

**King Saud University
Deanship of Graduate Studies
College of Business Administration
Council of Graduate Programs in Business**



**Master of Business Administration
in Management of Technology
MOT-MBA**

A Joint Program Between:

**College of Business Administration
King Saud University**

and

**Segal Graduate School of Business
Simon Fraser University**

Submitted By:

College of Business Administration

King Saud University

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Master of Business Administration
In Management of Technology
(MOT-MBA)

Introduction

The College is one of the early colleges of King Saud University and was established in 1959 under the name of College of Commerce. It was renamed to College of Administrative Sciences until 2006 when it was restructured as the College of Business Administration (CBA). This College re-structuring was comprehensive and a new vision, mission, and objectives were laid down. CBA now houses eight departments: Marketing, Finance, Management, Management Information Systems, Accounting, Economics, Public Administration, and Quantitative Analysis.

CBA also offers ten graduate degrees. In fact, the new mission of CBA calls for rapid expansion in the graduate programs to lead and respond to the need of the society. In fact, Saudi Arabia is witnessing rapid development in the knowledge economy and fast-paced expansion in technological valleys associated with knowledge and innovation organizations. This necessitates the need to provide those wishing to transit from scientific or technical roles to becoming leaders and managers in their respective organizations with the necessary tools to assume the new responsibilities. The Management of Technology MBA (MOT-MBA) is a focused MBA program that serves two sectors, technology and biotechnology.

The MOT-MBA Program

The Management of Technology MBA (MOT-MBA) is a six-semester program. By design, the program blends current academic theory with practical application. Core courses, taken by all students, include cases and examples from both technology and biotechnology sectors. Students acquire the business expertise to effectively manage products, people and organizations as they transition from scientific or technological roles into leadership and managerial positions understanding the unique demands of those sectors. The program is designed with the participation of industry, and maintains its currency through relationships with industry advisors and guest speakers from the technology and biotechnology sectors.

Great science and great technology alone do not ensure commercial success. With a foundation in business knowledge and language, students become versed in leading management thinking and practice from around the globe. Applying what is learned is a big part of the MOT-MBA program. Most classes use case analysis and discussion about real businesses to apply theory to a corporate example with which all students become familiar.

The program is designed to appreciate the fast-changing environment of technology. The program format enables students to continue to keep pace with technology and maintain both salary and position, while broadening their understanding of business as it applies to their industry.

The program is designed for several segments, namely:

- Newly appointed managers and administrators in technology ventures and innovation entities who have engineering, technology, scientific or other undergraduate degrees.
- Individuals who will assume new role as managers in technology parks, business incubators, and research centers without a prior degree in business.
- Researchers and faculty in universities, research and development centers, and technology ventures who are expected to managerial roles and have no formal training in business.

Program Objectives

- Provide a rigorous curriculum of business and management education within the framework of technology/biotechnology organizations.
- Enhance and further leadership and managerial capabilities of individuals in technology organizations who have engineering, technology, or scientific background.
- Build up the skills of to be appointed managers in technology and innovation organizations.
- Transit individuals with no formal business training to manage technology-oriented firms, incubators, technology valleys, research and development centers, and science and technology policy centers.

Degree Title

Management of Technology Master of Business Administration (MOT-MBA) with two tracks:

- Technology Management (MOT-MBA in Technology Management)
- Biotechnology Management (MOT-MBA in Biotechnology Management)

Admission Criteria

Fulfillment of the admission requirements stated in the unified rules of graduate studies in Saudi universities, in addition to:

- A bachelor degree from an accredited institution.
- Submission of Toefl score of at least 61 iBT (500 paper-based) or IELTS band 6 for applicants whose first language is not English. This condition may be waived for applicants who have studied at least three years in graduate programs instructed mainly in English or who have obtained their undergraduate degrees from an institution where the main language of instruction was English.
- Submission of GMAT score. This condition may be waived for an applicant who obtained a graduate degree.
- The passing of the exam and interview conducted by the program.

Degree Requirements

- Completion of 54 credit hours of coursework.
- Passing of pre-requisite courses that may be required from non-business applicants.

An Overview of Program Structure

The course structure of the program is composed of three main components with a total of 54 credit hours.

CBA-KSU	Course	Cr Hrs	Cr Hrs (Total)
	Analytical Tools		
BIZ 541	Managerial Economics	4	8
BIZ 543	Managerial and Financial Accounting	4	
	Business and Management Concepts		
BIZ 545	Leadership for the Technology Driven Enterprise	2	32
BIZ 546	Managing Self and Others	2	
BIZ 548	Business Ethics	2	
BIZ 553	Business Operations Design	4	
BIZ 555	International Management	2	
BIZ 559	Applied Finance	4	
BIZ 560	Marketing Technology-based Products and Services	4	
BIZ 563	Project Management	4	
	Technology Track		
BIZ 554	Strategic Use of Information & Knowledge	4	
BIZ 562	Product Development	4	
	Biotech Track		
BIZ 549	Regulatory Affairs for the Biotech Executives	2	
BIZ 557	Business Development for Biotech	4	
BIZ 558	Special Topics in Biotech	2	
	Integrative Concepts		
BIZ 550	Managing Technological Innovation	4	14
BIZ 567	Strategic Management of Technology-based Firms	4	
BIZ 599	Applied Project	6	
	Program Total		54

MOT-MBA (Technology Management Track) Study Plan

Semester (1)		
BIZ 543	Managerial and Financial Accounting	4
BIZ 545	Leadership for the Technology Driven Enterprise	2
BIZ 567	Strategic Management of Technology-based Firms	4
Total		10

Semester (2)		
BIZ 554	Strategic Use of Information & Knowledge	4
BIZ 555	International Management	2
BIZ 562	Product Development	4
Total		10

Semester (3)		
BIZ 541	Managerial Economics	4
BIZ 546	Managing Self and Others	2
BIZ 553	Business Operations Design	4
Total		10

Semester (4)		
BIZ 548	Business Ethics	2
BIZ 550	Managing Technological Innovation	4
BIZ 560	Marketing Technology-based Products and Services	4
Total		10

Semester (5)		
BIZ 559	Applied Finance	4
BIZ 563	Project Management	4
Total		8

Semester (6)		
BIZ 599	Applied Project	6
-	-	-
Total		6

MOT-MBA (Biotechnology Management Track) Study Plan

Semester (1)		
BIZ 543	Managerial and Financial Accounting	4
BIZ 545	Leadership for the Technology Driven Enterprise	2
BIZ 567	Strategic Management of Technology-based Firms	4
-	-	-
Total		10

Semester (2)		
BIZ 549	Regulatory Affairs for the Biotech Executives	2
BIZ 555	International Management	2
BIZ 557	Business Development for Biotech	4
BIZ 558	Special Topics in Biotech	2
Total		10

Semester (3)		
BIZ 541	Managerial Economics	4
BIZ 546	Managing Self and Others	2
BIZ 553	Business Operations Design	4
Total		10

Semester (4)		
BIZ 548	Business Ethics	2
BIZ 550	Managing Technological Innovation	4
BIZ 560	Marketing Technology-based Products and Services	4
Total		10

Semester (5)		
BIZ 559	Applied Finance	4
BIZ 563	Project Management	4
Total		8

Semester (6)		
BIZ 599	Applied Project	6
-	-	-
Total		6

Management of Technology MBA Courses

BIZ 541 - Managerial Economics **4 (4+0)**

Participants are introduced to basic concepts in microeconomics and explore the relevance of economic reasoning to managerial decision making, both tactical and strategic in the commercialization of intellectual property (IP) and technology. The importance of economic concepts, models and quantitative applications will be emphasized and applied to problems regularly encountered by technology transfer managers.

BIZ 543 - Managerial and Financial Accounting **4 (4+0)**

This course explores concepts and principles in financial accounting from the user perspective and use of accounting information for managerial decision making.

BIZ 545 - Leadership for the Technology Driven Enterprise **2 (2+0)**

This course teaches developing and balancing critical management competencies at the individual, interpersonal, team and organizational levels. Focus is on effective organization, motivation and leadership.

BIZ 546 - Managing Self and Others **2 (2+0)**

This is an intensive three-day experience where participants discover what they would actually do when confronted with the reality of working in a company with multiple interdependencies, financial and geographical constraints, and a complex and changing environment.

BIZ 548 - Business Ethics **2 (2+0)**

Understanding how to navigate the moral quandaries, issues and debates raised by direct participants and stakeholders in commercializing IP assets and technologies is a central concern for technology transfer managers. Topics include character building practices, moral stages in the high-tech career, corporate social responsibility, the role of reputation capital in the high-tech firm, and the moral and legal obligations of the expert.

BIZ 549 - Regulatory Affairs for the Biotech Executives **2 (2+0)**

Aimed at individuals seeking a big picture of the regulatory process, this course focuses on regulatory requirements as they pertain to biotech and pharmaceutical companies.

BIZ 550 - Managing Technological Innovation **4 (4+0)**

This course examines successful product and process innovations in industry, as well as the effective organization and management of the technological change process in new ventures, multi-divisional and multinational enterprises.

BIZ 553 - Business Operations Design **4 (4+0)**

This course uses systems theory and process design as key elements to explain fundamental choices in organizational design.

BIZ 554 - Strategic Use of Information & Knowledge **4 (4+0)**

This course will demonstrate, through cases and discussions, how information can be used to support decision making, monitor operations, and enable global communications. Topics include knowledge management and information technology to support a learning organization.

BIZ 555 - International Management **2 (2+0)**

The opportunities represented by the commercialization of IP and technology are 'born global' in terms of markets, production and research and development. Topics covered by this course include cross-national technology transfer, the re-contextualization of knowledge and the comparative management of technology focused firms.

BIZ 557 - Business Development for Biotech**4 (4+0)**

The course examines the concept of development with a description of the stages, milestones, time requirements and costs associated with developing new drugs. Regulatory perspectives will be examined. The course also examines the strategic alliances and partnerships that are critical to a successful biotech business, as well as intellectual property protection.

BIZ 558 - Special Topics in Biotech**2 (2+0)**

The course will consist of three cases; the first dealing with valuation in general, the second dealing with the operation of a technology transfer office and the third dealing with an IPO. In addition two technical notes and one journal article would be supplied which are part of the assignment.

BIZ 559 - Applied Finance**4 (4+0)**

Understanding the basics of applied finance as it relates to raising capital is of vital important to the success of a University's technology commercialization activities. Topics include business valuation techniques, evaluating merger and acquisition opportunities and evolving Internet business models.

BIZ 560 - Marketing Technology-based Products and Services**4 (4+0)**

What differentiates high-tech markets from more traditional ones is the environment-shrinking product life cycles, rapid changes in information and knowledge, and great uncertainty about competitors. This course teaches techniques for developing and executing marketing strategies to support the commercialization of IP and technology in technology-intensive markets.

BIZ 562 - Product Development**4 (4+0)**

This course aims to provide students with both theoretical and practical understanding of the concepts, tools, methods, and processes involved in developing, launching and managing new products. The course will require participants to put together development (NPD), launch and product management plans for real products as students work in teams to pitch their product strategies to a going concern developing online products.

BIZ 563 - Project Management**4 (4+0)**

For those University staff and faculty involved in commercializing intellectual property (IP) and technologies, projects are a way of life. The identification and development of relevant intellectual property assets and technologies, the development of a new product or service and the spinning off firms to commercialize these assets, are all examples of projects that the technology transfer manager may encounter. This course demonstrates how complexity can be managed to increase the probability of project success.

BIZ 567 - Strategic Management of Technology-based Firms**4 (4+0)**

How technology-based firms develop and implement strategies to create renewable advantage is the basis for this class. The module treats strategy as a complex phenomenon needing to be viewed through different lenses in the light of the challenges in commercializing IP and technology.

BIZ 599 – Applied Project**6 (0+6)**

In the Applied Project participants have the opportunity to address actual technology commercialization issues utilizing the knowledge acquired and skills honed in the MOT-MBA program to develop feasible and optimal intellectual property asset and technology solutions. They will synthesize their learning and develop new perspectives on the commercialization of IP and technologies.