serve as officers. If you attended the retreat, you are automatically an annual member as a 1-year complimentary membership was included in your retreat registration!

Please use this link: [Nomination Survey](#)

All positions are available for nominations: President Elect, Secretary, Treasurer, Newsletter Editor, VP Programs, Membership Service Coordinator, Web Master and Historian.

The duties of each position can be found in the Bylaws on the [FTYCMA Website](#).

Focus on the Great 28



Florida Gateway College



What began in 1947 as the Columbia Forestry School became Lake City Junior College in 1961, one of the 28 state colleges of Florida. It was changed to Lake city community College in 1970 emphasizing transfer and occupational programs in addition to continuing education and community service courses, and was officially Florida Gateway College in 2010, offering limited four-year degrees.



FGC Library

The college offers degrees and certificates in Environmental Science, Horticulture, Computer Science, Water Quality and Biotechnology, Public Safety, Education, Health Sciences, Business, Computer Aided Design and Vocational Services. The highest enrollments are in AA pre-major, AS Nursing, BS Nursing, AS Business Administration, and BS in Early Education. Enrollment stands around 2800 students with an average age of 25 years old.

Cool features: Free daily breakfast for students taking summer classes, with renovated fitness centers and counseling services and some free math classes. Free childcare services for students, faculty and staff. Gen Ed courses are offered for 16-week, 12-week, 10 weeks, 8 weeks, 6 weeks and 4-week semesters. Automotive technology, Firefighting, and CDL Training offered in conjunction with the local community. Educational opportunities (Water resources and Environmental Science degrees) offered to low risk/ nonviolent incarcerated individuals. Partner with Harlaxton College in the UK for study abroad programs.



Automotive Technology

Community Involvement: Arts and Music Festival, Theatre productions, Fun Day in the Park and Gala to commemorate 75th Anniversary. FGC Collegiate Academy to open in Fall 2026. They also feature Athletics including Men’s Basketball, Women’s Cross Country, Esports, Championship Women’s Flag Football, Women’s Softball, and Fishing.

Highlights from Math in the Sun XXI



WELCOME

Florida Two-Year College
Mathematics Association

Thank YOU for your commitment to the
success of students across the Florida College System!

The Florida Two-Year College Mathematics Association (FTYCMA), the Florida affiliate of the American Mathematical Association for Two-Year Colleges (AMATYC), held its 21st Annual Fall Retreat on Friday, October 6th and Saturday, October 7th, 2023 at the South Lake Campus of Lake-Sumter State College in Clermont, Florida. This year we returned to in-person attendance only, and we had a *tremendous* turnout, our biggest in recent history.

The theme of this year's Retreat was *Focus on MGF 1130 and MGF 1131: The New Liberal Arts Pathway Mathematics Courses* with two main strands: *Mathematics Pathways:*

Florida Senate Bill 366 and Its Effects and *MGF 1130 Mathematical Thinking and MGF 1131 Mathematics in Context.*

On Friday, we had an update from the Florida Department of Education brought to us by Kiaira McCoy, Director of the Florida Student Success Center, regarding the status of the new courses and what the requirements are.

Two different panel discussions were scheduled for Friday -- one on **Institutional Mathematics Pathways** and a second one on **Institutional Course Development of MGF 1130 and MGF 1131**. Each panel was made up of mathematics faculty from a variety of community and state colleges from around Florida sharing their own departments' experiences concerning these topics.

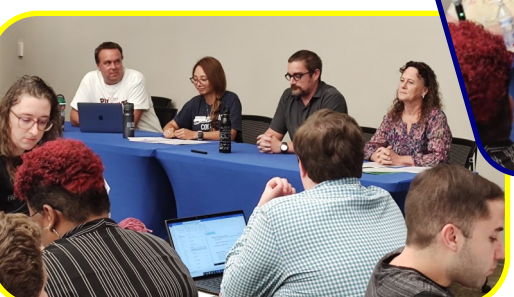
1. The first panel discussion focused on individual institutions' responses to SB 366 which required all FCS institutions to identify three mathematics pathways along with courses deemed appropriate for the programs, meta-majors and careers related to those pathways.
2. The second panel discussion focused on individual institutions' work on developing their two new courses -- MGF 1130 Mathematical Thinking and MGF 1131 Mathematics in Context.

★ Florida State College at Jacksonville created three course shells for MGF 1130 for Lumen Learning OHM, ALEKS McGraw-Hill and Pearson MyLab Math. Each shell includes syllabus template, instructor guidelines by modality, assessment examples, and other resources.

★ The panel participants presented their progress and stated that they will make their findings and resources available to all who ask.

On Saturday, the attendees were separated into three groups to discuss their takeaways of the panels and where they were in the design process. Lots of questions were asked regarding using assessments, including project-based assessments. There was a suggestion to have a repository for projects or for assessments that could be adapted as needed. The building of good rubrics was advocated to show that students are learning.





Coming Up...



MAA Suncoast Region Conference — Polk State College, Lakeland, FL

December 1, 2023

The 45th Florida Suncoast Region meeting of the Mathematical Association of America will be on Friday, December 1, at Polk State College in Lakeland. Registration and book displays and sales open at 12:00 pm and the parallel sessions begin about 2:00 pm.

Proposals are being solicited for talks from mathematicians, math educators, mathematics practitioners, and students. Please send your title and abstract (fifty words or less) as a Word (doc, docx, or rtf) document attachment to the program chair, [Greg McColm](#). Deadline for submission is **Friday, November 17, 2023**. Looking forward to seeing you there.

For more information, visit <http://sections.maa.org/florida/newsletter/callps.htm>.



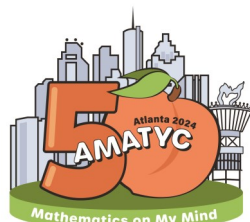
MAA/FTYCMA Joint Meeting — FGCU, Ft. Myers

February 23—24, 2024

The annual joint meetings of the MAA-Florida Section and FTYCMA will be held on February 23-24, 2024 on the campus of Florida Gulf Coast University in Fort Myers. We invite talks (either 20 minutes or 45 minutes in duration) and workshops or special topic sessions (105 minutes) from mathematicians and math educators from colleges and universities. Graduate and undergraduate students are also invited to participate.



Those who wish to be considered for the program talks or workshops should send their name, institutional affiliation, title, and an abstract of one hundred and fifty words or less to the Florida Section's Vice-President for Programs, [Kevin Murphy](#), and indicate a talk or workshop and its duration. This information should be sent via e-mail as a Word document. Deadline for submission is **January 19, 2024**. See the website <http://sections.maa.org/florida/> for more details.



50th AMATYC Annual Conference — Atlanta, GA — November 14-17, 2024

There is a call or Presenters and Presiders! Proposals are due by February 15, 2023. See the website: <https://amatyc.org/page/2024ProposalCall> for more details.



The Bobby Cohen Memorial Scholarship

Sandy Cohen, Mathematics Professor at St. Petersburg College, has established the Bobby Cohen Memorial Scholarship in memory of her beloved husband, Bobby, who passed away in August 2015. This scholarship helps to facilitate the attendance of FTYCMA members to the annual Fall Retreat.

Form and details are on our website: <https://ftycma.scf.edu/html/events.html>



Teaching Excellence and Outstanding Service Awards



In even numbered years, FTYCMA presents a **Teaching Excellence Award** to one of its members who has at least 5 years of teaching experience, has exhibited outstanding teaching ability, and has created or adapted innovative teaching methods or materials. (Special consideration is given by the committee to those who have shared such practices with colleagues.)

The list of past honorees is:

1994 Bill Jordan (Seminole CC)
 1996 Frank Ward (Indian River CC)
 1998 Lou Cleveland (Chipola College)
 2000 Bill Palow (Miami-Dade College)
 2002 Martha Goshaw (Seminole CC)
 2004 John Salak (Tallahassee CC)
 2006 Dennis Runde (Manatee CC)
 2008 Steven Grosteffon (Santa Fe College)
 2010 Debbie Garrison (Valencia College)
 2012 Don Ransford (Edison State College)
 2014 Sandy Cohen (St. Petersburg College)
 2016 Joni Pirnot (State College of Florida)
 2018 Ryan Kasha (Valencia College)
 2020 Carol Weideman (St. Petersburg College)
 2022 Dan Richardson (Indian River State College)

In odd numbered years, FTYCMA presents an **Outstanding Service Award** to one of its members who has made an exemplary contribution to the teaching profession through length of service, advocacy of mathematics education, and contributions both to the success of FTYCMA and to the progress of others in the field.

The list of past honorees is:

1993 Mike Mears (Manatee CC)
 1995 Joan Golliday (Santa Fe CC)
 1997 Moana Karsteter (Tallahassee CC)
 1999 Glenn Smith (Santa Fe CC)
 2001 Guesna Dohrman (Tallahassee CC)
 2003 Carl Hensley (Indian River CC)
 2005 Cliff Morris (Valencia CC)
 2007 Norma Agras (Miami-Dade College)
 2009 Janette Campbell (Palm Beach SC)
 2011 Byron Dyce (Santa Fe College)
 2013 Deepankar Rick Pal (Valencia College)
 2015 Bill Hemme (St. Petersburg College)
 2017 Mike Keller (St. Johns River State College)
 2019 Penny Morris (Polk State College)
 2021 Dennis Runde (State College of Florida)
 2023 Ryan Kasha (Valencia College)



Congratulations

Ryan Kasha

Outstanding Service Award 2023

Ryan is a Professor of Mathematics at Valencia College. He was recognized at the MAA/FYCMA Joint Meeting with a plaque and a cash award of \$100.

Nominations are now open for Teaching Excellence Award for 2024. If you would like to nominate a member of FTYCMA for the Teaching Excellence Award, and you are currently a member, forward the recommended person's name along with supporting documentation to Sybil Brown at brownsy@lssc.edu.

Math in the News

Students understand calculus better when the lessons are active

Published: October 11, 2023 8.28am EDT

Author: Laird Kramer, Professor of Physics, Florida International University

Reviewer: Angela Nicoletti, Science Communicator

College students learn more calculus in an active learning course in which students solve problems during class than in a traditional lecture-based course. That's according to a [peer-reviewed study](#) my colleagues and I published in *Science*. We also found that college students better understood complex calculus concepts and earned better grades in the active learning course.

The findings held across racial and ethnic groups, genders and college majors, and for both first-time college and transfer students – thus, promoting success for all students. Students in the active learning course had an associated 11% higher pass rate. If you apply that rate to [the current 300,000](#) students taking calculus each year in the U.S., it could mean an additional 33,000 pass their class.

Our experimental trial ran over three semesters – Fall 2018 through Fall 2019 – and involved 811 undergraduate students at a public university that has been designated as a [Hispanic-serving institution](#). The study evaluated the impact of an engagement-focused active learning calculus teaching method by randomly placing students into either a traditional lecture-based class or the active learning calculus class.

The active learning intervention promoted development of calculus understanding during class, with students working through exercises designed to build calculus knowledge and with faculty monitoring and guiding the process. This differs from the lecture setting where students passively listen to the instructor and develop their understanding outside of class, often on their own.

An active learning approach allows students to work together to solve problems and explain ideas to each other. Active learning is about understanding the “why” behind a subject versus merely trying to memorize it.

Along the way, students experiment with their ideas, learn from their mistakes and ultimately make sense of calculus. In this way, they replicate the practices of mathematicians, including making and testing educated guesses, sense-making and explaining their reasoning to colleagues. Faculty are a critical part of the process. They guide the process through probing questions, demonstrating mathematical strategies, monitoring group progress and adapting pace and activities to foster student learning.

Florida International University made a short video to accompany a research paper on how active learning improves outcomes for calculus students. <https://youtu.be/l7ch0Kf4NvM>

Why it matters

Calculus is a foundational discipline for science, technology, engineering and mathematics, as it provides the skills for designing systems as well as for studying and predicting change.

But historically it's been a barrier that has ended the opportunity for many students to achieve their goal of a STEM career. Only [40% of undergraduate students](#) intending to earn a STEM degree complete their degree, and calculus plays a role in that loss. The reasons vary depending on the student. Failing calculus can be a final straw for some.

And it is particularly concerning for historically underrepresented groups. The odds of female students leaving a STEM major after calculus is [1.5 times higher than it is for men](#). And Hispanic and Black students have a [50% higher failure rate than white students in calculus](#). These losses deprive the individual students of STEM aspirations, career dreams and financial security. And it deprives society of their potentially innovative contributions to solving challenging problems, such as climate resilience, energy independence, infrastructure and more.

What still isn't known

A vexing challenge in calculus instruction – and across the STEM disciplines – is broad adoption of active learning strategies that work. We started this research to provide compelling evidence to show that this model works and to drive further change. The next step is addressing the barriers, including lack of time, questions about effectiveness and institutional policies that don't provide an incentive for faculty to bring active learning to their classrooms.

A crucial next step is improving the evidence-based instructional change strategies that will promote adoption of active learning instruction in the classroom.

What's next

Our latest results are motivating our team to further delve into the underlying instructional strategies that drive student understanding in calculus. We're also looking for opportunities to replicate the experiment at a variety of institutions, including high schools, which will provide more insight into how to expand adoption across the nation.

We hope that this paper increases the rate of change of all faculty adopting active learning in their classrooms.

Focus on the Great 28



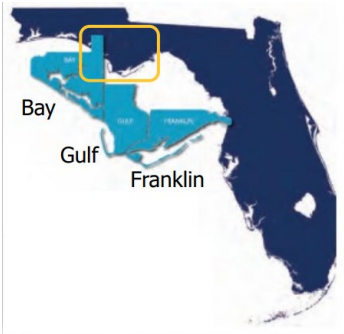
Gulf Coast State College

**START HERE.
GO ANYWHERE.**

Gulf Coast State College serves a three-county district in the panhandle of Florida: Bay, Franklin, and Gulf counties. They are comprised of three campuses and a center: Panama city (Main campus), North Bay campus in Southport - offering Public Safety Programs, and Gulf/Franklin campus in Port St. Joe - offering Nursing Programs and some general education courses, and Tyndall Air Force Base Education Center – Tyndall Air Force Base - offering programming for active duty, veterans, and military dependents.

Approximately 6,550 Students are enrolled at GCSC with 63% female and almost 40% non-white ethnicity; 68% of students are under age 25; and the college boasts a 19:1 student to teacher ratio.

The college has ten Academic Divisions (Business, Technology, and Culinary; Health Sciences; Language and Literature; Mathematics; Natural Sciences; Nursing; Public Safety; Social Sciences; Visual and Performing Arts; and Wellness and Athletic) • Four Bachelor's degree programs (Digital Media, Organizational Management, Nursing, and Technology Management) • 75 Associate in Arts degree transfer tracks • 27 Associate in Science degree programs • 44 Technical, Postsecondary Adult, and College Credit certificates



Goal & Achievement: #1 LOWEST TUITION in Florida; GCSC was ranked as one of the top 150 state colleges in the nation by the Aspen Institute; and 91% of graduates are found working or continuing their education within one year of graduating.

Cool Features: Starting in August 2021, GSCS's Foundation guarantees a \$1,400 per year financial aid award to current Bay, Gulf, and Franklin county high school graduates who enroll full-time at GCSC the same year as graduation. Housing available at Seminole Landing exclusively for full-time undergraduate and graduate students at FSU Panama City and Gulf Coast State College. In August 2023, Gulf Coast has partnered with Bayway, Bay County's Public Transit System, to provide GCSC students enrolled in at least six credit hours with free transportation across Bay County, which extends to GCSC employees as well. A new STEM Building is currently under construction, and will be three stories tall and 40,000 square feet with 10 state of the art science labs and expected to be ready for classes in the Fall of 2024



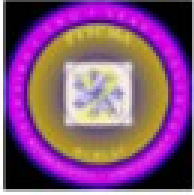
Community: GCSC offers a Medical Clinic and a Dental Clinic, Adult Enrichment Classes, Youth Programs, Millaway Institute for Entrepreneurship (FabLab), Veterans Business Outreach Center, Arts & Culture, Culinary Experiences, and The Seminole-Commodore Alliance.

Athletics include Baseball, Men's and Women's Basketball, Softball, and Volleyball.

Appeal for Discrete Mathematics to Remain GenEd

By Dr. Joni Pirnot, State College of Florida, Manatee,-Sarasota

Discrete Mathematics is in danger of losing its status as a general education course for Florida. I'm reaching out to appeal to instructors/institutions that offer this course. At SCF, we teach one section of Discrete Mathematics annually with the course number MAD 2104. New guidelines (starting December 2024) may restrict a course from being denoted as general education unless a course with the same number is offered at more than 50% of the colleges and universities in the state. The course MAD 2104 is two schools short of the needed majority. If your college offers a similar course with a different number, or you are interested in joining the conversation for any reason, please contact me at pirnotj@scf.edu. Thanks in advance for your consideration.



FTYCMA Membership

Date:	
Name:	
Employment Status: (Full-time, Adjunct, Retired, Etc.)	
College	
Email	
Phone	
Indicate your FTYCMA membership option	<input type="checkbox"/> Annual (\$15) <input type="checkbox"/> Lifetime (\$225)
Are you a member of AMATYC? Visit amatyc.org/Membership for more information.	<input type="checkbox"/> Yes <input type="checkbox"/> No

An electronic version of the form can be found at <https://ftycma.scf.edu/pdf/membership>.

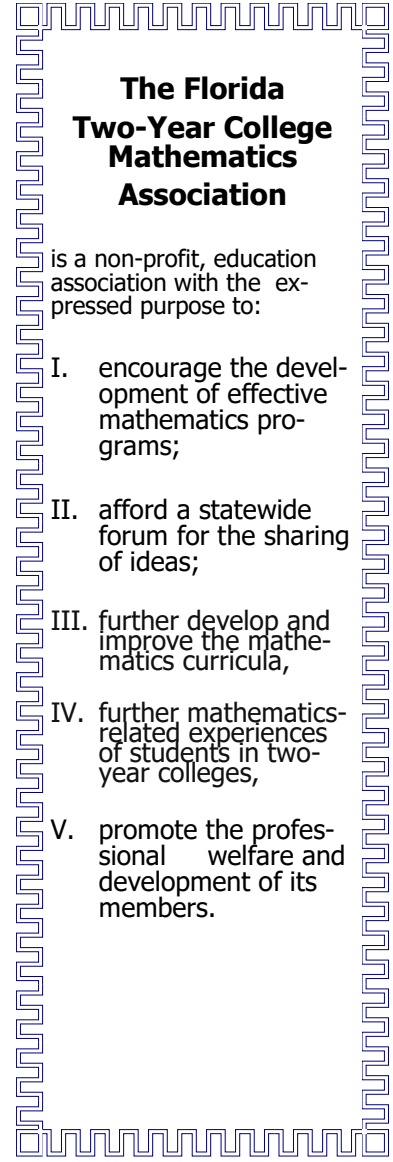
Please make checks payable to: FTYCMA. Mail check and completed form to:

Ryan Kasha, FTYCMA Treasurer
 P.O. Box 136105
 Clermont, FL 34713

- OR -

Email completed form to:

Ryan Kasha, rkasha@valenciacollege.edu
 And Pay using Venmo: <https://venmo.com/>
 (Choose Pay a Business: @FTYCMA)



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- I. encourage the development of effective mathematics programs;
- II. afford a statewide forum for the sharing of ideas;
- III. further develop and improve the mathematics curricula,
- IV. further mathematics-related experiences of students in two-year colleges,
- V. promote the professional welfare and development of its members.

Benefits of Membership include:

- ★ Opportunities for service
- ★ Opportunities to contribute to curriculum discussions that could lead to political action.

Benefits of the lifetime membership include:

- ★ A certificate of lifetime membership
- ★ A FTYCMA lapel pin
- ★ A reserved position in the honor roll of lifetime members at the FTYCMA website.



[HTTPS://FTYCMA.SCF.EDU/](https://ftycma.scf.edu/)