

## **Bachelor of Science (BS) Physical Science**

(UTeach Certification

	H		Course Title	Min. Grade		Prerequisite	Additional Notes
	3	ENGL 1301	Rhetoric and Composition I	С	010	Satisfactory scores on English portion of ACT test and TSI ex	kamination or ENGL 0301.
	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	CHEM 1311	General Chemistry I		030	MATH 1314, MATH 1414, MATH 1342, MATH 1343, MATH 1388, MATH 2412, MATH 2413, or MATH 2487 with a grade of "C" or higher."	
	1	CHEM 1111	General Chemistry I Lab		090	Credit/registration in CHEM 1301.	
			Inquiry Approaches to Teaching	С		Criminal background check and TB vaccine.	
	3	XXXX X3XX	Social and Behavioral Sciences		080		See General Education Core for course options.
		UNIV 1301	Learning Framework				Only if required, based on ACT/SAT and high school rank.
	15	Semester To	otal Hours				
	3	ENGL 1302	Rhetoric And Composition II	С	010	A grade of 'C' or better in ENGL 1301 or ENGL 1387.	
	4	MATH 2414	Calculus II	С	020	MATH 2413 (or MATH 2487) with a grade of 'C' or better.	
S	3	CHEM 1312	General Chemistry II		030	CHEM 1311.	
PRING	1	CHEM 1112	General Chemistry II Lab		090	Credit/registration in CHEM 1312.	
S	4	PHYS 2411	Physics for Teachers I			MATH 2413 (or MATH 2487) and concurrent enrollment in MATH 2413 (or MATH 2487)	ATH 2414 (or MATH 2488).
	1	UTCH 1102	Inquiry-Based Lesson Design	С		UTCH 1101 with a grade of 'C' or better or concurrent enrollm	nent with UTCH 1101.
	16	Semester To	otal Hours				
	Н		Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
		Course # MATH 2415		Min. Grade C	GEC	MATH 2414 (or MATH 2488) with a grade of 'C' or better.	Additional Notes
	4	MATH 2415 PHYS 2412	Calculus III Physics for Teachers II	Min. Grade C	GEC		Additional Notes
	4 4 3	MATH 2415 PHYS 2412 CHEM 2323	Calculus III Physics for Teachers II Organic Chemistry I	Min. Grade C	GEC	MATH 2414 (or MATH 2488) with a grade of 'C' or better. MATH 2414 (or MATH 2488) and either PHYS 2411 or	Additional Notes
LI.	4 4 3 1	MATH 2415 PHYS 2412 CHEM 2323 CHEM 2123	Calculus III Physics for Teachers II Organic Chemistry I Organic Chemistry I Lab	Min. Grade C		MATH 2414 (or MATH 2488) with a grade of 'C' or better.  MATH 2414 (or MATH 2488) and either PHYS 2411 or PHYS 2425.  Credit/registration in CHEM 2323.	Additional Notes
FALL	4 4 3 1	MATH 2415 PHYS 2412 CHEM 2323 CHEM 2123	Calculus III Physics for Teachers II Organic Chemistry I	Min. Grade	GEC	MATH 2414 (or MATH 2488) with a grade of 'C' or better.  MATH 2414 (or MATH 2488) and either PHYS 2411 or PHYS 2425.  Credit/registration in CHEM 2323.	Additional Notes
	4 4 3 1 3 3	MATH 2415 PHYS 2412 CHEM 2323 CHEM 2123 HIST 1301 UTCH 3301	Calculus III Physics for Teachers II Organic Chemistry I Organic Chemistry I Lab U.S. History I Knowing and Learning in Mathematics and Science	Min. Grade C		MATH 2414 (or MATH 2488) with a grade of 'C' or better.  MATH 2414 (or MATH 2488) and either PHYS 2411 or PHYS 2425.  Credit/registration in CHEM 2323.	Additional Notes
FALL	4 4 3 1 3 3	MATH 2415 PHYS 2412 CHEM 2323 CHEM 2123 HIST 1301 UTCH 3301 Semester To	Calculus III Physics for Teachers II Organic Chemistry I Organic Chemistry I Lab U.S. History I Knowing and Learning in Mathematics and Science  otal Hours			MATH 2414 (or MATH 2488) with a grade of 'C' or better.  MATH 2414 (or MATH 2488) and either PHYS 2411 or PHYS 2425.  Credit/registration in CHEM 2323.  UTCH 1101 and UTCH 1102 with a grade of 'C' or better or concurrent enrollment with UTCH 1101 and/or UTCH 1102	Additional Notes
	4 4 3 1 3 3	MATH 2415 PHYS 2412 CHEM 2323 CHEM 2123 HIST 1301 UTCH 3301 Semester To CHEM 2325	Calculus III Physics for Teachers II Organic Chemistry I Organic Chemistry I Lab U.S. History I Knowing and Learning in Mathematics and Science  otal Hours Organic Chemistry II			MATH 2414 (or MATH 2488) with a grade of 'C' or better.  MATH 2414 (or MATH 2488) and either PHYS 2411 or PHYS 2425.  Credit/registration in CHEM 2323.  UTCH 1101 and UTCH 1102 with a grade of 'C' or better or concurrent enrollment with UTCH 1101 and/or UTCH 1102	Additional Notes
	4 4 3 1 3 3 18 3	MATH 2415 PHYS 2412 CHEM 2323 CHEM 2123 HIST 1301 UTCH 3301 Semester To CHEM 2325 CHEM 2125	Calculus III Physics for Teachers II Organic Chemistry I Organic Chemistry I Lab U.S. History I Knowing and Learning in Mathematics and Science  otal Hours Organic Chemistry II Organic Chemistry II Lab			MATH 2414 (or MATH 2488) with a grade of 'C' or better. MATH 2414 (or MATH 2488) and either PHYS 2411 or PHYS 2425.  Credit/registration in CHEM 2323.  UTCH 1101 and UTCH 1102 with a grade of 'C' or better or concurrent enrollment with UTCH 1101 and/or UTCH 1102 with consent of UTeach advisor.  CHEM 2123.	Additional Notes
_	4 4 3 1 3 3 18 3 14	MATH 2415 PHYS 2412 CHEM 2323 CHEM 2123 HIST 1301 UTCH 3301 Semester To CHEM 2325 CHEM 2125 PHYS 3402	Calculus III Physics for Teachers II Organic Chemistry I Organic Chemistry I Lab U.S. History I Knowing and Learning in Mathematics and Science  otal Hours Organic Chemistry II Organic Chemistry II Lab Modern Physics			MATH 2414 (or MATH 2488) with a grade of 'C' or better. MATH 2414 (or MATH 2488) and either PHYS 2411 or PHYS 2425.  Credit/registration in CHEM 2323.  UTCH 1101 and UTCH 1102 with a grade of 'C' or better or concurrent enrollment with UTCH 1101 and/or UTCH 1102 with consent of UTeach advisor.	Additional Notes
	4 4 3 1 3 3 3 1 4 4 3	MATH 2415 PHYS 2412 CHEM 2323 CHEM 2123 HIST 1301 UTCH 3301 Semester To CHEM 2325 CHEM 2125 PHYS 3402 HIST 1302	Calculus III Physics for Teachers II Organic Chemistry I Organic Chemistry I Lab U.S. History I Knowing and Learning in Mathematics and Science  otal Hours Organic Chemistry II Organic Chemistry II Lab Modern Physics U.S. History II			MATH 2414 (or MATH 2488) with a grade of 'C' or better. MATH 2414 (or MATH 2488) and either PHYS 2411 or PHYS 2425.  Credit/registration in CHEM 2323.  UTCH 1101 and UTCH 1102 with a grade of 'C' or better or concurrent enrollment with UTCH 1101 and/or UTCH 1102 with consent of UTeach advisor.  CHEM 2123. PHYS 2426.	Additional Notes
	4 4 3 1 3 3 3 1 4 4 3	MATH 2415 PHYS 2412 CHEM 2323 CHEM 2123 HIST 1301 UTCH 3301 Semester To CHEM 2325 CHEM 2125 PHYS 3402 HIST 1302	Calculus III Physics for Teachers II Organic Chemistry I Organic Chemistry I Lab U.S. History I Knowing and Learning in Mathematics and Science  otal Hours Organic Chemistry II Organic Chemistry II Lab Modern Physics		060	MATH 2414 (or MATH 2488) with a grade of 'C' or better. MATH 2414 (or MATH 2488) and either PHYS 2411 or PHYS 2425.  Credit/registration in CHEM 2323.  UTCH 1101 and UTCH 1102 with a grade of 'C' or better or concurrent enrollment with UTCH 1101 and/or UTCH 1102 with consent of UTeach advisor.  CHEM 2123. PHYS 2426.	Additional Notes  See General Education Core for course options.
SECOND YEAR SPRING FALL	4 4 3 1 3 3 1 8 3 1 4 3 3 3	MATH 2415 PHYS 2412 CHEM 2323 CHEM 2123 HIST 1301 UTCH 3301  Semester To CHEM 2325 CHEM 2125 PHYS 3402 HIST 1302 XXXX X3XX	Calculus III Physics for Teachers II Organic Chemistry I Organic Chemistry I Lab U.S. History I Knowing and Learning in Mathematics and Science  otal Hours Organic Chemistry II Organic Chemistry II Lab Modern Physics U.S. History II		060	MATH 2414 (or MATH 2488) with a grade of 'C' or better. MATH 2414 (or MATH 2488) and either PHYS 2411 or PHYS 2425.  Credit/registration in CHEM 2323.  UTCH 1101 and UTCH 1102 with a grade of 'C' or better or concurrent enrollment with UTCH 1101 and/or UTCH 1102 with consent of UTeach advisor.  CHEM 2123. PHYS 2426.	

Symbols Key

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

- Life and Physical Sciences; 040 - Language, Philosophy & Culture; 050 - Creative Arts; language proficiency in a language other than English at the undergraduate 060 - American History; 070 - Government/Political Science; 080 - Social and Behavioral Sciences; 090 - Computer Application; 090 - Interdisciplinary; 090 - Science Labs; 090 -

General Education Core (GEC) Sections: 010 - Communication; 020 - Mathematics; 030 Language Proficiency Requirement: Student is required to demonstrate level equivalent to a minimum of six credits.

	!	Н	Course #	Course Title	Min. Grade	GEC	Prerequisite	Additional Notes
RD YEAR FALL		3	PHYS 3301	Electromagnetic Theory I			MATH 2415 and either PHYS 2426 or PHYS 2412.	
		1	PHYS 3101	Junior Laboratory Research I			Consent of instructor and either PHYS 2426 or PHYS 2412.	
		3	PHIL 3317	Perspectives on Science and Mathematics	s		UTCH 1101, UTCH 1102	
		3	POLS 2301	U.S. & Texas Government & Politics I		070		
		1	XXXX X1XX	Integrative and Experiential Learning				
				Project-Based Instruction			(a) A university grade point average of at least 2.75, (b) UTCH 3302 with a grade of 'C' or better or concurrent enrollment with UTCH 3302 with consent of UTeach advisor, and (c) positive evaluation of the second-stage UTeach	
HE		14 Semester Total Hours						
		3	CHEM 2301	Analytical Chemistry				
SPRING	ט	3	PHYS 3330	Functions and Modeling			A grade of 'C' or better in the following: MATH 2413 (or MATH 2487) and UTCH 1102.	
	₹		PHYS 3404	•			MATH 2415 and either PHYS 2412 or PHYS 2426.	
	3	3	POLS 2302	U.S. & Texas Government & Politics II		070		
		3	READ 4305	Content Area Literacy			Admission to COE Teacher Education Program.	
	_		Semester To					
	!	Н		Course Title	Min. Grade		Prerequisite	Additional Notes
FALL				Biochemistry I			CHEM 2323.	
	-!			Physics Education			PHYS 3301 and PHYS 3404.	
	₫			Creative Arts		050		
	_			Integrative and Experiential Learning		090		
		13 Semester Total Hours						
EAR		3	PHYS 4392	Research Methods			Grade C or better in the following: MATH 2413 (or MATH 2487) and UTCH 1102.	
FOURTH Y SPRING		4	CHEM 4401	Chemistry Education			CHEM 1111, CHEM 1112, and CHEM 1312.	
	SPRING	1	UTCH 4101	Apprentice Teaching Seminar			(a) A university grade point average of at least 2.75, (b) UTCH 3303 with a grade of 'C' or better, (c) concurrent enrollment with UTCH 4601, (d) successful completion of PPR and content TExES examinations, and (e) acceptance of the third-stage UTeach portfolio.	
				Apprentice Teaching			(a) A university grade point average of at least 2.75, (b) UTCH 3303 with a grade of 'C' or better, (c) successful completion of PPR and content TExES examinations, and (d) acceptance of the third-stage UTeach portfolio.	
		14	Semester To	otal Hours				

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 advanced hours, as recommended by advisor.

123 TOTAL HOURS

(51) TOTAL ADVANCED HOURS

Approved: Wednesday, March 12, 2014 Revised: Thursday, August 13, 2015