Pre-Engineering

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The Lee College Pre-Engineering program helps students focus on developing a fundamental knowledge of physics, chemistry, and mathematics, and provides an introduction to the study of engineering and engineering design.

In addition, students complete other general education classes in English, communication, the social sciences, and humanities in order to fulfill the core curriculum requirements. Lee College's Pre-Engineering program is specifically designed for those looking to transfer into a four-year engineering bachelor's degree program after completing their general education and preliminary math and science courses at Lee College.

What Will I Learn?

Students develop a fundamental understanding of physics, chemistry, and mathematics, and will receive a basic introduction to engineering as an academic and professional path, to the engineering design process, to engineering ethics and computation.

View Program Learning Outcomes

"What Can I Do With This Course of Study?"

With a Lee College Associate of Science Degree in Pre-Engineering, students can begin their pathway to a four-year engineering degree and a career in one of the nations leading industries.

- Petroleum Engineering
- Electrical Engineering
- Mechanical Engineering
- Industrial Engineering
- Aerospace Engineering
- Civil Engineering
- Biomedical Engineering

Degrees and Certificates

Associate of Science Degree in Pre-Engineering

Engineering Lamar Transfer Plan

Please note that MATH 1314 & MATH 2412 are pre-requisites for MATH 2413. This plan includes course options for transferring into an ENGINEERING BS program at Lamar University. The plan includes less than the 60 hours required for an Associate of Science. Students need to complete additional associate degree requirements or use reverse transfer to complete their Associate of Science.

Foundations: These are the courses students need in order to progress in their career/college pathway, as they either provide a certificate or lay the groundwork for moving to the next set of courses.

Lee College		Lamar University
Course	**Course Title**	**Counts Toward**
EDUC 1200	Learning Frameworks	ELECTIVE AT LAMAR
ENGL 1301	English Composition 1	ENGL 1301
MATH 2413	Calculus 1	MATH 2413
CHEM 1411	General Chemistry 1; Lecture and lab	CHEM 1111/1311
PHIL 1301	Introduction to Philosophy	PHIL 1370
ART 1301 or MUSI 1306	Art Appreciation or Music Appreciation	ART 1301 or MUSI 1306

Knowledge Building: These courses further the students' knowledge in the area of study and increase their preparation for the degree completion.

Lee College		Lamar University
Course	**Course Title**	**Counts Toward**
MATH 2414	Calculus 2	MATH 2414
PHYS 2425	University Physics 1; Lecture and lab	PHYS 2425
SPCH 1315	Principles of Public Speaking	COMM 1315
HIST 1301	History of the United States to 1877	HIST 1301
GOVT 2305	Federal Government	POLS 2301
MATH 2318	Linear Algebra	MATH 2318 OR 3328
ENGL 1302	English Composition II	ENGL 1302

Completion: These are the courses the student needs in order to complete the degree plan and prepare to enter the workforce.

Lee College		Lamar University
Course	**Course Title**	**Counts Toward**
PHYS 2426	University Physics 2; Lecture and lab	PHYS 2426
MATH 2415	Calculus 3	MATH 2415 OR 3435
HIST 1302	History of the United States since 1877	HIST 1302
GOVT 2306	Texas Government	POLS 2302
PSYC 2301 or SOCI 1301	Introduction to Psychology or Introductory Sociology	PSYC 2301 or SOCI 1301

Engineering Texas A&M University Transfer Plan

Please note that MATH 1314 & MATH 2412 are pre-requisites for MATH 2413. This plan includes course options for transferring into an ENGINEERING BS program at Texas A&M University.#The plan includes more than the 60 hours required for an Associate of Science and allows students to complete additional bachelor's degree requirements before transfer.

Foundations: These are the courses students need in order to progress in their career/college pathway, as they either provide a certificate or lay the groundwork for moving to the next set of courses.

Lee College		TAMU
Course	**Course Title**	**Counts Toward**
EDUC 1200	Learning Frameworks	NO EQUIVALENT AT TAMU
ENGL 1301	English Composition 1	ENGL 103
MATH 2413	Calculus 1	MATH 151
CHEM 1411	General Chemistry 1; Lecture and lab	CHEM 107/117 or CHEM 119
ECON 2301OrECON 2302	Principles of Economics: Macroeconomics Principles of Economics: Microeconomics	ECON 203 or ECON 202
HIST 1301	History of the United States to 1877	HIST 105
SPCH 1315	Principles of Public Speaking	COMM 203

Knowledge Building: These courses further the students' knowledge in the area of study and increase their preparation for the degree completion.

Lee College		TAMU
Course	**Course Title**	**Counts Toward**
MATH 2414	Calculus 2	MATH 152
PHYS 2425	University Physics 1; Lecture and lab	PHYS 206
CHEM 1412	General Chemistry 2; Lecture and lab	CHEM 120
HIST 1302	History of the United States since 1877	HIST 106
GOVT 2305	Federal Government	POLS 206
ARTS 1303 or 04	Art History 1 or Art History 2	ARTS 149 or 150
ENGL 2311	Technical Writing	ENGL 210

Completion: These are the courses the student needs in order to complete the degree plan and prepare to enter the workforce.

Lee College		TAMU

Course	Course Title	Counts Toward
MATH 2415	Calculus 3	MATH 253
PHYS 2426	University Physics 2; Lecture and lab	PHYS 207
MATH 2320	Differential Equations	MATH 308
GOVT 2306	Texas Government	POLS 207

Engineering University of Houston Transfer Plan

Please note that MATH 1314 & MATH 2412 are pre-requisites for MATH 2413. This plan includes course options for transferring into an ENGINEERING BS program at the University of Houston. The plan includes more than the 60 hours required for an Associate of Science and allows students to complete additional bachelor's degree requirements before transfer.

There are many options in the field of engineering at the University of Houston. Students should discuss further course options with their advisor based on specific engineering programs.

Foundations: These are the courses students need in order to progress in their career/college pathway, as they either provide a certificate or lay the groundwork for moving to the next set of courses.

Lee College		UH Main Campus
Course	**Course Title**	**Counts Toward**
EDUC 1200	Learning Frameworks	NO EQUIVALENT AT UH MAIN
ENGL 1301	English Composition 1	ENGL 1301
ENGR 1201	Introduction to Engineering	ENGR 1201
CHEM 1411	General Chemistry 1; Lecture and lab	CHEM 1111/1311
MATH 2413	Calculus 1	MATH 1431
ECON 2302	Principles of Economics: Microeconomics	ECON 2302
SPCH 1318	Interpersonal Communication	COMM 1333

Knowledge Building: These courses further the students' knowledge in the area of study and increase their preparation for the degree completion.

Lee College		UH Main Campus
Course	**Course Title**	**Counts Toward**
MATH 2414	Calculus 2	MATH 1432
PHYS 2425	University Physics 1; Lecture and lab	PHYS 1121/1321
ENGL 1302	English Composition 2	ENGL 1302
CHEM 1412	General Chemistry 2; Lecture and lab	CHEM 1112/1312
ARTS 1304	Art History 2	ARTS 1304

HIST 1301	History of the United States to 1877	HIST 1377
GOVT 2305	Federal Government	GOVT 2305

Completion: These are the courses the student needs in order to complete the degree plan and prepare to enter the workforce.

Lee College		UH Main Campus
Course	**Course Title**	**Counts Toward**
MATH 2415	Calculus 3	MATH 2415
PHYS 2426	University Physics 2; Lecture and lab	PHYS 1122/1322
HIST 1302	History of the United States since 1877	HIST 1378
GOVT 2306	Texas Government	GOVT 2306
PHIL 1301	Introduction to Philosophy	PHIL 1301

Engineering UHCL Transfer Plan

Please note that MATH 1314 & MATH 2412 are pre-requisites for MATH 2413. The remainder of the plan includes course options for transferring into an ENGINEERING BS program at the University of Houston-Clear Lake. The plan includes more than the 60 hours required for an Associate of Science and allows students to complete additional bachelor's degree requirements before transfer.

Foundations: These are the courses students need in order to progress in their career/college pathway, as they either provide a certificate or lay the groundwork for moving to the next set of courses.

Lee College		UHCL
Course	**Course Title**	**Counts Toward**
EDUC 1200	Learning Frameworks	PSYC 1100
ENGL 1301	English Composition 1	WRIT 1301
MATH 2413	Calculus 1	MATH 2413
ENGR 1201	Introduction to Engineering	ENGR 1201
CHEM 1411	General Chemistry 1; Lecture and lab	CHEM 1111/1311
SPCH 1315	Principles of Public Speaking	COMM 1315

Knowledge Building: These courses further the students' knowledge in the area of study and increase their preparation for the degree completion.

Lee College		UHCL
Course	**Course Title**	**Counts Toward**
PHYS 2425	University Physics 1; Lecture and lab	PHYS 2125/2325
MATH 2414	Calculus 2	MATH 2414
ENGL 1302	English Composition 2	WRIT 1302

HIST 1301	History of the United States to 1877	HIST 1301
GOVT 2305	Federal Government	POLS 2305
ECON 2301	Principles of Economics: Macroeconomics	ECON 2301
HUMA 1301	Introduction to Humanities	HUMN 1301

Completion: These are the courses the student needs in order to complete the degree plan and prepare to enter the workforce.

Lee College		UHCL
Course	**Course Title**	**Counts Toward**
PHYS 2426	University Physics 2; Lecture and lab	PHYS 2126/2326
MATH 2415	Calculus 3	MATH 2415
MATH 2318	Linear Algebra	MATH 2318
HIST 1302	History of the United States since 1877	HIST 1302
GOVT 2306	Texas Government	POLS 2306
ARTS 1303 or 04	Art History 1 OR Art History 2	ARTS 1303 or 1304
MATH 2320	Differential Equations	MATH 2320

CAREERS
tN ENGINEERING
My Next Move

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