

DMC-TAMUK Course Map

**Associate of Science Degrees in Engineering (DMC)
and
Bachelor of Science Degrees in Engineering (TAMUK)**

Architectural Engineering
Chemical Engineering
Civil Engineering
Electrical Engineering
Environmental Engineering
Mechanical Engineering
Natural Gas Engineering

A. Core Curriculum - 42 credit hours

The indicated DMC courses are part of the DMC Core Curriculum. They also substitute for the corresponding courses in the TAMUK Core Curriculum. DMC students should note that they give themselves more flexibility in course options by completing the Core Curriculum at DMC. More importantly, completing the entire DMC Core Curriculum automatically satisfies the TAMUK Core Curriculum without the need for a course-by-course evaluation.

This course map is based on the TAMUK Core Curriculum adopted for students beginning their studies in the 2016-17 academic year. Current students basing their DMC studies on earlier versions of the Core Curriculum should consult academic advisors at DMC and TAMUK, although in nearly all cases the course mapped below will satisfy the Core Curricula in place for several years prior.

DMC Equivalents			TAMUK BS Engineering Courses		
Course Number	Title	Hours	Course Number	Title	Hours
Communication – 6 credit hours					
ENGL 1301	Composition I	3	ENGL 1301	Rhetoric & Composition I	3
ENGL 1302	Composition II	3	ENGL 1302	Rhetoric & Composition II	3
Mathematics – 3 credit hours (The extra credit hour can be counted against the Component Area Option (Other) at the end of this section. Other mathematics courses required for an engineering degree are listed in sections B and C.)					
MATH 2413	Calculus I	4 (3)	MATH 2413	Calculus I	4 (3)
Life and Physical Sciences – 6 credit hours (Other science courses required for an engineering degree are listed in sections B and C.)					
CHEM 1411	General Inorganic Chemistry I	4 (3)	CHEM 1311	Gen. Inorganic Chemistry I	3
PHYS 2425	University Physics I	4 (3)	PHYS 2325	University Physics I	3
Language / Philosophy / Culture – 3 credit hours (select one)					
<i>Various literature</i>	ENGL 2321, ENGL 2322, ENGL 2323, ENGL 2326, ENGL 2327,	3	<i>Various literature</i>	ENGL 2342 or 2362	3

<i>courses</i>	ENGL 2328, ENGL 2332, ENGL 2333, ENGL 2341, ENGL 2351		<i>courses</i>		
PHIL 1301	Introduction to Philosophy	3	PHIL 1301	Introduction to Philosophy	3
Creative Arts – 3 credit hours (select one)					
ARTS 1303	Art History I or any DMC Core Creative Arts Class	3	ARTS 1303	Art History I	3
MUSI 1310	American Music-History of Rock and Roll	3	MUSI 2310	History of Rock and Roll	3
American History – 6 credit hours					
HIST 1301	United States History I	3	HIST 1301	American History to 1877	3
HIST 1302	United States History II	3	HIST 1302	American History Since 1877	3
Government/Political Science – 6 credit hours					
GOVT 2305	Federal Government: Federal Constitution and Topics	3	POLS 2301	Govt. & Politics of U.S	3
GOVT 2306	Texas Government: Texas Constitution and Topics	3	POLS 2302	Govt. & Politics of Texas	3
Social and Behavioral Sciences – 3 credit hours (select one)					
ANTH 2302	Introduction to Archeology	3	ANTH 2301	Introduction to Archeology	3
ECON 2301	Principles of Macroeconomics	3	ECON 2301	Principles of Macroeconomics	3
ECON 2302	Principles of Macroeconomics	3	ECON 2302	Principles of Macroeconomics	3
PSYC 2301	General Psychology	3	PSYC 2301	Introduction to Psychology	3
SOCI 1301	Introduction to Sociology	3	SOCI 1301	Principles of Sociology	3
SOCI 1306	Social Problems	3	SOCI 1306	Social Problems	3
Component Area Option (Communication) – 3 credit hours					
<i>Various speech courses</i>	SPCH 1315, SPCH 1321	3	COMS 1315	Business and Professional Communication	3
Component Area Option (Other) – 3 credit hours (The one extra credit hour from the Mathematics Area is included here.)					
CHEM 1411	General Inorganic Chemistry I	4(1)	CHEM 1111	Gen. Inorganic Chem. I Lab (1)	1
MATH 2413	Calculus I	4 (1)	MATH 2413	Calculus I	4 (1)
PHYS 2425	University Physics I	4(1)	PHYS 2125	University Physics I Lab	1
TOTAL CREDIT HOURS		42	TOTAL CREDIT HOURS		42

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B. Other DMC courses that contribute to most (see notes in parentheses) engineering degrees at TAMUK

DMC Equivalents			TAMUK BS Engineering Courses		
Course Number	Title	Hours	Course Number	Title	Hours
ENGR 1201	Introduction to Engineering	2	UNIV 1101 and UNIV 1102	Learning in Global Context I and Learning in Global Context II	2
PHYS 2426	University Physics II	4 (3)	PHYS 2326	University Physics II	3
PHYS 2426	University Physics II	4 (1)	PHYS 2126	University Physics II Lab	1
MATH 2414	Calculus II	4	MATH 2414	Calculus II	4
MATH 2320	Differential Equations	3	MATH 3320	Differential Equations	3
MATH 2415	Calculus III	4	MATH 3415	Calculus III (<i>Math elective in Architectural Engineering and Civil Engineering; not required for Environmental Engineering and Natural Gas Engineering</i>)	4

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C. DMC courses meeting requirements for specific engineering degrees at TAMUK

The DMC courses listed below fulfill the corresponding TAMUK courses. There are a few instances – because of course content or a co-requisite requirement – in which a combination of DMC courses (or a single DMC course) with more credit hours is used to satisfy a single TAMUK course, thus causing the DMC student to take more credits than their peers at TAMUK. The student must decide (ideally with the advice of his/her DMC academic advisor and the TAMUK College of Engineering Academic Advisor) if this is in his/her best interest. DMC students always have the option of completing these courses at TAMUK rather than DMC to avoid accumulating the extra credit hours.

DMC Equivalents			TAMUK BS Engineering Courses		
Course Number	Title	Hours	Course Number	Title	Hours
Architectural Engineering					
BIOL 1406 or GEOL 1303	Biological Concepts I – Cellular and Molecular or Physical Geology	4 (3) or 3	BIOL 1306 or GEOL 1303	General Biology I or Physical Geology	<i>(science elective; select one)</i> 3
ENGR 1304	Engineering Graphics I	3	AEEN 1310	Computer-Based Graphics and Design I	3
ENGR 2301	Engineering Mechanics - Statics	3	CEEN 2301	Mechanics I - Statics	3
ENGR 2332	Mechanics of Materials	3	CEEN 3311	Strength of Materials	3
ENGR 2305	Electrical Circuits I	3	EEEN 3331	Circuits and EM Devices	3
ENGR 2308	Engineering Economics	3	CEEN 3317	Engineering Economy	3
ENGR 2334	Chemical Engineering Thermodynamics I	3	AEEN 3346	Thermal Analysis	3

Chemical Engineering						
BIOL 1406	Biological Concepts I – Cellular and Molecular	4 (3)	BIOL 1306	General Biology I		3
CHEM 1412	General Inorganic Chemistry II	4 (3)	CHEM 1312	Gen. Inorganic Chemistry II		3
CHEM 1412	General Inorganic Chemistry II	4 (1)	CHEM 1112	Gen. Inorganic Chem. II Lab		1
CHEM 2323	Organic Chemistry I	3	CHEM 3323	Organic Chemistry I		3
CHEM 2123	Organic Chemistry Laboratory I	1	CHEM 3123	Organic Chemistry I Lab		1
CHEM 2325	Organic Chemistry II	3	CHEM 3325	Organic Chemistry II		3
CHEM 2125	Organic Chemistry Laboratory II	1	CHEM 3125	Organic Chemistry II Lab		1
ENGR 2333	Elementary Chemical Engineering	3	CHEN 2371	Conservation Principles		3
ENGR 2334	Chemical Engineering Thermodynamics I	3	CHEN 3347	Chemical Engineering Thermodynamics I		3
Civil Engineering						
BIOL 1406 or GEOL 1303	Biological Concepts I – Cellular and Molecular or Physical Geology	4 (3) or 3	BIOL 1306 or GEOL 1303	General Biology I or Physical Geology	(<i>science elective; select one</i>)	3
ENGR 1304	Engineering Graphics I	3	AEEN 1310	Computer-Based Graphics and Design I		3
ENGR 2301	Engineering Mechanics - Statics	3	CEEN 2301	Mechanics I - Statics		3
ENGR 2302	Engineering Mechanics - Dynamics	3	MEEN 2302	Mechanics II (Dynamics)		3
ENGR 2332	Mechanics of Materials	3	CEEN 3311	Strength of Materials		3
ENGR 2304	Programming for Engineers	3	MEEN 1320	Elementary Numerical Methods & Engineering Problem Solving		3
ENGR 2305 or ENGR 2334	Electrical Circuits I or Chemical Engineering Thermodynamics I	3 or 3	EEEN 3331 or AEEN 3346	Circuits and EM Devices Or Thermal Analysis	(<i>special elective; select one</i>)	3 or 3
ENGR 2308	Engineering Economics	3	CEEN 3317	Engineering Economy		3
Electrical Engineering						
ENGR 2301 and ENGR 2302	Engineering Mechanics - Statics (3) and Engineering Mechanics - Dynamics (3)	6 (3+3)	MEEN 2355	Statics and Dynamics of Rigid Bodies	(<i>approved elective</i>)	3

ENGR 2304	Programming for Engineers	3	CSEN 2304	Introduction to Computer Science	3
Electrical Engineering, Continued					
ENGR 2305	Electrical Circuits I	3	EEEN 2323	Network Analysis I	3
ENGR 2308	Engineering Economics	3	CEEN 3317	Engineering Economy	3
ENGR 2406	Introduction to Digital Systems	4 (3)	EEEN 2340	Digital Logic Design	3
COSC 2325 and ENGR 2406	Computer Organization and Machine Language and Introduction to Digital Systems	3 and 4(1) (3+1)	EEEN 3449	Microprocessor Systems	4
Environmental Engineering					
BIOL 1406	Biological Concepts I – Cellular and Molecular	4 (3)	BIOL 1306	General Biology I	3
CHEM 1412	General Inorganic Chemistry II	4 (3)	CHEM 1312	Gen. Inorganic Chemistry II	3
CHEM 1412	General Inorganic Chemistry II	4 (1)	CHEM 1112	Gen. Inorganic Chem. II Lab	1
CHEM 2323	Organic Chemistry I	3	CHEM 3323	Organic Chemistry I	3
CHEM 2123	Organic Chemistry I Laboratory	3	CHEM 3123	Organic Chemistry I Lab	1
ENGR 1304	Engineering Graphics I	3	MEEN 1310	Computer Based Graphics and Design I	3
ENGR 2301 and ENGR 2302	Engineering Mechanics - Statics(3) and Engineering Mechanics - Dynamics (3)	6 (3+3)	MEEN 2355	Statics and Dynamics of Rigid Bodies	3
ENGR 2304	Programming for Engineers	3	EVEN 2304	Computer Methods for Environmental Engineering	3
ENGR 2308	Engineering Economics	3	CEEN 3317	Engineering Economy	3
Mechanical Engineering					
ENGR 1304	Engineering Graphics I	3	MEEN 1310	Computer Based Graphics and Design I	3
ENGR 2301	Engineering Mechanics - Statics	3	CEEN 2301	Mechanics I - Statics	3
ENGR 2302	Engineering Mechanics - Dynamics	3	MEEN 2302	Mechanics II (Dynamics)	3
ENGR 2332	Mechanics of Materials	3	CEEN 3311	Strength of Materials	3

ENGR 2304	Programming for Engineers	3	MEEN 1320	Elementary Numerical Methods & Engineering Problem Solving	3
ENGR 2305	Electrical Circuits I	3	EEEN 3331	Circuits/Electromagnetic Devices	3
Mechanical Engineering, Continued					
ENGR 2308	Engineering Economics	3	CEEN 3317	Engineering Economy	3
ENGR 2334	Chemical Engineering Thermodynamics I	3	MEEN 3347	Thermodynamics	3
Natural Gas Engineering					
CHEM 1412	General Inorganic Chemistry I	4 (3)	CHEM 1312	Gen. Inorganic Chemistry II	3
CHEM 1412	General Inorganic Chemistry I	4 (1)	CHEM 1112	Gen. Inorganic Chem. II Lab	1
CHEM 2323	Organic Chemistry I	3	CHEM 3323	Organic Chemistry I	3
CHEM 2123	Organic Chemistry I Lab	1	CHEM 3123	Organic Chemistry I Lab	1
GEOL 1303	Physical Geology	3	GEOL 1303	Physical Geology	3
GEOL 1103	Physical Geology Laboratory	1	GEOL 1103	Physical Geology Lab	1
ENGR 2301 and ENGR 2302	Engineering Mechanics - Statics(3) and Engineering Mechanics - Dynamics (3)	6 (3+3)	MEEN 2355	Statics and Dynamics of Rigid Bodies	3
ENGR 2332	Mechanics of Materials	3	CEEN 3311	Strength of Materials	3
ENGR 2334	Chemical Engineering Thermodynamics I	3	MEEN 3347	Thermodynamics	3