



**The School of Natural Sciences and Mathematics**  
**2006-2008 Transfer Guide for**  
**Texas Common Course Numbering System**

Major: PHYSICS

Degree: Bachelor of Arts (B.A.)

UTD Courses

TCCNS Courses

**I. UTD CORE CURRICULUM REQUIREMENTS (42 Semester Hours)****A. Communication (6 Hours)**

<b>RHET 1302</b>	Composition & Rhetoric	<b>ENGL 1302*</b>	<b>010 Core Code</b>
	<i>*(ENGL 1301 is prerequisite to ENGL 1302 and must be completed prior to taking ENGL 1302. ENGL 1301 can be used for elective hours.)</i>		

<b>PHYS 4399*</b> or	Seniors Honors in Physics	N/A	
<b>PHYS 4390*</b> or	Senior Research & Advanced Writing	N/A	
<b>NATS 4310*</b>	Adv. Writing in the Natural Sciences and Math	N/A	
	<i>*(PHYS 4399 or PHYS 4390 or NATS 4310, taken at UTD, will satisfy three hours of the communication core curriculum requirement as well as satisfy the upper-division major advanced writing requirement.)</i>		

**B. Social and Behavioral Sciences (15 Hours)**

<b>6 Hours of Government (Texas Legislative Mandate):</b>		<b>Choose one two-course series:</b>	<b>070 Core Code</b>
<b>GOVT 2301*</b> and	Const Found & Pol Beh in the U.S. and Texas	<b>GOVT 2301 and</b>	
<b>GOVT 2302*</b>	Political Institutions in the U.S. and Texas	<b>GOVT 2302</b>	
		<b>or</b>	
N/A	American Federal Government	<b>GOVT 2305 and</b>	
N/A	Texas Government	<b>GOVT 2306</b>	
	<i>*(Consult your academic advisor for course descriptions. The six hour government requirement must include study of the Constitution of the United States and the Constitution of Texas.)</i>		

<b>6 Hours of American History (Texas Legislative Mandate):</b>		<b>Two of the following:</b>	<b>060 Core Code</b>
<b>HIST 1301</b>	American History I	<b>HIST 1301</b>	
<b>HIST 1302</b>	American History II	<b>HIST 1302</b>	
<b>HIST 2301</b>	Texas History	<b>HIST 2301</b>	
N/A	Mexican-American History I	<b>HIST 2327</b>	
N/A	Mexican-American History II	<b>HIST 2328</b>	

<b>3 Hours of Social and Behavioral Sciences Elective:</b>	<b>080 Core Code</b>
<b>Core options:</b>	
ANTH 2302, ANTH 2346, ANTH 2351, ECON 1301, ECON 2301, ECON 2302, ECON 2311, GEOG 1300, GEOG 1302, GEOG 1303, GEOG 2312, PSYC 2301, PSYC 2307, PSYC 2308, PSYC 2311, PSYC 2312, PSYC 2313, PSYC 2314, PSYC 2316, PSYC 2319, SOCI 1301, SOCI 1306, SOCI 2301, SOCI 2326, SOCI 2336.	

**C. Humanities and Fine Arts (6 Hours)**

<b>HUMA 1301</b>	Humanities I	<b>HUMA 1301</b>	<b>040 Core Code</b>
<b>or other core options:</b>			
ENGL 2321, ENGL 2322, ENGL 2323, ENGL 2326, ENGL 2327, ENGL 2328, ENGL 2331, ENGL 2332, ENGL 2333, FREN 2303, FREN 2304, HIST 2311, HIST 2312, HIST 2321, HIST 2322, PHIL 1301, PHIL 1304, PHIL 2303, PHIL 2306, PHIL 2307, PHIL 2316, PHIL 2317.			

<b>ARTS 1301</b>	Art Appreciation	<b>ARTS 1301</b>	<b>050 Core Code</b>
<b>or other core options:</b>			
ARCH 1205, ARCH 1301, ARCH 1302, ARTS 1303, ARTS 1304, DANC 2303, DANC 2304, DRAM 1310, DRAM 2361, DRAM 2362, DRAM 2363, HUMA 1315, MUSI 1306, MUSI 1308, MUSI 1309.			

**D. Mathematics and Quantitative Reasoning (6 Hours)**

<b>MATH 2417*<sup>A</sup> and</b>	Calculus I (Accelerated)	<b>MATH 2314, or 2414, or 2417<sup>A</sup></b>	<b>020 Core Code</b>
<b>MATH 2419*<sup>A</sup></b>	Calculus II (Accelerated)	<b>MATH 2315, or 2415, or 2419<sup>A</sup></b>	
	<i>*(MATH 2417 and MATH 2419 are major requirements that will also satisfy the six hour mathematics and quantitative reasoning core curriculum requirement.)</i>		

<sup>A</sup>**Note:** UTD's accelerated calculus sequence, Math 2417 and Math 2419, is equivalent to the **three**-semester calculus sequence offered at community colleges. Students should complete Calculus I, Calculus II, and Calculus III in order to be equivalent to UTD's Math 2417 and MATH 2419. Students should start and complete the entire sequence either at the community college, or at UTD. If students choose to take Calculus I, II, and III, they should complete all prerequisite courses of MATH 1314, MATH 1316, MATH 2412 before enrolling in MATH 2313, or 2413, or 2513.

<b>UTD Courses</b>	<b>TCCNS Courses</b>
--------------------	----------------------

<b>E. Science (9 Hours)</b>			
<b>CHEM 1311/1111*</b>	General Chemistry I w/lab	<b>CHEM 1311/1111 or 1411</b>	<b>030 Core Code</b>
<b>CHEM 1312/1112*</b>	General Chemistry II w/lab	<b>CHEM 1312/1112 or 1412</b>	
<b>PHYS 2125*</b>	Mechanics and Heat Laboratory	<b>PHYS 2125 or lab of PHYS 2425</b>	
<i>*(CHEM 1311/1111, CHEM 1312/1112, and PHYS 2125 are major requirements that will also satisfy the nine hour science core curriculum requirement.)</i>			

<b>II. UTD MAJOR REQUIREMENTS (62-64 Hours)</b>			
<b>Major Preparatory Courses (21-23 hours):</b>			
<b>CHEM 1311/1111</b>	General Chemistry I w/lab	<b>CHEM 1311/1111 or 1411</b>	
<b>CHEM 1312/1112</b>	General Chemistry II w/lab	<b>CHEM 1312/1112 or 1412</b>	
<b>MATH 2417 and</b>	Calculus I (Accelerated)	<b>MATH 2314, or 2414, or 2417</b>	
<b>MATH 2419</b>	Calculus II (Accelerated)	<b>MATH 2315, or 2415, or 2419</b>	
<b>MATH 2420</b>	Differential Equations with Applications	<b>MATH 2320 or 2420</b>	
<b>MATH 2451</b>	Multivariable Calculus with Applications	<b>N/A</b>	
<b>PHYS 1100</b>	The Fun of Physics	<b>N/A</b>	
<b>PHYS 2303</b>	Contemporary Physics	<b>N/A</b>	
<b>PHYS 2325/2125</b>	Mechanics and Heat with lab	<b>PHYS 2325/2125 or 2425</b>	
<b>PHYS 2326/2126</b>	Electromagnetism and Waves w/lab	<b>PHYS 2326/2126 or 2426</b>	
<b>Advanced Upper-Division Major Requirements:</b> (See Departmental Advisor)			

<b>III. UTD ELECTIVE REQUIREMENTS (18 Hours)</b>	
<b>Advanced Electives (6 hours):</b>	
All students are required to complete at least six hours of advanced electives outside their major field of study. These must be either upper-division courses, or lower-division courses that have prerequisites.	
<b>Free Electives (12 hours):</b>	
Both lower-division and upper-division courses may be used as free electives, but students must complete at least 51 upper-division hours to qualify for graduation.	

**A MINIMUM OF 122-124 SEMESTER HOURS IS REQUIRED FOR GRADUATION WITH AT LEAST 51 UPPER-DIVISION HOURS.**

**Note:** Core options listed reflect the TCCNS courses. Other courses that may potentially qualify for core requirements must be approved by an academic advisor or the department housing the student's major.

UTD does not accept vocational or technical courses in certificate or applied science programs, nor courses offered through the Workforce Education Course Manual (WECM), nor developmental courses. Consult the current online UTD catalog for complete degree plan requirements.

[www.utdallas.edu/student/catalog/uqcurrent/undergradprograms.html](http://www.utdallas.edu/student/catalog/uqcurrent/undergradprograms.html)