

AMATYC 2024 Fall Board Meeting

Thursday, September 19, 2024; Thursday, October 17, 2024; Thursday, October 25, 2024; Sunday-Wednesday, November 10-13, 2024, Saturday, December 14, 2024.

September Monthly Meeting

Thursday, September 16, 2024 (Virtual via Zoom)

Note: All times are EST

The meeting was called to order at 4:09 pm by President George Hurlburt. The following members of the Executive Board were present:

George Hurlburt	President	Brandon Bartley	Midwest Vice President
Eddie Tchertchian	President-Elect	Dale Johanson	Central Vice President
Laura Watkins	Past President	Jennifer Travis	Southwest Vice President
Jonathan Weisbrod	Secretary	Jessica Bernards	Northwest Vice President
Kyle Kundomal	Treasurer	Lindsey Gerber	West Vice President
Dennis Ebersole	Mid-Atlantic Vice President		

Also present was: Anne Dudley, Executive Director; Turi Suski, Conference Coordinator.

President Hurlburt reviewed the rules of conduct.

Motion: Approve the meeting's Rules of Conduct. (Attachment A)

Made by Johanson and seconded by Gerber.

Motion approved

Motion: Approve the Agenda provided on the previous pages. (Attachment B)

Made by Watkins and seconded by Ebersole.

Motion approved

EXECUTIVE SESSION

The Board went into Executive Session at 4:13 pm. Anne Dudley and Turi Suski were asked to stay for the Executive Session.

The Board exited Executive Session at 4:22 pm. At that time, Secretary Weisbrod reported out the following:

The Board made the following appointments, pending membership verification: Kelly Spoon as the Webinar Coordinator from 1/1/2025 to 12/31/2027.

The Board approved the direct dispersal of reassigned funds to President-Elect Eddie Tchertchian for calendar years 2024 and 2025.

New Business

Motion: Approve as written the attached Quantitative Reasoning Position Statment

Made by Johanson and seconded by Weisbrod.

Amended Motion: Approve the spirit of the attached Quantitative Reasoning Position Statement. (Attachment C)

Made by Weisbrod and seconded by Watkins.

Amendment approved

Motion approved as amended

Motion: Approve this new chapter of IMPACT (2018) to go to the 2024 Delegate Assembly for approval to be published online as presented. (Attachment D)

Made by Tchertchian and seconded by Watkins

Motion approved

Motion: Approved the attached PPM 11.1.5 changes. (Attachment E)

Made by Ebersole and seconded by Bernards

Motion approved

Parking Lot

Discussion: Website/Database Committee Updates presented by Tchertchian.

Discussion: Should webinars be put behind a paywall?

The board is gathering data on webinars by date.

Discussion: Travel Reimbursement Submission Policy

The board discussed setting a limit to the number of days post-travel that an individual can request reimbursement. Two suggestions were made: 1) Anyone eligible for reimbursement has 30 days after they have traveled, or until December 15, whichever comes first, to submit their reimbursement request. 2) Allow for extension with approval by the treasurer.

Discussion: Moving the MathAMATYC Educator digital.

The board discussed the impact to the MathAMATYC Educator team and will seek a meeting to discuss. The board discussed the possibility of print vs digital membership fees.

Discussion: Website Coordinator Search Committee

Committee formed including Kundomal, Hurlburt, and Watkins.

Discussion: Reviewing all supported positions.

The board will consider for all positions: Should the position receive support and if so, what level of support?

Discussion: Taskforce to update Policy on a Welcoming and Inclusive Environment

Ebersole and Hurlburt will seek further volunteers. This task force should include board members and Equity Committee Members.

Discussion: The Advocacy Committee is seeking volunteers willing to be contact points for issues.

Motion: To suspend the 2024 AMATYC FBM Board Meeting.

Made by Bartley and seconded by Watkins.

Motion approved

Next board meeting is October 17, 2024.

The 2024 AMATYC Fall Board Meeting was suspended at 6:01 pm.

October Monthly Meeting

Thursday, October 17, 2024 (Virtual via Zoom)

Note: All times are EDT

The meeting was called to order at 4:02 pm by President George Hurlburt. The following members of the Executive Board were present:

George Hurlburt	President	Brandon Bartley	Midwest Vice President
Eddie Tchertchian	President-Elect	Alvina Atkinson	Southeast Vice President
Laura Watkins	Past President	Dale Johanson	Central Vice President
Jonathan Weisbrod	Secretary	Jennifer Travis	Southwest Vice President
Kyle Kundomal	Treasurer	Lindsey Gerber	West Vice President
Dennis Ebersole	Mid-Atlantic Vice President		

Also present were: Anne Dudley, Executive Director; Turi Suski, Conference Coordinator.

President Hurlburt reviewed the rules of conduct.

Motion: Approve the meeting's Rules of Conduct. (Attachment A)

Made by Travis and seconded by Watkins.

Motion approved

Motion: Approve the Agenda provided on the previous pages. (Attachment F)

Made by Ebersole and seconded by Kundomal.

Motion approved

EXECUTIVE SESSION

The Board went into Executive Session at 4:04 pm. Anne Dudley and Turi Suski were asked to stay for the Executive Session.

The Board exited Executive Session at 4:21 pm. At that time, Secretary Weisbrod reported out the following:

The Board reappointed the attached people to their identified positions pending member verification. (Attachment G).

New Business

Motion: Approve the 2024 Summer Conference Calls Minutes

Made by Weisbrod and seconded by Watkins

Motion approved

Motion: Approve the attached changes to PPM 15.7, AMATYC News Submissions Guidelines, effective immediately. (Attachment H)

Made by Watkins and seconded by Travis

Motion approved

Motion: That the AMATYC Executive Board direct the Website/Database Search Task Force to negotiate a contract with BRYNK GROWTH PLATFORM for providing AMATYC's association management system and website effective immediately

Made by Tchertchian and seconded by Bartley.

Motion approved

Motion: Approve the attached changes to PPM 8.8.5 Advertising Chair effective January 1, 2025.
(Attachment I)

Made by Bartley and seconded by Johanson.

Motion approved

Motion: Approve the Two-Year College Data Science Initiative (TYCDSI) 2.0 as a level 2 grant.
(Attachment J)

Made by Tchertchian and seconded by Atkinson.

Motion approved

The board received and reviewed fall ANet reports.

Motion: To suspend the 2024 Fall Board Meeting

Made by Tchertchian and seconded by Bartley.

Next board meeting is October 25, 2024.

The 2024 AMATYC Fall Board Meeting was suspended at 5:58 pm.

Special Board Meeting

Friday, October 25, 2024 (Virtual via Zoom)

Note: All times are EDT

The meeting was called to order at 4:00 pm by President George Hurlburt. The following members of the Executive Board were present:

George Hurlburt	President	Dennis Ebersole	Mid-Atlantic Vice President
Eddie Tchertchian	President-Elect	Alvina Atkinson	Southeast Vice President
Laura Watkins	Past President	Jennifer Travis	Southwest Vice President
Jonathan Weisbrod	Secretary	Jessica Bernards	Northwest Vice President
Kyle Kundomal	Treasurer	Lindsey Gerber	West Vice President
AJ Stachalek	Northeast Vice President		

EXECUTIVE SESSION

The Board went into Executive Session at 4:02 pm. Anne Dudley and Turi Suski were asked to stay for the Executive Session.

The Board exited Executive Session at 4:08 pm. At that time, Secretary Weisbrod reported out the following:

The Board hired Debora Rimkus as the AMATYC Executive Director, effective April 1, 2025.

Next board meeting is November 10, 2024.

The 2024 AMATYC Fall Board Meeting was suspended at 4:15 pm.

Fall Board Meeting

Sunday, November 10, 2024 (Atlanta, GA)

Note: All times are EST

The meeting was called to order at 4:05 pm by President George Hurlburt. The following members of the Executive Board were present:

George Hurlburt	President	Dennis Ebersole	Mid-Atlantic Vice President
Eddie Tchertchian	President-Elect	Alvina Atkinson	Southeast Vice President
Laura Watkins	Past President	Dale Johanson	Central Vice President
Jonathan Weisbrod	Secretary	Jennifer Travis	Southwest Vice President
Kyle Kundomal	Treasurer	Jessica Bernards	Northwest Vice President
AJ Stachalek	Northeast Vice President	Lindsey Gerber	West Vice President

Also present were: Anne Dudley, Executive Director; Turi Suski, Conference Coordinator; Debora Rimkus, incoming Executive Director.

President Hurlburt reviewed the rules of conduct.

Motion: Approve the meeting’s Rules of Conduct. (Attachment A)

Made by Bernards and seconded by Kundomal.

Motion approved

Motion: Approve the Agenda provided on the previous pages. (Attachment K)

Made by Tchertchian and seconded by Stachalek.

Motion approved

The Board received and reviewed the consent calendar reports and board member reports.

The Board continued reviewing remaining fall ANet reports.

The Board received and reviewed the Services, Coordinators, Directors, Publications, and Grants fall reports.

The Board received and reviewed the Conference Committee fall reports.

The Board reviewed board member conference tasks to be completed.

Motion: Approve the Themed Sessions for the 2025 Conference.

Made by Bernards and seconded by Stachalek.

Amendment: Accept the proposed themed sessions from Dev. Ed, Equity, MAC, Math Intensive, and Teacher Prep for the Reno Conference in 2025.

Made by Bernards and seconded by Stachalek.

Amendment approved

Motion approved as amended

The Board received and began reviewing the Administrative Committee fall reports.

The 2024 AMATYC Fall Board Meeting was suspended at 4:33 pm.

Monday, November 11, 2024 (Atlanta, GA)

Note: All times are EST

The meeting was called to order at 4:05 pm by President George Hurlburt. The following members of the Executive Board were present:

George Hurlburt	President	Dennis Ebersole	Mid-Atlantic Vice President
Eddie Tchertchian	President-Elect	Alvina Atkinson	Southeast Vice President
Laura Watkins	Past President	Dale Johanson	Central Vice President
Jonathan Weisbrod	Secretary	Jennifer Travis	Southwest Vice President
Kyle Kundomal	Treasurer	Jessica Bernards	Northwest Vice President
AJ Stachalek	Northeast Vice President	Lindsey Gerber	West Vice President

Also present were: Anne Dudley, Executive Director; Turi Suski, Conference Coordinator; Debora Rimkus, incoming Executive Director.

The Board continued reviewing Administrative Committee fall reports.

The Board received and reviewed Ad hoc Committee fall reports.

The Board received and reviewed Partnerships/ Miscellaneous fall reports.

EXECUTIVE SESSION

The Board went into Executive Session at 10:29 am. Anne Dudley, Turi Suski, and Debora Rimkus were asked to stay for the Executive Session.

The Board exited Executive Session at 10:40 am. At that time, Secretary Weisbrod reported out the following:

The Board reappointed the attached individuals to their identified positions pending member verification. (Attachment L).

New Business

Motion: Adopt the attached PPM Section 11.5 revisions, specifically approving the new sections of 11.5.4 Fellow Requirements and 11.5.5 Ramifications for Fellows for Missing Requirements, effective immediately. (Attachment M)

Made by Stachalek and seconded by Bernards

Amendment: Remove 11.5.5; Revise proposed Bullet 2 to read “Meet all AMATYC and Project ACCESS deadlines, including conference registration

Made by Watkins and seconded by Tchertchian

Amendment approved

Motion approved as amended

Motion: Approve a service project for the 2024 Reno local events committee, to benefit the Friends of Washoe County Library.

Made by Tchertchian and seconded by Kundomal

Motion approved

Motion: Approve the ongoing inclusion of the Thursday evening Research Session in future AMATYC Annual Conferences.

Made by Stachalek and seconded by Weisbrod

Motion approved

Motion: Approve the expenditures from the cash account register for the period of March 1, 2024 through August 31, 2024.

Made by Kundomal and seconded by Stachalek

Motion approved

Motion: Approve the attached goals statement for the Quantitative Reasoning ANet (PPM 9.1.9.13) (Attachment N)

Motion approved

The Board held a strategic planning meeting.

The 2024 AMATYC Fall Board Meeting was suspended at 2:30 pm.

Tuesday, November 12, 2024 (Atlanta, GA)

Note: All times are EST

The meeting was called to order at 9:03 am by President George Hurlburt. The following members of the Executive Board were present:

George Hurlburt	President	Dennis Ebersole	Mid-Atlantic Vice President
Eddie Tchertchian	President-Elect	Dale Johanson	Central Vice President
Laura Watkins	Past President	Jennifer Travis	Southwest Vice President
Jonathan Weisbrod	Secretary	Jessica Bernards	Northwest Vice President
Kyle Kundomal	Treasurer	Lindsey Gerber	West Vice President
AJ Stachalek	Northeast Vice President		

Also present was: Anne Dudley, Executive Director.

Parking Lot

Discussion: Future Vision of Website and myAMATYC

The board reviewed the Organizational Assessment Committee Survey results. The board decided to appoint an OCC for one year. The Board will create a survey for ANet leaders to collect information on what communication needs are. The Board will create a task force to include AMATYC leadership beyond the board for decisions about the future website and communication modalities if myAMATYC no longer functions.

Discussion: Sunshine Fund

Secretary Weisbrod manages the sunshine fund and requested voluntary donations from board members. The Board discussed consistent guidelines of giveaway amounts.

New Business

The Board received and reviewed the AMATYC Office fall reports.

The Board received and reviewed the Treasurer’s Report and Budget

EXECUTIVE SESSION

The Board went into Executive Session at 4:07 pm. Anne Dudley was asked to stay for the Executive Session.

The Board exited Executive Session at 04:10 pm. At that time, Secretary Weisbrod reported out the following:

The Board appointed Karen Gaines as the Online Community Coordinator from 1/1/2025 through 12/31/2025, pending membership verification.

Parking Lot

Discussion: SBM Scheduling

The Board will meet virtually on April 11-13, 2025 for SBM.

Discussion: PPM 8.12.3 Registration Fee Formulas to include two single day registrations.

The Board decided to maintain existing policy.

Discussion: Board work during involvement fair.

The Board reviewed responsibilities during the Involvement Fair.

Discussion: Support for proofreaders

The Board discussed various ways to incentivize members to be proofreaders for the MathAMATYC Educator.

Discussion: Professional Development Committee

The Board reviewed the PPM language for the makeup of the Professional Development Committee. This was referred to the PPM Committee for review.

Discussion: SRL Support Team

Jennifer Travis will manage this: Review previous position and current position, create a list of duties, and look for a volunteer to support the SRL.

Discussion: Conference publications

The Board discussed whether conference programs should continue to be produced or if the electronically generated information is sufficient. The Board decided to continue having the publications created.

Discussion: LinkedIn Coordinator

There was a volunteer in the past to manage a LinkedIn account for AMATYC. Eddie Tchertchian will investigate and seek a volunteer.

Discussion: Getting Volunteers

The Board discussed strategies to get volunteers. Conference opportunities include the Involvement Fair and AMATYC 201.

Discussion: Informing volunteers of what AMATYC covers financially.

The three presidents will work on the language for each volunteer position application page on the website.

Discussion: DOI # Committee

The Board discussed registering the MathAMATYC Educator with a DOI. This will be revisited after the website change.

Discussion: Project ACCESS Coordinator Search task force

Committee Formed comprised of Bernards (chair), Weisbrod, Kundomal, and other non-board members will be considered.

Discussion: Student League Eligibility

Task force formed comprised of Travis (chair), Johanson, Ebersole, and other non-board members will be considered.

Saturday, December 14, 2024 (Virtual via Zoom)

Note: All times are EST

The meeting was called to order at 3:56 PM by President George Hurlburt. The following members of the Executive Board were present:

George Hurlburt	President	Dennis Ebersole	Mid-Atlantic Vice President
Eddie Tchertchian	President-Elect	Alvina Atkinson	Southeast Vice President
Laura Watkins	Past President	Dale Johanson	Central Vice President
Jonathan Weisbrod	Secretary	Jennifer Travis	Southwest Vice President
Kyle Kundomal	Treasurer	Jessica Bernards	Northwest Vice President
AJ Stachalek	Northeast Vice President	Lindsey Gerber	West Vice President

Also present were: Anne Dudley, Executive Director and Turi Suski, Conference Coordinator.

EXECUTIVE SESSION

The Board went into Executive Session at 3:56 pm. Anne Dudley and Turi Suski were asked to stay for the Executive Session.

The Board exited Executive Session at 4:39 pm. At that time, Secretary Weisbrod reported out the following:

The Board appointed the attached individuals to their identified positions pending member verification. (Attachment O).

Motion: Suspend PPM 6.5 Section 4 Part d until the AMATYC Executive Board approves the 2025 budget.

Made by Kundomal and seconded by Watkins

Motion approved

Motion: Approve the 2025 budget, effective January 1, 2025.

Made by Kundomal and seconded by Tchertchian

Motion approved

Motion: Approve a themed session for the Pathways ANet for the 2025 Reno Conference.

Made by Ebersole and seconded by Atkinson

Motion approved

The 2024 AMATYC Fall Board Meeting was adjourned at 5:04 pm.

Jonathan Weisbrod, Secretary 2024 – 2025
December 14, 2024

George Hurlburt, President 2024 – 2025
December 14, 2024

ATTACHMENTS

	Title	Page
A	Rules of Conduct	14
B	Meeting Agenda – September 2024	15
C	Position Statement – Quantitative Reasoning	16
D	IMPACT Chapter – Infusing Equity and Inclusion in the Mathematics Classroom	20
E	PPM 11.1.5 Webinar Coordinator	41
F	Meeting Agenda – October 2024	45
G	Appointments – October 2024	47
H	PPM 15.7 AMATYC News Submission Guidelines	48
I	PPM 8.8.5 Advertising Chair	54
J	Two-Year College Data Science Initiative (TYCDSI)	58
K	Meeting Agenda – November 2024	73
L	Appointments – November 2024	80
M	PPM 11.5 Project ACCCESS	81
N	PPM 9.1.9.13 Quantitative Reasoning ANet	89
O	Appointments – December 2024	90



RULES OF CONDUCT

- A. Robert's Rules of Order are used. The parliamentarian is **Brandon Bartley**.
- B. Additions or deviations to Robert's Rules:
- Motions submitted after the deadline must have at least one co-sponsor.
 - Motions related to extended time will not be recorded in the minutes.
 - Motions that do not make it to the floor will not be noted in the minutes.
 - Motions that were discussed but withdrawn will be noted in the minutes.
 - Instances when gavel is passed back and forth are not mentioned in the minutes.
 - Attachments to the motions that are approved by the Board, but require slight modifications, will be edited by the person who wrote the motion and he/she will send the clean copy as well as one with track changes to the secretary after the board meeting.
 - Attachments of withdrawn motions will not be included in the minutes.
- C. The following time limits will be applied unless otherwise noted:
- | | |
|---|--|
| Reports (R) - 5 minutes | Times on individual items may be extended by a majority vote of the Board. Some items in the agenda may have different values assigned than listed here. |
| Discussion items (D) – 10 minutes | |
| Motions involving discussion (M) – 15 minutes | The timekeeper is Dennis Ebersole |
- D. No speaker may speak on a motion more than two times, and this will be monitored by the Parliamentarian. Members are encouraged to display the “thumbs up” or “thumbs down” signs rather than to use their speaking times to echo comments previously expressed. Order of speakers is not guaranteed and may be changed at the option of the Chair. Note that questions of clarification do not count as one of the two times a person is allowed to speak.
- E. Professional decorum is expected at all times during the board meeting. The chair shall interrupt and rule a speaker out of order, if appropriate. **Please silence all cell phones.** Refrain from computer use other than board business.
- F. The following individuals are asked to track items throughout the meeting.
1. Items relating to Conference: **Jessica Bernards** and **Dale Johanson** (Report to Turi at the end of FBM.)
 2. Items relating to Budget: **Brandon Bartley** and **Alvina Atkinson**. (Report to Kyle Kundomal prior to FBM so the information can be incorporated into the budget).
 3. Items relating to the Office: **Jennifer Travis** and **Lindsey Gerber**. (Report to Anne Dudley at end of FBM).
 4. Items relating to VPs: all VPs.
 5. Items to address at a future board meeting: **Laura Watkins** and **Kyle Kundomal**. (Report to the President at the end of FBM.)
 6. Items related to the PPM: **AJ Stachelek** and **Eddie Tchertchian**. (Report to the President-elect at the end of FBM.)



**Order of Business – Meeting Agenda
Summer Conference Call
AMATYC Executive Board
September 19, 2024**

Page	Agenda Item	Who
	Call to Order	Hurlburt
Section A: Meeting Agenda		
A1	Order of Business	Hurlburt
A2	Rules of Conduct	Hurlburt
A3	(M) Adopt Rules of Conduct	Hurlburt
A4	(M) Adopt Order of Business	Hurlburt
Section L: Executive Session		
L1	(M) Appointment Webinar Coordinator	Dudley
L2	(M) Appointment Legal Advisor	Hurlburt
L3 – L5	(M) Dispersal of Reassigned Time Funds	Johanson
Section M: New Business		
M1 – M5	(M) Quantitative Reasoning Position Statement	Foley / Johanson
M6 – M27	(M) Equity Impact Chapter	Earley
M28 – M32	(M) PPM 11.1.5 Webinar Coordinator	Ebersole / Dudley
Section O: Parking Lot		
O1	Parking Lot	
O2	(M) Motion to Suspend	Hurlburt



Position Statement of the ~~AMERICAN MATHEMATICAL ASSOCIATION OF TWO-YEAR COLLEGES~~ American Mathematical Association of Two-Year Colleges on
~~Mathematics for Liberal Arts~~
Mathematics for Liberal Arts (MLA) courses Quantitative Reasoning

~~Courses in Quantitative Reasoning (QR) are general education quantitative reasoning (QR) courses which provide courses that develop critical thinking, reasoned communication, and mathematical skills and perspectives to that empower students to become informed and productive citizens as they pursue their personal, academic, and career goals. This position statement integrates the position and recommendations of the American Mathematical Association of Two-Year Colleges (AMATYC) for general education mathematics courses.~~

Rationale

~~QR~~ Quantitative reasoning is an essential learning outcome of all mathematics courses, supporting student success in the 21st century.^{1, 2, 3} The increasing importance of QR to more programs of study, combined with the national Mathematics Pathways movement, has resulted in ~~MLA~~ general education mathematics courses now being more explicitly focused on developing QR skills. One of three mathematics pathways identified in AMATYC's *IMPACT* is Quantitative Literacy.⁴ ~~Since MLA~~ Because QR courses will serve as ~~capstone~~ keystone courses for this pathway, AMATYC presents the following **four recommendations**.¹

1. Course Purpose

~~MLA~~ QR courses should be designed with the goal of increasing students' ~~quantitative~~ critical thinking and ~~logical reasoning abilities.~~ reasoned communication capabilities. QR courses should assist students to realize the ~~relevance~~ importance of mathematics and ~~statistics in making reasoned decisions in areas such as health, personal finance, and citizenship and to develop their expertise and confidence in making such quantitative-based decisions.~~ In addition, courses in QR should help students develop an appreciation for the ~~breadth of~~ breadth of mathematics and its applications.

2. Course Topics and Approach

Content ~~and contexts~~ should be useful and meaningful for students and ~~relate to engage them in~~ real-world applications, mathematical modeling, and statistical problem solving. Focus should be placed on conceptual understanding through ~~modelling~~ modeling, interpretation, and real-world connections. Topics should be ~~covered~~ addressed in appropriate depth and at an appropriate pace so that students gain ~~a sense of mastery, both competence and confidence.~~ Technology should be ~~utilized in order~~ used to reduce the computational load and to facilitate a broad exploration of the ~~contexts and~~ contexts and concepts.

3. Engagement

One of the four pillars of AMATYC's *IMPACT* is "Engagement: Developing Intellectual Curiosity and Motivation in Learning Mathematics" for both students and faculty.⁵⁶ ~~MLA~~ QR courses should engage students in the learning process by incorporating active learning strategies and exploration through activities and projects that are of ~~general~~ high interest to students. Faculty should be encouraged and supported by professional development opportunities to use best educational practices in creating a productive and dynamic learning environment.

4. Student Audience

~~While MLA~~ Although QR courses are a suitable option to fulfill degree requirements for students in non-STEM-~~intensive~~ intensive majors, all students in the first two years of college should have access to QR courses because of the great benefits they offer. Students in non-STEM-~~intensive~~ intensive majors should be encouraged to take at least one additional course in the mathematical sciences ~~above~~ beyond their minimal degree requirement.⁶⁷ Students in STEM-intensive majors would also benefit from a QR course.



Approved at the Delegate Assembly
~~November 16, 2019~~XXX

¹ American Mathematical Association of Two-Year Colleges (AMATYC) (1995). *Crossroads in Mathematics: Standards for Introductory College Mathematics Before Calculus* (Memphis, TN: AMATYC), 40–41.

² American Mathematical Association of Two-Year Colleges (AMATYC) (2006). *Beyond Crossroads: Implementing Mathematics Standards in the First Two Years of College* (Memphis, TN: AMATYC), 39–41.

³ ~~American~~ Association of ~~American~~ Colleges & Universities (AAC&U) (2007): *College Learning for the New Global Century: A Report from the National Leadership Council for Liberal Education & America's Promise* (Washington, DC: AAC&U), 3.

⁴ American Mathematical Association of Two-Year Colleges (AMATYC) (2018). *IMPACT: Improving Mathematical Prowess And College Teaching* (Memphis, TN: AMATYC), 3.

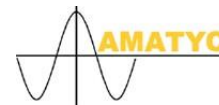
⁵ ~~IMPACT, 43–53.~~

⁶

⁵ Here we use the term “keystone” because an effective QR course should serve as a bridge from high school to success and confidence in quantitative reasoning and using mathematics to pursue personal, academic, and career goals.

⁶ IMPACT, 43–53.

⁷ Mathematical Association of America (MAA) (2004): *Undergraduate Programs and Courses in the Mathematical Sciences: CUPM Curriculum Guide 2004* (Washington, DC: MAA), 28.



Position Statement of the American Mathematical Association of Two-Year Colleges on Quantitative Reasoning

Courses in Quantitative Reasoning (QR) are general education courses that develop critical thinking, reasoned communication, and mathematical skills that empower students to become informed and productive citizens as they pursue their personal, academic, and career goals.

Rationale

Quantitative reasoning is an essential learning outcome of all mathematics courses, supporting student success in the 21st century.^{1, 2, 3} The increasing importance of QR to more programs of study, combined with the national Mathematics Pathways movement, has resulted in general education mathematics courses now being more explicitly focused on developing QR skills. One of three mathematics pathways identified in AMATYC's *IMPACT* is Quantitative Literacy.⁴ Because QR courses will serve as keystone courses for this pathway, AMATYC presents the following **four recommendations**.⁵

1. Course Purpose

QR courses should be designed with the goal of increasing students' critical thinking and reasoned communication capabilities. QR courses should assist students to realize the importance of mathematics and statistics in making reasoned decisions in areas such as health, personal finance, and citizenship and to develop their expertise and confidence in making such quantitative-based decisions. In addition, courses in QR should help students develop an appreciation for the breadth of mathematics and its applications.

2. Course Topics and Approach

Content and contexts should be useful and meaningful for students and engage them in real-world applications, mathematical modeling, and statistical problem solving. Focus should be placed on conceptual understanding through modeling, interpretation, and real-world connections. Topics should be addressed in appropriate depth and at an appropriate pace so that students gain both competence and confidence. Technology should be used to reduce the computational load and to facilitate a broad exploration of the contexts and concepts.

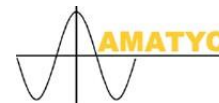
3. Engagement

One of the four pillars of AMATYC's *IMPACT* is "Engagement: Developing Intellectual Curiosity and Motivation in Learning Mathematics" for both students and faculty.⁶ QR courses should engage students in the learning process by incorporating active learning strategies and exploration through activities and projects that are of high interest to students. Faculty should be encouraged and supported by professional development opportunities to use best educational practices in creating a productive and dynamic learning environment.

4. Student Audience

Although QR courses are a suitable option to fulfill degree requirements for students in non-STEM-intensive majors, all students in the first two years of college should have access to QR courses because of the great benefits they offer. Students in non-STEM-intensive majors should be encouraged to take at least one additional course in the mathematical sciences beyond their minimal degree requirement.⁷ Students in STEM-intensive majors would also benefit from a QR course.

Approved at the Delegate Assembly XXX



¹ American Mathematical Association of Two-Year Colleges (AMATYC) (1995). *Crossroads in Mathematics: Standards for Introductory College Mathematics Before Calculus* (Memphis, TN: AMATYC), 40–41.

² American Mathematical Association of Two-Year Colleges (AMATYC) (2006). *Beyond Crossroads: Implementing Mathematics Standards in the First Two Years of College* (Memphis, TN: AMATYC), 39–41.

³ American Association of Colleges & Universities (AAC&U) (2007): *College Learning for the New Global Century: A Report from the National Leadership Council for Liberal Education & America's Promise* (Washington, DC: AAC&U), 3.

⁴ American Mathematical Association of Two-Year Colleges (AMATYC) (2018). *IMPACT: Improving Mathematical Prowess And College Teaching* (Memphis, TN: AMATYC), 3.

⁵ Here we use the term “keystone” because an effective QR course should serve as a bridge from high school to success and confidence in quantitative reasoning and using mathematics to pursue personal, academic, and career goals.

⁶ *IMPACT*, 43–53.

⁷ Mathematical Association of America (MAA) (2004): *Undergraduate Programs and Courses in the Mathematical Sciences: CUPM Curriculum Guide 2004* (Washington, DC: MAA), 28.

Chapter

Infusing Equity and Inclusion in the Mathematics Classroom

A garden's beauty never lies in one flower.

~Matshona Dhliwayo

College mathematics classrooms aspire to be a place where the pursuit of knowledge knows no bounds. Here, students from diverse backgrounds come together with unique dreams, abilities, and experiences. Within this crucible of learning, we find a microcosm of our society, rich in its diversity yet burdened by the disparities that often afflict it (U.S. DoE, 2016). In today's twenty-first-century world, the demand for mathematical literacy and critical thinking skills is more crucial than ever (Rizki & Priatna, 2019), necessitating educators ensure accessibility for all. "The American Mathematical Association of Two-Year Colleges' (AMATYC's) core values acknowledge the rights of all students to have access to high quality mathematics education in ways that maximize their individual potential" ([AMATYC, 2020](#), para. 1). Curriculum, pedagogy, and classroom interactions impact all students.

Faculty's curricular decisions and pedagogy, including their individual interactions with students, can foster inclusive climates. Also, students report it is important that they see themselves reflected in the faculty and curriculum to which they are exposed to create a sense of belonging and inclusiveness. Research suggests that greater representation of underrepresented groups among faculty may increase students' sense of academic validation. (U.S. DoE, 2016, p. 37)

The purpose of this equity chapter is to help students, faculty, and institutions prioritize the recognition and celebration of each student's unique identity, including age, ancestry, color, [disability](#), ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, citizenship status, national origin, pregnancy, race, religion, sex, sexual orientation,

socio-economic status, or protected veteran status. (Highlighted terms are defined in the glossary.) This begins with creating an environment where everyone feels valued and understood, and that they belong. Faculty and staff need ongoing trainings and professional development opportunities around recognizing and addressing their own **implicit biases**, learning to assist students who experience **stereotype threat** and **microaggressions**, and learning how to recognize microaggressions and when and how to address them. In addition, faculty can foster diversity, inclusion, and a sense of belonging in college and in the mathematics classroom by engaging in teaching and learning methods, such as **active and collaborative learning**. Designing courses using elements of **universal design** can reduce the need for individualized accommodations and improve the learning experience of all students. Institutions should support faculty and staff in engaging in these activities, provide ample opportunities for training and professional development, and encourage an attitude of exploration with a willingness to question current policies and procedures and an openness to trying new strategies. AMATYC actively encourages the participation of all individuals in decision-making processes and activities, recognizing the importance of diverse voices and viewpoints. Every student is a valued and equal member of the classroom community. Together, we will uncover the power of mathematics as a tool for empowerment, social justice, and individual growth, setting the stage for a more equitable future for all within our college mathematics classrooms.

Sense of Belonging

Faculty who belong to historically marginalized groups may join a department or an organization, but without a sense of belonging may choose to move on. The same is true for students. Lewis et al. (2016) define academic belonging as “the extent to which individuals feel like a valued, accepted, and legitimate member in their academic domain” (p. xx) and go on to state, “**Belonging has long been recognized as an innate human need and an important driver of physical and psychological well-being**” (p. 421). This is particularly evident in the STEM disciplines, where the higher up the course is, the less diversity we see. A lack of sense of belonging is probably a significant factor in the underrepresentation of women in science (Lewis et al., 2016; Master & Meltzoff, 2020; Rainey et al., 2018). **Mathematics is frequently perceived as a challenging subject and has been historically represented as a gatekeeper to STEM disciplines; there may be no discipline more in need of creating a strong sense of belonging for students and faculty than mathematics.** Consider the following contrasting stories of two students in a precalculus course.

Takei is a student in his fourth week of a precalculus class. Takei’s class does a lot of group work, so he has gotten to know several classmates over the past four weeks as they have worked together on various assignments. At the start of the semester, Takei’s instructor had the class set ground rules for group work that included valuing all contributions and supporting one another’s learning. Takei’s instructor knows his name and acknowledges his contributions to class discussions in ways that leave him feeling motivated to learn more. Takei enjoys coming to class because it is a positive, comfortable environment. Nichelle is also a student in her fourth week of precalculus class, but Nichelle’s class does not include assignments that encourage her to get to know her fellow students. As a first-semester dual enrollment student, Nichelle is not used to taking college classes and feels a little ill at ease. In the first week of class, the person next to her whispered “how stupid”

under their breath as a student across the room offered an incorrect answer in a class discussion; this left Nichelle a bit afraid of what people might think of her contributions when she spoke up in class. Nichelle does not know of any other dual enrollment students in the course and has no reason to believe that the instructor knows her name. Nichelle feels anxiety going to class because she feels like an outsider in the environment.

Takei and Nichelle are at opposite ends of the spectrum on a sense of belonging scale. Sense of belonging means how much a person feels like they fit in and are part of a college community, which applies to instructors and students alike in different contexts. Belonging in a college community is fostered by feeling accepted, respected, included, and supported by others. From a student perspective, there are many ways in which faculty can support the development of a sense of belonging which will be addressed below.

Faculty perspective

On the classroom level, a student's sense of belonging is integrally linked to the community environment, and faculty can make a difference in helping (or hurting) the students' abilities to develop a sense of belonging. Four basic strategies for developing a sense of belonging in students include:

- Showing clear and multiple avenues for support
- Investing time and energy in helping students develop relationships with peers.
- Utilizing active learning strategies and inclusive practices (being mindful that moving away from lecture can mean moving our marginalized students into unsafe spaces). (Concrete examples can be found at <https://www.ams.org/publications/journals/notices/201702/rmoti-p124.pdf> and https://www.usma.edu/sites/default/files/inline-images/centers_research/center_for_teching_excellence/PDFs/mtp_project_papers/Gatewood_13.pdf).
- Giving students structure to think about how to adapt to the college environment.

Educators play a pivotal role in shaping a sense of belonging in educational institutions, inside and outside of their classroom. By promoting empathy, acceptance, and mutual respect, faculty convey the importance of the other person. This sense of belonging, whether in students or with colleagues, contributes to increased engagement and a positive outlook towards the importance of their work. For students that can mean positive social and emotional development and increased academic success. For communities of faculty, we are helping to create more inclusive and equitable spaces, where **we are enriched by the diversity of the people in our communities**. A sense of belonging for faculty is just as important as it is for students, impacting educators' professional efficacy, job satisfaction, and overall well-being. **As colleagues, we need to attend to the ways in which we support one another and develop relationships within our communities (departments, institutions, and organizations).**

Institutional perspective

At the institution level, faculty are at the heart of student success. They are directly responsible for curriculum development, delivering content, and connecting to students. Two-year college students face distinct challenges compared to their counterparts at four-year institutions, including limited on-campus living options, less involvement in college clubs, and greater non-education-related responsibilities, all of which leads to lower levels of belonging. It is the institution's responsibility to support faculty with the opportunities and training to help them better develop curriculum and standard practices that elevate historically marginalized groups in the college community and in mathematics.

B experience a lowered sense of belonging. This is a problem the institution should intentionally address. Students gain unique perspectives on mathematics, classroom interactions, college, and life from diverse identities. Diversity, equity, inclusion, and accessibility should be critical aspects of any hiring process, retention policy, professional development program, workload, and staffing policy.

A sense of belonging is deeply personal. No institution or single person can control whether another human feels like they belong somewhere, but we, individually and collectively, can make intentional choices to try to let others know they do belong and they are important.

Stereotype Threat, Implicit Bias, and Microaggressions

Most instructors go into the teaching profession because of a love for their discipline, coupled with a strong desire to help others or make a difference. However, barriers to their students' success can be created by [implicit biases](#), [microaggressions](#), and [stereotype threat](#). **Unfortunately, many instructors have received little to no training in how to engage in such conversations, and the student may experience their awkwardness and hesitation as a microaggression. How do stereotype threat, implicit biases, and microaggressions affect the classroom dynamic and campus climate for faculty and students?**

Stereotype Threat and Implicit Bias

Stereotype threat can preoccupy our students' brains to the point that it reduces their focus and negatively impacts academic performance, leading to uncertainty about belonging in the mathematics classroom or even in college. Students may become hypervigilant, searching the environment for signs they do, or do not, belong, robbing them of cognitive resources that could be better employed in learning. When students are confident they belong, they focus better on the academic work, build better relationships, and engage more fully in the course and college.

Imelda is the only student who identifies as female in her calculus class. She is very conscious of being the only female and worries that every time she asks a question, other students and the instructor see her as the representative of all women.

To address stereotype threat, instructors should educate themselves about their own implicit biases. Education about and exposure to theories about both implicit bias and microaggressions can help faculty to recognize them when they occur and to then formulate appropriate actions. One of the most well-known instruments for assessing implicit biases is the Implicit Association Test hosted by Harvard, <https://implicit.harvard.edu/implicit/research/>. There are 16 different tests on topics such as gender-career, transgender, disability, age, and race, which reveal the ease with which your brain makes associations. These can reveal biases towards associating White faces with good things and Black faces with negative things, for example. When faculty are tired, stressed, pressed

for time, or have incomplete or ambiguous information about a situation, these biases can assert themselves. For example, an implicit belief that women are not good at mathematics may lead to seeing more errors in a woman's work or in discounting the correctness of an argument. Situations that unexpectedly arise in the classroom can lead to these kinds of influences. Taking a moment to breathe and think can help faculty keep from being as influenced by implicit biases.

Addressing implicit biases and microaggressions is important work for faculty; these subtler forms of prejudice and bias may be more damaging to recipients than more overt forms of prejudice and bias (Solórzano et al., 2000; Sue, 2010), leading to disengagement, [anxiety](#), frustration, self-doubt, symptoms of PTSD, and emotional distress (Casanova et al., 2018; Solórzano et al., 2000; Sue, 2010; Sue et al., 2007; Williams et al., 2020). Students who experience STEM-related stereotyping or biases may question whether they belong in a STEM field, doubt their own abilities, and ultimately choose not to pursue that path (Grossman & Porche, 2014). Consider the following methods to counteract implicit biases:

- Meaningful interaction with people whose identities differ from one's own (Staats, 2015/2016).
- Exposure to counter-stereotypical examples, such as posters of Black or LGBTQ mathematicians.
- Disaggregating success, failure, and withdrawal rates by race/ethnicity and/or gender.

Microaggressions

Individual implicit biases often underlie [microaggressions](#), which draw attention away from the beliefs of the individual and, instead, focus it on the combined effects of many experiences and their connection to systemic injustice (Applebaum, 2019). The effect of microaggressions is cumulative; it can be compared to a thousand tiny stings or mosquito bites (Ogunyemi et al., 2020; Solórzano et al., 2000; Sue, 2010). Microaggressions include [microassaults](#), [microinsults](#), and [microinvalidations](#) (Sue et al., 2007).

Microaggression Examples

- **Microassault:** asking a prospective female math major if choosing that major would have a negative impact on the student's child, the implication being that one cannot be both a good mother and a mathematician.
- **Microinsults:**
 - Black people are too loud and boisterous.
 - Asians are too quiet (Ogunyemi et al., 2020).
 - Failing to call on female students or underrepresented minorities in class (lack of intelligence or competence).
- **Microinvalidation:**
 - An instructor who claims to be "racially color blind."
 - Expressing surprise that Latina/o or Asian students speak "good English" or are "from here" (Ogunyemi et al., 2020).

These "subtle snubs" (Sue et al., 2007, p.273) are often dismissed or smoothed over as inconsequential, unintentional, and therefore undamaging, and harmless. In most cases, the

perpetrator is interpreting the situation as a single instance, whereas the recipient is interpreting the situation as one of many experiences of a similar nature.

Bias in the classroom is more likely to be subtle than overt, and students generally perceive more bias than do instructors (Ogunyemi et al., 2020). The effect is often disengagement, frustration, and exhaustion, which can further damage academic performance (Sue et al., 2019). Students may end up feeling that they do not belong and that less is expected of them than of members of the dominant group. Microaggressions can come from all directions. Studies have shown that students tend to think that faculty of color are less competent and question their authority and grading schemes more frequently than faculty from dominant groups. This same dynamic applies to female faculty when compared to male faculty. To address bias in the classroom:

- Directly confront bias, when appropriate.
- Facilitate group conversation, validating the emotional responses of students.
- Model “openness and honesty in discussing [one’s] own biases, weaknesses, or disruptive personal feelings” (Ogunyemi et al. 2020, p. 108).

There are various strategies to address microaggressions. Consider the following:

- ***Confront the microaggression.***
 - “I know you meant well, but that really hurts.”
 - “I know you meant it as a joke, but it really wasn’t funny.”
 - “I know you like to kid around a lot but think how your words affect others.”
 - “I know you meant it to be funny, but that stereotype is no joke” (Sue et al., 2019, p. 139).
- ***Make the invisible visible.***
 - “I don’t agree with what you just said.”
 - “That’s not how I view it” (Sue et al., 2019, p. 136).
 - “Are you saying that Black students are not good at problem solving?”
- ***Disarm the microaggression.***
 - Nonverbal communication: lifting your eyebrows, frowning, looking down or away, or shaking your head.
 - “Whoa, let’s not go there. Maybe we should focus on the task at hand” (Sue et al., 2019, p. 137).
- ***Educate the perpetrator.***
 - “I know you didn’t realize this, but that comment you made was demeaning to X because not all Arab Americans are a threat to national security.”
 - “I know you really care about representing everyone on campus and being a good X, but acting in this way really undermines your intentions to be inclusive” (Sue et al., 2019, p. 137).
 - “That is a negative stereotype of African Americans. Did you know they also want to be an engineer just like you? You should talk to them; you have a lot in common.”
- ***Seek external reinforcement or support*** (Sue et al., 2019, p. 128).

One of the difficulties in addressing microaggressions is that a strategy might be effective and mitigate some of the negative effects for some groups (e.g., political activism for Latino/a students) and worsen the situation and effects for other groups (e.g., political activism for Black students) (Ogunyemi et al., 2020). Nevertheless, growing evidence suggests that more proactive strategies, such as problem solving and discussing the situation with supportive others, may help students better respond to future microaggressions. Disengaging, on the other hand, seems to have a negative effect (Ogunyemi et al., 2020, Sue et al., 2019). Consider the environment and context before deciding to act, so the situation is not inadvertently made worse for the victim. Constantly confronting microaggressions is emotionally exhausting and takes a physical toll:

- Consider when and where (and whether) to confront the perpetrator.
- Consider whether confrontation or education should be the more dominant response.
- Be sensitive to the relationship dynamics among the people present.
- Consider the ramifications and possible consequences of taking action, particularly when there is a power dynamic at play, such as between a student and faculty member.

When more people begin to accept collective responsibility to act, fear of negative consequences and retaliation will lessen, and real societal change can take place. (See also Chapter 6, p. 56.)

The world is a dangerous place to live, not because of the people who are evil, but because of the people who don't do anything about it.

~Albert Einstein

The Institution's Role in Equity

Colleges have continuously improved efforts to provide an environment that maximizes success and helps transform students' lives. Developmental education reform efforts (Jenkins et al., 2019) and, more recently, guided pathway (AACC, 2017) efforts, have shifted the way institutions think about, support, and provide learning opportunities for students. As part of the guided pathways movement, the concept of meta-majors (Jobs for the Future, 2016), or areas of interest, has coincided with a shift away from a "single mathematics course for all" mindset and towards a mathematics pathway (Dana Center, n.d.) approach. By offering general education mathematics courses that align to students' degree programs, faculty are creating learning environments that foster mathematical proficiency. Concurrently, developmental education reform movements have changed the path to these various gateway courses. Two primary changes, reduction of the developmental course sequence and adjustments to placement processes, enhance student access to and success in gateway mathematics courses. These and other continuous improvement efforts require institutional fortitude and resources to transform outdated practices. As institutions work and innovate to improve student success, efforts must emphasize equitable student success outcomes.

Institutions must ask themselves: How are we measuring reform movement success? Are outcome gaps being closed due to the new practice or policy? Are students experiencing support in equitable proportions? "We need a long-term sustained focus from professional organizations, college leadership, faculty, staff, and policy makers" (AMATYC, 2018, p. 62). However, supporting faculty and staff with resources is just half the work for executive leadership. Governing boards should be invested in guides (ACCT, 2020) and professional learning opportunities to ensure new

and revised policies and procedures are reviewed with an equity lens. Additionally, executive leadership teams should be actively involved in national organizations that promote data-informed and evidence-based decision making with disaggregated data (AACC, n.d.; Achieving the Dream, n.d.; Garder Institute, n.d.). Data should expand beyond the classroom to include co-curricular, support services, and post-graduation information.

National faculty associations have created visions (e.g., the American Association of Colleges and Universities (AAC & U, 2018) *A Vision for Equity*), series (e.g., the Mathematical Association of America's *Equity in Action* (2022)), networks (e.g., the National Organization for Student Success' *Equity, Access and Inclusion Network* (n.d.)), and position statements (e.g., AMATYC's Diversity, Equity and Inclusion statement (2020)) focused on equity in the transformation of curriculum, pedagogy/andragogy, and support services. Administration needs to support faculty participation in organizations such as these, bolster professional development resources, and incentivize localized research. Faculty ownership of the transformed learning environment requires a commitment from administration to support professional learning, innovative practices, and continuous improvement models. These continuous improvement models must take on a collaborative approach to move the needle on equity gaps; mathematics faculty cannot do it alone. Institutional research, faculty in other disciplines, student affairs, and academic support departments are all critical to both increasing student success and achieving equitable student outcomes.

Institutions support students through many departments and programs that rely on the expertise of educators serving in staff roles. Staff facilitate and coordinate institutional operations, including registration, financial aid, and tutoring. The multitude of roles that staff utilize to effect change and to implement equitable practices provide them with a unique capacity to change our institutions. Staff support our institutions' equity missions through student support services, hiring practices, and collaboration with faculty and local schools.

Change must happen individually before it can happen collectively. People drive change, lead change, and sustain change. Lasting change happens when educators understand both the meaning of equity and that meaning is represented through personal values, beliefs, and actions. (McNair et al., 2020, p. 1)

The Institution's Role in Evidence-Based Practices

To make an impact on student success in the first two years of college mathematics will require faculty to view mathematics education through an equity lens (Kezar et al., 2020; Lin et al., 2020; Purnell & Burdman, 2022). To support faculty in viewing efforts through an equity lens, it is imperative that institutions provide support in terms of available evidence. The data provided must be aggregated and disaggregated, showing a clearer picture of the intricacies in the data. Equally important, the institution must seek out and make available qualitative data to inform faculty on the student experience. Both ownership and engagement are PROWESS Pillars (AMATYC, 2018, p. 9) and cannot be fully measured without speaking to and understanding the student experience. Finally, and most importantly, the institution must create a culture that supports data use as a tool for improvement, not as an instrument of fault finding. (See also Chapter 6, pp. 57-60.)

As stated in the AMATYC (2020) statement on *Diversity, Equity, and Inclusion in Mathematics*, “Equity reform in mathematics teaching requires institutional change, such as ... collect data that is disaggregated, longitudinal and includes quantitative and qualitative components” (para. 4).

Collecting the data does not, by itself, create a more equitable environment for the teaching of mathematics. The institution must also create an environment that allows and encourages faculty to ask questions about the data, investigate the causes of disparities in the data, and act upon their conclusions. As seen in AMATYC’s (2018) *IMPACT*, there is no “average” student in the community college. Each institution will have unique needs based on the population of students. This also means that honest discussions around the current success and difficulties of marginalized populations must occur (Diggles, 2014). This will only happen when faculty operate in a culture that encourages and promotes the deep understanding and questioning of data (Hora et al., 2017).

Active and Collaborative Learning

Incorporating diversity and inclusion into [active learning](#) is essential for creating an equitable and supportive educational environment. Active learning strategies engage students in the learning process and can be enhanced to promote diversity and inclusion. When researching active learning or [collaborative learning](#), instructors will find various definitions. We will define active learning as learning that allows for students to be engaged in their learning process as opposed to passive learning (such as lecture-based). Likewise, we will define collaborative learning as using groups of two or more students to share in the learning process.

Integrating active learning in mathematics classrooms involves replacing the traditional lecture model with one that supports productive student interactions (Boyce & O’Halloran, 2020). A study by Theobald et al. (2020) found that the amount of active learning students perform in a STEM classroom positively correlates with narrowing achievement gaps between students in minoritized groups and non-minoritized groups. It should be noted that active learning in the classroom reconstructs the instructor’s role to that of a facilitator of student’s educational development. The interaction between the instructor and student is productive and relies on each class session’s context (Lombardi et al., 2021). Theobald et al. (2020) noted that this does not mean that lecturing is not an effective form of instruction; however, lecture alone will not deepen most students understanding in STEM. Lombardi et al. (2021) stated that it is important to ensure that when incorporating lecture with active learning activities, it must be implemented to increase student action in knowledge development and meaning building.

Active learning in the mathematics classroom also involves collaborative learning. According to Ching (2020), collaborative learning allows students the opportunity to be more actively engaged in their learning or task and hence helps them understand the material more efficiently. The author furthermore states that collaborative learning has also shown that students who tend to perform below average become more capable in their education. Ching (2020) discussed a study in which collaborative learning techniques were implemented in a college mathematics class. It was found that students who were typically less engaged in solving mathematics problems became more diligent in working on their mathematics exercises when given the opportunity to work with other classmates. These students also increased their cognitive and social skills through working with fellow students.

Student-to-student and instructor-to-student interaction is important for positive effects on students' learning in the classroom. Lugosi and Uribe (2022) found that when the instructor gives feedback and encouragement during active learning activities, this can have an improvement in students' emotional intelligence. The authors also discovered that allowing students to work in groups, engage in class presentations, and have opportunities to explore and experiment in their mathematics class will result in students being engaged in problem solving and mathematical inquiry. In fact, students are more apt to connect current mathematics knowledge to previous knowledge by engaging in active learning activities in the classroom and hence increase their likelihood of storing this new knowledge into their long-term memory.

What about microaggressions that may occur in the classroom during an active learning activity? How can the instructor respond to possible microaggressions? Souza (2018) created a communication framework on how we can respond to microaggressions in the classroom called ACTION. Implementing these strategies in your classroom can help address and even reduce microaggressions in the classroom.

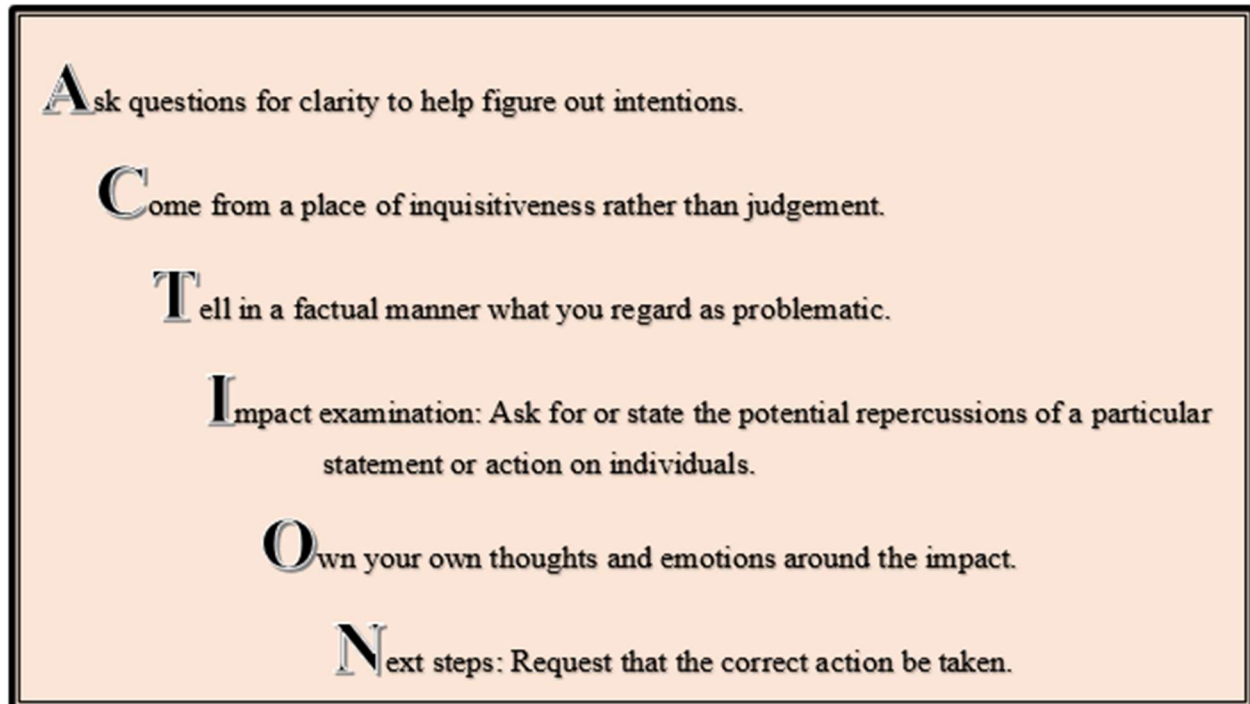


Figure 1. Taking ACTION against microaggressions during active learning (Souza, 2018).

Active learning has been gaining momentum in higher education. Many colleges are researching the effectiveness of implementing active learning strategies in the classroom. Collaborative learning works hand in hand with active learning activities to help students work with their peers and help each other in their learning process. By implementing active learning techniques in the classroom, students can become more engaged in their work and their education journey.

Examples of active and collaborative learning:

- Whole group discussions.
- Online collaboration spaces (such as Teams or Zoom)
- [Think/Pair/Share](#).
- Class polls (such as Kahoot or Jotform).
- Group projects (collaborative learning).
- Class games to review material (such as Jeopardy or Bingo).
- Multiple small groups working on problems together at the board.

In an inclusive mathematics college classroom, active learning takes center stage as a dynamic and equitable pedagogical approach. Here, students of diverse backgrounds and abilities actively engage in the learning process through collaborative problem solving, group discussions, and hands-on activities. This approach fosters an inclusive environment where all voices are heard and valued, enabling students to acquire mathematical knowledge and develop critical thinking skills, boost self-confidence, and appreciate the richness of different perspectives. Instructors create a supportive space where students feel empowered to explore mathematical concepts together, breaking down barriers and ensuring that all learners have an opportunity to thrive in the world of mathematics. (See also Chapter 5, p. 44.)

Universal Design

Students experiencing life-long or temporary physical, psychological, or mental impairments are human beings who add to the diverse cultural mix of society and contribute to our society in all the unique ways that each other member of society does. Such differences include, but are not limited, to visual, speech, mobility, dexterity, and hearing impairments; intellectual disabilities; major depressive disorders, emotional illnesses, post-traumatic stress disorders, traumatic brain injuries, and specific learning disabilities, such as autism, ADD, and ADHD; cerebral palsy; epilepsy; muscular dystrophy; multiple sclerosis; orthopedic conditions; cancer; heart disease; diabetes; and contagious and noncontagious diseases, such as tuberculosis and HIV disease (whether symptomatic or asymptomatic). These disabilities or differences can be invisible or visible.

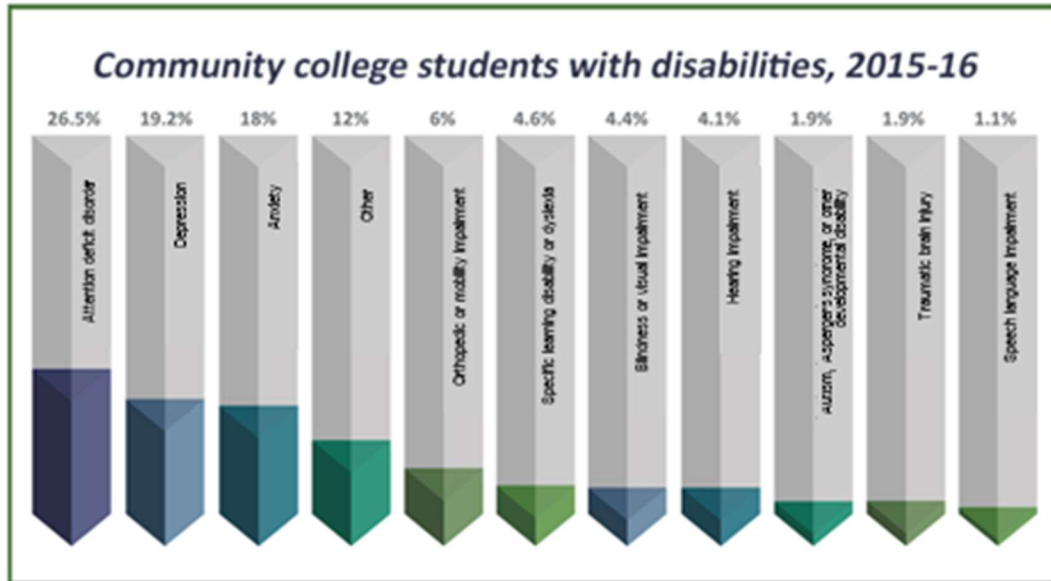


Figure 2. Community college students with disabilities, 2015–2016 (AACC, 2018).

The National Center for Educational Statistics (NCES, 2022) reports that 13% of the students at community colleges have reported disabilities to their institutions, however, NCES data further suggests that only 37% of the students with disabilities do inform their institutions (Key Findings, Informing). Our population of students with disabilities is large—close to one third of students with disabilities attend community colleges. Figure 2 identifies the major categories of reported disabilities at community colleges.

Fostering equity and inclusion demands that we acknowledge the need for implementing the principles of [universal design](#) into our programs and curriculum. Universal design for learning, as developed by [CAST](#), is a framework to improve and optimize teaching and learning for all people, based on scientific insights into how humans learn. It is useful to consider the social model of disability. Society has moved from a medical model (treating the individual to fit) to a more inclusive social model (how we arrange society to be inclusive) with respect to abilities. The disabilities that are experienced in the classroom or on campus are there because the environmental framework was built to benefit physically, mentally, and psychologically able-bodied persons. It was a choice. We can instead grow a more humane society, and embrace and choose inclusivity.

Faculty can promote [disability justice](#) and reduce [ableism](#) through the inclusion of equitable teaching and learning practices, such as disability accommodations and inclusive course design strategies. Through these practices, barriers can be reduced and, in some cases, entirely removed for students with disabilities. Disability accommodations focus on meeting the individual needs of the student by requesting modifications to the learning environment. By setting up proactive strategies to create courses and support services that are accessible to the widest variety of students, institutions, faculty, and staff may reduce the need for some individualized disability accommodations. One example would be reducing timed assessments. Extended time on tests as an accommodation should also be considered as part of universal design. Timed tests in mathematics have been shown to heighten anxiety in some students while lowering their overall exam performance (Stretch & Osborne, 2019). The authors also discuss how extended time

on tests can be beneficial for most students. In fact, Gernsbacher et al. (2020) delve into the inequitable and exclusive nature of timed tests as evidenced in studies and propose the subsequent recommendations:

- Remove time limits on all tests.
- If time is limited due to class constraints, consider administering the test asynchronously (such as online or take home).
- Consider assigning projects, reflections, and other alternative types of assessments to assess mastery in addition to traditional testing.

Designing assessments that are not time bound or use less than one quarter of the classroom time (so that students needing additional time would be naturally accommodated within the classroom time structure) would be an appropriate accommodation to the social structure, reducing the medical model of exceptions for individuals. As part of envisioning a more inclusive society, instructors and support staff need to center the students' needs. Accommodations do not change the expectations of students to meet essential requirements or learning outcomes of a course, service, or program, though essential requirements may need to be evaluated and modified if they are bound by a particular mobility, physical, or dexterity ability. For example, does every student need to graph an equation without technology, or is the course requirement to know the characteristics of types of graphs and to recognize those characteristics? See Table 1 for examples of accommodations that can be promoted at the institutional, faculty or staff, or student level. (See Chapter 4, pp. 37–39 for more information.)

Table 1

Institutional, Faculty or Support Staff, and Student Practices

Institutional Practices	
Relocate to an accessible building or classroom.	Use experiential learning accommodations (e.g., internships, practicums, student teaching).
Provide accessible furniture.	Provide access assistance (e.g., scribes, readers, lab assistants).
Employ sign language interpreting and real-time captioning.	Provide accommodation letters.
Set policies and use language that directly relate to diversity, equity, or inclusion (e.g. diversity statements; statements about pronouns).	
Faculty or Support Staff Practices	
Create accessible documents or slide decks (using built-in software formatting).	Use experiential learning accommodations (e.g., internships, practicums, student teaching).
Record lectures with closed captioning or transcripts.	Provide access assistance (e.g., scribes, readers, lab assistants).

Set flexible attendance policies.	Set flexible assignment deadlines.
Use extended time.	Scaffold assignments.
Allow use of computers or tablets for note taking or in class assignments.	Allow individual or group work to reduce social anxiety and other conditions.
Consider self-disclosure of one's own hidden disabilities; be open to students' self-disclosure.	Attend to the overall tone of syllabi with a balance between authoritative and directive versus friendly and accessible.
Internalize the fact that disability is not a "one size fits all" process.	Set clear expectations around office hours, guidance, questions, and help-seeking.
Reduce classroom and office distractions	Build social belongingness among students and groups are safe from microaggressions.
Use a variety of teaching strategies: visual and audio representations, in class and online materials and discussions, regular feedback.	Provide a choice of a project, presentation, or paper to demonstrate knowledge and skills.
Student Practices	
Ask for priority seating	Use assistive listening devices
Ask for peer note taking	Report disability and seek accommodations
Consider self-disclosure to instructor	Use computer or tablet for note taking or assignments

Developing and implementing a teaching practice based on universal design may seem like a monumental undertaking, but small steps and incremental changes can make a big difference (Boysen, 2021; Dahlstrom-Hakki & Wallace, 2022; Duranczyk & Fayon, 2008; Izzo et al., 2010; Kachwalla, 2021; La et al., 2018; Lambert et al., 2021; Penner, 2018). Universal design for learning takes into consideration assessments, pedagogy, and communications. These considerations reduce students' need for individualized accommodations and can benefit all learners, not just the students with disabilities. The following list includes some resources to get started.

- Action Planning Worksheet for Universal design for learning. <https://thinkcollege.net/resource/universal-design-learning-udl/action-planning-worksheet-universal-design-learning>
- Center for Applied Technology (CAST) website. www.cast.org

- Universal Design: Process, Principles, and Applications. <https://www.washington.edu/doi/universal-design-process-principles-and-applications>
- ULD Guidelines by CAST. <https://udlguidelines.cast.org/>
- Universal Design for Learning in Higher Education. <http://udloncampus.cast.org/home>

Working Together for Equity and Inclusion

This chapter highlights the benefits of equity and inclusion within our college mathematics classrooms. It recognizes that our diverse student body brings with it a wealth of perspectives, talents, and experiences. By promoting fairness and accessibility, we ensure that every student has the opportunity to thrive mathematically, irrespective of their background.

Every student is a valued member of the educational community, irrespective of background or identity. The best path forward in mathematics education is to recognize that the success of all students is of paramount importance, but it is a multi-faceted issue without a quick fix. Mathematics education must look beyond the content and to the student. Helping students feel a sense of belonging in the classroom, being aware of our own biases, and adopting universal design are three critical aspects of supporting student success. We encourage faculty to become leaders in this ripple of change that creates supportive environments for all students to learn.

Faculty are at the heart of student success. They are directly responsible for delivering content and connecting to students. “It’s their passion, hard work and authentic interactions that help” students succeed (Malvik, 2020, para. 1). Faculty develop and deliver the mathematics curriculum and, therefore, have the responsibility and discretion to select the educational experiences encouraged in the classroom (U.S. DoE, 2016). Many well-established frameworks foster pedagogical engagement with access and inclusion, incorporating students with disabilities, as well as other populations that have experienced marginalization in our society; examples include [antiracist pedagogy](#), [multicultural education](#), and [inclusive pedagogy](#). Regardless of the approach, accessible and inclusive teaching is guided by these seven grounding principles (Carter, 2022):

1. **Integrate diversity:** Establish guidelines that capitalize on difference as inherently valuable by including and supporting diverse voices throughout the course in reading materials, research cited, visuals presented, and all course and classroom artifacts. (See Chapter 3, p. 25.)
2. **Expand access:** Identify the key skills necessary for achieving course goals and proactively consider accessibility to reduce the need for reactive or retroactive adjustments throughout the semester.
3. **Foster belonging:** Design the course with a learning community model, where there are shared responsibilities, being proactive in addressing and interrupting exclusionary social dynamics. (See Chapter 4, p. 33.)
4. **Utilize differentiated instruction:** Explicitly acknowledge and model multiple instructional practices to reinforce that one approach to teaching and learning does not meet the needs of all students or all instructors. (See Chapter 4, p. 34.)
5. **Embrace structured flexibility:** Design the course with multiple paths to achieve course goals and alternative plans, as changes in structure may enhance both students’ and instructors’ performances. (See Chapter 7.)

6. **Model transparency:** Be explicit in clearly presenting, describing, and detailing learning objectives, essential requirements, and pedagogical choices to enhance students' understanding of teaching and learning decisions.
7. **Incorporate feedback:** Create opportunities for reflection, feedback, and revision within assignments and in the overall course design, so personal and shared reflections can inform the teaching and learning practices throughout the semester. (p. 2)

Institutions are responsible for ensuring faculty are supported and provided with resources and professional development opportunities, not leaving faculty to work alone. Only by engaging and supporting faculty as a community of practitioners, and by fostering the willingness to question long-held beliefs, will the ripple continue to grow. Institutions must hire faculty who are credentialed and highly knowledgeable about teaching and learning theories for mathematics and who can bring diverse perspectives and differing views to the classroom ([AMATYC, 2018](#)). Through this diversity, students gain unique perspectives on mathematics, classroom interactions, college, and life. Institutions must focus on who is in the classroom to ensure students succeed in their first two years of college mathematics.

Faculty are responsible for exploring their own implicit biases, learning how to address microaggressions in and out of the classroom, and supporting students who may be experiencing stereotype threat. By utilizing pedagogical techniques, such as active and collaborative learning, and designing courses with a more universal design, faculty can improve the college experience of students and increase student success. Diversity, equity, inclusion, and accessibility should be critical aspects of any classroom experience, curriculum development, pedagogy, hiring process, retention policy, and professional development program. When institutions, faculty, and staff collaborate to address these issues together, we can build stronger, more effective programs and positively impact student success.

For other resources on equity and inclusion, [click here](#).

Do you already have great information or ideas on infusing equity and inclusion into the mathematics classroom? Would you like to learn about more ways to foster sense of belonging in your students? Head to [AMATYC.org/IMPACTLive](https://www.amatyc.org/IMPACTLive) and find innovations your colleagues are using or contribute innovations and ideas of your own.

References

- Achieving the Dream. (n.d.). *Transforming colleges, transforming communities*.
<https://achievingthedream.org/>
- American Association of Colleges and Universities (AAC & U). (2018). *A vision for equity*.
<https://www.aacu.org/publication/a-vision-for-equity>
- American Association of Community Colleges (AACC). (2017). *AACC pathways: Building capacity for reform at scale in the community college field*.
<https://www.aacc.nche.edu/programs/aacc-pathways-project/>
- American Association of Community Colleges (AACC). (2018). Students with disabilities. *Data Points*, 6(13). https://www.aacc.nche.edu/wp-content/uploads/2018/09/DataPoints_V6N13.pdf
- American Association of Community Colleges (AACC). (n.d.). What is the VFA? *Voluntary Framework of Accountability*. <https://vfa.aacc.nche.edu/about-vfa/>
- American Mathematical Association of Two-Year Colleges (AMATYC). (2018). *IMPACT: Improving mathematical prowess and college teaching*.
<https://cdn.ymaws.com/amatyc.site-ym.com/resource/resmgr/impact/impact2018-11-5.pdf>
- American Mathematical Association of Two-Year Colleges (AMATYC). (2020). *Position statement of the American Mathematical Association of Two-Year Colleges: Diversity, equity, and inclusion in mathematics*.
<https://amatyc.org/page/PositionDiversityEquityInclusion>
- Applebaum, B. (2019). Remediating campus climate: Implicit bias training is not enough. *Studies in Philosophy & Education*, 38(2), 129–141. <https://doi.org/10.1007/s11217-018-9644-1>
- Association of Community College Trustees (ACCT). (2020). *Diversity, equity & inclusion: A checklist and implementation guide for community college boards*.
<https://www.acct.org/publications-media/reports-and-papers/diversity-equity-and-inclusion-2020>
- Boyce, S., & O'Halloran, J. (2020). Active learning in computer-based college algebra. *PRIMUS*, 30(4), 458-474. <https://doi.org/10.1080/10511970.2019.1608487>
- Boysen, G. A. (2021). Lessons (not) learned: The troubling similarities between learning styles and universal design for learning. *Scholarship of Teaching and Learning in Psychology*, 1-15. <https://psycnet.apa.org/doi/10.1037/stl0000280>
- Carter, A. M. (2022). *Teaching with access and inclusion*. Minnesota Transform and the Center for Educational Innovation, University of Minnesota. <https://z.umn.edu/TAI>
- Casanova, S., McGuire, K. M., & Martin, M. (2018). “Why you throwing subs?”: An exploration of community college students’ immediate responses to microaggressions. *Teachers College Record*, 120(9), 1-48. <https://doi.org/10.1177/016146811812000901>

- Ching, D. A. (2020). Two cubed approach in a collaborative classroom and the enhanced algebra and social skills of college students. *Universal Journal of Educational Research*, 8(10), 4920-4930. <https://doi.org/10.13189/ujer.2020.081064>
- Dahlstrom-Hakki, I., & Wallace, M. L. (2022). Teaching statistics to struggling students: Lessons learned from students with LD, ADHD, and autism. *Journal of Statistics and Data Science Education*, 30(2), 127-137. <https://doi.org/10.1080/26939169.2022.2082601>
- Dana Center. (n.d.). *Mathematics pathways: The right math at the right time for each student*. <http://www.dcmathpathways.org/>
- Diggles, K. (2014), Addressing racial awareness and color-blindness in higher education. *New Directions for Teaching and Learning*, 2014(140), 31-44. <https://doi.org/10.1002/tl.20111>
- Duranczyk, I. M., & Fayon, A. K. (2008). Successful undergraduate mathematics through universal design of essential course components, pedagogy, and assessment. In J. L. Higbee & E. Goff (Eds.), *Pedagogy and student services for institutional transformation: Implementing universal design in higher education* (pp. 137-153). University of Minnesota.
- Gardner Institute. (n.d.). *Lead every student to graduation—And your institution to lasting growth*. <https://gardnerinstitute.org/>
- Gernsbacher, M. A., Soicher, R. N., & Becker-Blease, K. A. (2020). Four empirically based reasons not to administer time-limited tests. *Translational Issues in Psychological Science*, 6(2), 175-190. <https://psycnet.apa.org/doi/10.1037/tps0000232>
- Grossman, J. M., & Porche, M. V. (2014). Perceived gender and racial/ethnic barriers to STEM success. *Urban Education*, 49(6), 698-727. <https://doi.org/10.1177/0042085913481364>
- Hora, M. T., Bouwma-Gearhart, J., & Park, H. J. (2017). Data driven decision-making in the era of accountability: Fostering faculty data cultures for learning. *The Review of Higher Education, Project MUSE*, 40(3), 391-426. <https://doi.org/10.1353/rhe.2017.0013>.
- Izzo, M. V., Rissing, S. W., Andersen, C., Nasar, J. L., & Lissner, L. C. (2010). Universal design for learning in the college classroom. In W. F. E. Preiser & K. H. Smith (Eds.), *Universal design handbook* (2nd ed., p. 39.1-39.6). McGraw-Hill.
- Jenkins, D., Lahr, H., Brown, A. E., & Mazzariello, A. (2019). *Redesigning your college through guided pathways: Lessons on managing whole-college reform from the AACC Pathways Project*. Community College Research Center. <https://ccrc.tc.columbia.edu/publications/redesigning-your-college-guided-pathways.html>
- Jobs for the Future. (2016). *Meta-Majors: An essential first step on the path to college completion*. <https://archive.jff.org/resources/meta-majors-essential-first-step-path-college-completion/>
- Kachwalla, B. (2021). Making math accessible to all students: Effective pedagogy? *Journal of Higher Education Theory and Practice*, 21(3), 89-95. <https://articlearchives.co/index.php/JHETP/article/view/2899>

- Kezar, A., Holcombe, A., Vigil, D., & Dizon, J. P. M. (2021) *Shared equity leadership: Making equity everyone's work*. American Council on Education; University of Southern California, Pullias Center for Higher Education.
- La, H., Dyjur, P., & Bair, H. (2018). *Universal design for learning in higher education*. Taylor Institute for Teaching and Learning. Calgary: University of Calgary.
- Lambert, R., Imm, K., Schuck, R., Choi, S., & McNiff, A. (2021). "UDL is the what, design thinking is the how:" Designing for differentiation in mathematics (EJ1321118). ERIC. *Mathematics Teacher Education and Development*, 23(3), 54-77. <https://files.eric.ed.gov/fulltext/EJ1321118.pdf>
- Lewis, K. L., Stout, J. G., Pollock, S. J., Finkelstein, N. D., & Ito, T. A. (2016). Fitting in or opting out: A review of key social-psychological factors influencing a sense of belonging for women in physics. *Physical Review Physics Education Research*, 12(2), 1-10. <https://doi.org/10.1103/PhysRevPhysEducRes.12.020110>
- Lin, Y., Fay, M. P., & Fink, J. (2020). *Stratified trajectories: Charting equity gaps in program pathways among community college students* (ED610667). ERIC. <https://files.eric.ed.gov/fulltext/ED610667.pdf>
- Lombardi, D., Shipley, T. F., Bailey, J. M., Bretones, P. S., Prather, E. E., Ballen, C. J., Knight, J. K., Smith, M. K., Stowe, R. L., Cooper, M. M., Prince, M., Atit, K., Uttal, D. H., LaDue, N. D., McNeal, P. M., Ryker, K., St. John, K., van der Hoeven Kraft, K. J., & Docktor, J. L. (2021). The curious construct of active learning. *Psychological Science in the Public Interest*, 22(1), 8-43. <https://doi.org/10.1177/1529100620973974>
- Lugosi, E., & Uribe, G. (2022). Active learning strategies with positive effects on students' achievements in undergraduate mathematics education. *International Journal of Mathematical Education in Science and Technology*, 53(2), 403-424. <https://doi.org/10.1080/0020739X.2020.1773555>
- Malvik, C. (2020). *Acknowledging the importance of faculty training and development*. <https://collegiseducation.com/insights/enrollment-growth/importance-of-faculty-training-and-development/>
- Master, A. H., & Meltzoff, A. N. (2020). Cultural stereotypes and sense of belonging contribute to gender gaps in STEM (ED605235). ERIC. *International Journal of Gender, Science and Technology*, 12(1), 152-198. <https://files.eric.ed.gov/fulltext/ED605235.pdf>
- Mathematical Association of America. (2022). *Conversations for the math community: Equity in action* [Webinar series]. <http://info.maa.org/pages/1780913/23513>
- McNair, T. B., Bensimon, E. M., & Malcom-Piqueux, L. (2020). *From equity talk to equity walk: Expanding practitioner knowledge for racial justice in higher education*. John Wiley & Son. <https://doi.org/10.1002/9781119428725>
- National Center for Educational Statistics (NCES). (2022, April 26). A majority of college students with disabilities do not inform school, new NCES data show [Press release]. https://nces.ed.gov/whatsnew/press_releases/4_26_2022.asp
- National Organization for Student Success. (n.d.). *Equity, access and inclusion network*. <https://thenoss.org/EAI-Network>

- Ogunyemi, D., Clare, C., Astudillo, Y. M., Marseille, M., Manu, E., & Kim, S. (2020). Microaggressions in the learning environment: A systematic review. *Journal of Diversity in Higher Education*, 13(2), 97-119. <https://doi.org/10.1037/dhe0000107>
- Penner, M. R. (2018). Building an inclusive classroom. *Journal of Undergraduate Neuroscience Education*, 16(3), A268-A272. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6153021/>
- Purnell, R. D., & Burdman, P. (2022). Solving for equity in practice: New insights on advancing college opportunity and success. *Notices of the American Mathematical Society*, February, 249-251. <https://www.ams.org/journals/notices/202202/rnoti-p249.pdf>
- Rainey, K., Dancy, M., Mickelson, R., Stearns, E., & Moller, S. (2018). Race and gender differences in how sense of belonging influences decisions to major in STEM. *International Journal of STEM Education* 5(10), 1-14. <https://doi.org/10.1186/s40594-018-0115-6>.
- Rizki, L. M., & Priatna, N. (2019). Mathematical literacy as the 21st century skill. *Journal of Physics: Conference Series*, 1157(4), 042088. <https://doi.org/10.1088/1742-6596/1157/4/042088>
- Solórzano, D., Ceja, M., & Yosso, T. (2000). Critical race theory, racial microaggressions, and campus racial climate: The experiences of African American college students. *Journal of Negro Education*, 69(1/2), 60-73. <https://www.jstor.org/stable/2696265>
- Souza, T. (2018, April 30). Responding to microaggressions in the classroom: Taking ACTION. *Faculty Focus*. <https://www.facultyfocus.com/articles/effective-classroom-management/responding-to-microaggressions-in-the-classroom/>
- Staats, C. (2015/2016). Understanding implicit bias: What educators should know. *American Educator*, 39(4), 29-33, 43.
- Stretch, L. S., & Osborne, J. (2019). Extended time test accommodation: Directions for future research and practice. *Practical Assessment, Research, and Evaluation*, 10(1), article 8. <https://doi.org/10.7275/cs6a-4s02>
- Sue, D. W. (2010). *Microaggressions in everyday life: Race, gender, and sexual orientation*. Wiley.
- Sue, D. W., Alsaidi, S., Awad, M. N., Glaeser, E., Calle, C. Z., & Mendez, N. (2019). Disarming racial microaggressions: Microintervention strategies for targets, White allies, and bystanders. *American Psychologist*, 74(1), 128-142. <https://doi.org/10.1037/amp0000296>
- Sue, D. W., Capodilupo, C. M., Torino, G., C., Bucceri, J. M., Holder, A. M. B., & Nadal, K. L. (2007). Racial microaggressions in everyday life: Implications for clinical practice. *American Psychologist*, 62(4), 271-286. <https://doi.org/10.1037/0003-066X.62.4.271>
- Souza, T. (2018). Responding to microaggressions in the classroom: Taking ACTION. *Faculty Focus: Higher Ed Teaching & Learning*. <https://www.facultyfocus.com/articles/effective-classroom-management/responding-to-microaggressions-in-the-classroom/>
- Theobald, E. J., Hill, M. J., Tran, E., Agrawal, S., Arroyo, E. N., Behling, S., Chambwe, N., Cintrón, D. L., Cooper, J. D., Dunster, G., Grummer, J. A., Hennessey, K., Hsiao, J., Iranon, N., Jones II, L., Jordt, H., Keller, M., Lacey, M. E., Littlefield, C. E., ... &

- Freeman, S. (2020). Active learning narrows achievement gaps for underrepresented students in undergraduate science, technology, engineering, and math. *Proceedings of the National Academy of Sciences*, *117*(12), 6476-6483.
<https://doi.org/10.1073/pnas.191690311>
- U.S. Department of Education (U.S. DoE). (2016). Advancing diversity and inclusion in higher education: Key data highlights focusing on race and ethnicity and promising practices.
<https://www2.ed.gov/rschstat/research/pubs/advancing-diversity-inclusion.pdf>
- Williams, M. T., Kanter, J. W., Peña, A., Ching, T. H. W., & Oshin, L. (2020). Reducing microaggressions and promoting interracial connection: The racial harmony workshop. *Journal of Contextual and Behavioral Science*, *16*, 153-161.
<https://doi.org/10.1016/j.jcbs.2020.04.008>

11.1.5 Webinar Coordinator <12/2018>

Description

The Webinar Coordinator works closely with the AMATYC Professional Development Coordinator, the Professional Development Committee, the Office, and the AMATYC Executive Board to coordinate the AMATYC Webinar Series, a professional development opportunity for all AMATYC members, and serves as an *ex officio* member of the Professional Development Committee.

Appointment Process

The Webinar Development Coordinator is recommended by the President and appointed by the AMATYC Executive Board.

Term of Office

The term length is three years. The starting date of each term is January 1 and the end date is December 31. The term limit is three consecutive terms; exceptions may be granted by the AMATYC Executive Board to waive the term limit for extenuating circumstances by a 2/3 vote of the AMATYC Executive Board.

Qualifications

1. AMATYC member with a Regular or Life membership.
2. Proficient written and verbal communication skills.
3. Proficient technology skills and access to fast and reliable Internet service.
4. Well organized with webinar experience.
5. [Ability to recruit webinar speakers.](#)
- 5-6. [Ability to plan and coordinate a schedule for future webinars.](#)
- 6-7. [Ability to respond to requests for webinars promptly.](#)
- 7-8. [Ability to work with colleagues and to provide leadership and vision.](#)
- 8-9. [Ability to take direction from and work with others cooperatively.](#)
- 9-10. [Experience promoting and marketing educational programs and activities.](#)
- 10-11. [Experience collaborating with educational organizations and corporate entities.](#)

Duties

1. Serve as an *ex officio* member of the Professional Development Committee.
2. Work with the Professional Development Coordinator to identify and recruit webinar speakers. Maintain regular contact with the AMATYC Office regarding webinars, including providing the Office with information for e-mail blasts before each webinar.
3. Review and evaluate existing webinar procedures.
4. Work with the Professional Development Committee, Conference Committee, ANet Chairs, to identify and recruit webinar facilitators.

[5. Attend the annual AMATYC conference to look for webinar presenters among the speakers.](#)

~~5-6.~~ Update the training materials for webinar presenters and assist in making sure the webinar presenters are properly trained. Hold a practice session with webinar presenters before each webinar. [Assist webinar presenters in planning on ways to actively engage participants during the webinars.](#)

~~6-7.~~ Ensure that all AMATYC webinars are moderated, including introducing the webinar speaker, engaging participants throughout the webinar, and working with the webinar speaker to conduct polls.

~~7-8.~~ [Compile](#) Take attendance during the webinar and compile survey data after each webinar ~~and send out certificates of participation to attendees.~~

~~8-9.~~ Make recommendations to the Professional Development Coordinator concerning any software and applications that AMATYC should acquire to conduct future webinars.

~~9-10.~~ Assist AMATYC's efforts to provide members with access to professional development information and to archive past webinars.

~~10-11.~~ Provide the AMATYC Website Coordinator with updated information on past, current and future webinars, including ensuring that the webinars page on the AMATYC website is updated and all webinars are archived properly.

~~11.~~ [Meet with the Professional Development Coordinator at the annual conference.](#)

~~12.~~ [Ensure that the webinar recording is posted to the AMATYC YouTube channel and posted to the website.](#)

~~12-13.~~ Communicate regularly with the AMATYC Executive Board liaison.

~~13-14.~~ Submit a written AMATYC Executive Board report twice annually (2/15 and 9/15) to the AMATYC Executive Board liaison using the format provided by the AMATYC Executive Board.

~~14-15.~~ Perform other duties necessary to conduct successful webinars [including keeping current on digital platforms.](#)

Additional Webinar Information

1. ~~All webinars need not necessarily have a~~ sponsoring committee or ANet [is not required for a webinar.](#)
2. All webinar speakers will be offered [a stipend an honorarium](#) that comes from the webinar budget; ~~it is the speaker's decision to decline the honorarium.~~ If a webinar has more than one speaker, the standard honorarium will be split among the speakers. [Speakers may choose to decline the honorarium.](#)
3. The Webinar Coordinator will serve as the liaison between the speaker and the sponsoring committee or ANet, if applicable.

11.1.5 Webinar Coordinator <12/2018>

Description

The Webinar Coordinator works closely with the AMATYC Professional Development Coordinator, the Professional Development Committee, the Office, and the AMATYC Executive Board to coordinate the AMATYC Webinar Series, a professional development opportunity for all AMATYC members, and serves as an *ex officio* member of the Professional Development Committee.

Appointment Process

The Webinar Development Coordinator is recommended by the President and appointed by the AMATYC Executive Board.

Term of Office

The term length is three years. The starting date of each term is January 1 and the end date is December 31. The term limit is three consecutive terms; exceptions may be granted by the AMATYC Executive Board to waive the term limit for extenuating circumstances by a 2/3 vote of the AMATYC Executive Board.

Qualifications

1. AMATYC member with a Regular or Life membership.
2. Proficient written and verbal communication skills.
3. Proficient technology skills and access to fast and reliable Internet service.
4. Well organized with webinar experience.
5. Ability to recruit webinar speakers.
6. Ability to plan and coordinate a schedule for future webinars.
7. Ability to respond to requests for webinars promptly.
8. Ability to work with colleagues and to provide leadership and vision.
9. Ability to take direction from and work with others cooperatively.
10. Experience promoting and marketing educational programs and activities.
11. Experience collaborating with educational organizations and corporate entities.

Duties

1. Serve as an *ex officio* member of the Professional Development Committee.
2. Work with the Professional Development Coordinator to identify and recruit webinar speakers. Maintain regular contact with the AMATYC Office regarding webinars, including providing the Office with information for e-mail blasts before each webinar.
3. Review and evaluate existing webinar procedures.
4. Work with the Professional Development Committee, Conference Committee, ANet Chairs, to identify and recruit webinar facilitators.
5. Attend the annual AMATYC conference to look for webinar presenters among the speakers.

6. Update the training materials for webinar presenters and assist in making sure the webinar presenters are properly trained. Hold a practice session with webinar presenters before each webinar. Assist webinar presenters in planning on ways to actively engage participants during the webinars.
7. Ensure that all AMATYC webinars are moderated, including introducing the webinar speaker, engaging participants throughout the webinar, and working with the webinar speaker to conduct polls.
8. Take attendance during the webinar and compile survey data after each webinar.
9. Make recommendations to the Professional Development Coordinator concerning any software and applications that AMATYC should acquire to conduct future webinars.
10. Assist AMATYC's efforts to provide members with access to professional development information and to archive past webinars.
11. Provide the AMATYC Website Coordinator with updated information on past, current and future webinars, including ensuring that the webinars page on the AMATYC website is updated and all webinars are archived properly.
12. Ensure that the webinar recording is posted to the AMATYC YouTube channel and posted to the website.
13. Communicate regularly with the AMATYC Executive Board liaison.
14. Submit a written AMATYC Executive Board report twice annually (2/15 and 9/15) to the AMATYC Executive Board liaison using the format provided by the AMATYC Executive Board.
15. Perform other duties necessary to conduct successful webinars including keeping current on digital platforms.

Additional Webinar Information

1. A sponsoring committee or ANet is not required for a webinar.
2. All webinar speakers will be offered an honorarium that comes from the webinar budget. If a webinar has more than one speaker, the standard honorarium will be split among the speakers. Speakers may choose to decline the honorarium.
3. The Webinar Coordinator will serve as the liaison between the speaker and the sponsoring committee or ANet, if applicable.



**Order of Business – Meeting Agenda
Fall Board Meeting
AMATYC Executive Board
October 17, 2024**

Page	Agenda Item	Who
	Call to Order	Hurlburt
Section A: Meeting Agenda		
A1	Order of Business	Hurlburt
A3	Rules of Conduct	Hurlburt
A4	(M) Adopt Rules of Conduct	Hurlburt
A5	(M) Adopt Order of Business	Hurlburt
Section L: Executive Session		
L1	(M) Appointments	Dudley
Section M: New Business		
M1	(M) Approval of 2024 SCC Minutes	Weisbrod
M48	(M) PPM 15.7 AMATYC News	Watkins
M55	(M) Adopt Brynk as AMATYC's partner	Tchertchian
M56	(M) PPM 8.8.5 Advertising Chair	Suski
M62	(M) Two-Year College Data Science Initiative (TYCDSI) Year 2 Workshop	Kozak
Section D: ANets		
D1	(R) Adjunct Faculty Issues	Barrientos/ Tchertchian

D5	(R) Developmental Mathematics (DMC)	Granger/Atkinson
D8	(R) Division and Department Leadership*	Ward/Bartley
D9	(R) Equity	Aschenbrenner/ Ebersole
D15	(R) Innovative Teaching and Learning (ITLC)	Ackerman/ Tchertchian
D18	(R) International Mathematics	Leitherer/Watkins
D33	(R) Mathematics and its Applications for Careers (MAC)	Postrigan/ Johanson
D36	(R) Mathematics Intensive (MIC)	Cappetta/Ebersole
D39	(R) Mathematics Pathways	Beatty/Atkinson
D40	(R) Placement and Assessment (PAC)	Mirbaha/ Weisbrod
D52	(R) Quantitative Reasoning	Foley/Johanson
D56	(R) Research and Mentoring Experiences for Students and Faculty	Clahane/Watkins
D61	(R) Research in Mathematics Education for Two Year Colleges (RMETYC)	Marfai/Stachelek
D63	(R) Statistics and Data Science	Wong/ Stachelek
D66	(R) Teacher Preparation	Van Harpen/ Gerber
Section O: Parking Lot		
O1	Parking Lot	
O2	(M) Motion to Suspend	Hurlburt



AMATYC Appointments

October Monthly Meeting 2024

Appointee's Full Name	Term Begins	Term Ends	Term Length	Term No.	Committee or ANet	Position Description	Appointee's College
Asli Mutlu	01/01/25	12/31/27	3 years	1	AMATYC News	Editor	Wake Tech
Austin Jones	04/01/24	03/31/27	3 years	2	Student Math League	member of the Test Development Team	Wake Tech CC
Behnaz Rouhani	01/01/25	12/31/27	3 years	3	Professional Development Committee	Professional Development Coordinator	Georgia State University
Christy Hediger Krizan	11/18/24	11/14/27	3 years	1	Program Proposal Review Committee	MidAtlantic Regional Representative	Community College of Baltimore County, Dundalk
Megan Breit-Goodwin	01/01/25	12/31/27	3 years	2	Grants	Grants Coordinator	Anoka-Ramsey Community College
Robert Koca*	04/01/24	03/31/25	3 years	partial	Student Math League	member of the Test Development Team	Community College of Baltimore County
Steve Kilner	04/01/24	03/31/27	3 years	3	Student Math League	member of the Test Development Team	Monroe CC

*Bob's appointment expired 3/31/24 but he kept working through the current SML cycle. He intends to step down at the end of this year, so I put his appointment in for 3/31/2025 instead of 2027.

15.7 AMATYC News Submission Guidelines <FBM 2013> <SBM 2019>

Periodically, but at least once a year, the editor of the *AMATYC News* shall send to the leadership of AMATYC detailed guidelines that are updated and adjusted with appropriate names and/or email addresses.

Deadlines

- Article submission deadlines are November 25, February 25, June 1, and August 15.
- The newsletter should be received by the membership about February 1, April 25, August 1, and October 25.

How to Submit

- Articles, along with accompanying photos and graphics, should be submitted using an online form. The link to the online form is available on the *AMATYC News* page of the AMATYC website, and also will be included in the Call for Articles sent by the editor. If submission via the online form is impossible for any reason, articles should be emailed to amatycnews@amatyc.org. (This automatically sends the email to the editor and the Board liaison.)
- Submitting photos:
 - ~~P~~The printer prefers photos can be submitted in .jpg or .png format as a .tif file, but .jpg is acceptable. Photos need to be 300 dpi or better.
 - Photos should be submitted as separate files; do not embed the photo in the article.
 - Do not copy photos from a website; they do not have sufficient quality.
- Submitting graphics:
 - The file type of the graphic must be compatible with Illustrator, preferably .ai or .eps, so that the Publications Director can manipulate the file for size, color, and content.
- Do not use the advanced formatting features available in Word. Articles will be copied into a page layout program; heavily formatted articles cause major difficulties. In most cases, bulleted and numbered lists should also be avoided, as they are not compatible with narrow columns.

- Use a concise file name that reflects the content of the article, such as "President Msg Feb19," "Name Of Committee/ANet Feb19," or "NW Affiliate Feb19." Do not use a generic file name such as "amatycnews."

A style guide will be available on the AMATYC website and the guide will be maintained by the Newsletter Editor in consultation with the Publications Director and Board Liaison.

Writing Guidelines

1. Please read, edit, and spell-check your articles.
2. Please compare calendar submissions against old newsletters. If information has changed from a prior submission, include a note about the change, so the editor knows it is not a mistake.
3. Use abbreviations: CC for Community College, Univ for University, Col for College, CTC for Community and Technical College, correct affiliate abbreviations, and standard two-letter state abbreviations.
4. Omit professional and personal titles, such Dr., Prof., Mr., or Mrs.
5. Articles may be written in the first person if it is extremely clear who is meant by "I", "we", "our", and if the use of the first person improves readability or makes the article more engaging. Limited use of the second person is acceptable, such as "If you would like to join our committee/ANet, email the chair." or "Visit Awesome Attraction during the conference." Otherwise, articles should be written in the third person.
6. Position titles are capitalized only when they immediately precede a name. For example, use President Judy Ackerman, or Judy Ackerman, president.
7. When using an acronym for the first time in an article, give the complete name followed by the acronym in parentheses; then use the acronym throughout the rest of the article. For example, write "National Science Foundation (NSF)," then use NSF thereafter.
8. Refrain from using commercial names and products in articles, such as textbooks, companies, software, calculators, etc.
9. For common Internet-related words, use these one-word formats: email, webpage, homepage, online, website.
10. Use dots as phone number separators (1.800.555.1212).

~~11. Do not use http or https in a web address. For example, use www.amatyc.org, instead of http://www.amatyc.org.~~

~~12. When referring to the AMATYC Conference, use one of the following:~~

- ~~a) 2004 AMATYC Annual Conference~~
- ~~b) AMATYC Annual Conference~~
- ~~c) 30th AMATYC Annual Conference~~
- ~~d) 2004 AMATYC Annual Conference in Orlando~~
- ~~e) AMATYC Annual Conference in Orlando~~
- ~~f) 30th AMATYC Annual Conference in Orlando~~

~~13. Do not rehash old articles—write new articles to keep them fresh.~~

~~14. Punctuation notes:~~

- ~~• Periods and commas should be inside of quotation marks; colons and semicolons should be outside of quotation marks; question marks and exclamation should be inside only if they are part of the quote.~~
- ~~• Two letter acronyms use periods (e.g., U.S., D.C.); acronyms with three or more letters do not use periods (e.g., USA, AMATYC).~~
- ~~• When listing three or more items using "and" or "or," use a comma before the conjunction. (Moe, Larry, and Curly fell in the pool.)~~

For Vice Presidents

~~%1. The Calendar of Events is for meeting notices. Meeting notices must contain the following information in order to be included in the calendar: Dates, What, Where, Contact Information~~

~~%2. Only AMATYC and AMATYC affiliate meetings are included in the Calendar. Related meetings can be posted on the website.~~

~~%3. When an affiliate elects a new president, please complete the "Change an Affiliate President" online form.~~

Focus on Affiliates.

~~A. Suggested word count: 250 - 300 words.~~

~~A.B. Schedule 4. The tentative schedule for the Focus on Affiliates is:~~

- ~~• Winter~~January~~ even years: Central Region~~
- ~~• Spring~~April~~ even years: Mid-Atlantic Region~~

Formatted: Font: 12 pt

Formatted: List Paragraph, Numbered + Level: 1 +
Numbering Style: A, B, C, ... + Start at: 1 + Alignment:
Left + Aligned at: 0.5" + Indent at: 0.75"

- ~~Summer~~~~August~~ even years: Midwest Region
- ~~Fall~~~~October~~ even years: Northeast Region
- ~~Winter~~~~January~~ odd years: Northwest Region
- ~~Spring~~~~April~~ odd years: Southeast Region
- ~~Summer~~~~August~~ odd years: Southwest Region
- ~~Fall~~~~October~~ odd years: West Region

~~B.C. Suggested Focal Topics~~~~5.—Suggestions for Focus on Affiliates articles:~~

- What activities are happening in the affiliate? Examples include conferences, speakers' bureaus, and contests.
- How is the affiliate increasing its membership?
- What is the structure of an affiliate conference?
 - o Is there a registration fee?
 - o Is it a one-day or two-day conference?
 - o What time of year is the conference?
 - o Is it in conjunction with any other professional organizations?
 - o Is there a keynote speaker?
- How does the affiliate leadership stay in touch with members?
- Are they proposing any changes to their affiliate?
- How does the affiliate elect officers?

~~Vice Presidents will be given the opportunity to proof the 2nd draft of the newsletter. Please proof your articles and calendar submissions carefully.~~

Clean Version

15.7 **AMATYC News Submission Guidelines** <FBM 2013> <SBM 2019>

Periodically, but at least once a year, the editor of the *AMATYC News* shall send to the leadership of AMATYC detailed guidelines that are updated and adjusted with appropriate names and/or email addresses.

Deadlines

- Article submission deadlines are November 25, February 25, June 1, and August 15.
- The newsletter should be received by the membership about February 1, April 25, August 1, and October 25.

How to Submit

- Articles, along with accompanying photos and graphics, should be submitted using an online form. The link to the online form is available on the *AMATYC News* page of the AMATYC website, and also will be included in the Call for Articles sent by the editor. If submission via the online form is impossible for any reason, articles should be emailed to amatycnews@amatyc.org. (This automatically sends the email to the editor and the Board liaison.)
- Submitting photos:
 - o Photos can be submitted in .jpg or .png format.. Photos need to be 300 dpi or better.
 - o Photos should be submitted as separate files; do not embed the photo in the article.
 - o Do not copy photos from a website; they do not have sufficient quality.
- Submitting graphics:
 - o The file type of the graphic must be compatible with Illustrator, preferably .ai or .eps, so that the Publications Director can manipulate the file for size, color, and content.
- Do not use the advanced formatting features available in Word. Articles will be copied into a page layout program; heavily formatted articles cause major difficulties. In most cases, bulleted and numbered lists should also be avoided, as they are not compatible with narrow columns.

- Use a concise file name that reflects the content of the article, such as "President Msg Feb19," "Name Of Committee/ANet Feb19," or "NW Affiliate Feb19." Do not use a generic file name such as "amatycnews."

A style guide will be available on the AMATYC website and the guide will be maintained by the Newsletter Editor in consultation with the Publications Director and Board Liaison.

For Vice Presidents

Focus on Affiliates.

- A. Suggested word count: 250 - 300 words.
- B. Schedule
 - Winter even years: Central Region
 - Spring even years: Mid-Atlantic Region
 - Summer even years: Midwest Region
 - Fall even years: Northeast Region
 - Winter odd years: Northwest Region
 - Spring odd years: Southeast Region
 - Summer odd years: Southwest Region
 - Fall odd years: West Region
- C. Suggested Focal Topics
 - What activities are happening in the affiliate? Examples include conferences, speakers' bureaus, and contests.
 - How is the affiliate increasing its membership?
 - What is the structure of an affiliate conference?
 - o Is there a registration fee?
 - o Is it a one-day or two-day conference?
 - o What time of year is the conference?
 - o Is it in conjunction with any other professional organizations?
 - o Is there a keynote speaker?
 - How does the affiliate leadership stay in touch with members?
 - Are they proposing any changes to their affiliate?
 - How does the affiliate elect officers?

Rationale for Proposed Changes to PPM 8.8.5 Advertising Chair

The Advertising Chair job description in PPM 8.8.5 was created during a time when the advertising process involved a lot of paper copies of items and snail mail communications. The process has changed dramatically since this was written! Many of the very detailed instructions have become completely outdated. In addition, as the world has moved toward digital communications, the amount of traditional advertising has fallen off dramatically. In a very real sense, much of the Advertising Chair's job has disappeared.

There were a few things that we wanted to preserve in the job description, including working with Corporate Partners, communicating with the AMATYC Office and the Accounting Manager, overseeing the process for in-the-bag items at the conference, and managing the process for web advertisements and *MathAMATYC Educator* advertisements. (Although these last two types of advertisements have become extremely rare, there still needs to be a process for handling them.) The track changes do not show that we kept the essence of these items because, with so much of the section deleted, it was too difficult to preserve the original items and mesh them together with the new items.

Because so much of what this position was created to do has evolved away, there is room to expand the role. Rather than simply working with advertisements, we want this person to integrate more fully with the entire conference committee and the work that we do. And we believe that it would be very valuable to have a team member who is focused on marketing and communication strategies. Although we all do marketing and communication as part of our roles, the goal is to have a person who is regularly focusing on it. In the post-COVID reality, marketing has become an absolute necessity, rather than an add-on to everyone's job. However, it certainly wouldn't be reasonable to expect this person to handle ALL our marketing and communication, so you will see a lot of language about working with others and assisting others.

We believe that this will be a terrific entry-level position on the Conference Committee where a person can develop some familiarity with all aspects of the work we do and perhaps discover that another role on the committee might fit them well in the future. We hope that this person will provide fresh insights into our processes and communications and that they will continually remind us to be focused on effective marketing. Choosing a name was challenging, but – for now – we've settled on Conference Communications Coordinator.

One final note: This should very much be considered a beta version of this job description. We fully expect to revise this description again in the near future as (1) the new website platform provides our committee with new opportunities for communication and (2) we learn the most effective ways to incorporate this newly expanded position into the work of the team.

8.8.5 Conference Communications Coordinator

Appointment Process

The Conference Communications Coordinator is recommended by the President and appointed by the AMATYC Executive Board. This position reports to the Conference Coordinator.

Term of Office

The term length is three years. The starting date of each term is January 1, and the ending date is December 31. The term limit is three consecutive terms; exceptions may be granted by the board to waive the term limit for extenuating circumstances by a 2/3 vote of the entire board, or 9 votes. <FBM 2007><SBM 2017>

Duties

The Conference Communications Chair will, in cooperation with the rest of the Conference Committee, develop and maintain communication and marketing strategies that will promote and facilitate attendance at and participation in the conference by presenters, presiders, attendees, guests, and vendors. The Conference Communications Chair will also solicit and manage advertising in the *MathAMATYC Educator*, on the AMATYC website, for in-the-bag advertising at the conference, and in other appropriate places.

1. Work with the Conference Coordinator, the Assistant Conference Coordinator, the Exhibits Chair, the AMATYC Office, and the Website Coordinator to annually update vendor forms and post the forms on the conference website.
2. Work with the Conference Coordinator, the Assistant Conference Coordinator, and the Exhibits Chair to maintain year-round relationships with AMATYC's Corporate Partners to make sure their needs are being met and to help them prepare for the next conference. Seek out additional Corporate Partners.
3. Work with the Conference Coordinator, the Assistant Conference Coordinator, and the Exhibits Chair to communicate with vendors who sponsored items at the previous year's conference (such as the conference bags, badge holders, notebooks, etc.) and confirm whether the vendor will commit to sponsoring the item again at the upcoming conference. In cases where the vendor elects not to continue their sponsorship, seek out new sponsors. See out sponsors for additional items.
4. Market and review advertisements to be placed in the *MathAMATYC Educator*. Communicate with the *MathAMATYC Educator* staff about advertisements that will appear. Coordinate delivery of the advertisements from the advertiser to the *MathAMATYC Educator* staff. Ensure all advertisements meet the advertising and production guidelines and that all production deadlines are met.
5. Market and review advertisements to be placed on the AMATYC website. Coordinate delivery of the advertising content to the Website Coordinator and ensure that the ad appears for the appropriate length of time.
6. Manage In-the-Bag conference advertising
 - a. Coordinate with vendors who wish to purchase in-the-bag advertising items. Approve each advertisement before the vendor prints the advertisement or purchases the item. Provide the vendor with the appropriate address and timeline to ship the advertisements to the conference location.
 - b. Communicate with the AMATYC Office and the Conference Coordinator to create a checklist of items that will be shipped to the Local Events Committee in advance of the conference. Communicate regularly with the Local Events Committee to keep track of items that have been received, and communicate confirmation of receipt to the advertisers.
 - c. Supervise the assembly of the conference bags, advertisements, and other materials at the conference site.
7. Communicate frequently with the AMATYC Office, and in particular with the Accounting Director, to make sure that vendors are completing necessary forms, receiving invoices, and making payments.

8. Work with the Program Coordinator, the Assistant Program Coordinator, and the Assistant Conference Coordinator to promote the processes for soliciting and communicating with presenters and presiders
 - a. Assist with updating the written and video materials used to guide the proposal submission process
 - b. Assist with communications and advertisements about the program submission and approval process through the conference website, emails, newsletter articles, social media posts, and other appropriate platforms.
 - c. Assist with publicizing and communicating about the details of the conference program through the conference website, emails, newsletter articles, in the printed program grid, in the conference app, and on other appropriate platforms.
9. Work with the Conference Coordinator, the Assistant Conference Coordinator, the Program Coordinator, the Assistant Program Coordinator, and the Exhibits Chair to share information about the conference with conference attendees, including through emails, newsletter articles, social media, the conference website, the conference app, and other appropriate platforms.
10. Serve as a representative of the Conference Committee on the Social Media Committee.

8.8.5 Conference Communications Coordinator

Appointment Process

The Conference Communications Coordinator is recommended by the President and appointed by the AMATYC Executive Board. This position reports to the Conference Coordinator.

Term of Office

The term length is three years. The starting date of each term is January 1, and the ending date is December 31. The term limit is three consecutive terms; exceptions may be granted by the board to waive the term limit for extenuating circumstances by a 2/3 vote of the entire board, or 9 votes. <FBM 2007><SBM 2017>

Duties

The Conference Communications Chair will, in cooperation with the rest of the Conference Committee, develop and maintain communication and marketing strategies that will promote and facilitate attendance at and participation in the conference by presenters, presiders, attendees, guests, and vendors. The Conference Communications Chair will also solicit and manage advertising in the *MathAMATYC Educator*, on the AMATYC website, for in-the-bag advertising at the conference, and in other appropriate places.

1. Work with the Conference Coordinator, the Assistant Conference Coordinator, the Exhibits Chair, the AMATYC Office, and the Website Coordinator to annually update vendor forms and post the forms on the conference website.
2. Work with the Conference Coordinator, the Assistant Conference Coordinator, and the Exhibits Chair to maintain year-round relationships with AMATYC's Corporate Partners to make sure their needs are being met and to help them prepare for the next conference. Seek out additional Corporate Partners.
3. Work with the Conference Coordinator, the Assistant Conference Coordinator, and the Exhibits Chair to communicate with vendors who sponsored items at the previous year's conference (such as the conference bags, badge holders, notebooks, etc.) and confirm whether the vendor will commit to sponsoring the item again at the upcoming conference. In cases where the vendor elects not to continue their sponsorship, seek out new sponsors. See out sponsors for additional items.
4. Market and review advertisements to be placed in the *MathAMATYC Educator*. Communicate with the *MathAMATYC Educator* staff about advertisements that will appear. Coordinate delivery of the advertisements from the advertiser to the *MathAMATYC Educator* staff. Ensure all advertisements meet the advertising and production guidelines and that all production deadlines are met.
5. Market and review advertisements to be placed on the AMATYC website. Coordinate delivery of the advertising content to the Website Coordinator and ensure that the ad appears for the appropriate length of time.
6. Manage In-the-Bag conference advertising
 - a. Coordinate with vendors who wish to purchase in-the-bag advertising items. Approve each advertisement before the vendor prints the advertisement or purchases the item. Provide the vendor with the appropriate address and timeline to ship the advertisements to the conference location.
 - b. Communicate with the AMATYC Office and the Conference Coordinator to create a checklist of items that will be shipped to the Local Events Committee in advance of the conference. Communicate regularly with the Local Events Committee to keep track of items that have been received, and communicate confirmation of receipt to the advertisers.
 - c. Supervise the assembly of the conference bags, advertisements, and other materials at the conference site.
7. Communicate frequently with the AMATYC Office, and in particular with the Accounting Director, to make sure that vendors are completing necessary forms, receiving invoices, and making payments.

Project Description

Two-Year College Data Science Initiative (TYCDSI) Year 2 Workshop

The Two-Year College Data Science Initiative (TYCDSI) Year 2 Workshop will provide the faculty from two year colleges with technical and pedagogical skills to teach the material needed in an associate degree in data science. Since data science is an emerging field, many two-year college instructors lack a strong background and experience in many of the tools used in this field. This workshop provides participants the opportunity to: 1) increase their proficiency in the use of several common data science technologies and 2) explore pedagogical best practices in data science education. At the conclusion of the workshop, participants in the TYCDSI will participate in a community of practice to provide ongoing support as they apply workshop content at their local institutions in developing their data science programs.

This workshop will build on the successful Two-Year College Data Science Initiative held in June 2024 (NSF DUE 2402290). That workshop focused on developing transfer programs in data science at two-year colleges. Evaluations from the 44 workshop participants were overwhelmingly positive, with over 90% of them rating the workshop as 5 on a scale from 1 to 5. However, workshop participants repeatedly mentioned that they needed professional development to further their own skills in data science, as they were developing their programs and looking at teaching this new curriculum. This project is designed to meet that need.

The American Mathematical Association of Two-Year Colleges (AMATYC) is committed to supporting its membership and two-year colleges in professional development to teach Data Science topics to students. As a result of the workshop, participants will:

- Outcome 1: Develop technical skills to teach data science courses, such as an introduction to programming languages and data visualization tools
- Outcome 2: Advance pedagogical skills needed to teach data science courses
- Outcome 3: Explore resources for ongoing technical skill development post workshop
- Outcome 4: Continue to develop the community of practice to support data science program development.

A. Statement of Need and List of Topics

In June of 2024, two-year faculty came together for the The Two-Year College Data Science Initiative (TYCDSI) Workshop. During this workshop, the faculty were provided with a framework to develop associate degrees to transfer pathways in data science. The two-day workshop was focused on developing the structures and skills needed to build a successful data

science transfer pathway. At the conclusion of the workshop, participants in the TYCDSI evaluated the June workshop and 86% of the participants would recommend the workshop to others. There was also a request during the workshop and in the evaluation for professional development on how to teach data science topics. This proposed workshop provides a response to that request.

In our previous workshop, one criteria used to select participants was to ensure all regions of the American Mathematical Association of Two-Year Colleges (AMATYC) were represented at the conference. For the TYCDSI Year 2 Conference we will expand this criteria to give priority to participants from EPSCoR states to support the NSF initiative to strengthen STEM capacity in these areas. The participants that attended the TYCDSI workshop came from six of the EPSCoR states. Effort will be made to recruit from more of these states for the year 2 initiative

Today's data-driven world means that government agencies, organizations, and companies need data acumen, the "ability to make good judgements about the use of data to support problem solutions," (Keller & Shipp, 2021) that data science can provide. Data science is an in-demand field that encompasses mathematics, statistics, computer science, and business analytics. Job postings for data scientists have increased by 256% in the last ten years, and the U.S. Bureau of Labor Statistics predicts that data science will see more growth than almost any other field from now until 2029 (Davenport & Patil, 2022). The need for community colleges to develop transfer programs in data science is essential to increase diversity, equity, and inclusion in the field. In 2020-21, 41% of all undergraduate enrollments in the U.S. were in community colleges. In addition, 51% of all Hispanic undergraduates and 40% of all Black undergraduates were enrolled in community colleges (Community College Resource Center, 2021). Without strong transfer programs in data science at two-year colleges, these students will have limited access to careers in this field. However, many faculty members at two-year colleges do not have the background to teach data science. Professional development is needed to give faculty members the knowledge they need to teach classes in data science.

The report of the Roundtable on Data Science Postsecondary Education: A Compilation of Meeting Highlights (National Academies of Sciences, Engineering, and Medicine, 2020) emphasized the important role two-year colleges play in the education system and the development of a diverse and inclusive workforce. In this report, ASA Education Section Chair Nicolas Horton, Amherst College, wrote: "More than 6 million students are enrolled at 2-year colleges, representing approximately one-third of the total undergraduate student population in the United States." He also charged the roundtable members to discuss the following questions:

- How do we ensure that data science programs attract and retain students with varied backgrounds?
- How do we ensure that faculty development programs are robust and effective?
- How do we develop curricula that instill data acumen and are responsive to workforce needs?
- How can we build, maintain, and grow a 2-year college data science community?

- How do we build effective connections between 2- and 4-year institutions?
- How do we build effective connections between 2-year colleges and industry?

This project will provide a mechanism to respond to these questions, and engage two-year college faculty in leading their institutions to fulfill this important role for the field of data science. Workshop topics will include:

- Recommendations from the Two-Year College Data Science Summit on program development and curriculum articulated in the *American Statistical Association Two-Year College Data Science Summit Final Report* including curriculum topics, including data communication, visualization, and ethics (Gould et al., 2018)
- Advice on best practices and challenges in program development from colleges with well-developed data science associate degree programs, such as Montgomery College and Northwestern Connecticut Community College
- Forming interdisciplinary connections at a local campus and engaging meaningful stakeholders
- Developing an interdisciplinary data science team
- Researching local articulation agreements and four-year data science programs
- Program evaluation
- Formation of a Community of Practice for ongoing professional development support

B. Intellectual Merit

This project aims to significantly enhance the availability of transfer data science degree programs at two-year colleges, addressing a critical gap in the educational landscape. The workshop is designed to provide targeted support to faculty members as they develop the skills to teach data science classes within their institutions. By focusing on this vital area, the initiative not only meets the growing demand for data science professionals but also tackles existing equity gaps in the field, fostering a more diverse and inclusive workforce.

The workshop will directly address the identified need for the establishment of data science transfer programs by equipping faculty with the technical and pedagogical skills necessary to succeed in this endeavor. Participants will engage in hands-on sessions that enhance their expertise in programming, data visualization, and curriculum design tailored for data science. This skill development is crucial for empowering faculty to deliver high-quality educational experiences that meet the needs of a diverse student population.

To evaluate the impact of the workshop, project leaders will implement a post-workshop survey assessing participants' skills, confidence, and readiness to teach data science courses. This feedback mechanism will not only measure immediate outcomes but also inform future workshop iterations and resources.

Building on the community of practice established in Year 1, this workshop will focus on sustaining and enhancing that collaborative network. Participants will engage in a dedicated session designed to identify ongoing needs and preferences for community support. This discussion will facilitate the continuation of connections formed in the first year, allowing faculty to share resources, challenges, and successful strategies as they develop their programs. By nurturing this established community, the project aims to create a lasting support system that fosters ongoing professional development and innovation in data science education.

Through these comprehensive efforts, the project aspires to create a transformative impact on data science education at two-year colleges, ensuring that faculty are well-equipped to meet the challenges of this evolving field and that students from diverse backgrounds have access to high-quality transfer programs.

C. Broader Impacts

This project will help equip two-year college faculty to effectively teach data science skills to the diverse populations of students at their colleges. While it is important to support faculty in the process of designing courses and curricula for new data science programs at two-year colleges, it is equally important to help those faculty develop the technical and pedagogical skills to teach those courses well.

Data science is an interdisciplinary field that draws upon concepts and tools from mathematics, statistics, computer science, and business. For most faculty, all or nearly all of their formal training and education has been in just one of these disciplines. To teach data science effectively, faculty must gain skills and experience in the other areas, and learn how to integrate all these areas together. This workshop will help them to do that, and will also provide them with a network of colleagues at other institutions who have these different types of expertise, that they can draw upon in the future.

The technical and pedagogical training provided in this workshop will also help faculty to infuse data science skills and concepts into other courses in their discipline, that are not part of a data science program. The workshop will support the development of data science programs and data-centered teaching at an ever increasing number of two-year colleges, as colleagues from their own institutions and other institutions draw on the experience of workshop participants. Thus the field of data science will be expanded to a broader and more diverse community of students.

Workshop participants will be better equipped to teach data science courses and to begin developing data science programs at their institutions. Based on attendance from our previous workshop, we anticipate at least 30 institutions will be represented at the workshop. We anticipate that data science programs will serve 20–40 students at each institution. In this way,

the workshop creates an impact on an anticipated 400–800 data science program students per year. Because introductory data science courses may serve a broader community of students at each institution (including non-majors), and because workshop participants are likely to incorporate more data science skills into their other courses, we anticipate that broader impacts of the program and course development that stem from the workshop will be over 1600 students per year.

D. Recent meetings on Data Science Programs at Two-Year Colleges

To date, there have been no prior conferences that provide hands-on, content-specific training for faculty at two-year colleges. However, there has been a summit, a workshop, and webinar that have been aligned with the goal of this workshop.

The Two-Year College Data Science Initiative Year 1 (TYCDSI) (NSF grant DUE 2402290) was an AMATYC project to create a community of practice where two-year faculty will create a data science program at their institution. This workshop was created to help faculty at TYC to develop a data science program. The long-term goal of the workshop was to give participants the skills to create a data science associate degree that transfers to a university data science program.

The Two-Year College Data Science Summit (DUE 1735199), hosted by the American Statistical Association in 2018, brought together a diverse group of participants from two-year colleges, four-year colleges, and industry partners. The goal of the summit was to make curriculum recommendations for two-year college data science programs focusing on transfer programs, direct to employment associate degree programs, and certificate programs for professional development. Recommendations articulated within this summit guide the content for the present proposed workshop.

The StatPREP Project (DUE 1626337) hosted a virtual one-day workshop for Creating a Data Science Program at a Two-Year College. This workshop had four faculty members from two-year colleges that have created data science programs discuss the structures of their programs, June 4, 2021, and repeated, July 31, 2021. The StatPREP grant, a project of the Mathematical Association of America (MAA), AMATYC, and the American Statistical Association (ASA) was designed to foster wide-spread use of data centered methods and pedagogies in introductory statistics courses with the broader goal of enhancing the preparation of students to meet the demands of the data-driven workplace.

AMATYC has held several webinars focused on data science. These include:

- Developing Data Science Programs at Two-Year Colleges (7/20/22)
- The Data Science Corps Wrangle/Analyze/Visualize (DSC-WAV) Project (9/2/2021)
- K-12 Statistics and Data Science Guidelines: Impacting College Courses (2/25/2021)

E. Chairperson and members of the organizing committees and their organizational affiliations

The conference organizing team lead is Kathryn Kozak (PI), past president of AMATYC, Coconino Community College.

The co-organizers for this project are:

- Rebecca Wong (co-PI), Statistics ANet Chair AMATYC, past Chair of the Joint ASA/AMATYC Statistics Committee, West Valley College
- Ambika Silva (co-PI), Former Data Science Subcommittee chair, College of the Canyons
- Vinodh Chellamuthu (co-PI), Student Research League Coordinator for AMATYC, Utah Tech University
- Crystal Wiggins (co - PI), Advertising Chair for AMATYC Conference Committee, CT State Community College, Northwestern campus

The American Mathematical Association of Two-Year Colleges (AMATYC) will be the fiduciary agent for this project.

F. Location and probable date(s) of the meeting and the method of announcement or invitation

Location / Date: The workshop is planned to be held at College of the Canyons, a two-year college in the Los Angeles area. This region has easy access to several major airports. There are also over 20 two-year colleges within driving distance of the workshop site. The three-day workshop will be held on June 12 - 14, 2025.

Method of Announcement / Invitation: Information about the workshop will be distributed through a variety of networks including the AMATYC website and email list, the Statistics and Data Science webpage on myAMATYC, and the American Statistical Association (ASA) Statistics and Data Science Section email list. Participants will be encouraged to apply as a campus team, preferably in at least two different academic disciplines. Priority will be given to colleges who serve a particularly diverse student population and colleges that are EPSCoR states.

G. Meeting organization, dissemination of results, and how the meeting will contribute to the enhancement and improvement of scientific, engineering and/or educational activities

This project will provide enhanced technology and pedagogical skills of two-year college faculty who are developing Data Science Programs for transfer at their local institutions. The development of these programs will broaden the participation within the field of Data Science and provide the opportunity for faculty to strengthen their own data science technology skills. In addition, participants will explore effective pedagogies in teaching data science courses. The goal of this faculty professional development is to create and improve educational paths to Data Science careers for students who start their studies at two-year colleges. Workshop topics include skill development on two commonly used data science tools and effective pedagogy in data science education. Participants will have the opportunity to network with other two-year college faculty who are developing data science programs and share information on data science curriculum and pathway development.

Sample Workshop Schedule

	Day 1	Day 2	Day 3
Breakfast 8:00–8:30	Meet and greet.	Networking opportunity	Networking opportunity
8:30–9:40	Keynote Presentation: Developing Data Science Programs at Two-Year Colleges: Progress and Potential	Presentation: Developing Industry Partnerships	Pedagogy Presentation: Teaching Ethics in the Data Science Curriculum
9:40–9:50	Break	Break	Break
9:50–11:50	Technology A Workshop Session 1	Technology B Workshop Session 1	Planning On-going Support for Professional and Program Development Closure and Evaluation
12:00 - 12:45	Lunch and Networking Opportunity	Lunch and Networking Opportunity	Workshop Conclusion
1:00 - 3:00	Technology A Workshop Session 2	Technology B Workshop Session 2	
3:00 - 3:15	Break	Break	
3:15 - 4:30	Pedagogy Presentation: Impleme nting Projects and Authentic Assessment in Data Science Courses	Pedagogy Presentation: Implementing An Effective Capstone Project	
5:00 pm	Break for dinner	Break for dinner	

Agenda:

Each participant will explore two different data science technologies, with a total of 4-hours of professional development in each technology. Participants will be split into two groups. Each group will explore one technology each day. This split will allow for smaller group size and more individualized attention from the technology instructors and assistants.

There will be three presentations devoted to effective pedagogies in data science courses. Topics for these presentations will be:

- Implementing Projects and Authentic Assessments in Data Science Courses
- Implementing an Effective Capstone Project in Data Science Programs
- Teaching Ethics in the Data Science Curriculum

In addition to the Data Science Technology workshops and Data Science Pedagogy sessions, there will be a Keynote address to start the conference (suggested topic: Developing Data Science Programs at Two-Year Colleges: Progress and Potential) as well as a session on Developing Industry partnerships.

Workshop Dissemination Plan:

A community of practice will be created and monitored to promote continued engagement by workshop participants and to encourage sharing with interested individuals unable to attend. Participants will be encouraged to submit technology questions, and teaching methods for data science classes and technology .

Workshop organizers will submit a presentation proposal to share workshop activities and work products at the 2025 AMATYC conference and write an article for the *AMATYC News* that shares the workshop activities.

H. Plan for recruitment of, and support for, speakers and other attendees, that includes participation of groups underrepresented in science and engineering.

To ensure the workshop is inclusive and representative of diverse perspectives in data science education, a strategic plan for recruiting participants and speakers will be implemented, with a particular emphasis on engaging groups underrepresented in science and engineering.

Recruitment of Participants

Participants will be recruited from two-year college faculty, with a focus on engaging those from the AMATYC Statistics and Data Science ANet and the ASA Statistics and Data Science Education Section. To promote diversity and inclusion, applications will be encouraged from:

Two- to Four-Member Teams: Teams from a single campus are preferred, especially those representing at least two different academic disciplines. This collaborative approach will foster interdisciplinary learning and promote a broader perspective in data science education.

Individual Participants: Faculty members are also welcome to apply individually, ensuring opportunities for all interested educators.

Special efforts will be made to target faculty from EPSCoR states, which often have limited representation in STEM fields. By prioritizing recruitment from these regions, the project aims to elevate the voices and contributions of underrepresented groups in data science education.

Priority will be given to colleges that serve particularly diverse student populations, ensuring that the workshop reflects a wide range of experiences and backgrounds. This approach will help bridge existing equity gaps in data science and create a more inclusive educational environment.

Recruitment of Speakers

Speakers will be carefully selected from leaders in data science education, including speakers who have previously led data science webinars ensuring a high-quality and relevant speaker lineup.

In addition to their expertise, efforts will be made to ensure that speakers represent a diverse array of backgrounds and experiences in data science. This will include outreach to underrepresented groups in science and engineering, promoting inclusivity in the voices and perspectives shared during the workshop.

By implementing this comprehensive recruitment plan, the project aims to create a dynamic and supportive environment that encourages participation from underrepresented groups in data science and engineering, ultimately fostering a more equitable educational landscape.

I. Plans to identify resources for childcare and other types of family care at the conference site to allow individuals with family care responsibilities to attend.

Participants with family care (e.g. child care, elder care) needs, or whose individual needs require accommodations to remove barriers to engagement in the workshop will be supported

with an additional stipend to support their full participation in the workshop. Participants will directly request a stipend as part of their participation form.

Participants who need local care for children or family members will be provided a list of local agencies or centers upon request by the local coordinator for the workshop.

J. Results from Prior NSF Support

- The Two-Year College Data Science Initiative Year 1 (TYCDSI) (NSF grant DUE 2402290) was an AMATYC project to create a community of practice where two-year faculty will create a data science program at their institution. This workshop, June 21-22, 2024, was created to help faculty at TYC to develop a data science program. The long-term goal of the workshop will be to give participants the skills to create a data science associate degree that transfers to a university data science program.
- DUE - 1626337; \$1,856,724; October 1, 2016 - September 30, 2023; Professional Development Emphasizing Data-Centered Resources and Pedagogies for Instructors of Undergraduate Introductory Statistics (StatPREP). Smeltzer, PI, Carpenter, Kaplan, Brilleslyper, Kozak, co-PI. StatPREP worked directly with 240 college-level instructors by (1) offering an extended professional development program for mathematics instructors, particularly at two-year institutions, who teach introductory statistics; (2) establishing regional communities of practice to support instructors who teach introductory statistics; and (3) establishing a national online support network comprising instructors who teach introductory statistics and statistics education experts. *Intellectual Merit:* Parallel to the intervention and implementation work, the project addressed the following questions: (1) How effective is this professional development model in serving as a catalyst for faculty to modernize introductory statistics courses? I.e., did it prompt changes in participants' beliefs about statistics education and result in changes in content and instructional practices? (2) How accessible is this model for full- and part-time faculty members at two-year institutions? (3) Does this prompt the formation of sustainable communities of practice and national network? (4) What are the benefits and barriers related to faculty participating in regional communities of practice a national online network? *Broader Impacts:* StatPREP stimulated community transformation by increasing faculty capacity to enact curricular change by incorporating statistical analysis software and computing technology, complex data, open-ended investigations, and statistical thinking into their existing courses. The resources developed by StatPREP included a library of field-tested lessons appropriate for wide-scale integration into statistics courses as well as interactive, online faculty-development tutorials that will be openly available.

- DUE - 2030858; \$933,393; February 1, 2021 - January 31, 2026; S-STEM-Schlr Sci Tech Eng&Math. Davis, PI, Pedersen,Schatzberg, Chellamuthu, co-PI. This project aims to increase STEM degree completion of low-income, high-achieving undergraduates with demonstrated financial need. This project's scope also addresses two common challenges in preparing STEM students for STEM careers: their isolation from other STEM disciplines throughout degree programs and insufficient opportunities for real-world problem solving. To overcome these challenges, the project will establish interdisciplinary cohorts from the biological sciences, chemistry, computer science, engineering, and mathematics.

References

American Mathematical Association of Two-Year Colleges. (n.d.) *AMATYC Webinar Series*. <https://amatyc.org/page/Webinars>

Baumer, B. S., & Horton, N. J. (2023). Data Science Transfer Pathways From Associate's to Bachelor's Programs. *Harvard Data Science Review*, 5(1).
<https://doi.org/10.1162/99608f92.e2720e81>

Community College Research Center. (2021). *Community College FAQs*. <https://ccrc.tc.columbia.edu/community-college-faqs.html>

Davenport, T. H. & Patil, D. (2022) Is data scientist still the sexiest job of the 21st century? *Harvard Business Review*. (2022, July 15).
<https://hbr.org/2022/07/is-data-scientist-still-the-sexiest-job-of-the-21st-century>

Glassdoor. (2022). *Best Jobs in America*.
https://www.glassdoor.com/List/Best-Jobs-in-America-LST_KQ0,20.htm

Gould, R., Peck, R., Rudis, M., Malyn-Smith, J., Kubo, K., Kotz, B., Horton, N., Hanson, J., Thompson, B., Wong, R., & Ward, M. D. (2018). *Two-Year College Data Science Summit Final Report*. <https://www.amstat.org/education/two-year-college-data-science-summit>

Keller, S. A., & Shipp, S. (2021). Data Acumen in Action. *Notices of the American Mathematical Society*, 68(09), 1.
<https://doi.org/10.1090/noti2353>

National Academies of Sciences, Engineering, and Medicine. (2020). *Roundtable on Data Science Postsecondary Education: A Compilation of Meeting Highlights*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/25804>

				# of People	# of days	
Senior Personnel						
		Ambika Silva		1		\$700
Other Personnel						
		AMATYC Treasurer		1		\$525
		CoP Facilitator		1		\$750
Travel						
		Transportation - Organizers		5		2700
		Transportation - Facilitators		3		1620
		Lodging and subsistence		8	4	8000
		AMATYC Conference Travel - Organizers		5		6000
Participants						
		Transportation - Participants	\$540/person	42		22680
		Lodging and subsistence	\$250/person/day	42	4	42000
		Local participants within 100 miles radius	\$40/person/day	28	3	3360
		Care funds	\$100/person	10		1000
Other Direct Costs						
		Materials supplies				\$575
		Consultant	\$750/person	3		2250
		Meeting Space - 1 Large Room	\$300/day		0	0
		Meeting Space - 3 Breakout rooms	\$175/day		0	0
Total Direct Costs						
						\$92,160
Indirect costs basis						
						\$23,120
Indirect Costs 33.91% of \$22,025						
						\$7,839.99
Total Direct and Indirect Costs						
						\$99,999.99

Budget Justification

- A. Senior Personnel (\$700)
 Support for researching and arranging lodging, meeting space, meals.
 Ambika Silva
 Year 1: \$700
- B. Other Personnel (\$1,275)
 AMATYC (American Mathematical Association of Two-Year Colleges) support of AMATYC Treasurer for administrative support for managing the project and issuing stipends. The treasurer is an elected Executive Board position held by an AMATYC member. The treasurer is not an employee of AMATYC. (\$50/hour for 10.25 hours)
 Year 1: \$525
 Community of Practice (\$750)
 Facilitator of the myAMATYC Data Science subcommittee community of practice.
 Year 1: \$750
- C. Fringe Benefits (\$0)
 No fringe for AMATYC employees is charged directly to this project.
- D. Permanent Equipment (\$0)
 None requested.
- E. Travel (\$18,320)
 Travel to workshop for five (5) conference organizers and three (3) facilitators:
 - Transportation costs: $\$540 \times 8 = \$4,320$
 - Lodging and subsistence: $8 \text{ individuals} \times (4 \text{ days} \times \$250/\text{day}) = \$8,000$
 - 2025 AMATYC Conference Travel support for Organizers: $\$1200 \times 5 = \$6,000$
- F. Participants (\$69,040)
 All costs encumbered in Year 1.
 Fully supported participants:
 - Transportation costs: $\$540 \times 42 \text{ participants} = \$22,680$
 - Lodging and subsistence: $42 \text{ participants} \times (4 \text{ days} \times \$250/\text{day}) = \$42,000$
 - Care funds - \$100 per person x 10 people = \$1,000
 Partially supported participants (local participants within 100 miles radius)
 - Subsistence: $28 \text{ participants} \times (3 \text{ days} \times \$40/\text{day}) = \$3,360$
- G. Other Direct Costs (\$4,529)
 All costs encumbered in Year 1.
 - Materials supplies: \$575
 - Consultants: Workshop facilitators: \$750 each x 3 facilitators = \$2,250
- H. Total Direct Costs (\$92,160)
 Year 1: \$92,160
- I. Indirect Costs (\$7,839.99)

An indirect cost rate has been applied to this budget at 33.91% of modified total direct costs (less any direct cost amounts for equipment, tuition, and fees, participant support costs, and subawards and subcontracts in excess of \$25,000). Indirect costs basis is: \$23,120.

Year 1: \$7,839.99

J. Total Direct and Indirect Costs (\$)

Year 1: **\$99,999.99**



**Order of Business – Meeting Agenda
AMATYC Executive Board
Fall Board Meeting (FBM 2024)**

The board meeting will proceed in a linear fashion with the exceptions listed in the meeting plans.

Parking Lot: during FBM there may be time to discuss items raised in board reports or by AMATYC members. Discussion items may be added to the Parking Lot during the meeting. Items in the Parking Lot can be discussed in any order. An initial list is included in Section O in this order of business. If appropriate, some Parking Lot items will be discussed in Executive Session.

Reports (R) – 5 minutes Discussion (D) – 10 minutes Motions (M) – 15 minutes

Page	Agenda Item	Who?	Notes
	Call to Order	Hurlburt	
Section A: Meeting Plan, Rules of Conduct, Agenda, Reference Materials			
A1	Meeting Plans	Hurlburt	
A2	Links to Documents for Meetings	Hurlburt	
A3	Rules of Conduct	Hurlburt	
A4	(M) Adopt Rules of Conduct	Hurlburt	
A5	Order of Business	Hurlburt	
A12	(M) Adopt Order of Business	Hurlburt	
B. Consent Calendar Reports, Board Member Reports			
B1	President	Hurlburt	
B3	President-Elect	Tchertchian	
B5	Past President	Watkins	
B7	Secretary	Weisbrod	
B9	Treasurer	Kundomal	

B11	Northeast VP	Stachelek	
B13	Mid-Atlantic VP	Ebersole	
B16	Southeast VP	Atkinson	
B18	Midwest VP	Bartley	
B20	Central VP	Johanson	
B22	Southwest VP	Travis	
B25	Northwest VP	Bernards	
B27	West VP	Gerber	
C. Consent Calendar- Motions/Reports			
	No motions or reports		
D. Academic Network Reports and Motions			
D1	(R) Adjunct Faculty Issues	Barrientos/ Tchertchian	
D5	(R) Developmental Mathematics (DMC)	Granger/Atkinson	
D8	(R) Division and Department Leadership*	Ward/Bartley	
D9	(R) Equity	Aschenbrenner/ Ebersole	
D15	(R) Innovative Teaching and Learning (ITLC)	Ackerman/ Tchertchian	
D18	(R) International Mathematics	Leitherer/Watkins	
D33	(R) Mathematics and its Applications for Careers (MAC)	Postrigan/ Johanson	
D36	(R) Mathematics Intensive (MIC)	Cappetta/Ebersole	
D39	(R) Mathematics Pathways	Beatty/Atkinson	
D40	(R) Placement and Assessment (PAC)	Mirbaha/ Weisbrod	

D52	(R) Quantitative Reasoning	Foley/Johanson	
D56	(R) Research and Mentoring Experiences for Students and Faculty	Clahane/Watkins	
D61	(R) Research in Mathematics Education for Two Year Colleges (RMETYC)	Marfai/Stachelek	
D63	(R) Statistics and Data Science	Wong/ Stachelek	
D66	(R) Teacher Preparation	Van Harpen/ Gerber	
E. Services / Coordinators/ Directors / Publications / Grants			
E1	(R) <i>AMATYC News</i> Editor	Mutlu/Watkins	
E4	(R) Grants Coordinator	Breit-Goodwin/ Eberonle	
E10	(R) <i>MathAMATYC Educator</i> Editor	Debrecht/Gerber	
E12	(R) <i>MathAMATYC Educator</i> Production Editor	Nabb/Gerber	
E14	(R) <i>MathAMATYC Educator</i> Review Editor	Alexander/Gerber	
E16	(R) Mu Alpha Theta	Menard/Travis	
E18	(R) Online Community Assistant Coordinator	Miller/Bernards	
E20	(R) Online Community Coordinator	Gaines/Bernards	
E22	(R) Position Statement Editor	Oehrlein/Hurlburt	
E23	(R) Professional Development Coordinator	Rouhani/Bartley	
E26	(R) Project ACCESS Coordinator	Feinman/Bernards	
E28	(R) SML Coordinator	Pragel/Weisbrod	
E29	(R) SML Test Developer	Duda/Weisbrod	
E30	(R) SRL Coordinator	Chellamuthu/ Travis	
E33	(R) Standards Chair	Earley/	

		Tchertchian	
E36	(R) Student TYC DataFest Director	Saidi/Stachelek	
E39	(R) Teaching for PROWESS	Dudley	
E42	(R) Webinar Coordinator	Menard/Bartley	
E45	(R) Website Coordinator	Pescosolido/ Kundomal	
F. Office			
F1	(R) Executive Director	Dudley	
F3	(R) Office Report	Dudley/ Vance/ Shott/ Hunsucker/ Poulin	
I: Treasurer / Budget			
	Treasurer's Report	Kundomal	
I1	(R) Chart of Accounts	Kundomal	
I6	(R) Audit Report	Kundomal	
I63	(R) 2024 Budget	Kundomal	
I72	(R) 2025 Draft Budget	Kundomal	
I78	(R) Balance Sheet as of Dec. 31, 2023	Kundomal	
I79	(R) 2023 Income Statement	Kundomal	
I87	(R) History of Income and Expenses	Kundomal	
I100	(R) Reserve Funds	Kundomal	
I102	(R) Contracts and Insurance Policies	Kundomal	
I107	(M) Motion to Suspend PPM 6.5 Section 4 Part d	Kundomal/ Dudley	

I108	(M) Motion to approve the 2025 Budget	Kundomal/ Dudley	
I23	(R) Investment Board Report	Ham/Hurlburt	
M. New Business			
M1	(M) PPM Section 11.5 Project ACCESS	Stachelek	
M10	(M) Reno 2025 Service Project	Suski/Stine	
M11	(M) RMETYC Research Session at the Annual Conference	Stachelek/Marfai	
M12	(M) Approve Expenditures	Kundomal	
M13	(M) Quantitative Reasoning ANet Goals	Dudley/Johansen	
L. Executive Session			
L1	(M) Appointments *	Hurlburt	
G. Conference			
G1	(R) Advertising Coordinator	Wiggins/ Suski	
G3	(R) Assistant Conference Coordinator	Vega- Rhodes/Suski	
G6	(R) Assistant Program Coordinator Report	Gunkelman/ Suski	
G8	(R) Conference Coordinator	Suski	
G21	(R) Exhibitor Chair	Stine/Suski	
G24	(R) Program Coordinator	Pemberton/ Suski	
G36	(R) 2024 LEC - Atlanta	Patterson/ Suski	
G40	(R) 2025 LEC – Reno	Suski	
G42	(R) 2026 LEC – Philadelphia	Counterman/Suski	

GG. Other Conference			
GG1	AMATYC Board Duties during the Atlanta Conference	Hurlburt	
GG5	Small Conference Meetings	Hurlburt	
GG6	Conference Exhibitors Visits	Hurlburt	
GG7	Delegate Assembly Minutes Committee Nominations	Hurlburt	
GG8	Themed Session History Since 2013	Pemberton	
GG9	ANet Themed Session Requests	Hurlburt	
H. Administrative Committees			
H1	(R) Foundation	Watkins	
H2	(R) MLE Award Committee	Watkins	
H3	(R) Membership Committee	Atkinson	
H5	(R) Nominating Committee	Watkins	
H6	(R) Organizational Assessment Committee	Tchertchian	
H8	(R) Past Presidents Advisory Board	Watkins	
H9	(R) Professional Development Committee	Bartley	
H10	(R) Social Networking Committee	Hurlburt	
H12	(R) TE Award Committee	Tchertchian	
J. Ad hoc Committees			
J1	(R) Task Force 50th Anniversary	Rivers	
J4	(R) Advocacy Task Force	Ebersole	
J8	(R) AMATYC Guidelines for Internships for TYC Mathematics Faculty Task Force	Ebersole	
J9	(R) ANet Onboarding Review Task Force	Stachelek	
J11	(R) AMATYC News Update Committee	Watkins	
J12	(R) Position Search for Executive Director	Tchertchian	

J14	(R) Position Search for SML Test Developer and SML Review Team Search Committee	Johanson	
J16	(R) Position Search for Webinar Coordinator	Ebersole	
J17	(R) PPM Revision Committee	Tchertchian	
J19	(R) Project ACCCESS Policy Committee	Stachelek	
J21	(R) Website / Database Committee	Tchertchian	
K. Strategic Planning: November 11, 1:00pm – 2:00 pm			
K1	Strategic Planning	Tchertchian	
N. Partnerships/ Miscellaneous Reports			
N1	(R) Carnegie Math Pathways	Sattler/Hurlburt	
N3	(R) Joint Committee on Women in Mathematical Sciences (JCW)	Sattler/Hurlburt	
N9	(R) National Mathematics Summit	Sattler/Hurlburt	
N11	(R) TPSE-Math	Sattler/Hurlburt	
O: Parking Lot / Motion to Adjourn			
O1	Parking Lot Discussion Items	All	
O2	(M) Motion to Adjourn	Hurlburt	

* No appointments as of 10/2/24



AMATYC Appointments

Meeting: FBM 2024

Appointee's Full Name	Term Begins	Term Ends	Term Length	Committee or ANet	Position Description	Appointee's College
George Soliman	1/18/24	1/14/27	3 years	Conference Committee	Program Proposal Review Committee	Raritan Valley CC
Helen Burn	1/1/25	12/31/27	3 years	MathAMATYC Educator Team	Northwest Region Regional Editorial Panel Representative	Highline CC
Eunmi Joung	1/1/25	12/31/27	3 years	MathAMATYC Educator Team	West Region Regional Editorial Panel Representative	Utah Valley University

Track Changes Version:

11.5 AMATYC Project ACCESS

AMATYC Project ACCESS is a crucial component of AMATYC's strategic plan. The annual AMATYC Project ACCESS events scheduled during the conference provide professional development to new two-year college mathematics faculty in mathematical content, pedagogy, curriculum development, and leadership. Follow-up activities throughout the year provide networking opportunities and special projects to continue that professional development. <12/27/2006>

[11.5.1 AMATYC Project ACCESS Coordinator](#)

[11.5.2 AMATYC Project ACCESS Team Members](#)

[11.5.3 Fellow Selection](#)

[11.5.4 Fellow Requirements](#)

[11.5.5 Ramifications to Fellows for Missing Requirements](#)

11.5.1 AMATYC Project ACCESS Coordinator <12/27/2006>

The AMATYC Project ACCESS Coordinator leads a team that plans and implements the activities of the project for each cohort of ACCESS Fellows. The coordinator works closely with the AMATYC Executive Board Liaison, the AMATYC office, and the AMATYC Annual Conference planning team.

Appointment Process

The AMATYC Project ACCESS Coordinator is recommended by the President and appointed by the AMATYC Executive Board. This position reports to the Board liaison.

Term of Office

The term length is three years. The starting date of each term is January 1 and the ending date is December 31. The term limit is two consecutive terms; exceptions may be granted by the board to waive the term limit for extenuating circumstances by a 2/3 vote of the entire board, or 9 votes.

<FBM 2007> <FBM 2008><SBM 2016>

Qualifications

1. Good written and verbal communication skills.
2. Experience as a workshop presenter.
3. Experience in planning and implementing workshops, meetings, or conferences.
4. Experience in program evaluation.
5. Experience in writing grants.
6. AMATYC member with a Regular or Life membership.
7. Well organized and able to work on a prescribed schedule and timeline.

8. Ability to respond to requests and questions from Fellows promptly.
9. Ability to communicate, work with others cooperatively, and provide leadership to colleagues and Fellows.

Duties

1. Market AMATYC Project ACCESS.
2. Chair a committee to select new [Project ACCESS Fellows](#).
3. Plan and facilitate a program for the Fellows during the annual conference.
4. Work within a budget to plan and implement the annual program.
5. Promote the professional development of the [Fellows](#) throughout the academic year by supporting and evaluating their individual projects.
6. Promote communication among the Fellows through a mailing list (or equivalent).
7. Work with AMATYC affiliates to involve the Fellows in affiliate conferences.
8. Involve the ~~post-Fellows~~[Project ACCESS alumni](#) in the planning and implementation of programs for future cohorts.
9. Work with the AMATYC Grant Coordinator to develop proposals to secure outside funding to support the program.
10. Develop an evaluation tool to determine the impact of the program on the organization.
11. Regularly monitor and keep current the AMATYC Project ACCESS webpages on the AMATYC website. Send updates of these webpages to the AMATYC Website Coordinator as needed.
<FBM 2015>

11.5.2 AMATYC Project ACCESS Team Members <FBM 2016>

Appointment Process

The AMATYC Project ACCESS Team Members are recommended by the President and appointed by the AMATYC Executive Board. This team shall consist of the Program Assistant, Project Assistant, Listserv Assistant, and two members for the Fellow Selection Committee. These positions report to the AMATYC Project ACCESS Coordinator.

Term of Office

The term length is three years. The starting date of each term is January 1 and the ending date is December 31. The term limit is two consecutive terms; exceptions may be granted by the board to waive the term limit for extenuating circumstances by a 2/3 vote of the entire board, or 9 votes.

Program Assistant:

- Work with the AMATYC Project ACCESS coordinator to determine the program and presenters for the AMATYC Project ACCESS portion of the AMATYC annual conference.
- ~~Will r~~Recruit speakers [for Project ACCESS sessions at the AMATYC Annual Conference](#).

- Work with the AMATYC Project ACCESS coordinator to manage the [Fellows' ongoing](#) projects ~~the Fellows work on~~ between the two AMATYC conferences.
- Archive [information about](#) current and past projects ~~information~~ [implemented by the Fellows](#).
- Keep Fellows informed of due dates and requirements of projects.
- Provide assistance with Fellows if there are problems or issues concerning their projects.
- Help to find contacts or mentors if Fellows request assistance.

[Listserv Communication](#) Assistant:

- Work with the AMATYC Project ACCESS coordinator to manage a [listserv communication platform\(s\)](#).
- Recruit Consulting Colleagues to participate in the [listserv communication platform\(s\)](#).
- Provide prompts ~~(monthly?)~~ [at least monthly](#) for discussion amongst the Fellows and the Consulting Colleagues.

Fellow Selection Committee Members – 2 positions:

- These two members will work with the AMATYC Project ACCESS coordinator and Board liaison to select the Fellows for the new Cohort.
- Applications will be ~~mailed distributed~~ to the members and then discussions will take place via ~~mail and/or~~ email for the selection.

The selection team will select up to 30 Project ACCCESS fellows depending upon the size and quality of the applicant pool. Applicants will be ranked by four reviewers. The review team will then meet electronically or by conference call to determine if all applicants are qualified to be Project ACCCESS fellows and to select the finalists from the pool. The APA Coordinator will notify successful applicants in May. Successful applicants will be required to sign and return a contract acknowledging the responsibilities of the fellow and the fellows' institution by June 30 of the current year. Unsuccessful applicants will be encouraged to apply again providing they are still eligible for Project ACCCESS. All unsuccessful applicants will receive a complimentary one-year one-time only membership to AMATYC.

11.5.4 Fellow Requirements

In order to remain a Project ACCCESS Fellow in good standing and graduate from the Project ACCCESS program, the Fellow must:

- Attend all Project ACCCESS sessions at the AMATYC Annual Conference during both Year 1 and Year 2 of the Fellow's cohort.
- Attend an approved regional conference during the time span between the two AMATYC Annual Conferences. Approved regional conferences include AMATYC Affiliate meetings, MAA Section meetings, and NCTM Regional meetings. An alternate conference near the Fellow's home institution may be allowed, if it is pre-approved by the Project ACCCESS Coordinator.
- Meet all AMATYC and Project ACCCESS deadlines, including conference registration, project submission by 2/1, and presentation submission by 2/15.
- Respond to communications submitted by Project ACCCESS leadership in a timely manner.

11.5.5 Ramifications to Fellows for Missing Requirements

Extenuating circumstances that interfere with the completion of these requirements must be submitted in writing to the Project ACCCESS Coordinator, prior to missing one of the requirements laid out in 11.5.4. The Project ACCCESS Coordinator will collaborate with an Executive Board member to determine appropriate actions. If exception is not granted, the AMATYC Fellow may be required to reimburse all funds spent by the AMATYC organization and their college will be notified of their failure to complete the program.

11.5 AMATYC Project ACCCESS

AMATYC Project ACCCESS is a crucial component of AMATYC's strategic plan. The annual AMATYC Project ACCCESS events scheduled during the conference provide professional development to new two-year college mathematics faculty in mathematical content, pedagogy, curriculum development, and leadership. Follow-up activities throughout the year provide networking opportunities and special projects to continue that professional development. <12/27/2006>

[11.5.1 AMATYC Project ACCCESS Coordinator](#)

[11.5.2 AMATYC Project ACCCESS Team Members](#)

[11.5.3 Fellow Selection](#)

[11.5.4 Fellow Requirements](#)

[11.5.5 Ramifications to Fellows for Missing Requirements](#)

11.5.1 AMATYC Project ACCCESS Coordinator <12/27/2006>

The AMATYC Project ACCCESS Coordinator leads a team that plans and implements the activities of the project for each cohort of ACCCESS Fellows. The coordinator works closely with the AMATYC Executive Board Liaison, the AMATYC office, and the AMATYC Annual Conference planning team.

Appointment Process

The AMATYC Project ACCCESS Coordinator is recommended by the President and appointed by the AMATYC Executive Board. This position reports to the Board liaison.

Term of Office

The term length is three years. The starting date of each term is January 1 and the ending date is December 31. The term limit is two consecutive terms; exceptions may be granted by the board to waive the term limit for extenuating circumstances by a 2/3 vote of the entire board, or 9 votes. <FBM 2007> <FBM 2008><SBM 2016>

Qualifications

10. Good written and verbal communication skills.
11. Experience as a workshop presenter.
12. Experience in planning and implementing workshops, meetings, or conferences.
13. Experience in program evaluation.
14. Experience in writing grants.
15. AMATYC member with a Regular or Life membership.
16. Well organized and able to work on a prescribed schedule and timeline.
17. Ability to respond to requests and questions from Fellows promptly.

18. Ability to communicate, work with others cooperatively, and provide leadership to colleagues and Fellows. **86**

Duties

12. Market AMATYC Project ACCCESS.
13. Chair a committee to select new Project ACCCESS Fellows.
14. Plan and facilitate a program for the Fellows during the annual conference.
15. Work within a budget to plan and implement the annual program.
16. Promote the professional development of the Fellows throughout the academic year by supporting and evaluating their individual projects.
17. Promote communication among the Fellows through a mailing list (or equivalent).
18. Work with AMATYC affiliates to involve the Fellows in affiliate conferences.
19. Involve the Project ACCCESS alumni in the planning and implementation of programs for future cohorts.
20. Work with the AMATYC Grant Coordinator to develop proposals to secure outside funding to support the program.
21. Develop an evaluation tool to determine the impact of the program on the organization.
22. Regularly monitor and keep current the AMATYC Project ACCCESS webpages on the AMATYC website. Send updates of these webpages to the AMATYC Website Coordinator as needed.
<FBM 2015>

11.5.2 AMATYC Project ACCCESS Team Members <FBM 2016>

Appointment Process

The AMATYC Project ACCCESS Team Members are recommended by the President and appointed by the AMATYC Executive Board. This team shall consist of the Program Assistant, Project Assistant, Listserv Assistant, and two members for the Fellow Selection Committee. These positions report to the AMATYC Project ACCCESS Coordinator.

Term of Office

The term length is three years. The starting date of each term is January 1 and the ending date is December 31. The term limit is two consecutive terms; exceptions may be granted by the board to waive the term limit for extenuating circumstances by a 2/3 vote of the entire board, or 9 votes.

Program Assistant:

- Work with the AMATYC Project ACCCESS coordinator to determine the program and presenters for the AMATYC Project ACCCESS portion of the AMATYC annual conference.
- Recruit speakers for Project ACCCESS sessions at the AMATYC Annual Conference.

Project Assistant:

- Work with the AMATYC Project ACCCESS coordinator to manage the Fellows' ongoing projects between the two AMATYC conferences.
- Archive information about current and past projects implemented by the Fellows.
- Keep Fellows informed of due dates and requirements of projects.
- Provide assistance with Fellows if there are problems or issues concerning their projects.
- Help to find contacts or mentors if Fellows request assistance.

Communication Assistant:

- Work with the AMATYC Project ACCCESS coordinator to manage a communication platform(s).
- Recruit Consulting Colleagues to participate in the communication platform(s).
- Provide prompts at least monthly for discussion amongst the Fellows and the Consulting Colleagues.

Fellow Selection Committee Members – 2 positions:

- These two members will work with the AMATYC Project ACCCESS coordinator and Board liaison to select the Fellows for the new Cohort.
- Applications will be distributed to the members and then discussions will take place via email for the selection.

11.5.3 Fellow Selection <7/10/2011><SBM 2016><SBM 2017>

The selection team will select up to 30 Project ACCESS fellows depending upon the size and quality of the applicant pool. Applicants will be ranked by four reviewers. The review team will then meet electronically or by conference call to determine if all applicants are qualified to be Project ACCESS fellows and to select the finalists from the pool. The APA Coordinator will notify successful applicants in May. Successful applicants will be required to sign and return a contract acknowledging the responsibilities of the fellow and the fellows' institution by June 30 of the current year. Unsuccessful applicants will be encouraged to apply again providing they are still eligible for Project ACCESS. All unsuccessful applicants will receive a complimentary one-year one-time only membership to AMATYC.

11.5.4 Fellow Requirements

In order to remain a Project ACCESS Fellow in good standing and graduate from the Project ACCESS program, the Fellow must:

- Attend all Project ACCESS sessions at the AMATYC Annual Conference during both Year 1 and Year 2 of the Fellow's cohort.
- Attend an approved regional conference during the time span between the two AMATYC Annual Conferences. Approved regional conferences include AMATYC Affiliate meetings, MAA Section meetings, and NCTM Regional meetings. An alternate conference near the Fellow's home institution may be allowed, if it is pre-approved by the Project ACCESS Coordinator.
- Meet all AMATYC and Project ACCESS deadlines, including conference registration, project submission by 2/1, and presentation submission by 2/15.
- Respond to communications submitted by Project ACCESS leadership in a timely manner.

11.5.5 Ramifications to Fellows for Missing Requirements

Extenuating circumstances that interfere with the completion of these requirements must be submitted in writing to the Project ACCESS Coordinator, prior to missing one of the requirements laid out in 11.5.4. The Project ACCESS Coordinator will collaborate with an Executive Board member to determine appropriate actions. If exception is not granted, the AMATYC Fellow may be required to reimburse all funds spent by the AMATYC organization and their college will be notified of their failure to complete the program.



Current ANet goals statement as of 2023.11.16

9.1.9.13 Mathematics for Liberal Arts

The Mathematics for Liberal Arts ANet provides a forum for the exchange of ideas related to Liberal Arts Mathematics and strives to:

- Identify general topics covered in a liberal arts mathematics courses;
- Discuss issues related to the transferability, prerequisite skills, and correct student placement in these courses;
- Discuss the pedagogy related to delivery formats such as face to face, online, and blended classes as well as active learning strategies;
- Provide support to mathematics faculty in the first two years of college in development of such courses; and,
- Share best practices in teaching liberal arts mathematics courses.

New Proposed ANet goals statement as of 2024.03.01

9.1.9.13 Quantitative Reasoning

AMATYC's academic network (ANet) for Quantitative Reasoning (QR) provides a forum for the analysis, discussion, and support of courses within the QR pathway. The ANet encourages sessions about QR at the annual conference and articles about QR in the *MathAMATYC Educator* and the *AMATYC News*. In addition, the Quantitative Reasoning ANet will

- Provide support for faculty to develop QR courses
- Promote teaching and assessment practices consistent with AMATYC's *Crossroads*, *Beyond Crossroads*, *IMPACT*, and position statements
- Identify, develop, and share relevant real-world contexts, instructional activities, and student projects for QR and other mathematics courses for a general audience
- Discuss issues related to the transferability, corequisites, student placement, student support, and delivery formats in such courses
- Help faculty overcome obstacles to implementing QR, including providing ways to assist faculty in educating student advisors, program coordinators, and administrators at the institutional level as well as other stakeholders beyond the institution



AMATYC Appointments

Meeting: FBM 2024

Appointee's Full Name	Term Begins	Term Ends	Term Length	Committee or ANet	Position Description	Appointee's College
Christopher Riola	1/1/25	12/31/27	3 years		Website Coordinator	Moraine Valley CC
Steven Blasberg	4/1/25	3/31/27	2 years	Student Math League	SML Test Developer	West Valley College
Greg Cripe	11/18/24	11/14/27	3 years	Conference Committee	Spokane Local Events Coordinator	Spokane Falls CC
Meghan Carlson	1/1/25	12/31/25	1 year (finishing a term)	Mathematics Pathways ANet	Chair	Florida South Western State College