# Bachelor of Science (BS)  
**Physics**  
**Concentration: Teacher Certification**  

**2023-2024**

- **FIRST YEAR**
  - **FALL**
    - 17 Hours
    - 3 Choose 1 Communication (Core)  
      - Must be a Mathematics or Science Major.
    - 4 MATH 2413 Calculus I  
      - MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test administered by the Department of Mathematics.
    - 3 Choose 1 American History (Core)  
      - See General Education Core for more details.
    - 3 Choose 1 Social and Behavioral Sciences (Core)  
      - See General Education Core for course options.
    - 3 PHYS 1311 Learning to be a Physicist  
      - Physics core requirement.
    - 1 UTCH 1101 Inquiry Approaches to Teaching  
      - Must be a Mathematics or Science Major.
    - 1 UNIV 1301 Learning Framework  
      - 1101 Academic and Career Success  
      - 1001 Living and Working by Design  
      - As required, based on credit hours earned, TSI status, High school rank, major declaration.
  - **SPRING**
    - 17 Hours
    - 4 MATH 2414 Calculus II  
      - MATH 2413 with a grade of 'C' or better.
    - 4 PHYS 2425 Physics for Scientists and Engineers I  
      - MATH 2413 and concurrent enrollment in MATH 2414.
    - 3 Choose 1 American History (Core)  
      - See General Education Core for more details.
    - 3 CSCI 1380 Computer Science I  
      - Concurrent enrollment or credit for MATH 1314 or higher level mathematics course.
    - 1 UTCH 1102 Inquiry-Based Lesson Design  
      - UTCH 1101 with a grade of "C"  
      - Students will begin developing their UTeach Portfolio. May be taken concurrently with UTCH 3301.

- **SECOND YEAR**
  - **FALL**
    - 17 Hours
    - 3 Choose 1 Communication (Core)  
      - For all 010 courses: Satisfactory scores on English portion of ACT test and TSI examination or ENGL 0301. For ENGL 1302, a grade of "C" or better in ENGL 1301.  
      - Options: ENGL 1302 or ENGL 1305
    - 4 MATH 2415 Calculus III  
      - MATH 2414 and MATH 2318 with a grade of 'C' or better.
    - 3 Choose 1 Creative Arts (Core)  
      - See General Education Core for course options.
    - 3 PHYS 2327 Physics for Scientists and Engineers III  
      - PHYS 2425. Students may take this course concurrently with PHYS 2426.
    - 3 POLS 2305 U.S. Federal Government & Politics  
      - See General Education Core for more details.
  - **SPRING**
    - 18 Hours
    - 3 MATH 3341 Differential Equations  
      - MATH 2414 and MATH 2318 with a grade of 'C' or better.  
      - PHYS 2426 and PHYS 2327. Physics core requirement. Only offered in the Spring Semester.
    - 4 PHYS 3402 Modern Physics  
      - PHYS 2426 and PHYS 2327.
    - 3 BIOL 3300/MATE 3321 Functions and Modeling  
      - A grade of 'C' or better in the following: MATH 2413 and UTCH 1102.  
      - UTeach requirement
    - 3 POLS 2306 Texas Government & Politics  
      - See General Education Core for more details.
    - 1 Choose 1 Language, Philosophy & Culture (Core)  
      - See General Education Core for course options.
    - 1 Choose 1 Integrative/Experiential Learning Option (Core)  
      - See General Education Core for course options.

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

### Core Curriculum
- **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.

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**2023-2024 Undergraduate Catalog**  
**Core Curriculum**
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<th>GEC Prerequisite</th>
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<td>PHYS 2426 and MATH 2415.</td>
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<td>Math Methods for Physics I</td>
<td>MATH 3341</td>
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<td>MATE 3317</td>
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<td>MATE 3321, BIOL 3330, or PHYS 3330 with a grade of &quot;C&quot; or better.</td>
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</tr>
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<td>UTCH 3302</td>
<td>Classroom Interactions</td>
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<td>Consent of instructor.</td>
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<td>3</td>
<td>PHYS 3304</td>
<td>Optics</td>
<td>MATH 2415 and PHYS 2426 and PHYS 2327.</td>
<td>Physics core requirement. Only offered in the Spring Semester.</td>
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<td>READ 4305</td>
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<td>6</td>
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<td>Apprentice Teaching</td>
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Program Overview

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.

Major Admission Requirements

Admission to the Teacher Education Program at the Office of Educator Preparation and Accountability is required for completion of teacher certification requirements with the undergraduate degree. All admission requirements are in accordance to Texas Administrative Code rules §227.10 and the HEA Title II accountability requirements. All applicants must meet the current certification requirements in effect at the time of application, regardless of the catalog year of degree plan.

Major Progression Requirements

Teacher Education Program progression requirements include GPA, course grades, certification courses, benchmarks/assessments and testing. 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 UTEACH 4601 and UTCH 4101 will be required to substitute 7 hours, as recommended by advisor. A Physics Major with Physics/Mathematics (7-12) Teacher Certification would initially focus on the Math prerequisites courses (support courses listed above), in taking the PHYS 2425/2426 course sequence, and in taking the UTCH 1101 and UTCH 1102 course sequence.

120 TOTAL HOURS

Advanced minimum credit hours

Approved: Thursday, March 23, 2023
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