The Engineering Management program is a graduate program which offers both Master and Ph.D. degrees. The program is administered by the Engineering Management Department in the College of Engineering at the University of New Orleans. The two degrees offered are (1) the Master of Science in Engineering Management and (2) the Ph.D. in Engineering and Applied Science. The Engineering Management program was developed to meet the needs of practicing engineers. The Master and Ph.D. Engineering Management programs are designed specifically for engineers who need to improve their interdisciplinary skills. The Master's program is primarily intended for engineers who wish to remain in their engineering area of expertise but need to improve their managerial skills and their understanding of business practices. The Ph.D. program is primarily intended for engineers who want to be able to understand how to use technology as a competitive advantage and to be able to use advanced methods to achieve that end.
MASTER OF SCIENCE IN ENGINEERING MANAGEMENT

There are two options available for the degree of Master of Science in Engineering Management, the non-thesis option and the thesis option.

Non-thesis Option: Completion of 33 credit hours including 18 credit hours of required core courses and 3 credit hours for a capstone course. The remaining 12 credit hours may be selected from approved electives.

Thesis Option: Completion of 30 credit hours including a minimum of 6 credit hours of thesis research, and 18 credit hours of required core courses. The remaining 6 credit hours may be selected from approved electives.

TYPICAL CORE COURSES

The core courses are designed to insure that the student is well grounded in engineering management and business principles. Some core courses are divided into modules and are typically team taught to make available the best resource for the topic. Examples of typical core courses are indicated below:

ENMG 6101 Engineering Management I
- Finance
- Strategic Marketing
- Information Systems
- Communications

ENMG 6102 Engineering Management II
- Human Resources
- Legal Aspects
- Total Quality
- Ethics

ENMG 6120 Project Management
- Organization
- Planning
- Control

TYPICAL ENGINEERING ELECTIVE COURSES

Engineering Electives selected for inclusion in the Engineering Management program are courses normally offered in specific engineering disciplines, but typically have management or business elements. Examples of such electives are:

ENCE 6325 Solid Waste Management
NAME 4132 Management of Ship Life Cycle
ENMG 6130 Management of Technology Change

TYPICAL NON-ENGINEERING ELECTIVE COURSES

Non-engineering electives are generally provided by the College of Business which fit the Engineering Management program.

MANG 6407 Management of Technology and Innovation
MANG 6478 Management Information Systems
QMBE 6780 Operations Research

CONCENTRATIONS

The Master of Science program allows for the election of concentrations. A concentration indicates that you have taken sufficient courses (9 of the 12 elective credit hours) in a specific area to merit a Concentration Certificate. The Concentration Certificate is issued by the Associate Dean for Research and Graduate Affairs in the College of Engineering. Concentrations are allowed in the following areas: Civil and Environmental Engineering, Electrical Engineering, Mechanical Engineering, Naval Architecture and Marine Engineering, Finance, International Business, Human Resource Management, Management of Information Systems.
PH.D. in Engineering and Applied Sciences

Engineering Management Candidates may enter the Ph.D. in Engineering and Applied Sciences program after completing an approved undergraduate degree in engineering or after completing a Master's degree which is relevant to the doctoral program or have a Master's degree in engineering and industry experience which is relevant to the doctoral program. A relevant degree would be in engineering management or a closely allied discipline (i.e., systems engineering, industrial engineering, manufacturing engineering, etc.).

Students entering after undergraduate completion will take a sequence of courses that closely parallels the required courses for the Master's degree. Note in this case the candidate may receive both a Masters and Ph.D.

21 additional hours are required beyond the Master's degree. 9 of those hours must be taken in the College of Science. Examples of typical College of Science electives for ENMG students are shown below:

MATH 6301 Applied Statistics
MATH 6304 Regression Analysis
CSCI 6602 Expert Systems
CSCI 6450 Principles of Distributed Systems

Students entering the program after completing a Master's degree, which is relevant to the doctoral program or have a Master's degree in engineering and industry experience which is relevant to the doctoral, should take the following suggested courses. A relevant degree would be in engineering management or a closely allied discipline (i.e., systems engineering, industrial engineering, manufacturing engineering, etc.).

ENMG 6102 Special topics; law, ethics, HR, quality
ENMG 6111 Finance & Managerial Accounting
ENMG 6120 Project Management
ENMG 6130 Management of Technology
MATH 6301 Applied Statistics
MATH 6304 Regression Analysis
CSCI 6602 Expert Systems

*These are required courses, the remaining two are electives.

Note (1) In addition to the 21 hours, the candidate must take beyond the Master's level, they must take 30 hours (ENMG 7000) of dissertation related work.

Note (2) Depending on the industry related experience and the area of concentration for the dissertation, additional courses beyond the above minimum may be required.

Research Areas

The Engineering Management faculty are active in research in most of the core and specialty areas listed in this brochure. This offers students the opportunity to do state-of-the-art research in engineering management as part of their dissertations.

Admission Requirements

Candidates for the Master of Science in Engineering Management program must meet the general University of New Orleans criteria for admission to graduate school and have a GRE score (verbal and quantitative sections) of 1100 and a TOFEL score of 550 (paper) or 213 (computer). Students admitted into the Master of Science of Engineering Management must possess an undergraduate degree in engineering. Students without an engineering degree must complete a core foundation of general engineering studies and all prerequisites to these courses, or by passing equivalent credit examinations. A full listing of these courses can be obtained from:

Associate Dean for Graduate Programs and Research
College of Engineering
University of New Orleans
New Orleans, LA 70148

Candidates for the Ph.D. in Engineering and Applied Sciences must possess an undergraduate or a Master's degree in engineering. Candidates for the Ph.D. in Engineering and Applied Sciences program must meet the general University of New Orleans criteria for admission to graduate school and have a GRE score (verbal and quantitative sections) of 1200 and a TOFEL score of 550 (paper) or 213 (computer).