AMATYC Math Intensive Community Meeting Agenda - Phoenix 2021

I. Introduction of leadership and membership.

II. Updates on AMATYC Initiatives
   A. Discussion of Traveling Workshops: Mari Menard
   B. Discussion of my.amatyc.org
   C. Discussion of IMPACT LIVE
      i. Examination of Proficiency
      ii. Highlights from the MIC participation in November
   D. Discussion of Pathways
   E. Discussion of Project SLOPE – Scholarship of Teaching and Learning

III. Identify potential speakers for the 2022 Themed Session

IV. Discussion of the Position Statement: MINIMUM MATHEMATICS REQUIREMENT FOR THE ASSOCIATE OF ARTS (A.A.) AND THE ASSOCIATE OF SCIENCE (A.S.) DEGREES

V. Discussion of the Precalculus Curriculum – Questions may include the following:
   A. Which topics are most important for future study?
   B. What review of topics from previous courses is necessary?
   C. How might the curricula evolve with technological changes?
   D. What are the barriers to Precalculus reform?

VI. Discussion of teaching math intensive courses during the pandemic – Questions may include the following:
   A. How can instructors meet the needs of students who may be less prepared than those in the past?
   B. What challenges/opportunities are presented with emerging technology?
   C. How will/should instruction change considering what has been learned in recent months?

VII. Set the agenda for the coming year.
POSITION STATEMENT

MINIMUM MATHEMATICS REQUIREMENT FOR THE ASSOCIATE OF ARTS (A.A.) AND THE ASSOCIATE OF SCIENCE (A.S.) DEGREES

Recommendations

1. The requirements for both an Associate of Arts (A.A.) and an Associate of Science (A.S.) degree should include at least one college-level mathematics course of three semester hours or more or the quarter-hour equivalent. Such college-level mathematics courses should be above the level of the Foundation defined in Crossroads in Mathematics: Standards for Introductory College Mathematics Before Calculus (1995). These courses should build upon, but not replicate, the mathematics in the two years of high school algebra and in geometry. A college-level quantitative course offered by a department other than a mathematics department should be substituted for a mathematics course only if it is approved by the mathematics department.

2. Regional accrediting associations should state that the general education requirements for the A.A. and A.S. degree must include college-level mathematics.

3. Mathematics courses before calculus which are required for the A.A. and the A.S. degree should satisfy the standards outlined in Crossroads (p. x).

Rationale

Mathematics is a vital part of the preparation for life, work, and on-going education. The goal of preparing students to become productive members of the workforce and society is part of the mission of postsecondary institutions offering the Associate of Arts (A.A.) or the Associate of Science (A.S.) degree.

- Students will enter a workforce that requires analytical and technical skills, and the need for workers with these skills will increase (National Research Council).
- The problem-solving and quantitative skills that students develop in any rigorous mathematics course are invaluable to other disciplines, such as the social, biological, and behavioral sciences which, according to the National Research Council, are enjoying the most rapid growth in mathematical applications (National Research Council, 1991b, p. 12).
- Since public policy issues often contain a quantitative component, an informed electorate must be able to reason quantitatively.

Consequently, a standard-based, college-level mathematics course should be one of the requirements for both an A.A. and A.S. degree.

References


Mathematical Association of America (MAA) (1993). Guidelines for Programs and Departments in Undergraduate Mathematical Sciences. Washington, DC: MAA.

(November 1997)