MEM | Master Of
Engineering Management
ماجستير الإدارة الهندسية

STUDENT HANDBOOK

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1. MEM - PROGRAM

1.2 OVERVIEW

The MEM is a two-year 42-unit curriculum combining the expertise of the College of Engineering and the College of Business Administration to provide management and engineering knowledge to help bridge the gap and give the graduates education for job opportunity and distinct advantage. The MEM program is offered as a master degree in Engineering Management with an area of concentration which are Construction Management, Industrial Management and Quality Management.

MEM program provides working engineers with technical leadership skills while simultaneously assessing the financial risks and benefits to the corporation, managing human and technical resources, and making high-risk decisions from a system perspective in an uncertain environment.

The MEM program with options is structured as: **21** credit hours of core courses in Engineering Management, **6** credit hours of core courses in Business Administration, **6** credit hours in one Area of Concentration and **6** credit hours of approved Technical Electives. **3** credit hours in Case Study project in the chosen area of concentration. The program is distinguished by:

- MEM curriculum follows a worldwide standard and approved by Western Michigan University.
- Classes are taught in the English language.
- Recognition of MOE, KSA.

1.3 PROGRAM VISION & MISSION

VISION

To be an innovative academic community dedicated to providing distinct and advanced engineering leadership knowledge and skills for diverse engineering leaders to meet the global needs of engineering industries.

MISSION

To attract and motivate capable students and prepare them for success as engineering leaders for life-long excellence in responsible professional leadership. Distinct areas of concentration provide opportunities for professional growth in Construction Management, Industrial Management, and Quality Management.

1.4 PROGRAM OBJECTIVES

The MEM Program is designed to achieve the following objectives:

- Provide working engineers with technical leadership skills while simultaneously assessing the financial risks and benefits to the corporation, managing human and technical resources, and making high-risk decisions from a system perspective in an uncertain environment.
- Provide the skills needed to empower working engineers to communicate effectively in the language of business and to help them think strategically; the ability to synthesize a series of financial performances and to understand the long-term implications of business decisions.
- Provide working engineers with the skills to better plan, design, analyze, implement, and improve cost-effective manufacturing/service systems and build and use management tools to analyze and solve problems effectively.
- Provide distinct career growth and professional development as measured by metrics such as achieving proficiency in current position, increasing responsibility, diversity of job functions, recognition, progression and job advancement.

2 ADMISSION CRITERIA

2.1 Students with Industrial Engineering Background

1. Bachelor's degree from a local and international College/University recognized by MOE.
2. Grade Point Average (GPA) of 2.25, or higher on a 4.0 Scale, 3.25, or higher on 5.0 Scale in previous university work or equivalent.
3. The applicant must have graduated within the past 10 years. The Admission committee has the right to exempt a student from this condition on a case-to-case basis.
4. Official transcript that clearly indicates the completion of a bachelor's degree must be submitted to the Admission Office. If a student completed a course at other college or university, official transcripts also should be submitted. If a degree obtained outside the KSA, Saudi national should equalized their degree from MOE and for Non Saudi the degree must be attested from the Saudi Embassy at the country of origin and from Ministry of Foreign Affairs in Jeddah, KSA.
5. After the verification of all of the documents submitted by the student, the student must have a personal interview with the Admission Committee to complete the admission procedures.
6. Additionally, the degree must be within 10 years of graduation from the date of applying to the MEM program.
7. Preferably one (1) year of professional experience.
8. Letter of Purpose (250 words minimum)
9. All students are required to obtain a minimum TOEFL/IELTS score of:
    a. 67 on an internet-based test (IBT)
    b. 6.0 on an IELTS Examination.

    This condition of English Language proficiency will be waived if the student graduated from a school with an English Language medium of instruction. He should secure *a certification stating that the degree was conducted in the English*. Upon the acceptance of interview committee when showing competency level in Eng.
10. Two letters of nomination and recommendation from senior Engineering associates that objectively assess the applicant's strengths, weaknesses, potential, and suitability for the MEM program are required.
11. Submit a statement of intent outlining personal short-term and long-term career goals, reasons for applying for the program, and explain how the program will help achieve these goals in addition to an identification letter from the employer, if any
12. A completed Application for Admission Form with SAR 1000 non-refundable application fee made payable to College of Business Administration must be submitted to the Collage of Engineering-MEM Program Admissions Office.

Qualified applicants will be informed of their acceptance. Full Acceptance is issued to those who submitted and fulfilled all requirements. Conditional acceptance for those who did not fulfil the specific documentation criteria. Applicants who finished a degree with non-business background are required to take the Pre- MEM courses.

Admission to the MEM program will not be considered official until the application file is complete. No amount of credit taken while on Unclassified Status will assure a student of full admission. A letter from the General Director for Graduate Studies will confirm admission.
Applicants who do not meet some of the above requirements can apply and conditional admission may be granted.

2.2 Students with Non-Industrial Engineering Background

For students with non-Industrial Engineering backgrounds, our MEM program act as tool to guide them throughout their career, filling gaps as a knowledge to move forward and take next step within their current organization or opening doors for development and progress in a new direction. Our MEM Program provides a comprehensive Industrial Engineering grounding, it creates opportunities for students from virtually of any background. Accordingly, Collage of Engineering has designed a number of Pre- MEM Courses to accommodate MEM applicants from this category.

The 12-credit Pre-MEM minor is a fast track for any undergraduate non-Industrial Engineering major who wants to continue his/her studies and earns a Master's of Engineering Management (MEM) at The University of Business and Technology, College of Engineering. The courses serve as a foundation for the MEM program and can be credited in the bachelor's degree according to the requirements of his degree or college. Pre- MEM Courses are also open for Non-credit applicants seeking Industrial Engineering knowledge for knowledge according to the availability of slots.

Attendance in these courses is vital since the students attending the classes will be granted an "Attendance Certificate without the numerical grading or credits.

2.3 Transferred Students

Students transferring from another accredited institution recognized by the Saudi Ministry of Education (MOE) may be eligible to transfer a maximum of **9 credits** of graduate coursework for courses already successfully completed with an average of (B) or 3.75/5 for each. The **MEM Admission Committee** will determine the eligible transfer credits of the each student. Only grades in the courses taken in Collage of Engineering will appear on the MEM transcript and be counted towards the GPA.

2.4 Equalization of Courses

Requirement of Courses of Equalization:

- Courses from an accredited university under MOE
- B grade or higher in the course(s) to be equalized.
- Official transcript, Course description, contents and objectives must be at least equivalent to 75% of corresponding course at MEM.
- Credit hours for the course should be equal to 3 Credit hours.
- Equalized courses at MEM are assigned a grade of T prefix (meaning transfer). These grades are not counted as part of the students accumulated GPA.
- Preparatory and vocational courses are not considered for equalization of any courses at Collage of Engineering.
- The validity of any courses to be equalized is 2 years.

3 REGISTRATION

MEM's system allows students to register, add and drop courses, cancel registrations, withdraw, make payments, and credit balance refunds, as well as other options. Students must make the required payment on their institutional charges by the published deadline or they will be dropped for non-payment. Students dropped for non-payment will be required to repeat their registration process during the late registration period, and a late registration fee will be assessed.

3.1 Registration Guidelines

1. All students who want to register must go to opera online.
2. Late registration starts on the first day of the beginning of classes according to the college academic calendar of the semester and finished on the last day for adding courses.
3. A maximum of 12 credit hours can be registered in one semester for full time students and 6 credit hours for part time ones.
4. Students should follow and respect timetables of registration, add, drop and withdrawal according to the college academic calendar.
5. Registering students must follow courses pre-requisite conditions.
6. All forms of drop, add, late registration and withdrawals should be presented to the Finance Department for financial review.
7. Registration steps are:
   - Pay your fees.
   - Register online.

3.2 Add/Drop Policies

Students may add or drop courses without any penalties during the first 2 weeks of each term. An Add/Drop Form needs to be completed by the student in the MEM Registrar's office or online if available. This form must be signed by both the course instructor and the student then returned to the Registrar's office for processing.

In week 2, students may drop a course but they are liable for **25%** of the course tuition fees.

After week 2, students cannot add courses.

In week 3, students may drop a course but they are liable for **50 %** of the course tuition fees.

In week 5, students may withdraw a course but they are liable for **75** % of the course tuition fees.

In week 10, students may withdraw a course but they are liable for **100%** of the course tuition fees.

Refunds of tuition due on any course will be first applied to any (past-due student balances) before being remitted to the student.

3.3 Withdraw Policy

A student may withdraw a course up until the end of the 14th week of the term without academic penalty. It will be shown as a "W", withdraw, on his/her transcript. After week 14 of the term **elapsed, all students will be awarded grades for their registered courses based on their assessment.**

3.4 Maximum Load

The maximum number of credit hours allowed to be taken in an academic semester is 12 credit hours, while the minimum credit hours allowed to be registered is 6 credit hours. However, graduating students can register 15 credit hours maximum in their last semester if their GPA was 4.5 or above

3.5 Registration for Non-Credit Courses

Students who wish to attend scheduled classes but not to earn credits can be permitted after the approval of General Director for Graduate Studies

4 THE CURRICULUM

4.1 List of Pre- MEM Courses

In order to prepare for our MEM Program, it would be helpful to have taken classes in Engineering Economy, Operation Research, Engineering Statistics and Production Planning and Control. The number of courses required from this category differs from an applicant to another according to the degree of relevance of his/her education and area of expertise to the field of Underground.

The Pre-MEM Course List	Credits
Engineering Economy	3.00
Operation Research	3.00
Engineering Statistics	3.00
Production Planning and Control	3.00

4.2 Core & General Courses: (9 core courses, 27 Credit hours)
7 Courses, 21 credit hours in Engineering Management and
2 courses, 6 credit hours in Business Administration

Regardless of the MEM option, all students are required to complete the following courses:

Core courses in Engineering Management

ENGM 510	Advanced Engineering Statistics	3 Credit hours
ENGM 515	Advanced Engineering Economy	3 Credit hours
ENGM 520	Quality and Performance Management	3 Credit hours
ENGM 530	Concepts and Principles of Engineering Management	3 Credit hours
ENGM 540	Production/Operations Management	3 Credit hours
ENGM 550	Project Management	3 Credit hours
ENGM 560	Safety Engineering	3 Credit hours
	Total	**21**

Core courses in Business Administration

ACCT 532	Managerial Accounting	3 Credit hours
HRM 510	Human Resources Management	3 Credit hours
	Total	**6**

4.3 Areas of Concentration (2 courses, 6 hours)

The MEM program is designed to include 3 option areas to cater different interests of the professional students. For the option areas, student is required to select 2 courses under the option area selected.

4.4 MEM Option Areas (Elective Courses)

1. **Construction Management** 6 credit hours
2. **Industrial Management** 6 credit hours
3. **Quality Management** 6 credit hours

MEM Option Areas (Elective Courses):

In addition to the 9 core courses of the program, 2 courses must be taken to complete the option credits to qualify student for graduation in the MEM degree with option.

1. Construction Management Option		Credit hours
ENGM 570	Construction Scheduling and Cost Estimating	3
ENGM 571	Contract Management and Project Delivery System	3
ENGM 572	Construction Risk Management	3

2. Industrial Management Option		Credit hours
ENGM 580	Organizational Change Management	3
ENGM 581	Systems Engineering	3

3. Quality Management Option		Credit hours
ENGM 590	Quality Control	3
ENGM 591	Reliability Engineering	3

MEM Approved Technical Elective Courses

Two courses (6 credit hours) should be chosen from the following approved technical elective courses:

MKT 510	**Marketing Management**	3
FIN 511	**Financial Management**	3
EPR 510	**Entrepreneurship**	3
IBM 511	**International Business Management**	3
MIS 510	**Management Information Systems**	3
MGT 581	**Business Strategies**	3
HRM 536	**Cultural Diversity in Business**	3

MEM Case Study Report

This last course is **designed to be taken during the last semester** culminating all aspects of engineering management in the chosen area of concentration.

ENGM 595	**Case Study Report**	**3**

For further information and description of courses, please refer to Point No. 13 at the end.

5 COURSE PLAN PER SEMESTER

2-Year Plan

First Year

First Semester			
Course Code	Course Title	Credits Hours	**Pre-Request**
ENGM 510	Advanced Engineering Statistics	3	**ENGM 332**
ENGM 560	Safety Engineering	3	
ENGM 530	Concepts & Principles of Engineering Management	3	
ENGM 515	Advanced Engineering Economy	3	**ENGM 255**
Total Semester Credits 12			

Second Semester			
Course Code	Course Title	Credits Hours	**Pre-Request**
ENGM 520	Quality and Performance Management	3	**ENGM 510**
ENGM 540	Production/Operations Management	3	**ENGM 451**
ACCT 532	Managerial Accounting	3	**ENGM 515**
ENGM 550	Project Management	3	**ENGM 530**
Total Semester Credits :12			

Second Year

Third Semester			
Course Code	Course Title	Credits Hours	**Pre-Request**
	Area of Concentration Course I	3	**ENGM 520**
	Area of Concentration Course II	3	**ENGM 560**
HRM 510	Human Resources Management	3	**ACCT 532**
	Approved Elective I	3	**ENGM 540**
Total Semester Credits :12			

Fourth Semester			
Course Code	**Course Title**	**Credits Hours**	**Pre-Request**
ENGM 595	Case Study Report	3	**HRM 510, ENGM 311**
	Approved Elective II	3	**ENGM 540, ACCT 532**
Total Semester Credits :6			

2-Year Plan
TERM I COURSES

First Year – First Term		Credit Hours	Perquisite
ENGM 510	Advanced Engineering Statistics	3	ENGM 332
ENGM 515	Advanced Engineering Economy	3	ENGM 255
ENGM 530	Concepts and Principles of Engineering Management	3	-
ENGM 560	Safety Engineering	3	-
Total		**12**	

TERM II COURSES

First Year – Second Term		Credit Hours	Perquisite
ENGM 520	Quality and Performance Management	3	ENGM 510
ENGM 540	Production/Operations Management	3	ENGM 451
ENGM 550	Project Management	3	ENGM 530
ACCT 532	Managerial Accounting	3	ENGM 515
Total		**12**	

TERM III COURSES

Second Year – Third Semester		Credit Hours	Perquisite
-	Area of Concentration Course I	3	ENGM 520
-	Area of Concentration Course II	3	ENGM 560
-	Human Resource Management	3	ACCT 532
-	Approved Technical Elective I	3	ENGM 540
Total		**12**	

TERM IV COURSES

Second Year – Fourth Semester		Credit Hours	Perquisite
ENGM 595	Case Study Report	3	HRM 510,ENGM 311
-	Approved Technical Elective II	3	ENGM 540,ACCT 532
-	-	-	-
-	-	-	-
Total		**6**	

6 GRADES & GRADUATION REGULATIONS

6.1 Grade Point Average (GPA) Semester/Term

It is the average of the total points of all academic units divided by the number of credit hours for the specific semester. Points are calculated by multiplying each academic unit by its corresponding weight of points.

6.2 Grade Point Average, Cumulative

It is the average of total points divided by the number of credit hours for all completed credit hours by a student for all semesters.

6.3 Grade Reports

Semester grade reports are not mailed to students. Semester final grades are typically available through OPERA approximately one week after the close of the semester. Students may view their grades by logging onto OPERA.

6.4 Incomplete Grade

Is a temporary grading which describes the excused inability of a student to complete the course requirement at the decided time and it is usually shown by the letters (IC). It is not calculated in the grade point average.
(IC) status must be changed no later than the following term or they will be automatically convert to grade (F).

6.5 Grades Breakdown

Grading is one of the primary means of communicating the student's performance and level of understanding of the subject matter.
For the purpose of communicating the level of performance achieved, the following grades have been adopted:

Marks	Grade	Points	GPA	Description
95 – 100	A+	5.00	4.75 - 5.00	Exceptional
90 – 94	A	4.75	4.50 - < 4.75	Excellent
85 – 89	B+	4.50	4.25 - < 4.50	Superior
80 – 84	B	4.00	3.75 - < 4.25	Very Good
75 – 79	C+	3.50	3.25 - < 3.75	Good
70 – 74	C	3.00	2.75 - < 3.25	Pass
below 70	F			Fail

In rare instances, students may not be able to finish all work-related materials in order for the faculty to award a grade. In these instances, a grade of IC may be issued. All IC grades must be changed no later than the end of the following term or they automatically convert to a grade of "F".

The following grades are not counted in the GPA

IC	Incomplete
DN	Denial
W	Withdrawn

6.6 Graduation Requirements

Regardless of the area of concentration, students that have completed and successfully passed the requirements of 42 credit hours and achieved a minimum GPA of 3.75 out of 5 shall be deemed candidates for graduation. Students with less than 3.75 GPA are not eligible for graduation until they raise their GPA to the minimum required.

6.7 Honor Students

MEM students who have earned at least 90% of their total credits at CBA- MEM program and do not have any grade of "C" are awarded the following honours:

GPA of 4.75 - 5.00 - Exceptional
GPA of 4.50 - <4.75 - Excellent
GPA of 4.25 - <4.50 - Superior

Honours are indicated on the student's Official Transcript of Records and diploma.

6.8 Duration of Degree Accomplishment

Full-time students are supposed to complete all requirements for their degree in a minimum of "4" semesters from the date of initial enrolment, and a maximum of "8" semesters. Excluding summer semesters.

6.9 Directed/Independent Studies

A directed/independent study is the equivalent of a term of study in a course for the student, and students meet with a faculty member for about 40 hours during that term. The outcomes are determined by the General Director for Graduate Studies to be the equivalent of a full course for the relevant number of credits. Maximum enrolled students should not exceed more than four students, and for graduation purposes only. The faculty member and the students are free to arrange the times for their meetings, but at least one meeting is held at the beginning of the directed study where the (objectives, activities, standards for assessment, course plan, and distribution of 40 hrs. during that term) are all agreed on. A record of this will be send to General Director for Graduate Studies and Academic Advisor for final approval.

7 ACADEMIC PROGRESSION, PROBATION AND DISMISSAL

7.1 Progression

- To maintain at least 3.75 grade point average (GPA)

7.2 Academic Dismissal

The MEM Registrar monitors all graduate students records at the end of each term once grades have been posted. Students who fail to satisfy the below mentioned requirements shall be subjected to probation, or dismissal.

- Maintaining the standards of academic and professional integrity expected in the program.
- Fulfilling the expectations that are noted in the "Academic Progress".
- Getting (F) grade in one or more courses.
- If the GPA falls below 3.75 in two following semesters.
- If a student remains on *academic probation* for 2 consecutive terms.

Final approval of dismissal rests with the University Council of UBT. If the decision is made to dismiss the student from the program, the General Director for Graduate Studies will notify the student in writing, and the Registrar will make the proper notation on the student's record.
After a semester on probation, a decision will be made jointly by the General Director for Graduate Studies, and the MBA Academic Advisor and the Rector to determine whether to:

- Reinstate upon good standing
- Continue the probation with an updated written such plan
- Dismiss the student from the graduate program.

7.3 Academic Probation

Students who are on probation should work with the MEM Academic Advisor to develop a written success plan that clearly states the outcome required to remedy the academic difficulty, signed by both the student and the Academic Advisor. This written success plan should be submitted to the General Director for Graduate Studies.

7.4 Attendance

Students are expected to attend all classes and to participate actively in class discussions. Absence should not exceed 25% which is equivalent to 4 classes, of any course attendance requirements.

7.5 Medical Conditions

If a student is away from classes for more than three classes due to illness, he/she must provide a written note of confirmation or Medical report to MEM Administration. Students who have special needs and requirements should submit their medical documents to General Director for Graduate Studies, and Director of Special Education Services Management. Medical evidence will remain confidential. Medical evidence will not normally be used as a basis for adjusting individual module grades or assignment marks.

8 CODE OF CONDUCT

The rules and regulations governing the actions and interactions of administrative personnel, faculty, and students are intended to ensure that the aims and objectives of the MEM are accomplished according to the highest standards of academic rigor and ethical behavior.

8.1 Academic Misconduct

The MEM student is expected to act in a responsible manner, as expected in a college setting, in all activities connected with his or her studies. Incidents of cheating, plagiarism, lying, violating courses rules, copyright infringement, or damaging/destroying the College facilities or equipment, violate the Code of Student Ethics. If it is determined, by a faculty or other university official, that a student has acted unprofessionally, he or she will be subject to a disciplinary action. Such action shall include but not to be limited to: a failing grade on the work submitted a failing grade in the course, or expulsion from the program. The severity of the action shall be jointly determined by the faculty and the Academic Standing Committee. However, the student has the right to appeal to the General Director for Graduate Studies in writing, stating the reason for the appeal. A personal meeting with the General Director for Graduate Studies may be arranged. All appeals must be made no later than four weeks from the date of the decision of the Academic Standing Committee, or four weeks from the distribution of final grades.

8.2 Cheating

Using or attempting to use or provide unauthorized assistance, materials, information, study aids or mobiles in any form in any academic exercise or environment. The term academic exercise includes all forms of work submitted for credit or hours.

1. Using or attempting to use books, notes, study aids mobiles, calculators, or any other documents, devices, or information in any academic exercise or environment without prior consent by the faculty.
2. Copying or attempting to copy from another person's paper, report, computer labs, computer program, or other work material in any academic exercise.
3. Discussing the contents of tests or examinations with students who have not yet taken the tests or examinations.
4. Sending a substitute or acting as a substitute for another student to take one's examination, test, or quiz, or to perform one's field or lab work.
5. Conducting a research, preparing a project, or any assignment for another student without prior consent by the faculty.
6. Changing a grade, score, answers on a returned exam, or assignment for credit.
7. Stealing examinations or other course materials such as physical copies and photographic or electronic images.

8.3 Plagiarism

Plagiarism is defined as copying another student's work, lending work to another student, or representing extracts or whole articles and texts from books or handouts as one's own work.

Presenting the words or ideas of someone else as one's own in any academic exercise, such as:

1. Submitting any course related articles, assignments, projects by another person or by a commercial writing service.
2. Exact reproduction of someone else's words without identifying the words with quotation marks, and without properly citing the quotation in a footnote or reference.

3. Paraphrasing or summarizing someone else's work without acknowledgment in the footnotes or references.
4. Using facts, data, graphs, charts, or other information without acknowledgment in the footnotes or references, unless they are common knowledge. When in doubt, a student should use footnotes or references.

8.4 Multiple Submissions

The submission of substantial portions of the same academic work for credit more than once without permission.

8.5 Violation Records

A confidential record shall be kept in the student record for reference, and to take any furthermore action in regard to the violation of a "Code of Student Ethics".

9 STUDENT RIGHTS

9.1 APPEALS

The MEM Program will have an Academic Standing Committee (ASC). The Committee shall consist of three members: The dean, the General Director for Graduate Studies, Academic Advisor. The ASC will convene to monitor the academic progress of all students at least once each year and on an as-needed basis to hear appeals. The Committee recommends academic honors, places poorly performing students on probation, and issues suspensions and dismissal according to the College policies. The ASC also considers and adjudicates on matters of disciplinary action. Cases will normally be brought forward by a faculty member and/or the General Director for Graduate Studies. The student who has been accused of academic misconduct is entitled to be present. Decisions of the ASC may be appealed to the Dean. The decision of the Collage of Engineering Dean will be final.

9.2 Disciplinary Issues

To appeal a disciplinary decision, a student must first meet with the faculty, MEM Academic Advisor, and General Director for Graduate Studies, who already took the disciplinary action in a written form. If the student disagrees or believes that the action is unfair or inappropriate or if a disagreement continues, a student may appeal in writing to the Dean. A personal meeting will then be arranged.

9.3 Academic Issues

Students may appeal a faculty member's decision regarding a grade. The student can formally appeal or communicate to the faculty member, either orally or in a written form with the reasons he or she believes the grade to be unfair or inappropriate. If the disagreement continues, a student may appeal in writing to the ASC. A personal meeting will then be arranged.

10 .ACADEMIC CONSULTANCY

The Academic Consultancy Program (ACP) helps every MEM student in his/her progress in the study of MEM As student progresses to the courses required, he/she may need assistance from the ACP consulting offered. Likewise, the consultancy program provides academic counseling and in determining the course track or path in selecting MEM options.

Any academic issues besetting the students are handled by the ACP.

Kindly contact:

MEM Academic Advisor

Prof. Mohammad Abdel-Karim

e-mail: m.karim@ubt.edu.sa

Contact No: +966 (0)12-215-9384

MEM Center - Dahban Jeddah

11. FEES AND PAYMENTS

The finance department serves the students from initial entry to final march to graduation in the two-year Master of Engineering Management (MEM). All financial matters are transacted in this office specifically the collection of the required school fees:

1. Admission fee
2. Tuition fee is
3. Graduation fee
4. 5% VAT will be added to all non-Saudi students.

11.1 Tuition Fees

Recognizing that attending the MEM Program of the Collage of Engineering is a significant investment of time and money, we strive to provide our students with various means to finance the degree. Total tuition cost of the Two-Year Program is SAR 132,702. Tuition is set by the University's Board of Trustees and is ratified each year.

11.2 Tuition Fees Breakdown

The cost of each semester varies depending on the number of units taken. Students will not be allowed to register any credit hours unless payment is received in full (40% is accepted).

1. Admission Fees is 1000 S.R.
2. PRE- MEM courses S.R. 3000/ per course.
3. Core and major Engineering (ENGM code courses) are S.R 3200/- per Credit Hour.
4. Core and Elective Administrative courses are S.R 2917/- per Credit Hour.
5. Intensive Course for English Language fees is S.R. 6500 per level (not a part of the MEM Program).

11.3 Method of Payments:

New students can pay the first time to the University cashier.

All students can pay tuitions through the special Bank account that is given to them through their OPERAONLINE accounts. They also can pay to the University cashier or by credit card through visa etc.

11.4 Payments Schedule

The full-time MEM student has 4 academic terms. Tuition is charged per term. Payments may be made by bank draft, electronic fund transfer through the student given (IBAN) at the Saudi French Bank (Banque Saudi Fransi) or Cash. Program tuition is due in three instalments as follows:

50% At the beginning of each term
25% Prior to Midterm
25% At the end of each term

11.5 Pre-registration Down Payment

In case of a pre-registration, a student is required to pay 25% of the total value of the courses registered at the time of registration. The other 25% due for the semester is due at the start of ordinary registration period.

12. IT GENERAL SERVICES

IT. general services are provided to the UBT system providing all colleges: College of Business Administration Male and Female Campuses, College of Engineering, College of Advertising Male and Female Campuses with IT support for administrative, academic, and quality assurance operations throughout the year. Specifically, the following services are extended to MEM students and faculty & personnel.

12.1 Getting Access

Usernames and passwords are provided to individual students for OPERA Accounts as needed. Below are other e- log-ins as maybe required.

- Student Emails
- Wireless access on campus for mobiles and other handhelds
- Opera On-line for tracking schedules, grades, evaluations, etc.
- Moodle
- E-library

12.2 UBT Student's E-mail

Once the student activates windows account, automatically, he/she will have their own MEM e-mail account ready to be used. E-Mail policy:

- Each student email address is in the form of: username@st.ubt.edu.sa, for example, **PAD123@st.ubt.edu.sa**. The password is the same as Opera system password.
- Remember the password should contain only 9 digits for example your password is pad123000 (total 9 digits should be there).
- To access the MEM mail from any place, use the browser to access.
- Each student has a capacity of 15 MB in his/her mail account, therefore, they should delete unneeded messages and empty the mail recycle bin periodically.
- More details about the policy are found in the student data folder.
- For further more any information or any problems. Kindly please email at: mem@ubt.edu.sa

13. COURSE DESCRIPTION

13.1 Pre-MEM Course Descriptions

This section of the program is carefully designed to accommodate MEM seekers, who come from non-Industrial Engineering background. The fact that such students need a kind of survival kit that helps them to cope with their peers who come from Industrial Engineering background. This kit is the Pre- MEM program, which comprises 4 courses, 3-credits each and will be offered in one semester. Applicants who have accredited background in one or more of these courses may get a waiver on case to case basis.

Pre-MEM Course List

1. Engineering Economy 3 credits
2. Operations Research 3 credits
3. Engineering Statistics 3 credits
4. Production Planning and Control 3 credits

1. ENGM 255 – Engineering Economy **Credits 3.00**

Fundamentals of engineering economy. Time value of money. Evaluation of alternatives. Replacement and retention analysis. Break even analysis. Depreciation methods. Basics of inflation.

2. ENGM 311 – Operations Research **Credits 3.00**

Introduction to Operations Research. Formulation of linear programming problems. Graphical solution. The Simplex algorithm. Duality and sensitivity analysis. Transportation and assignment problems. Integer and Goal programming.

3. ENGM 332 – Engineering Statistics **Credits 3.00**

Basic notions of statistics applicable to engineering problems. Moment generating functions. Random samples and sampling distributions. Parameter estimation. Hypothesis testing. Nonparametric tests. Simple and multiple regression.

4. ENGM 451 – Production Planning and Control **Credits 3.00**

Basic concepts of Production and Operations Management (POM). Design of products and services. Processes and technologies. E-commerce and operations management. Inventory management. Supply-Chain management. Just-in-time and lean production. Forecasting. Material Requirements Planning (MRP). Introduction to Enterprise Requirement Planning (ERP). Capacity and aggregate planning. Scheduling.

13.2 MEM Course Descriptions

13.2.1 MEM Engineering Management Core Course Descriptions

ENGM 510: Advanced Engineering Statistics (3)
This course covers both the foundations for statistical reasoning and statistical applications related to business and engineering decision-making. Topics include descriptive and inferential statistics, regression, analysis of variance, and design of experiments.
Prerequisite: ENGM 332

ENGM 515: Advanced Engineering Economy (3)
Application of the principles of engineering economy for the establishment of equipment and system feasibility. Concepts, principles, and techniques for making decisions pertaining to the acquisition and retirement of capital goods by industry and government. Topics also include: interest, equivalence, taxes, depreciation, uncertainty and risk, incremental and sunk costs, and replacement models.
Prerequisite: ENGM 255

ENGM 520: Quality and Performance Management for Engineers (3)
This course teaches the practicing engineer how to enhance the quality and performance characteristics of organizational systems. Quality and performance management requires a firm understanding of fundamentals, theory-based models, broadly-implemented initiatives such as Lean Six Sigma, kaizen, and lean techniques, and global quality standards; and how to build a quality and performance improvement system.
Prerequisite: ENGM 510

ENGM 530: Concepts and Principles of Engineering Management (3)
This course examines the concepts, models, and applications of organizational behavior in engineering management settings. Students will learn to analyze the role of human behavior in complex sociotechnical systems.
Prerequisite: Graduate Standing

ENGM 540: Production/Operations Management (3)
Topics relating to the planning and control functions of manufacturing systems are presented. These topics include management of the production system, strategies of product design and process selection, design of production systems, plant location, shop floor control, purchasing, quality management, and productivity improvement.
Prerequisite: ENGM 451

ENGM 550: Project Management (3)
This course provides a foundation in project management techniques, models, and knowledge to enable to student to design and operate an effective project management system. The engineer's approach to problem-solving is highlighted in the context of managing projects. The project manager role is explicated for interactions with team members, leadership, and other stakeholders. Topics are aligned with the Project Management Body of Knowledge (PMBOK).
Prerequisite: ENGM 530

ENGM 560: Safety Engineering (3)
A study of the technical fundamentals and management of safety and hazards associated with industrial processes. Topics include fires and explosions, relief systems, hazard identification, risk assessment, hazardous waste generation, toxicology, case studies, oil and gas industry safety, construction safety, and regulatory requirements.
Prerequisite: Graduate Standing

ENGM 595 Case Study Report (3)
This course is designed to be taken during the last semester culminating all aspects of engineering management in the chosen area of concentration. This is an open ended, practical, Industry-oriented, special problems of interest under the direction of a faculty member in the chosen area of concentration. Projects will involve systems design, analysis and applications.
Prerequisite: HRM 510, ENGM 311

13.2.2 MEM Business Administration Core Course Descriptions

ACCT 532 – Managerial Accounting (3)
The aim of this course is to study current issues and approaches to solving comprehensive problems in the area of managerial accounting. This course emphasizes the use of accounting information for internal planning and control purposes through readings and case studies. Some of the topics covered are Budgetary Planning, Responsibility Accounting, Performance Evaluation through Standard Costing, Activity Based Costing, Profit Planning, Segment Reporting, Decentralization, Balanced Score Card, Target Costing and Capital Budgeting.
Prerequisite: ENGM 515

HRM 510 - Human Resources Management (3)
This course helps firms to develop employee talent as source of competitive advantage. The course will cover strategic implications of contemporary practices in recruitment, selection, work systems, training, and compensation and performance evaluation. The course also covers the process of developing Human Resource Information System (HRIS). Also covered will be new approaches in HRM to motivate employees at the executive and worker levels. Students are expected to actively participate and contribute to the learning process by the use of case analysis and other active learning methods.
Prerequisite: ACCT 532

13.2.3 Areas of Concentration and Course Description

- **Construction Management**

Choose a concentration area (two courses in one chosen area) from the following. Note that the Construction Management concentration area has three courses from which the student is to select two courses.

Pre-requisite for Area of concentration I is ENGM 520
Pre-requisite for Area of concentration II is ENGM 560

ENGM 570: Construction Scheduling and Cost Estimating (3)
A study of planning and scheduling techniques including Gantt Charts, CPM, PERT, time-cost tradeoffs, and resource scheduling under constraints. Project control and Work-Breakdown-Structure (WBS) concepts will also be covered. At the completion of this course, students will be able to develop a WBS for a construction project, develop scheduling activities needed for constructing a project, and develop a project control system to monitor the progress of a project. This course will also cover the procedures involved in material quantity takeoffs and in estimation of labor, material, equipment, and overhead costs. The course will also discuss bidding procedures and elements of construction cost control.
Prerequisite: ENGM 520

ENGM 571: Contract Management and Project Delivery System (3)
This course will explore the contract management process in three broad phases: pre-award, contract award and post-award. Each step of the phases will be addressed from both the Buyer and Seller perspectives, in both the government and commercial environments. Coverage of the standard contracts between various agencies involved in construction is provided in this course. Analysis of traditional and current project delivery methodologies is presented. Advanced topics covering FIDIC conditions, arbitration, legal aspects, Saudi building codes, and procurement management is provided. Issues related to insurance and bonding in the construction industry are highlighted. Students will participate in realistic team exercises to enhance their contracting skills, to include mock negotiations, dispute resolution and oral proposals.
Prerequisite: ENGM 560

ENGM 572: Construction Risk Management (3)
This course will provide project managers with the necessary knowledge and tools needed for identifying, analyzing, and managing the risks associated with construction project management.
Prerequisite: ENGM 520 or ENGM 560

- Industrial Management

Pre-requisite for Area of concentration I is ENGM 520
Pre-requisite for Area of concentration II is ENGM 560

ENGM 580: Organizational Change Management (3)
This course shares modern applications of organizational change techniques in engineering management settings. Students draw from classic and current readings and relevant case studies to scope and analyze their own case studies. (See ABET course syllabus in the Appendix for a sample list of readings for this course.)
Prerequisites: ENGM 520

ENGM 581: Systems Engineering (3)
The student will learn the fundamental systems engineering methodologies. This course provides the tools and methodology to design solutions that more effectively meet customer requirements. The course has an applied focus around a project performed by small teams. The systems engineering approach is disciplined, yet considers the customer needs first and foremost.
Prerequisites: ENGM 560

- **Quality Management**

Pre-requisite for Area of concentration I is ENGM 520
Pre-requisite for Area of concentration II is ENGM 560

ENGM 590: Quality Control (3)
This course presents topics in quality control and total quality management. Use of methods and recent developments in quality control are covered. Statistical methods used in controlling process variation receive emphasis.
Prerequisite: ENGM 520

ENGM 591: Reliability Engineering (3)
This course presents the managerial and mathematical principles and techniques of planning, organizing, controlling, and improving the reliability functions of an organization. This includes the formulation of mathematical models for reliability allocation and redundancy, time dependent and time independent prediction measures for both maintained and non-maintained systems. Emphasis is on practical applications for product or system design.
Prerequisite: ENGM 560

13.2.4 Approved Technical Elective Courses

Irrespective of area of concentration, students must choose only TWO courses from the following Elective courses:

Prerequisite for Approved Technical Elective I: ENGM 540

Prerequisite for Approved Technical Elective II: ENGM 540, ACCT 532

In addition to any other pre-request mentioned below.

MKT 510: Marketing Management (3)

The objective of the course is to provide a clear picture of the marketing concepts and practice. It includes the major activities in managing marketing strategy and the marketing mix, including marketing analysis, planning, implementation, and control.

Prerequisite: ENGM 540,

FIN 511: Financial Management (3)

This course is a broad survey of finance for all business students which emphasizes fundamental valuation concepts and their applications. It explores a set of key financial theories. The course examines theories associated with five key topics of Corporate Finance: The Efficient Market Hypothesis, Agency Theory, theories regarding the Market for Corporate Control, Capital Structure Theories, and Dividend Policy Theories.

Prerequisite: ENGM 540, ACT 511

EPR 510: Entrepreneurship (3)

This interdisciplinary course focuses on all aspects of starting a new business with emphasis on the critical role of recognizing and creating opportunities. Topics include Attributes of Entrepreneurs and Entrepreneurial Careers, Evaluating Opportunities, Writing Business Plans, and Venture Financing.

Prerequisite: ENGM 540, ACCT 532

IBM 511: International Business Management (3)

Students study the economic environment of business and international forces influencing the firm in order to achieve improved awareness/understanding of economic, institutional, and cultural issues pertinent to business, markets, policies, laws and trade in international business.

Prerequisite: ENGM 540,

MIS 510: Management Information Systems (3)

The course covers the role of information systems that affect the decision making processes and the overall organizational performance. It focuses on the characteristics and structures of management information systems, management techniques and the decision-making styles. It also covers the information systems and their relations with the organizational structures, the MIS planning, the MIS applications and other managerial aspects of information systems. Topics include Management Information Systems Types, IS Strategic Alignment, Information Intensive Business Processes, Decision Making, Telecommunication and Network, Marketing Information Systems, Human Resource Information Systems, Accounting Information Systems and Finance Information Systems. Business analysis techniques are emphasized for systems such as Transactions Processing Systems (TPS), E-Business, Management Reporting Systems and Data Warehouses.

Prerequisite: ENGM 540

MGT 581: Business Strategies (3)

This course investigates the methods and techniques used to formulate competitive strategy through the analysis of industries, competitive dynamics, the general management process, and the achievement of sustainable competitive advantage. Students will also be exposed to growth strategies, comparative management, impact of taxation, technology strategies; product development and new market strategies. The course heavily emphasizes the use of case studies and in-class simulations.

Prerequisites: ENGM 515, FIN 511, MKT 511, MIS 511 & OPM 511 (ENGM 540)

HRM 536: Cultural Diversity in Business (3)

The course introduces students to the role communication plays in shaping interactions between members of differing cultural groups. It includes an introduction to anthropology through the comparative study of cross cultures and how differences affect running the business. The course also covers obstacles and solutions in dealing with workforce diversity pertaining to the Saudi business environment. An emphasis will be made to Inter-Cultural Studies through the examination of:

a. The relationship between culture and identity.
b. Patterns of behaviour and attitudes engendered by intercultural contact.
c. Stages of intercultural awareness
d. Expressions of identity.

Prerequisite: ENGM 540, HRM 510

14. MEM – STAFF INFORMATION:

S:no:	Name	Position	Email	Tel
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