

CORE CURRICULUM	Minimum Hours Required	OPTION 2: COMPUTATION	Minimum Hours Required
Core courses must be chosen from approved lists. <i>bit.ly/1d6oP6l</i>		Designed to provide the necessary foundation and hands-on skill in computation for the student who plans a career or further study in computational physics or computer science. Students who complete this option may simultaneously fulfill some of the requirements of the Scientific Computation and Data Sciences Certificate.	
<b>First Year Signature Course</b>	<b>3</b>		
<b>English Composition</b>	<b>3</b>		
<b>Humanities</b>	<b>3</b>		
<b>American &amp; Texas Government</b>	<b>6</b>		
<b>American History</b>	<b>6</b>		
<b>Social &amp; Behavioral Science</b>	<b>3</b>		
<b>Mathematics</b> (Fulfilled by course in major)	<b>0</b>		
<b>Science &amp; Technology-I</b> (Fulfilled by courses in major)	<b>0</b>		
<b>Science &amp; Technology-II</b> (Fulfilled by courses in major)	<b>0</b>		
<b>Visual &amp; Performing Arts</b>	<b>3</b>		
<b>SKILLS &amp; EXPERIENCE FLAGS</b> Flags attached to courses are displayed in the online Course Schedule.		<b>Additional Science:</b>	<b>6</b>
<b>Two Writing Flags:</b>	<input type="checkbox"/> <input type="checkbox"/>	6 hours in BIO, GEO, or AST <i>Note: courses that cannot count toward major requirements in department that offers it cannot be applied.</i>	
1. Core Writing Flag (cannot also fulfill another core curriculum requirement)			
2. Additional Writing Flag <i>Note: One of the two writing flags must be upper-division.</i>			
<b>One Quantitative Reasoning Flag</b>	<input type="checkbox"/>	<b>Upper-division mathematics and statistics and data sciences:</b>	<b>14</b>
<b>One Global Cultures Flag</b>	<input type="checkbox"/>	M 427J or 427K M 427L 6 additional hours of upper-division Mathematics or SDS <i>SDS 329C and M 362K are recommended</i>	
<b>One Cultural Diversity in the U.S. Flag</b>	<input type="checkbox"/>	<b>Upper-division physics:</b>	<b>24</b>
<b>One Ethics and Leadership Flag</b>	<input type="checkbox"/>	PHY 355 Modern Physics & Thermodynamics PHY 338K Electronic Techniques PHY 353L Modern Physics Laboratory PHY 336K Classical Dynamics PHY 352K Classical Electrodynamics I PHY 329 Introduction to Computational Physics PHY 373 Quantum Physics I: Foundations PHY 369 Thermodynamics & Statistical Mechanics (373 is prerequisite or co-requisite)	
<b>One Independent Inquiry Flag</b>	<input type="checkbox"/>	<b>1 scientific computation specialization, 12 hours total:</b>	<b>12</b>
<b>FOREIGN LANGUAGE</b>		A. <i>1st choice</i> CS 303E, and CS 313E or SDS 322 2 courses from 2 areas listed below: Numerical methods: M 348; SDS 335; CS 323E, 323H, 367; CHE 348 Statistical Methods: M 358K, 378K; BME 335 Other computing topics: M 346, 362M, 368K, 372K, 376C; SDS 329D, 374C, 374D, 374E; CS 324E, 327E, 329E, 377; ME 367S	
<b>1 of the following:</b>	<b>6–12</b>	B. <i>2nd choice</i> 12 hours from: EE 306, 312, 316, 319K, and 422C	
a. Beginning level proficiency in a foreign language		<b>ELECTIVES</b>	<b>VARY</b>
b. 1 course in a foreign language & 1 three-hour course in the culture of the same language area		<b>Enough elective hours to reach 126 total</b>	
c. 2 three-hour courses from the same foreign culture area		(The number of elective hours needed may vary depending on course selections.)	
<i>Foreign culture courses selected from approved lists maintained by the college. Bit.ly/19Ao6pc</i>		<b>ADDITIONAL GRADUATION REQUIREMENTS</b>	
<b>INTRODUCTORY MATHEMATICS &amp; SCIENCE</b>		<input type="checkbox"/> Minimum 21 upper-division hours in residence, including 12 in Physics	
<b>M 408C &amp; 408D or 408N, 408S, &amp; 408M</b>	<b>8–12</b>	<input type="checkbox"/> Minimum 60 hours in residence overall	
<b>PHY 301 &amp; 101L*, 316 &amp; 116L*, and 315 &amp; 115L</b>	<b>12</b>	<input type="checkbox"/> Minimum 36 upper-division hours	
<i>*PHY 303K &amp; 103M and 303L &amp; 103N, substitute for PHY 301 &amp; 101L and 316 &amp; 116L. However, they are not preferred preparation for PHY 315 &amp; 115L.</i>		<input type="checkbox"/> 126 hours total overall	
<b>CH 301 or 301H</b>	<b>3</b>	<input type="checkbox"/> Minimum grade of C- & minimum 2.0 GPA in all Mathematics & Natural Sciences courses	
<b>CH 302 or 302H</b>	<b>3</b>	<input type="checkbox"/> Minimum UT-Austin Grade Point Average of 2.0	
		<input type="checkbox"/> Must apply to graduate during final semester	
<i>Note: Introductory science is substantially different for Option 6</i>		<input type="checkbox"/> 2016–18 Catalog expires August 2024	