The University of Texas Rio Grande Valley

Bachelor of Science (BS)

Physics

Focus: 7th - 12th Grade UTeach Certification

		o "	Focus: 7(n - 12(n	Min			
	! H	Course #	Course Title	Grade	GEC	Prerequisite	Additional Notes
	3	Choose 1	Communication (Core)	с	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	с	020	MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test administered by the Department of Mathematics.	
FALL	3	Choose 1	American History (Core)		060		See General Education Core for more details. Ontions: HIST 1301 or HIST 1387 or HIST/MASC 2327
	3	Choose 1	Social and Behavioral Sciences (Core)		080		See General Education Core for course options.
	3	Choose 1	Creative Arts (Core)		050		See General Education Core for course options.
~	1	UTCH 1101	Inquiry Approaches to Teaching	с		TB Vaccine	UTeach requirement
YEA		UNIV 1301	Learning Framework				Only if required, based on ACT/SAT and high school rank.
ST	17	Semester Total Hours					
÷	3	Choose 1	Communication (Core)		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	С		MATH 2413 (or MATH 2487) with a grade of 'C' or better.	
SPRING	4	PHYS 2425	Physics for Scientists and Engineers I	с	030/090	MATH 2413 (or MATH 2487) and concurrent enrollment in MATH 2414 (or MATH 2488).	
SPR	3	Choose 1	American History (Core)		060		See General Education Core for more details. Options: HIST 1302 or HIST 1388 or HIST/MASC 2328
	3	CSCI 1380	Computer Science I		090	Concurrent enrollment or credit for MATH 1314 or higher level mathematics course.	
	1	UTCH 1102	Inquiry-Based Lesson Design	с		UTCH 1101 with a grade of "C"	UTeach requirement
	18 Semester Total Hours ! H Course # Course Title Min. GEC Private					Prerequisite	Additional Notes
	· n			Grade	OLC		Additional Notes
	4	MATH 2415	Calculus III	С		MATH 2414 (or MATH 2488) with a grade of 'C' or better.	
	3	Choose 1	Language, Philosophy & Culture (Core)		040		See General Education Core for course options.
FALL	4	PHYS 2426	Physics for Scientists and Engineers II		030/090	PHYS 2425.	
	3	Choose 1	Government/Political Science (Core)		070		See General Education Core for more details Options: POLS 2305 or POLS 2385 (H)
AR	3		Functions and Modeling			A grade of 'C' or better in the following: MATH 2413 (or MATH 2487) and UTCH 1102.	UTeach requirement
2	17	Semester Total Hours					
ECONI	3	MATH 3341	Differential Equations			MATH 2414 (or MATH 2488) and MATH 2318 with a grade of 'C' or better.	
S	3	MATE 3317	Perspective in Mathematics and Science			MATE 3321, BIOL 3330, or PHYS 3330 with a grade of "C" or better.	UTeach requirement; Alternative: PHIL 3317
g	4	PHYS 3402	Modern Physics			PHYS 2426	Physics core requirement.
SPRING	3	UTCH 3301	Knowing and Learning in Mathematics and Science	с		UTCH 1101 and UTCH 1102 with a grade of "C" or better or concurrent enrollment with UTCH 1102 with consent of Uteach Advisor.	UTeach requirement
	3	Choose 1	Government/Political Science (Core)		070		See General Education Core for more details Options: POLS 2306 or POLS 2386 (H)
	1	Choose 1	Integrative/Experiential Learning Option (Core)		090		See General Education Core for course options.
	47	Semester Total Hours					Must apply to Teacher Education Program.

CORE: The 2018-2019 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 Language Proficiency Requirement: Student is required to and Physical Sciences; 040 - Language, Philosophy & Culture; 050 - Creative Arts; 060 -American History; 070 - Government/Political Science; 080 - Social and Behavioral Sciences; English at the undergraduate level equivalent to a minimum 090 - Applied Communication and Literacies; 090 - Humanities; 090 - Leadership; 090 -Science Labs; 090 - Interdisciplinary ; 090 - Technologies; 090 - Language Diversity & Writing.

demonstrate language proficiency in a language other than of six credits.

2018-2019

	! H	H Course #	Course Title	Min. GEC Grade	Prerequisite	Additional Notes
	3	B PHYS 3305	Classical Mechanics		PHYS 2426 and MATH 2415.	Physics core requirement.
	4	PHYS 3411	Math Methods for Physicist I		MATH 3341	Physics core requirement.
	3	3 PHYS 3303	Thermodynamics		MATH 2415 and either PHYS 2412 or PHYS 2426.	Physics core requirement.
	EALL 3	3 UTCH 3302	Classroom Interactions	с	(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.	UTeach requirement
YEAR	3	3 xxxx x3xx	Free Elective			Language Proficiency Requirement (as needed).
D YE	16	6 Semester Total Hours				
THIRD	3	3 xxxx x3xx	Free Elective			Language Proficiency Requirement (as needed).
	3	B PHYS 4305	Statistical Mechanics		PHYS 3303 and PHYS 3311.	Physics core requirement.
	1	PHYS 4101	Senior Laboratory Research		Consent of instructor.	Physics core requirement.
	3	8 READ 4305	Disciplinary Literacy in Content Area Classrooms			
	3		Project-Based Instruction	с	(a) University grade point average of at least 2.75, (b) UTCH 3302 with a grade of "C".	UTeach requirement
_		3 Semester Total Hours		Min		
	! H		Course Title	Grade GEC	Prerequisite	Additional Notes
	3	3 PHYS 3304	Optics		MATH 2415 and either PHYS 2412 or PHYS 2426.	Physics core requirement.
	3		Electromagnetic Theory I		MATH 2415 and either PHYS 2426 or PHYS 2412.	Physics core requirement.
	EALL	B PHYS 4303	Quantum Mechanics I		PHYS 3305 and PHYS 3311.	Physics core requirement.
	3	B PHYS 4300	Undergraduate Research		Senior standing in the Physics Degree Program and consent of a supervising faculty member.	Capstone
RTH YEAR	3		Research Methods		Grade C or better in the following: MATH 2413 (or MATH 2487) and UTCH 1102.	UTeach requirement
臣	15	5 Semester Total Hours	1			
FOU	1	UTCH 4101	Apprentice Teaching Seminar	с	(a) University grade point average of at least 2.75, (b) UTCH 3303 with a grade of "C" or better, © concurrent enrollment with UTCH 4601, (d) successful completion of PPR and content TEXES examinations, acceptance of the Uteach Portfolio.	UTeach requirement
	SPRING	5 UTCH 4601	Apprentice Teaching	с	(a) University grade point average of at least 2.75, (b) UTCH 3303 with a grade of "C" or better, © concurrent enrollment with UTCH 4601, (d) successful completion of	UTeach requirement
		7 Semester Total Hours			PPR and content TExES examinations, acceptance of the Uteach Portfolio.	

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:

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 4 advance hours, as recommended by advisor.

Graduation Requirements:

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 to six credit hours of college-level language coursework.

120 TOTAL HOURS (58) TOTAL ADVANCED HOURS Approved: Thursday, March 29, 2018 Revised: Sunday, July 22, 2018