PETROLEUM ENGINEERING

University of Louisiana at Lafayette

COLLEGE OF ENGINEERING

BACHELOR'S DEGREE IN PETROLEUM ENGINEERING WITH A

SMART OILFIELD CONCENTRATION

The oil and gas industry has undergone a significant transformation in recent years. Today, the process integrates a system of sensors, networks, and integrated operations that continuously generate and communicate field, and data analyses. The college has developed a new concentration to prepare students to operate a smart oilfield. This program is the first of its kind in the nation which will address the student demand to meet employer needs.

> Petroleum engineering graduates with a concentration in smart oilfield will possess the knowledge and skills needed to contribute to a more sustainable, safe, and environmentally friendly oil production.

The smart oilfield concentration will develop student's skills and competencies by integrating the current petroleum engineering program's sub-surface expertise with smart drilling, machine learning, and data analytics for more cost-efficient oil exploration, production, and management. Smart oilfield will provide technical background and skills in coding, statistics, machine learning, and specialized software to provide training in automation, predictive capabilities, safety, environmental sustainability, and economic feasibility of oil and gas exploration operations.

WHY A SMART OILFIELD CONCENTRATION?

A recent study published by the Journal of Petroleum Technology, entitled *As Industry Changes, So Does Petroleum Engineering Education*, shows that:

> *"The next generation of petroleum engineers will have to address demands for sustainability, lower carbon intensity, and needs for radical productivity improvements, which only artificial intelligence (AI) and digital can drive. This suggests that we will need to revisit university education for petroleum engineers and all aspects of career development and training."*

PETROLEUM ENGINEERING IS TRAINING COMPETENT AND RELEVANT COLLEGE GRADUATES WITH DOMAIN EXPERTISE TO JOIN THE INDUSTRY.

CONTACT US
petroleum.louisiana.edu

UNIVERSITY *of* LOUISIANA LAFAYETTE | Engineering

PETROLEUM ENGINEERING
University of Louisiana at Lafayette
COLLEGE OF ENGINEERING

WHY UL LAFAYETTE PETROLEUM ENGINEERING?

Our Petroleum Engineering program ranks among the top in the nation and is recognized across the globe.

It is the only academic program in the U.S. providing education and training for students to demonstrate compliance with the International Association of Drilling Contractors' Well Sharp Certification, an industry standard credential that ensures knowledge of cost and efficiency optimization and risk minimization during drilling operations.

Our smart oilfield concentration will enable the college to continually produce highly skilled, prepared, and future-focused petroleum engineers ready to meet the future demands for the oil and gas industry.
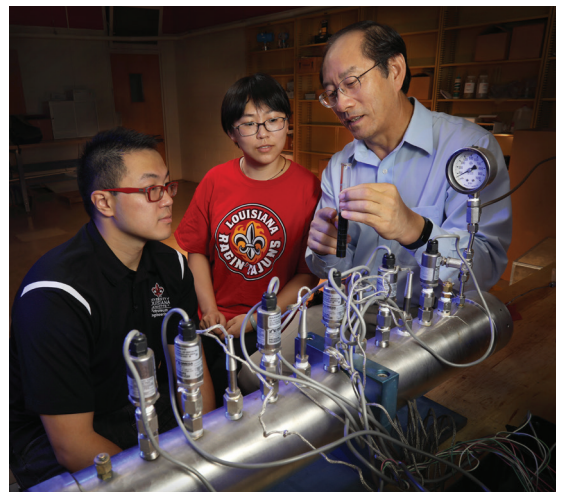

DEGREE REQUIREMENTS

The smart oilfield concentration in petroleum engineering has a total of 137 hours. It adds courses in programming, statistics, machine learning, smart drilling, and other computationally intensive courses to the traditional petroleum engineering program. It is designed to support new digital strategies using artificial intelligence and machine learning trends in exploration, production, optimization of supply chains, carbon sequestration, and other engineering applications.

MAJOR SOFTWARE SYSTEMS

The Petroleum Engineering department incorporates software systems from Halliburton, Datagration Solutions, Inc., and Schlumberger into the curricula.