

**University of Southern California**  
**VITERBI SCHOOL OF ENGINEERING**

Master of Science in Petroleum Engineering (Smart Oilfield Technologies)  
Program Learning Objectives

The purpose of the USC Viterbi School of Engineering Master of Science program in Petroleum Engineering (Smart Oilfield Technologies) is to prepare students for careers in the oil and gas industries, and specifically, smart oilfield monitoring and operation. This technology relies on the most advanced technologies available, including computing methods for data integration and analysis of uncertainty; sensor technology; networks and data transmission; smart oilfield data mining; and remote immersive visualization and control. Students gain the tools and knowledge to meet the new demands of today's smart oilfield operations. The learning objectives for the Master of Science degree program in Petroleum Engineering (Smart Oilfield Technologies) are:

- Upon completion of the USC Master of Science degree program in Petroleum Engineering (Smart Oilfield Technologies), students will be able to obtain employment in organizations that have at their core functions intelligent oilfield telemonitoring, feedback, and resource management.
- Upon completion of the USC Master of Science degree program in Petroleum Engineering (Smart Oilfield Technologies), students will be able to engage in continuous personal and professional development through life-long learning.
- Upon completion of the USC Master of Science degree program in Petroleum Engineering (Smart Oilfield Technologies), students will be able to assume leadership roles in their employment organization and related professional societies.