Bachelor of Science (BS)

2019-2020

Mathematics

Focus: Secondary School 7th - 12th Grade UTeach Certification

FIRST YEAR

FALL

!	H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
	3	Choose 1	Communication (Core)	C	010	For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387.	See General Education Core for more details. Options: ENGL 1301 **or** ENGL 1387 (H)
!	4	MATH 2413	Calculus I	C	020	MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test administered by the Department of Mathematics.	**Prerequiste for MATH 2412:** MATH 1314/1414 with a grade of "C" or better or passing Exemption Test administered by Department of Mathematics
	3	Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1301 **or** HIST 1387 (H) **or** HIST/MASC 2327
	1	UTCH 1101	Inquiry Approaches to Teaching	C		Must be a Math or Science Major	A criminal background check will be required and a tuberculosis test may be required before the first field experience. Special permission from a UTeach co-director is required to enroll in UTCH 1101 and UTCH 1102 concurrently.
	3	Choose 1	Integrative/Experiential Learning Option (Core)		090		Recommended: CSCI 1380
	3	Choose 1	Creative Arts (Core)		050		See General Education Core for course options.
		UNIV 1301	Learning Framework				Only if required, based on ACT/SAT and high school rank.
17		**Semester Total Hours**					

SPRING

!	H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
	3	Choose 1	Communication (Core)	C	010	For all 010 courses: Satisfactory scores on ENGL portion of ACT test or TSI reading/writing exams or ENGL 0301. For ENGL 1302/1388, a grade of "C" or better in ENGL 1301/1387.	See General Education Core for more details. Options: ENGL 1302 **or** ENGL 1388 (H) **or** ENGL 1305
!	4	MATH 2414	Calculus II	C		MATH 2413 (or MATH 2487) with a grade of 'C' or better.	
	3	MATH 2318	Linear Algebra	C		MATH 2413 (or MATH 2487) with a grade of 'C' or better.	
	3	Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1302 **or** HIST 1388 (H) **or** HIST/MASC 2328
!	1	UTCH 1102	Inquiry-Based Lesson Design	C		UTCH 1101 with a grade of "C"	Students will begin developing their UTeach Portfolio. May be taken concurrently with UTCH 3301.
	3	Choose 1	Social and Behavioral Sciences (Core)		080		Recommended: ECON 1301 or ECON 2301
17		**Semester Total Hours**					

SECOND YEAR

FALL

!	H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
!	4	MATH 2415	Calculus III	C		MATH 2414 (or MATH 2488) with a grade of 'C' or better.	
!	3	MATE 3321	Functions and Modeling	C		MATH 2413 (or MATH 2487) and UTCH 1102, each with a grade of 'C' or better.	
	3	Choose 1	Government/Political Science (Core)		070		See General Education Core for more details. Options: POLS 2305 **or** POLS 2385 (H)
	4	Choose 1	Life and Physical Sciences (Core)		030/090		Recommended: PHYS 2425
!	3	MATH 3350	Introduction to Mathematical Proof	C		MATH 2318 with a grade of 'C' or better.	
17		**Semester Total Hours**					

SPRING

!	H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
	3	Choose 1	Language, Philosophy & Culture (Core)		040		See General Education Core for course options.
	3	MATH 3341	Differential Equations	C		MATH 2414 (or MATH 2488) with a grade of 'C' or better.	
	3	MATH 3363	Modern Algebra I	C		MATH 2318 and MATH 3350, each with a grade of 'C' or better.	
	3	UTCH 3301	Knowing and Learning in Mathematics and Science	C		UTCH 1101 and UTCH 1102 with a grade of "C" or better or concurrent enrollment with UTCH 1102.	
	4	Choose 1	Life and Physical Sciences (Core)		030/090		Recommended: PHYS 2426
	1	Choose 1	Integrative/Experiential Learning Option (Core)				See General Education Core for course options
17		**Semester Total Hours**					

CORE: The 2019-2020 list of core courses can be found at: www.utrgv.edu > Academics > Undergraduate > General Education Core

www.utrgv.edu/core

Symbols Key

Critical ('!'): sequence sensitive course.
Minimum Grade: A - Excellent; B - Good; C - Satisfactory; D - Below Average; CR - Credit; P - Passing; S - Satisfactory.

General Education Core (GEC) Sections: 010 - Communication; 020 - Mathematics; 030 - Life and Physical Sciences; 040 - Language, Philosophy & Culture; 050 - Creative Arts; 060 - American History; 070 - Government/Political Science; 080 - Social and Behavioral Sciences; 090 - Applied Communication and Literacies; 090 - Humanities; 090 - Leadership; 090 - Science Labs; 090 - Interdisciplinary ; 090 - Technologies; 090 - Language Diversity & Writing.

	H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
THIRD YEAR — FALL	3	Choose 1	Government/Political Science (Core)		070		See General Education Core for more details. Options: POLS 2306 or POLS 2386 (H)
	3	MATH 3352	Modern Geometry I	C		MATH 2318 with a grade of 'C' or better.	
	3	MATE 3317	Perspectives in Mathematics and Science	C		MATE 3321, BIOL 3330, or PHYS 3330 with a grade of "C" or better.	
	3	UTCH 3302	Classroom Interactions	C		(a) A University grade point average of at least 2.75, (b) UTCH 3301 with a grade of "C" and admission to Teacher Education Program.	
	3	MATH 3372	Real Analysis I	C		MATH 2414 (or MATH 2488) and MATH 3350, each with a grade of 'C' or better.	
	15	**Semester Total Hours**					
SPRING	3	MATH 3326	History of Mathematics	C		MATH 2414 (or MATH 2488) with a grade of 'C' or better.	
	4	MATE 4423	Advanced Studies in Secondary Mathematics	C		MATH 3352 and MATH 3363, each with grade of 'C' or better.	
	3	STAT 3337	Probability and Statistics	C		MATH 2414 (or MATH 2488) with a grade of 'C' or better.	
	3	MATE 3322	Secondary Mathematics in a Technological Environment	C		MATH 2414 (or MATH 2488) with a grade of 'C' or better.	
	3	READ 4305	Disciplinary Literacy in Content Area Classrooms				
	16	**Semester Total Hours**					

	H	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
FOURTH YEAR — FALL	3	MATH 3361	Applied Discrete Mathematics	C		MATH 2318 with a grade of 'C' or better.	
	3	MATH 4390	Mathematics Project	C		Prerequisites: Credit for or concurrent enrollment in MATH 2415, STAT 3337, MATH 3341, MATH 3352, MATH 3363, MATH 3372.	
	3	MATH 3365	Number Theory	C		MATH 2318 and MATH 3350, each with a grade of 'C' or better.	
	3	MATE 4329	Research Methods in Secondary Mathematics	C		MATE 3317 or PHIL 3317 with a grade of "C" or better.	
	3	UTCH 3303	Project-Based Instruction	C		(a) A University grade point average of at least 2.75 and UTCH 3302 with a grade of "C" or better.	
	15	**Semester Total Hours**					
SPRING	1	UTCH 4101	Apprentice Teaching Seminar			(a) A University grade point average of at least 2.75 and UTCH 3302 with a grade of "C" or better. Concurrent enrollment with UTCH 4601.	The Final Portfolio must provide evidence that the student has met state standards for teacher certification.
	6	UTCH 4601	Apprentice Teaching			(a) A University grade point average of at least 2.75 and UTCH 3302 with a grade of "C" or better. Successful completion of the PPR and content TExES examinations.	
	7	**Semester Total Hours**					

Note

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.

Progression requirements:

1. Admission to the College of Education and P16 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 6 advanced hours, as recommended by advisor.

Graduation Requirements:

1. The student must complete all these major course requirements and all MATH and MATE courses with grades of 'C' or better and have a GPA for the major of 2.5 or better.

121 TOTAL HOURS

(62) TOTAL ADVANCED HOURS

Approved: Thursday, June 13, 2019

Revised: Monday, May 6, 2019