

Program: **Mathematics Education** (BS, Ed.M., MAT, MMT, CAGS, EdD )

Program Contact and Title: **Ziv Feldman**, Program Director

College/School Contact and Title: *SED Donna Lehr, Associate Dean – Academic Affairs*

**Learning Outcomes: M.A.T. Mathematics Education**

Students will:

1. Demonstrate an advanced knowledge of mathematics content that recognizes mathematics as a dynamic set of interconnected ideas as opposed to a set of discrete processes or disconnected facts.
2. Demonstrate mathematical knowledge for teaching that connects knowledge of content, teaching practices, student learning, and curriculum that is relevant to their grade band.
3. Demonstrate high-level teaching competencies, including
  - a) Designing and enacting instruction that focuses on building students' understanding of mathematical concepts and procedures and engaging all students in the active construction of knowledge.
  - b) Creating and maintaining mathematics classroom environments that are active, collaborative, rigorous, investigative, and respectful.
  - c) Understanding issues around access, equity, and diversity for mathematics students and enacting equitable pedagogies in light of these issues.
  - d) Collecting and using meaningful evidence of students' mathematical understanding to inform instruction.
4. Synthesize knowledge of mathematics content, mathematical knowledge for teaching, and pedagogies to form a coherent philosophy of mathematics teaching.
5. Demonstrate understanding of teaching as a profession that includes continually working to develop teaching practice, build relations with students, work collaboratively with colleagues, connect with the student families, and work within the broader community.