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*This program leads to a profession which requires an occupational license as defined under Texas Occupations Code 58.001 This requires that all applicants seeking to become licensed must undergo a criminal background check prior to licensure. Students in this program should check with the College of Education and P-16 Integration on the requirements for a criminal background check prior to student teaching.*

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*Mathematics Majors with Teacher Certification are attractive to the growing demand for teachers in middle schools and elementary schools. A BIS in Middle School Mathematics will prepare the graduate for an exciting and rewarding teaching position and provide the necessary preparation for graduate studies in Mathematics Education.*

## **A – GENERAL EDUCATION CORE – 42 HOURS**

*Students must fulfill the General Education Core requirements. The courses listed below satisfy both degree requirements and General Education core requirements.*

### **Required**

#### **020 - Mathematics – 3 hours**

MATH 2412 Pre-Calculus three-hour lecture

### **Recommended**

#### **030 - Life and Physical Sciences – 6 hours**

PHYS 2425 Physics for Scientists and Engineers I three-hour lecture

PHYS 2426 Physics for Scientists and Engineers II three-hour lecture

#### **080 - Social and Behavioral Sciences – 3 hours**

*Choose one:*

ECON 1301 Introduction to Economics

ECON 2301 Principles of Macroeconomics

#### **090 - Integrative and Experiential Learning – 5 hours**

PHYS 2425 Physics for Scientists and Engineers I one-hour lab

PHYS 2426 Physics for Scientists and Engineers II one-hour lab

CSCI 1380 Computer Science I

## **B – MAJOR REQUIREMENTS – 53 HOURS (42 advanced)**

### **1 – Mathematics Core – 38 hours (33 advanced)**

MATH 2412 Pre-Calculus one-hour lecture

MATH 2413 Calculus I (or MATH 2487 Honors)

MATE 3301 Fundamentals of Middle School Mathematics

MATE 3302 Fundamentals of Measurement and Geometry I

MATE 3303 Fundamentals of Measurement and Geometry II

MATE 3304 Fundamentals of Algebraic Structures

MATE 3305 Fundamentals of Statistics and Probability

MATE 3306 Middle School Mathematics in a Technological Environment

MATE 3307 Fundamentals of Problem Solving

MATE 3311 Fundamentals of Discrete Mathematics

MATE 3312 Fundamentals of Number Theory

MATE 3313 Fundamentals of Mathematics History

MATE 3314 Fundamentals of Mathematical Structures and Processes

### **2 – Interdisciplinary Component – 15 hours (9 advanced)**

MATH 1350 Fundamentals of Mathematics I

MATH 1351 Fundamentals of Mathematics II

MATE 3317 Perspectives in Mathematics and Science

MATE 3321 Functions and Modeling

MATE 4319 Research Methods in Middle School Mathematics

## **C – UTEACH CERTIFICATION – 21 HOURS (19 advanced)**

*Area of Certification: Mathematics (4-8)*

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UTCH 1101 Inquiry Approaches to Teaching  
UTCH 1102 Inquiry-Based Lesson Design  
UTCH 3301 Knowing and Learning in Mathematics and Science  
UTCH 3302 Classroom Interactions  
UTCH 3303 Project-Based Instruction  
UTCH 4601 Apprentice Teaching  
UTCH 4101 Apprentice Teaching Seminar  
READ 4305 Disciplinary Literacy in Content Area Classrooms

**D – SUPPORT COURSES – 4 HOURS**

*Choose 4 hours of Life and Physical Science beyond the core.*

**TOTAL CREDIT HOURS FOR GRADUATION – 120 HOURS****TOTAL ADVANCED HOURS – 61 HOURS****ADMISSION, PROGRESSION, AND GRADUATION REQUIREMENTS, if applicable:****Progression requirements**

Admission to the College of Education and P-16 Integration is required for participation in Apprentice Teaching and Seminar (UTCH 4101, 4601). Students unable to be admitted to UTCH 4601 and UTCH 4101 will be required to substitute 7 advanced hours, as recommended by advisor.

**Graduation requirements**

1. A grade of 'C' or better with a GPA of 2.75 or greater is required in all MATH and MATE.
2. In addition to the graduation requirements listed in the UTRGV 2018-2019 Undergraduate Catalog, demonstration of proficiency in a language other than English is required at the undergraduate level equivalent to a minimum of six credit hours. Proficiency can be demonstrated by a college credit exam, a placement test approved through the UTRGV Department of Writing and Language Studies, and/or up to six credit hours of college-level language coursework.