

**West Texas A&M University**  
**Advising Services**  
**Degree Checklist**  
**2012-2013**

(For assistance completing this form, contact Advising Services at 806-651-5300)

**NAME:** \_\_\_\_\_ **WT ID:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**Computer Science—Mechanical Engineering Track**  
**Department of Engineering and Computer Science**  
**ECS Building, Room 119 651-5257**

<b>CORE CURRICULUM COURSES: 42 HOURS ♦</b>		
Specific course(s) required for this major are listed in the next section.		<b>HRS</b>
<b>Communication (10)</b>		
ENGL 1301 ( <i>ENG 101</i> ) Introduction to Academic Writing and Argumentation	3	
See University Core Requirements below	(3)	
<b>Communication (11)</b>		
COMM 1315 ( <i>SCOM 101, 1315</i> ), 1318 ( <i>SCOM 103, 1318</i> ), or 1321** ( <i>SCOM 201, 1321</i> )	3	
<b>Mathematics (20)</b>		
See University Core Requirements below	(4)	
<b>Natural Sciences (30)</b>		
See University Core Requirements below	(8)	
<b>Humanities (40-41)</b>		
ENGL 2321*, 2326*, 2331*, 2341*, 2343*; HIST 2311 ( <i>110</i> ), 2323, 2372 ( <i>210</i> ); MCOM 1307 ( <i>MC 107</i> ); PHIL 1301 ( <i>101</i> ), 2374 ( <i>204</i> ); SPAN 2312*/*** ( <i>207</i> ) or SPAN 2315*/*** Choose 1	3	
<b>Visual and Performing Arts (50)</b>		
HUMA 1315 ( <i>FA 101</i> ); ARTS 1303 ( <i>ART 151</i> ), ARTS 1304 ( <i>ART 152</i> ); DANC 2303; MUSI 1306 ( <i>MUS 101</i> ) or 1208 and 1209*; or THRE 1310 ( <i>105</i> ) Choose 1	3	
<b>Social and Behavioral Sciences (60)</b>		
HIST 1301 ( <i>201</i> ) or 1303; 1302 ( <i>202</i> ) or 1304; 2301; 2381 Choose 2	6	
<b>Social and Behavioral Sciences (70)</b>		
POSC 2305 ( <i>101</i> ) or 2370; 2306 ( <i>102</i> )	6	
<b>Social and Behavioral Sciences (80)</b>		
AGBE 2317* ( <i>213</i> ), ANTH 2351 ( <i>201</i> ); CRIJ 1301 ( <i>CJ 105</i> ); ECON 2301 ( <i>ECO 201</i> ), 2302 ( <i>ECO 202</i> ), 2371; GEOG 1302 ( <i>202</i> ); PSYC 2301 ( <i>PSY 201</i> ); COMM 2377 ( <i>SCOM 255, 2377</i> ); SOCI 1301 ( <i>201</i> ); or SOCW 2361 ( <i>SOWK 201</i> ) Choose 1	3	
<b>Institutionally Designated Option (90)</b>		
See University Core Requirements below	(3)	
<b>COMPUTER SCIENCE—MECHANICAL ENGINEERING TRACK</b>		
<b>MAJOR REQUIREMENTS: 94 HOURS</b>		
A grade of "C" or better must be earned in all courses required for major.		
<b>UNIVERSITY CORE REQUIREMENTS: 18 HOURS</b>		
<b>CORE 10</b>		
2311* ( <i>ENG 270</i> ) Technical Communication	3	
<b>CORE 20</b>		
MATH 2413* ( <i>240</i> ) Calculus I	4	
<b>CORE 30</b>		
PHYS 2425*, 2425L ( <i>210</i> ) and 2426*, 2426L ( <i>211</i> )	8	
<b>CORE 90</b>		
CS 1301 Introduction to Computer Science	3	
<b>MAJOR REQUIREMENTS: 42 HOURS</b>		
CS 1337, 1337L ( <i>1437</i> ) Introduction to Object-Oriented Programming	3	
CS 2325*, 2325L ( <i>2425</i> ) Computer Organization and Assembly Language	3	
CS 2336*, 2336L ( <i>2436</i> ) Objects and Data Abstraction	3	
CS 3305* ( <i>290, 2377</i> ) Data Structures and Algorithms	3	
CS 3307* ( <i>307</i> ) Algorithm Design and Analysis	3	
CS 3310* Programming Languages	3	

**Bachelor of Science Degree**  
**BS.CS (307)**

CS 3315* ( <i>315</i> ) Scripting Languages	3	
CS 3352* Operating Systems and Networking	3	
CS 3372* Net-Centric Computing	3	
CS 4325* ( <i>425</i> ) Computer Architecture	3	
CS 4340* Database Systems	3	
CS 4385* ( <i>485</i> ) Concurrency and Distributed Systems	3	
CS 4390* Software Development & Systems Prog.	3	
CS 4391* Software Development & Prof. Practice	3	
<b>REQUIRED MATH COURSES: 16 HOURS</b>		
MATH 2321* Discrete Structures I	3	
MATH 2322* Discrete Structures II	3	
MATH 2414* ( <i>241</i> ) Calculus II	4	
MATH 3340* ( <i>340</i> ) Calculus III	3	
MATH 3342* ( <i>342</i> ) Differential Equations I	3	
<b>ADDITIONAL REQUIREMENTS FOR MECHANICAL ENGINEERING TRACK: 18 HOURS</b>		
ENGR 1304* ( <i>125</i> ) Engineering Graphics OR ENGR 2332* ( <i>MENG 350, 3340</i> ) Mechanics of Materials I Choice depends upon choice of advanced MENG courses.	3	
ENGR 2301* ( <i>230</i> ) Engineering Statics	3	
ENGR 2302* ( <i>125</i> ) Engineering Graphics	3	
ADVANCED MENG COURSE	3	
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ADVANCED MENG COURSES	3	
<b>TOTAL HOURS REQUIRED TO COMPLETE DEGREE</b>	<b>121</b>	

♦ A minimum of 42 hours from the core curriculum is required. Some majors specify particular courses to meet core-curriculum requirements when options are available. Ideally, these courses should be taken during the first two years of enrollment.

\* Indicates prerequisites—see catalog for more information.

\*\* Recommended.

\*\*\* Or an equivalent course (second year, second semester) in French or German.  
 NOTE: At least 39 hours of advanced work (3000- or 4000-level courses) for which tuition is paid must be earned at WTAMU, and 30 of the final 36 hours counted toward the degree must be earned at WTAMU. A maximum of six semester hours in religion and six semester hours in physical education (PHED) courses can count toward a baccalaureate degree.

**Note: This is NOT a degree plan. Before completion of 60 hours, students are allowed and encouraged to request an official degree plan in the office of the dean of the College of Agriculture, Science and Engineering, located in the Agriculture and Natural Sciences Building, Room 106 (or call 651-2585). After completing 60 hours, students will not be allowed to progress without requesting a degree plan.**