

Interdisciplinary Engineering

Interdisciplinary Engineering is a broad major where students learn and apply multiple studies and minors. These studies can include but not be limited to entrepreneurship, law, and other minors. Discarding traditional academic boundaries resides at the core of this major. This learning approach approach is beneficial for those that pursue it because it mirrors how industries and engineering sectors often must blend together to work on different pieces of a common goal. For example, when creating a sympathetic limb for a patient, it takes several people from multiple backgrounds to complete the task, and some of these people may specialize in multiple backgrounds such as mechanical and biomedical engineering. These people are very necessary, as they are able to help design the mechanical functions of the limb while also having the knowledge of that specific limb's anatomy. While this is a rather oversimplified example, it demonstrates that very few of the things that is created in society only require a single engineering discipline.

Moreover, as previously mentioned, interdisciplinary engineering extends its scope far outside the branches of engineering. For this reason, those who are admitted into the major are allowed to design their own degree plan to tackle their academic and professional paths however they wish. This is of major benefit to those who wish to pursue a specific pathway that requires extensive knowledge from multiple studies, and it basically allows them to create degree plans that did not exist previously. Alternatively, students within this major are allowed to select pre-designed tracks that were specifically created by the department to fulfill a need within the industry. With all of this put together, those that sign up for this major are given a great amount of flexibility while being able to maintain the depth and scope of other majors.

Petroleum Engineering

Petroleum engineering is a very critical field to go into due to the crucial role that petroleum engineers undertake to provide energy for society. Petroleum engineers are responsible for locating oil reserves and identifying ways to extract and process the oil. Furthermore, petroleum engineers perform these actions while keeping the health of the environment and potential geological impact in mind. Petroleum engineering itself can be split into several parts, since engineers preside over the different steps of extracting oil. For instance, reservoir engineers are the ones who locate oil in the ground using geographical knowledge while drill engineers are the ones who actually drill the hole and work to extract the oil. There are roles further down the oil refining process as well including, those who oversee the production of the refined product and those who manage the economics of the commodity.

A reason why it is wise to consider a career in petroleum engineering is due to the fact that oil and gas usage is expected to grow in the coming decades while other sources of energy like nuclear and renewables will likely still maintain a small part of the market share. The petroleum engineering program at Texas A&M utilizes finance, business, economic, and the other social sciences in combination with the typical engineering courses, since most of not all of these skills are used very heavily within the industry. Once in the industry, due to the lucrative nature of the commodity that is oil, the median starting salary of petroleum engineers are quite higher than other engineering types. Not that salary alone should be the reason for seeking out an occupation, but petroleum engineering is a very good field to go into.