The first part of the course introduces the physical systems affecting the processes used by the exploration and production industry—hydrocarbon generation and trapping, mineral ownership, exploration, drilling, development, production, problem remediation, reserve estimation and reporting, financing, onshore and offshore activities, natural gas processing, and an E & P approach to strategy development. The second half of the course covers effective decision-making, illustrated with case studies of various capital investment decision for an upstream project over the life of the field. The case studies are designed to display the challenges that arise when attempting to invest capital and fund projects to achieve business objectives.