

# **Bachelor of Engineering (Hons) in Industrial Engineering and Engineering Management**

## **Student Handbook (2010-2011)**

### **1. PROGRAMME AIM**

This programme is designed to meet the needs of present day engineering students with diverse science background. It aims to equip them with basic technical and engineering knowledge; analytical, managerial, and behavioural skills; and prepare them for life-long growth within the field of Industrial Engineering and Engineering Management. The BEIEEM programme prepares graduates for a variety of careers in the continually evolving manufacturing, engineering and services industries of today.

In addition to the out-of-discipline or general education studies and language proficiency, to equip BEIEEM graduates with the core competence needed, this programme of studies include the following components :

- University-level mathematics and essential computer studies
- Fundamental engineering sciences and design
- Production technology and processes
- Industrial engineering and engineering management concepts, techniques and tools
- Problem-solving, teamwork and integration skills development

### **Programme Educational Objectives:**

A BEIEEM graduate

- will have a good understanding of the issues and relationships between the management tasks of planning, organizing, directing and controlling, and the human elements in industrial, service and research organizations;
- will have the necessary knowledge and skills to deal with the uncertain nature of these industrial management tasks and processes; and
- is able to integrate these management tasks and processes into effective management systems in different industrial or technological environments.

### **Programme Intended Learning Outcomes (PILOs):**

Upon successful completion of this Programme, as an engineering graduate, a BEIEEM graduate should attain:

- an ability to apply knowledge of mathematics, science, and engineering
- an ability to design and conduct experiments, as well as to analyze and interpret data
- an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- an ability to function on multi-disciplinary teams
- an ability to identify, formulate, and solve engineering problems
- an understanding of professional and ethical responsibility
- an ability to communicate effectively
- the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context

- a recognition of the need for, and an ability to engage in life-long learning
- a knowledge of contemporary issues
- an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

In addition a BEIEEM graduate

- has the necessary Industrial Engineering and Engineering Management knowledge and skills to deal with the uncertain nature of these industrial management tasks and processes;
- has a good understanding of the issues and relationships between the management tasks of planning, organizing, directing and controlling, and the human elements in industrial, service and research organizations;
- has the ability to integrate these management tasks and processes into effective management systems in different industrial or technological environments; and
- has the ability to work or lead effectively in multidisciplinary teams.

## 2. PROGRAMME STRUCTURE

### Programme Requirements (minimum 99 Credit Units)

This is a 3-year UGC-funded full time programme with structure outlined as follows :

#### 2.1 University Requirements: (21 Credits)

- **Chinese Civilization Courses\* (6 Credits)**

Course Code	Course Title	Level	Units Worth
CCIV0101	Chinese Civilisation I	B	3
CCIV0102	Chinese Civilisation II	B	3
CCIV0303 <sup>#</sup>	Chinese Civilisation III	B	3

\* Students are reminded to complete all the CCIV courses which will cease to be offered at the end of 2011/12 in their first two years of study.

<sup>#</sup> Application and approval from Chinese Civilization Centre is required.

- **Language Requirement (6 Credits)**

Students may meet the University Language requirement by successful completion of the English Enhancement Courses. Students who are not required to take the EEC should select 2 courses from the approved list of Courses Fulfilling University Language Requirements for Bachelor's Degree Students. **English language courses are highly recommended.**

- **Out-of-Discipline Courses / General Education Courses (9 Credits)**

Starting from the 2008 intake, students must take at least 3 credit units from the General Education (GE) courses in fulfillment of the Out-of-Discipline (OOD) requirement and this would be applicable to senior year entrants from 2009/10. However, students taking a Minor to fulfill the OOD requirement would not be required to take an addition of 3 credit units from the GE courses.

Course Code	Course Title	Level	Units Worth	Remarks (eg Faculty Accreditation, or Exemption requirements, etc.)
NA	As per student choice of electives		9	Any GE courses, MEEM or non-MEEM courses not listed in the programme core and electives at B2 level or above for a total of 9 credit units.

## 2.2 Programme Core Courses: (57 Credits)

Course Code	Course Title	Level	Units Worth	Remarks (eg Faculty Accreditation, or Exemption requirements, etc.)
CS2363	Computer Programming	B2	3	
MA2176	Basic Calculus and Linear Algebra	B2	3	Students having obtained Grade C or above in both MA1002 Higher Mathematics I (B) and MA1004 Higher Mathematics II (B) in their Foundation Year can be exempted from MA2176 Basic Calculus and Linear Algebra. Instead, they will take an additional course from the list of Programme Electives.
MA2172	Applied Statistics for Science and Engineering	B2	3	
MA2181	Mathematical Methods for Engineering	B2	3	
MEEM2003	Mechanics	B2	3	
MEEM2004	Engineering Principles and Design	B2	3	
MEEM2016	Computer Aided Engineering Drawing	B2	3	
MEEM2020	Engineering Workshop Practice	B2	0	This course is exclusively designed for Full-time year ONE students who do not have any experience in engineering workshop practices. Students who have HD or AD and relevant experience in workshop practices may be exempted.
MEEM2029	Electrical and Electronic Principles I	B2	3	
MEEM2034	Introduction to Engineering Materials and Manufacturing Processes	B2	3	
MEEM3024	Ergonomics in Workplace Design	B3	3	
MEEM3025	Integrative Engineering Management I	B3	3	

MEEM3027	Logistics and Materials Management	B3	3	
MEEM3034	Work Design	B3	3	
MEEM3060	Operations Research	B3	3	
MEEM3062	Quality Engineering I	B3	3	
MEEM4020	Enterprise Information Systems	B4	3	
MEEM4068	Project (Individual)	B4	9	Student must fulfill either MEEM4068 or MEEM4069.
MEEM4069	Group Project			

### 2.3 Programme Electives: (21 CUs; SEVEN electives with at least FOUR from B4 level electives)

Course Code	Course Title	Level	Units Worth	Remarks (eg Faculty Accreditation, or Exemption requirements, etc.)
CS3270	Fundamentals of Computer Networks and the Internet	B3	3	
CS4286	Internet Security and E-commerce Protocols	B4	3	
MEEM3006	Plastics Engineering	B3	3	
MEEM3007	CAD/CAM	B3	3	
MEEM3020	Engineering Economic Analysis	B3	3	
MEEM3023	Ergonomics in Man Machine System	B3	3	
MEEM3040	Engineering Database and Systems	B3	3	
MEEM3046	Automation Technology	B3	3	
MEEM3053	Quality Improvement Methodologies	B3	3	
MEEM3057	Industrial Marketing for Engineers	B3	3	
MEEM4002	Computer Aided Process Planning	B4	3	
MEEM4023	Occupational Health & Safety Management	B4	3	
MEEM4024	Project Management	B4	3	
MEEM4025	Quality Systems and Management	B4	3	
MEEM4026	Systems Modelling and Simulation	B4	3	
MEEM4031	Management of Technological Innovation	B4	3	

MEEM4034	Product Development: Managerial Approach	B4	3	
MEEM4040	Entrepreneurship for Engineers	B4	3	
MEEM4041	Maintenance Services and Systems	B4	3	
MEEM4043	Global Operations Management	B4	3	
MEEM4046	Green Industrial Systems	B4	3	
MEEM4047	Directed Studies	B4	3	Only for special occasions, approval must be obtained within the Add/Drop Period of each semester.
MEEM4065	Macroergonomics	B4	3	
MEEM4066	Professional Engineering Practice	B4	3	

## 2.4 Internship Courses (Optional)

Course Code	Course Title	Level	Units Worth	Remarks
FS4001	Co-operative Education Scheme (CES)	B4	8	A year-long company attachment during final year of study
FS4002	Industrial Attachment Scheme (IAS)	B4	3	Summer Internship

## 2.5 Classification of Award

Classification	CGPA
1 <sup>st</sup> Class	CGPA 3.5 or above
2 <sup>nd</sup> Upper	CGPA 3.00 – 3.49
2 <sup>nd</sup> Lower	CGPA 2.50 – 2.99
3 <sup>rd</sup> Class	CGPA 2.00 – 2.49
Pass	CGPA 1.70 – 1.99

### 3. **ACADEMIC REGULATIONS AND GUIDELINES**

Students should observe the University's academic regulations and guidelines at all times. Please refer to the following Academic Regulations and Records Office (ARRO) website for more information.

ARRO Homepage: <http://www.cityu.edu.hk/arro>

### 4. **COMMUNICATIONS**

Listed below are the normal channels of communication between students and courses / programme / department :

- a) Students having difficulties in a course of study should first talk to the course teacher concerned.
- b) A student who wishes to discuss the overall organization of the programme should speak to the Programme Leader.
- c) A student who wishes to discuss issues on a particular part of the programme should speak to the relevant Year Tutor.
- d) The programme's Joint Staff & Student Consultative Committee helps to facilitate consultation and communication. A student from each entry cohort will be elected to sit in the Committee.
- e) In addition, a student from each entry cohort will be elected to sit in the Programme Committee which meets every semester to discuss programme-related matters.
- f) Students should feel free to approach their respective academic advisors for advice regarding their study plan or personal and career development.

### 5. **PROGRAMME LEADER AND YEAR TUTORS**

<b><u>Position</u></b>	<b><u>Staff Name</u></b>
Programme Leader :	Dr. K.B. Chuah
Deputy Programme Leader :	Dr. Alan Chan
Year Tutors :	
2010-2011 cohort	Dr. K. B. Chuah
2009-2010 cohort	Dr. Alan Chan
2008-2009 cohort	Dr. Sherman Ngan
Co-ordinator :	Ms. Priscilla Ling

## 6. INFORMATION TO NEW MEEM STUDENTS

### 6.1 How to access your Personal Class Schedule

- i) Go to <http://www.cityu.edu.hk> from any terminal on campus or off campus.
- ii) Click “Students” and then log onto “e-Portal/Blackboard”.  
*If you have problems in logging in, please follow the instructions in “Having problems logging in?”.*
- iii) Select “View Student Schedule” under the “Courses I am taking” box.
- iv) Press the “View Detail Schedule” button at the bottom of your timetable to display details of your class schedule.

### 6.2 How to get Instructors’ handouts through Blackboard

- i) Log onto the CityU e-Portal from any terminal on campus or off campus.
- ii) Enter the course under “My Courses”
- iii) Click “Current Semester Courses” or “Other Courses”.

### 6.3 How to check Programme Requirements and Course Syllabus

Log onto the CityU home page and click “Academic Programme”.

### 6.4 Course Registration for Semester A 2010-2011

For Semester A 2010-2011, students will be pre-registered in required courses and programme electives in most cases if possible.

- i) The date for release of your class schedule is **27 July 2010**. Please check your curriculum requirements, review your study plan and then make appropriate adjustments to your pre-registered courses.
- ii) Add/Drop of courses can be made through AIMS for web-enabled courses during the web registration period. For non-web-enabled courses, approval is required from the programme department and you can submit your change request by using the Add/Drop Form.

How to do the Add/ Drop:

- Go to <http://www.cityu.edu.hk> from any terminal on campus or off campus and click “Students”.
- Log onto “AIMS” and then click “Course Registration”.
- Choose “Add or Drop Classes”.

- iii) Web registration begins on **16 August 2010** but you need to check your time ticket first from “AIMS”.
- iv) All add/drops end on **6 September 2010**.
- v) Detailed arrangements on Course Registration for Semester A 2010-2011 will be posted by **27 July 2010**. For details, please refer to ARRO website:  
<http://www.cityu.edu.hk/arro/crsreg/>.

## 6.5 How to access your Student Email Account

- i) Go to <http://www.cityu.edu.hk> from any terminal on campus or off campus and click “Students”.
- ii) Click “Email” and then “@student.cityu.edu.hk”.
- iii) Enter your student number as username and password.
- iv) Then you can read and compose mail.

### ***Important notes:***

1. For email communication, please state your student name, number and contact telephone number.
2. Always check and clear your email account, make sure it will not exceed quota (Max. 50M).

## 6.6 Credits Transfer

Applications for credit transfer are accepted at the beginning of the semester/term. For Semester A 2010-2011, the application period is from **12 July 2010 to 27 August 2010**. For details, please refer to ARRO website:  
<http://www6.cityu.edu.hk/arro/content.asp?cid=10>.

## 6.7 Safety Orientation

All students are REQUIRED to complete the on-line Safety Orientation through the MEEM On-line Information System (IntraMEL). A Lab Tour session will be held by the MEEM Laboratory Office in week 1 of Semester A. Students who fail to do so will not be allowed to attend laboratory classes. Details of the session will be sent to you by e-mail.

## 6.8 Administrative Support from MEEM General Office

### **Normal**

Mon to Fri	8:30am to 5:30 pm
Lunch Break	12:30pm to 1:45pm
Sat	9:00am to 12:00 noon

### **Add/Drop Period of Each Semester**

Mon to Fri	8:30 am to 6:30 pm
Lunch Break	12:30pm to 1:45pm
Sat	9:00am to 12:00 noon

Inquiry:	3442-8420
Fax:	3442-0172
Email:	<a href="mailto:megeo@cityu.edu.hk">megeo@cityu.edu.hk</a>