Engineering Technology

A Lone Star Energy & Manufacturing Institute Program

Engineering Technology

Men and women working as engineering technicians complete highly technical tasks that require engineering skills and knowledge. Interdisciplinary fields of engineering are rapidly developing to address the design, operation and maintenance of products that require a working knowledge of both mechanical and electronic components.

What is an engineering technician?

An engineering technician installs and maintains production oil field service equipment, robots, automated manufacturing machines, oil field pumps, gas pumps, and security systems. Engineering technicians are required to work on and with equipment integrating electronics, mechanics, pneumatics, hydraulics and computer controls. The engineering technology program is part of the Lone Star Energy & Manufacturing Institute, which teaches a combination of skills that prepare students to perform many different jobs in industries including petroleum-field services and automated manufacturing.

Is financial aid available?

The Office of Financial Aid (LoneStar.edu/financial-aid) offers various forms of financial assistance. Contact the Office of Financial Aid for details and to apply for financial assistance and scholarship opportunities.

How can I get more information?

To learn more about this and other related programs at Lone Star College, such as CNC and manual machining, welding, supervision/management, logistics, and languages, go to LoneStar.edu/programs-classes.

For more information:

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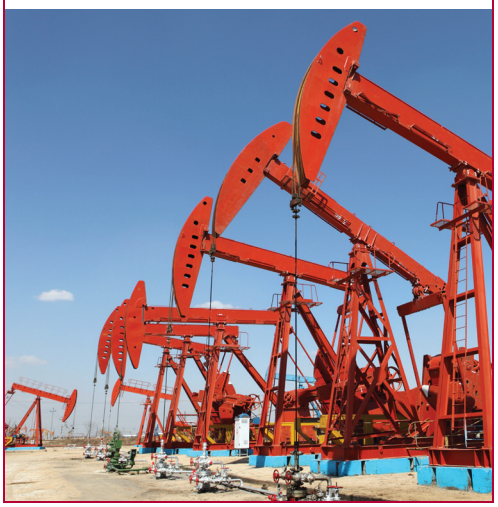
Lone Star College

Opportunities

Our engineering technology programs prepare graduates for a variety of careers in the oil and gas and energy industries, especially in Houston, which has been called the energy capital of the U.S.



Engineering Technology At-a-Glance

Earning Potential

- The median salary for these types of jobs is approximately $53,200/year.

Job Forecast

- In Texas, projections show that there will be a 14 percent increase in engineering technology careers (between 2008 and 2018).
- Coursework aligned with MSSC national industry certification.
- Customized training for all competencies available through Lone Star Corporate College.

Program Description

Lone Star College offers two program options: Academic Credit Track and Career Track:

Academic Credit Track Program

Students who would like to earn their Associate in Applied Science (AAS) degree begin by completing the Engineering Technician Level I Certification program.

Common Core:
Engineering Technician (Level I Certification)

	Rubric	Course #	Credit Hours
Special Topics in Petroleum	PTRT	1191	1
Machine Shop Math	MCHN	1343	3
Blueprint Reading & Sketching	DFTG	1325	3
DC/AC Circuits	CETT	1409	4
Hydraulics and Pneumatics	HYDR	1345	3
Motor Controls	IEIR	1310	3
Pumps, Compressors & Mechanical Drives	INMT	2303	3
Programmable Controllers	RBTC	1401	4
Material Handling	OSHT	1316	3
Principles of Automatic Control	INTC	1341	3
	Level I Certification Total		**30**

After completing their Level I Certification, students can obtain an entry-level position in the workforce, or may choose one of two tracks to build on their skills and complete a Level II Certification:

- Automated Manufacturing Technician
- Petroleum Field Service Technician

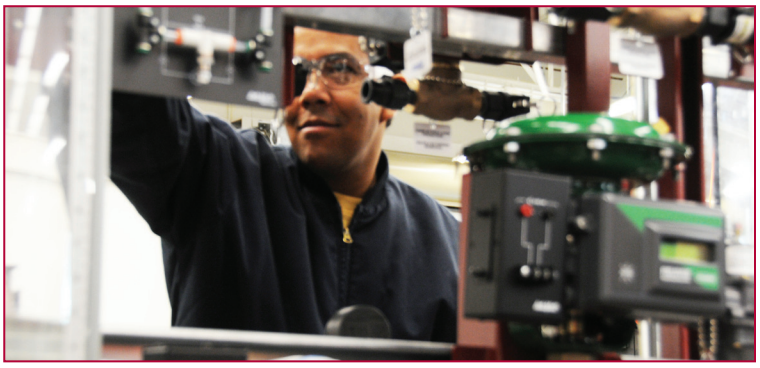
Track A:
Automated Manufacturing Tech Track (Level II Certification)

	Rubric	Course #	Credit Hours
Field Reports & Data Transfer	POFI	1270	2
Manufacturing Processes	MCHN	1319	3
Intro to Computers	ITSC	1401	4
Any KINE Course	KINE		1
Electromechanical Systems	ELMT	2341	3
Internship Manufacturing Technician	INMT	2388	3
Robotic Fundamentals	RBTC	1305	3
Industrial Automation	INMT	1417	4
Intro to Speech Communications	SPCH	1311	3
	Level II Certification Total		**56**

Finally, after completing their Level II Certification in their respective track, students can go into the workforce or may choose to complete general education courses and a capstone to earn their AAS degree:

Additional Courses to Earn AAS degree
Automated Manufacturing Tech Track

	Rubric	Course #	Credit Hours
English	ENGL	1301	3
College Algebra	MATH	1314	3
Principles of Sociology	SOCI	1301	3
Humanities/Fine Arts Requirement			3
Industrial Electronics	ELMT	2433	4
	AAS Degree Total		**72**



Track B:
Petroleum Field Service Tech Track (Level II Certification)

	Rubric	Course #	Credit Hours
Field Reports & Data Transfer	POFI	1270	2
Intro to Petroleum Industry	PTRT	1301	3
Intro to Computers	ITSC	1401	4
Any KINE Course	KINE		1
Special Topics in Petroleum Technology	PTRT	1391	3
Co-op - Petroleum Technician	PTRT	2380	3
Petroleum Regulations	PTRT	1312	3
Petroleum Instrumentation	PTRT	1424	4
Intro to Speech Communications	SPCH	1311	3
	Level II Certification Total		**56**

Finally, after completing their Level II Certification in their respective track, students can go into the workforce or may choose to complete general education courses and a capstone to earn their AAS degree:

Additional Courses to Earn AAS degree
Petroleum Field Service Tech Track

	Rubric	Course #	Credit Hours
English	ENGL	1301	3
College Algebra	MATH	1314	3
Principles of Sociology	SOCI	1301	3
Humanities/Fine Arts Requirement			3
Drilling	PTRT	1303	3
	AAS Degree Total		**71**

Career Track Program

The Engineering Technician career track certification program is an introduction to the field designed to provide the student with basic prerequisite knowledge needed for entry level positions in petroleum field services and advanced manufacturing facilities.

Engineering Technician (Level I Certification)

	Rubric	Course #	Contact Hours
DC/AC Circuits	CETTC	2100901	96
Hydraulics and Pneumatics	HYDRC	2104504	96
Blueprint Reading and Sketching	DFTGC	2102503	64
Machine Shop Mathematics	MCHNC	2104305	64
		Total	**320**