Energy Management

**ENGY 3300** Introduction to Energy Technology (3 semester credit hours) This course introduces different energy resources (oil, gas, coal, nuclear, wind, solar) and covers technology related to discovering/inventing and exploiting resources, transportation of these resources and their conversion from one form to another. Business processes involved in energy supply chain from resource discovery to end user sales will be examined. Costs incurred and revenues made in the process are also discussed. (Same as MECO 3300) (3-0) Y

**ENGY 3301** Managing Carbon Assets: Oil, Gas, and Coal (3 semester credit hours) This course deals with the U.S. and international business of the hydrocarbon industries. Managing upstream, midstream and downstream projects and operations in the oil, gas, and coal industries are studied. Students taking this class review the economic, financial, geological, processing, operational, marketing, production, transportation, refining, and exploration/mining phases of these hydrocarbon industries. Students will experience site visits to a coal mining operation, drill site, and power plant. Energy is the business of Texas, and it is of critical importance to the United States and the World. This course will challenge students to consider careers in energy industries. (3-0) Y

**ENGY 3302** Managing Power and Renewable Energy Assets; Sustainability (3 semester credit hours) This course deals with the U.S. and international business of renewable energy and sustainability challenges. It covers the power (electricity), solar, wind, nuclear, and other renewables industries. It also deals with issues of sustainability. Students taking this class study the economic, financial, manufacturing, research and development, operational, and marketing phases of these industries. Students will experience site visits to a solar farm and state of the art power plant. This course challenges students to consider careers in the renewable energy industries, with an emphasis on sustainability in the environment. (3-0) Y

**ENGY 3330** Energy Economics (3 semester credit hours) This course builds on topics of market structure, competition, and optimal decision-making presented in intermediate microeconomics. Students gain an advanced understanding of the economic decisions faced by energy producers and consumers in today's society and learn to evaluate incentives faced by industry players and identify causes of and solutions to market inefficiencies. Topics include optimal resource depletion, competitive strategies and incentives for anti-competitive behavior, energy and environmental policy, and energy risk. Prerequisite: ECON 2302. (Same as MECO 3330) (3-0) Y

**ENGY 3340** Energy Law and Contracts (3 semester credit hours) This course provides an introductory overview of current topics in energy law and policy. Topics include regulation of various energy resources and electric utilities, energy security, energy trade, and environment, as well as the evolving relationship between policy and markets. Prerequisite: **ENGY 3300.** (Same as MECO 3340) (3-0) R

**ENGY 4300** Energy Land Management (3 semester credit hours) This course is designed to give students a keen understanding of the important role that land law and management practices have for energy industry participants. The course begins by presenting land management activities within the broader energy supply chain and relating their importance to upstream and downstream activities, and then proceeds to a combination of practical experience analyzing Texas land leases and classroom case studies of mineral property rights, lease structure and acquisition, title transfers and recordation, and more. Prerequisite: OPRE 3310. (Same as MECO 4 300) (3-0) R

**ENGY 4313** Energy Finance (3 semester credit hours) Builds on foundations of business finance to develop a
methodology for evaluating energy-related investment decisions. Particular emphasis is put on decisions under regulatory and market uncertainty, technology-facilitated substitutability, resource depletion, and real options analysis. Case studies are drawn from the oil, natural gas, electricity, and renewables sectors. Prerequisite: FIN 3320. (Same as FIN 4313) (3-0) Y