

# Engineering Management Program

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| Coordinator:          | Mezher, Toufic  |
| Professors:           | Abdul Malak, M. Assem; Hindi, Khalil; Mezher, Toufic; Salameh, Moueen   |
| Associate Professor:  | Nasrallah, Walid  |
| Assistant Professors: | Maddah, Bassel  |
| Lecturers:            | Abillama, Walid; Charif, Hassan; Jawad, Dima; Nizam, Youssef; Noueihed, Nazim; Tannir, Akram; Trabulsi, Samir |
| Instructor:           | Ajam, Maher   |

## Minor in Engineering Management

The Engineering Management Program offers a minor in engineering management that can be pursued by undergraduate engineering and architecture students, as well as by students from related majors, starting as early as the fall semester of their third year of enrollment. To satisfy the requirements of this minor, a student must earn 18 credits of course work from the engineering management course offerings as follows:

- At least nine of the total requirement of 18 credits must be fulfilled from the six undergraduate courses offered by the program, which must include ENMG 400: Engineering Economy.
- The other nine credits can be satisfied by taking courses either from the list of undergraduate courses, or from the elective graduate courses that are unrestricted to undergraduate student registration.

A minimum grade of 70 is required for a course to be counted toward the fulfillment of a minor in engineering management.

## Undergraduate Courses

### **ENMG 400      Engineering Economy      3 cr.**

A course that covers principles, basic concepts, and methodology for making rational decisions in the design and implementation of real engineering projects; time value of money, depreciation, comparing alternatives, effect of taxes, inflation, capital financing and allocation, and decision under uncertainty. *Prerequisite: STAT 230 or equivalent. Every semester.*

### **ENMG 500      Engineering Management I      3 cr.**

A course on operations research modeling concepts with emphasis on linear programming; topics include: linear programming, network programming, and project management. *Annually.*

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- ENMG 501      Engineering Management II      3 cr.**  
A course outlining basic management models used to optimize operation systems; discrete- and continuous-time Markov chains and their application in modeling queues, inventories, and production process behavior. *Prerequisite: STAT 230 or equivalent. Annually.*
- ENMG 502      Construction Management      3 cr.**  
A course on organizing for construction projects; pre-construction activities; bidding and contracts; fundamentals of construction planning, monitoring, and control; application of construction control tools: CPM, materials management, operations analysis, and quality control. *Annually.*
- ENMG 503      Specifications and Cost Estimation      3 cr.**  
A course on the structure of construction documents and their interrelationships; bidding requirements; general and particular contract conditions; administrative and procedural requirements for construction; technical specifications; construction cost estimation process; and unit rates determination. *Prerequisite: ENMG 502 or CIVE 580. Annually.*
- ENMG 504      Engineering Ethics      3 cr.**  
A course on engineering ethics covering responsibility in engineering; framing the moral problem; organizing principles of ethical theories; computers, individual morality, and social policy; honesty, integrity, and reliability; safety, risk, and liability in engineering; engineers as employees; engineers and the environment; international engineering professionalism; and future challenges. *Annually.*
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