# School of Interdisciplinary Studies

## Education (BS) with 4-8 Mathematics

UT Dallas offers rigorous university-based teacher certification curricula and enjoys an outstanding reputation for producing excellent teachers.

At UT Dallas, coursework and field experiences leading to teacher certification may be accomplished through either the Teacher Development Center (TDC) program in the School of Interdisciplinary Studies (972-883-2730) or through UTeach Dallas program in the School of Natural Sciences and Mathematics (NS&M) (972-883-2496).

UT Dallas School of Interdisciplinary Studies offers both a Bachelor of Arts in Education degree (BAED) and a Bachelor of Science in Education degree (BSED). Each degree emphasizes a broad understanding and wide perspective of the field of education. Becoming a teacher takes preparation and planning. To ensure the highest professional standards, the state of Texas and UT Dallas require students to pass a series of rigorous courses, complete extensive fieldwork and demonstrate their knowledge of content and educational expertise on state licensure exams to become fully certified as a highly qualified teacher in Texas. The TDC at UT Dallas offers all the preparation courses required for teacher certification, including practical classes in curriculum and instruction, educational technology, and classroom management. The TDC interfaces and engages with all academic schools at UT Dallas, as well as many area school districts, to assist students as they progress through the teacher certification program. The Teacher Development Center at UT Dallas is fully accredited by the Texas Education Agency.

All BAED and BSED students are required to select a certification focus before their junior year.

## Bachelor of Science in Education with 4-8 Mathematics

Degree Requirements (120 semester credit hours)

View an Example of Degree Requirements by Semester

## Faculty

FACG> is-education-bs

**Professors:** Karen Prager, Lawrence J. Redlinger, Erin A. Smith

**Professor of Instruction:** Barbara Ashmore, Tonja Wissinger

**Associate Professors of Instruction:** Kathleen Byrnes, Patricia A. Leek, Syed Naqvi

**Assistant Professors of Instruction:** Kyle Hammonds, Marc Lusk, Michele McNeel, Azadeh Stark, Larissa Werhnyak

I. Core Curriculum Requirements: 42 semester credit hours[1]

**Communication: 6 semester credit hours**

Select any 6 semester credit hours from Communication Core courses (see advisor)

**Mathematics: 3 semester credit hours**

MATH 2413 Differential Calculus[2]

or MATH 2417 Calculus I[2]

or MATH 1325 Applied Calculus I

Or select any 3 semester credit hours from Mathematics Core courses (see advisor)[3]

**Life and Physical Sciences: 6 semester credit hours**

Select any 6 semester credit hours from Life and Physical Sciences Core courses (see advisor)

**Language, Philosophy and Culture: 3 semester credit hours**

AMS 2341 American Studies for the Twenty-First Century

or AMS 2300 American Popular Culture

Or select any 3 semester credit hours from Language, Philosophy and Culture Core courses (see advisor)

**Creative Arts: 3 semester credit hours**

Select any 3 semester credit hours Creative Arts Core courses (see advisor)

**American History: 6 semester credit hours**

Select any 6 semester credit hours from American History Core courses (see advisor)

**Government/Political Science: 6 semester credit hours**

Select any 6 semester credit hours from Government/Political Science Core courses (see advisor)

**Social and Behavioral Sciences: 3 semester credit hours**

Select any 3 semester credit hours from Social and Behavioral Sciences Core courses. (see advisor)

**Component Area Option: 6 semester credit hours**

MATH 2414 Integral Calculus[2]

or MATH 2419 Calculus II[2]

or MATH 1326 Applied Calculus II

MATH 2415 Calculus of Several Variables[2]

Or select any 6 semester credit hours from Component Area Option Core courses. (see advisor)[3]

II. Major Requirements: 60-61 semester credit hours beyond Core Curriculum

**Major Related Courses (18 semester credit hours)**

BIS 3320 The Nature of Intellectual Inquiry

ED 4694 Student Teaching Secondary

or ED 4394 Residency 1- Secondary

and ED 4395 Residency 2- Secondary

9 semester credit hours of lower- or upper-level ISNS courses

**Foundation I: Natural Science and Mathematics (12-13 semester credit hours)**

MATH 2312 Precalculus[4, 5]

MATH 2333 Matrices, Vectors, and Data[5]

or MATH 2418 Linear Algebra[5]

MATH 3303 Introduction to Mathematical Modeling[5]

MATH 3305 Foundations of Measurement and Informal Geometry[5]

or MATH 3321 Geometry[5]

**Foundation II: Education (12 semester credit hours)**

ED 3314 The American Public School

ED 3339 Educational Psychology for Teachers

or PSY 3339 Educational Psychology

ED 4351 ESL for K-12 Teachers

ED 4353 Reading in Secondary Content

**Teaching Techniques (18 semester credit hours)**

BIS 4306 Strategies for Diversity in Education

ED 4361 Classroom Management Secondary

MATH 3307 Mathematical Problem Solving for Teachers[5]

STAT 3360 Probability and Statistics for Management and Economics[5]

6 semester credit hours of Math or Science courses (upper or lower-level)

III. Certification Requirements and Recommendations: 17-18 semester credit hours

AMS 4300 Oral and Written Communication for the Classroom

ED 4301 Exceptional Populations

ED 4344 Mathematics Methods for Elementary Teachers

ED 4372 Educational Technology

**Guided Electives (5-6 semester credit hours)**

BIS 1100 Interdisciplinary Studies First Year Experience

Both lower- and upper-division courses may count as electives to fulfill remaining requirements.

The plan must include sufficient upper-division courses to total 45 upper-division semester credit hours.

## Bachelor of Science in Education with 4-8 Mathematics

(UTeach/School of Natural Sciences and Mathematics Option)

Degree Requirements (120 semester credit hours)

View an Example of Degree Requirements by Semester

## Faculty

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**Professors:** Karen Prager, Lawrence J. Redlinger, Erin A. Smith

**Professor of Instruction:** Barbara Ashmore, Tonja Wissinger

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**Assistant Professors of Instruction:** Kyle Hammonds, Marc Lusk, Michele McNeel, Azadeh Stark, Larissa Werhnyak

I. Core Curriculum Requirements: 42 semester credit hours[1]

**Communication: 6 semester credit hours**

COMM 1311 Survey of Oral and Technology-based Communication

RHET 1302 Rhetoric

Or select any 6 semester credit hours from Communication Core courses (see advisor)

**Mathematics: 3 semester credit hours**

MATH 2413 Differential Calculus[2]

or MATH 2417 Calculus I[2]

or MATH 1325 Applied Calculus I

Or select any 3 semester credit hours from Mathematics Core courses (see advisor)[3]

**Life and Physical Sciences: 6 semester credit hours**

Select any 6 semester credit hours from Life and Physical Sciences Core courses (see advisor)

**Language, Philosophy and Culture: 3 semester credit hours**

AMS 2341 American Studies for the Twenty-First Century

or AMS 2300 American Popular Culture

or HUMA 1301 Exploration of the Humanities

Or select any 3 semester credit hours from Language, Philosophy and Culture Core courses (see advisor)

**Creative Arts: 3 semester credit hours**

ARTS 1301 Exploration of the Arts

Or select any 3 semester credit hours Creative Arts Core courses (see advisor)

**American History: 6 semester credit hours**

HIST 1301 U.S. History Survey to Civil War

HIST 1302 U.S. History Survey from Civil War

Or select any 6 semester credit hours from American History Core courses (see advisor)

**Government/Political Science: 6 semester credit hours**

GOVT 2305 American National Government

GOVT 2306 State and Local Government

Or select any 6 semester credit hours from Government/Political Science Core courses (see advisor)

**Social and Behavioral Sciences: 3 semester credit hours**

Select any 3 semester credit hours from Social and Behavioral Sciences Core courses. (see advisor)

**Component Area Option: 6 semester credit hours**

MATH 2414 Integral Calculus[2]

or MATH 2419 Calculus II[2]

or MATH 1326 Applied Calculus II

MATH 2415 Calculus of Several Variables[2]

Or select any 6 semester credit hours from Component Area Option Core courses. (see advisor)[3]

II. Major Requirements: 60-61 semester credit hours beyond Core Curriculum

**Major Related Courses (18 semester credit hours)**

BIS 3320 The Nature of Intellectual Inquiry

NATS 4696 UTeach Apprentice Teaching, 4-8 Science and Mathematics

9 semester credit hours of lower- or upper-level ISNS courses

**Foundation I: Natural Science and Mathematics (12-13 semester credit hours)**

MATH 2312 Precalculus[4, 5]

MATH 2333 Matrices, Vectors, and Data[5]

or MATH 2418 Linear Algebra[5]

MATH 3303 Introduction to Mathematical Modeling[5]

MATH 3305 Foundations of Measurement and Informal Geometry[5]

or MATH 3321 Geometry[5]

**Foundation II: Education (12 semester credit hours)**

NATS 3341 Knowing and Learning in Mathematics and Science

ED 3339 Educational Psychology for Teachers

or PSY 3339 Educational Psychology

NATS 3343 Classroom Interactions

ED 4353 Reading in Secondary Content

**Teaching Techniques (18 semester credit hours)**

HIST 3328 History and Philosophy of Science and Medicine

or ED 4351 ESL for K-12 Teachers

or SMED 5301 Science, Mathematics, and Society (see Fast-Track Baccalaureate/Master's Degrees section)

or other course as approved by the department

NATS 4341 Project-Based Instruction

MATH 3307 Mathematical Problem Solving for Teachers[5]

STAT 3360 Probability and Statistics for Management and Economics[5]

6 semester credit hours of upper-level Mathematics or Science courses (see advisor)

III. Certification Requirements and Recommendations: 17-18 semester credit hours

AMS 4300 Oral and Written Communication for the Classroom

NATS 1141 UTeach STEP 1

NATS 1143 UTeach STEP 2

NATS 4141 UTeach Apprentice Teaching Seminar

**Guided Electives (11-12 semester credit hours)**

BIS 1100 Interdisciplinary Studies First Year Experience

Both lower- and upper-division courses may count as electives to fulfill remaining requirements.

The plan must include sufficient upper-division courses to total 45 upper-division semester credit hours.

1. Curriculum Requirements can be fulfilled by other approved courses from institutions of higher education. The courses listed are recommended as the most efficient way to satisfy both Core Curriculum and Major Requirements at UT Dallas.

2. Three semester credit hours of Calculus to be used to fulfill Core Requirement with the remaining one semester credit hour to be counted in Guided Electives.

3. Students are strongly encouraged to take core courses that are closely related to their foundations, concentrations, and career goals.

4. A required Major course that also fulfills a Core Curriculum requirement. Semester credit hours may be counted in Core Curriculum.

5. Indicates a prerequisite class that may be required before enrolling for upper-division classes.

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