

ETMG - ENGINEERING TECH MGMT (ETMG)

ETMG U320 Engineering Cost Analysis 4 Credit Hours

Engineering economics and financial analysis of prospective alternatives. Lab includes analysis techniques, use of modeling tools, and applications of techniques toward real-world problems. Occasional off-campus laboratory sessions may be required. Three class and three laboratory hours per week.

Prerequisite(s): MATH U127 and admission to the ETM program (within 12 hours of Associate degree completion); or consent of instructor.

Corequisite(s): ETMG U320L.

ETMG U320L Engineering Cost Analysis Lab 0 Credit Hours

Engineering economics and financial analysis of prospective alternatives. Lab includes analysis techniques, use of modeling tools, and applications of techniques toward real-world problems. Occasional off-campus laboratory sessions may be required. Three class and three laboratory hours per week.

Prerequisite(s): MATH U127 and admission to the ETM program (within 12 hours of Associate degree completion); or consent of instructor.

Corequisite(s): ETMG U320.

ETMG U330 Engineering Work Analysis 4 Credit Hours

Techniques for operation analysis, work measurement, and work sampling. Major topics include human factors, work design principles, work environment, economic justification, work measurement and the design process. Predetermined basic motion-time systems and standard data development are introduced. Occasional off-campus laboratory sessions may be required. Three class and three laboratory hours per week.

Prerequisite(s): MATH U127 and admission to ETM program (within 12 hours of Associate degree completion); or consent of instructor.

Corequisite(s): ETMG U330L.

ETMG U330L Engineering Work Analysis Lab 0 Credit Hours

Techniques for operation analysis, work measurement, and work sampling. Major topics include human factors, work design principles, work environment, economic justification, work measurement and the design process. Predetermined basic motion-time systems and standard data development are introduced. Occasional off-campus laboratory session may be required. Three class and three laboratory hours per week.

Prerequisite(s): MATH U127 and admission to ETM program (within 12 hours of Associate degree completion); or consent of instructor.

Corequisite(s): ETMG U330.

ETMG U370 Systems Decision Making 4 Credit Hours

Systems analysis mathematical models, environmental factors, operations research methodologies, dynamic systems and the application of a variety of computer tools. Occasional off-campus laboratory sessions may be required. Three class and three laboratory hours per week.

Prerequisite(s): ETMG U320, ECON U291, MATH U141, or consent of instructor.

Corequisite(s): ETMG U370L.

ETMG U370L System Decision Making Lab 0 Credit Hours

Systems analysis mathematical models, environmental factors, operations research methodologies, dynamic systems and the application of a variety of computer tools. Occasional off-campus laboratory sessions may be required. Three class and three laboratory hours per week.

Prerequisite(s): ETMG U320, ECON U291, MATH U141, or consent of instructor.

Corequisite(s): ETMG U370.

ETMG U395 Internship 1-3 Credit Hours

Supervised practical experience related to the Engineering Technology Management field in an elected setting planned in conjunction with the relevant ETM faculty. Pass/Fail credit.

Prerequisite(s): Junior standing and consent of instructor.

ETMG U398 Special Topics 3 Credit Hours

Selected topics in Engineering Technology Management. Topics vary depending on faculty expertise. This course may be repeated for credit if the topic is different.

Prerequisite(s): Junior standing, or consent of instructor.

ETMG U399 Independent Study 1-3 Credit Hours

A planned individual research experience carried out in conjunction with an Engineering Technology Management faculty member. Course may be repeated for a total of no more than three hours of undergraduate credit.

Prerequisite(s): Consent of instructor.

ETMG U410 Engineering Teams Theory and Practice 4 Credit Hours

Methods of understanding, planning, and presenting information in oral and written formats while working in an engineering team setting. Occasional off-campus laboratory sessions may be required. Three class and three laboratory hours per week.

Prerequisite(s): ETMG U320, ETMG U330, or consent of Program Coordinator.

Corequisite(s): ETMG U410L.

Pre/Corequisite(s): Technical communications support course or consent of instructor.

ETMG U410L Engineering Teams Theory and Practice Laboratory 0 Credit Hours

Methods of understanding, planning, and presenting information in oral and written formats while working in an engineering team setting. Occasional off-campus laboratory sessions may be required. Three class and three laboratory hours per week.

Prerequisite(s): ETMG U320, ETMG U330, or consent of Program Coordinator.

Corequisite(s): ETMG U410.

Pre/Corequisite(s): Technical communications support course or consent of instructor.

ETMG U415 Quality Practices 4 Credit Hours

Techniques for controlling quality of work processes and assuring delivered or received product quality. Topics include cost of quality, customer/focused quality, quality diagnostic tools, total quality management, quality assurance and quality standards. Occasional off-campus laboratory sessions may be required. Three class and three laboratory hours per week.

Prerequisite(s): ETMG U330 and ECON U291; or consent of instructor.

Corequisite(s): ETMG U415L.

ETMG U415L Quality Practices Lab 0 Credit Hours

Techniques for controlling quality of work processes and assuring delivered or received product quality. Topics include cost of quality, customer/focused quality, quality diagnostic tools, total quality management, quality assurance and quality standards. Occasional off-campus laboratory sessions may be required. Three class and three laboratory hours per week.

Prerequisite(s): ETMG U330 and ECON U291; or consent of instructor.

Corequisite(s): ETMG U415.

ETMG U420 Engineering Project Management 4 Credit Hours

Planning, scheduling, control of engineering projects, and applications of project management tools. Occasional off-campus laboratory sessions may be required. Three class and three laboratory hours per week.

Prerequisite(s): ETMG U410 or consent of instructor.

Corequisite(s): ETMG U420L.

ETMG U420L Engineering Project Management Laboratory 0 Credit Hours

Planning, scheduling, control of engineering projects, and applications of project management tools. Occasional off-campus laboratory sessions may be required. Three class and three laboratory hours per week.

Prerequisite(s): ETMG U410 or consent of instructor.

Corequisite(s): ETMG U420.

ETMG U499 Senior Seminar 3 Credit Hours

Integration of engineering technology management at an advanced level, the impact of engineers on society, and exploration of ethical issues.

Written and oral presentation required.

Prerequisite(s): ETMG U370, ETMG U410, and ETMG U415.

Pre/Corequisite(s): ETMG U420, or consent of instructor.