

# PART-TIME MBA/MS-ENGINEERING PROGRAM CURRICULUM PLAN

# **DEGREE REQUIREMENTS**

Upon formal admission to MBA/MS-Engineering program, a student must fulfill the following requirements in order to receive the MBA portion of the joint-degree:

- 1) A minimum of 39 credits of approved graduate-level coursework
- 2) The appropriate distribution of required core courses and elective courses
- 3) A minimum cumulative quality point average (QPA) of 3.0 (B)

# PART-TIME MBA/MS-ENGINEERING PROGRAM SAMPLE SCHEDULE – KATZ COURSEWORK

Part-time evening MBA/MS-Engineering students may complete all degree requirements over four (4) years by averaging 6 credits of coursework per term.

#### Year One

- BACC 2401 Financial Accounting (3 credits)
- BECN 2401 Economic Analysis for Managerial Decisions (3 credits)
- BQOM 2401 Statistical Analysis: Uncertainty, Prediction & Quality Improvements (3 credits)
- BOAH 2409 Organizational Behavior (1.5 credits)
- One of the following courses:
  - o BFIN 2409 Financial Management 1 (1.5 credits)
  - o BMKT 2409 Marketing Management (1.5 credits)
  - o BMIS 2409 Information Systems (1.5 credits)
- Elective credits of your choice
- Engineering coursework, as needed

#### ❖ Year Two

- BSEO 2401 Business Ethics & Social Performance (1.5 credits)
- BQOM 2421 Decision Technology in Manufacturing & Operations Management (1.5 credits)
- Two of the following courses that you have not already taken:
  - o BFIN 2409 Financial Management 1 (1.5 credits)
  - o BMKT 2409 Marketing Management (1.5 credits)
  - o BMIS 2409 Information Systems (1.5 credits)

- Elective credits of your choice
- Engineering coursework, as needed

#### **\*** Year Three

- Elective credits of your choice
- Engineering coursework, as needed

### Year Four

- BSPP 2409 Strategic Management (1.5 credits)
- BIND 2200 Integrated Project MBA/MS (1.5 credits)
- BIND 2444 Competitive Management Simulation (3 credits)
- Elective credits of your choice
- Engineering coursework, as needed

# MBA REQUIRED COURSES FOR MBA/MS-ENGINEERING STUDENTS

- BACC 2401 Financial Accounting
- BECN 2401 Economic Analysis for Managerial Decisions
- BQOM 2401 Statistical Analysis: Uncertainty, Prediction & Quality Improvement
- BOAH 2409 Organizational Behavior Leadership and Group Effectiveness
- BFIN 2409 Financial Management 1
- BMKT 2409 Marketing Management
- BMIS 2409 Information Systems
- BQOM 2421 Decision Technologies in Manufacturing & Operations Management
- BSPP 2409 Strategic Management
- BSEO 2401 Business Ethics & Social Performance
- BIND 2444 Competitive Management Simulation
- BIND 2200 Integrated Project MBA/MS

# COURSE SELECTION AND SEQUENCING

In order to make the most of the Katz MBA experience, it befits each student to work with his/her designated academic advisor, Career Management advisor, and Katz faculty so as to align elective coursework with professional aspirations. Students may reference course offerings and descriptions for a given term within the 'Schedules and Course Abstracts' section via StudentNet.

The Academic and Career Advising Guide, also available via StudentNet, is a powerful reference tool that students can utilize to research career tracks and functional areas within a given concentration; recommended course selection and sequencing; co-curricular activities; and additional professional resources.

# """"MBA/MS-Engineering Curriculum Plan

MBA Total: 39 credits

Engineering Total: 25.5 credits MBA/MS-Engineering Total: 64.5 credits

# **MBA Required Core Courses**

<b>Course Number</b>	Course Title	Credits	Term	Complete
BACC 2401	Financial Accounting			
BECN 2401	Economic Analysis for Managerial Decisions: Firm and Markets			
BFIN 2409	Financial Management 1			
BMKT 2409	Marketing Management			
BOAH 2409	Organizational Behavior, Leadership and Group Effectiveness			
BQOM 2401	Statistical Analysis: Uncertainty, Prediction and Quality Improvement			
BSPP 2409	Strategic Management			
BMIS 2409	Information Systems			
BQOM 2421	Decision Technologies in Manufacturing and Operation Management			
BSEO 2401	Business Ethics & Social Performance			
BIND 2444	Competitive Management Simulation			
BIND 2200	Integrated Project MBA/MS-Eng (MBA credits)			

# **MBA Elective Courses**

Course Number	Course Title	Credits	Term	Complete

Visit the <u>Swanson School of Engineering website</u> for detailed information regarding core courses and the different tracks you can choose while pursuing your master's degree in engineering.

# **Engineering Core Courses (12 credits)**

Course Number	Course Title	Credits	Term	Complete

# **Engineering Project (1.5 credits)**

Course Number	Course Title	Credits	Term	Complete

# **Engineering Electives (12 credits)**

Course Number	Course Title	Credits	Term	Complete

# **MBA/MS-Engineering Program Totals**

	Required Credits	TOTAL
MBA credits	39	
MS-Engineering credits	22.5	
PROGRAM TOTAL	64.5	

# MBA/MS in Engineering Joint Degree Program INTEGRATED PROJECT: GUIDELINES

## 1. Objective

The objective of the 3.0 credit integrated project is to apply the skills learned in the MBA and MS courses taken in the program to a real problem at an organization and develop a solution in the form of implementation-ready recommendations. Thus, it is a critical experience-based learning component of the joint program designed to integrate business and engineering concepts and tools in finding an appropriate and practical solution to an actual managerial/engineering problem faced by the organization.

# 2. Choice of Setting for the Project

- 2.1. For *Full Time students*, the summer internship is generally the most appropriate setting for the project. Thus, it is important that the internship provides student the opportunity to address one (or more) problem(s) that will define the project.
- 2.2. For *Part Time students*, it is suggested that a problem faced by the organization for which they currently work be identified as a topic for the integrated project.
- 2.3. In both cases, the idea is to produce a piece of work that meets the program requirements while actually benefiting the organization employing the student (as an intern or on a permanent basis).
- 2.4. If the above options (2.1. for FT and 2.2. for PT) are not possible any reason, then some other similar project (for a real organization) may be identified instead. Note that the joint degree integrated project is an *individual project*, and therefore group projects (e.g., consulting field projects) cannot be substituted in its place, unless there is a significant individual component within the group project that the student identifies and focuses on for the integrated project.
- 2.5. If confidentiality is an issue, your faculty advisors for the project will sign any non-disclosure agreement required by the "client" organization.

## 3. Faculty Advisors and Registration

- 3.1. It is the responsibility of the students to identify a faculty member each from the Business School and from the Engineering School (from the student's department) to serve as faculty advisors. These faculty advisors will (i) approve the initial proposal, (ii) provide guidance as needed during the project, and (ii) evaluate and assign a grade for the final report at the conclusion of the project. Please consult your student advisors if you need assistance in finding a faculty advisor.
- 3.2. Students need to register for 1.5 credits of BIND 2200, "Integrated Project MBA/MS," and 1.5 credits of the graduate project course in his/her engineering department (course numbers vary across departments).
- 3.3. Usually, FT students will register for the integrated project course in the fall term following their summer internship, while PT students will register in the term in which they are working on the project. However, there is some flexibility with regard to the term of registration for this course please check with your advisor.

## 4. Initial Proposal

- 4.1. Students must present a brief proposal (one or two pages may be sufficient) to both faculty advisors before the start of the project, outlining what they plan to do over the course of the project. Ideally, the project should blend skills learned from the business as well as the industrial engineering components of the program. This proposal must be approved by both the business and engineering faculty advisors.
- 4.2. If necessary, the proposal may be revised or modified during the course of the project. In such cases, the revied proposal must be approved by both faculty advisors.

### 5. Project Report

- 5.1. A copy of the final report must be submitted to both faculty advisors. This report should be written professionally. At a minimum, it should contain the following:
  - Title Page
  - Table of Contents
  - Executive Summary / Abstract: This should briefly describe the company, the tasks carried out and overall conclusions, i.e., it should provide an executive summary of the entire paper.
  - *Introduction*: This should describe the company in detail, including a description of its products/services, the processes used and the business & engineering functions. It should also introduce the reader to the student's position within the company and present an overview of the tasks assigned.
  - Main Body / Description of Activities: This section should provide a **detailed** description of all activities and assignments carried out at the company, along with the integral relationship between these activities and the student's coursework and academic program.
  - *Conclusions*: This section should summarize the impact of the student's project activities, both on the company as well as on the student.
  - *Bibliography / References*
  - *Appendices* (if any).
- 5.2. The report should be submitted no later than a month after the completion of the project/internship. If an extension is required, then permission must be obtained from both faculty advisors.

### 6. Grade

- 6.1. The course grade will depend on the quality and depth of the work done on the project, as presented in the final report.
- 6.2. Separate grades will be assigned by the business and engineering faculty advisors, for BIND 2200 and the Engineering project course respectively.