

**Sequence Stratigraphy** (3 credit hours): This course is designed to provide a basic understanding of sequence stratigraphy. Covers the use of seismic reflection data to study lithology, geometry, and depositional history of sedimentary bodies; factors affecting resolution and velocity; and new techniques for identifying lithologies. Integrates current concepts on interaction of tectonics, sea level and sediment supply to generate predictive models for architecture of sedimentary basin fill.

#### **Course Outline**

1. Basic Concepts and Terminology of Sequence Stratigraphy
2. The Stratigraphic Building Blocks of Depositional Sequences
3. Recognition Criteria for the Identification of Depositional sequences and their Components in Outcrops, Cores, Well Logs, and Seismic
4. The Application of Sequence Stratigraphy in Non-marine, Shallow Marine, and Submarine Depositional Settings