Natural Gas Engineering (NGEN)

NGEN 5303 Advncd Topics in Nat Gas Engin **1-3 SCH (1-3-0)**
One or more advanced topics. May be repeated for a maximum of 6 semester hours when topic changes.

NGEN 5305 Graduate Research Project **3 SCH (3)**
Designed for project option students and requires completion of research project. Prerequisite: departmental approval. May be repeated for a maximum of 6 semester hours.

NGEN 5306 Thesis **3 SCH (3)**
Designed for thesis option students. The course requires completion of thesis research. Prerequisite: departmental approval. May be repeated for maximum of 6 semester hours.

NGEN 5309 Separation Process **3 SCH (3-0)**
A basic understanding of the concepts underlying the solution, behavior and computation of separation processes is stressed. Both staged and continuous separation methods are considered. (Credit may not be obtained in both NGEN 5309 and CHEN 5309.)

NGEN 5312 Pressure Transient Analysis **3 SCH (3-0)**
Methods of analysis of pressure transient data obtained from well testing for the purpose of determining in situ reservoir characteristics and conditions.

NGEN 5325 Nat Gas Prod and Distribution **3 SCH (3-0)**
Theory, design and methods of gas well testing and production. Distribution topics include pipeline and compressor design and flow measurement. Prerequisite: NGEN 4375.

NGEN 5327 Nat Gas Drilling Engineering **3 SCH (3-0)**
Drilling equipment and methods, drilling fluids, completion of wells including casing and cementing design. Prerequisite: NGEN 3393.

NGEN 5336 Rheology **3 SCH (3-0)**
The study of non-Newtonian fluid flow behavior. Designed to provide a comprehensive understanding of theoretical as well as practical aspects of the flow of non-Newtonian fluids. (Credit may not be obtained in both NGEN 5336 and CHEN 5336.)

NGEN 5360 Advanced Nat Gas Processes **3 SCH (3-0)**
Study of the latest processes that are utilized in the natural gas industry. It includes analysis, design and optimization of various natural gas processes with considerations of economics, environmental and safety aspects. (Credit may not be obtained in both NGEN 5360 and CHEN 5360.)

NGEN 5363 Advanced Reservoir Engineering **3 SCH (3-0)**
Phase relations of hydrocarbon systems, material balance methods, flow in reservoirs and displacement of gas. The application of computers to reservoir engineering.

NGEN 5387 Quantitative Well Log Analysis **3 SCH (3-0)**
Theory of special well-logging techniques and applications.

NGEN 5401 Advanced Probs in Nat Gas Engi **1-4 SCH (1-4)**
Individual or group research on advanced problems conducted under the supervision of a faculty member. Maximum credit of 8 semester hours.