**Master of Science**
**in Electronic and Information Engineering**

<table>
<thead>
<tr>
<th>Student Information</th>
</tr>
</thead>
</table>

**Contents** | **Page** |
--- | --- |
1. PROGRAMME MANAGEMENT | 1 |
2. GENERAL INTRODUCTION | 2 |
3. PROGRAMME STRUCTURE | 3 - 5 |
4. ASSESSMENT | 6 - 8 |
5. PROGRAMME MONITORING AND ADMINISTRATION | 8 - 10 |
6. STAFF LIST | 11 - 15 |
7. GLOSSARIES | 16 - 17 |
8. ACADEMIC CALENDAR OF 2000/2001 | 18 - 19 |
9. LOCATION MAP OF EE LABORATORIES | 20 |

* The contents of this document may be subject to change from time to time. Major changes are subject to the approval of the Senate. Students affected by the change(s) will be notified via email.

* For details of Academic Regulations, please refer to the Student Handbook and the University Calendar published by the Registrar's Office.

* This booklet aims only to provide easy reference for students. Further details are available from the Definitive Programme Documents which can be borrowed from the class representative and Run Run Shaw Library.
1. **PROGRAMME MANAGEMENT**

**Programme Leader**
Prof K M Luk  
Tel: 2788-7352  
Email: EEKMLUK@cityu.edu.hk

**Associate Programme Leader**
Dr Peter S W Leung  
Tel: 2788-7757  
Email: EESWL@cityu.edu.hk

**Assistant Programme Leader & Student Academic Advisor**
Mr L L Cheng  
Tel: 2788-7755  
Email: EEACHENG@cityu.edu.hk

**Student Counsellors for Professional Bodies**

HKIE : Mr L L Cheng  
IEEE : Dr Henry Chung  
IEE : Dr L M Cheng

**External Examiner**

Professor Weng Cho CHEW  
BSc, MSc, PhD, M.I.T.  
Director, Center for Computational Electromagnetics  
and Electromagnetics Laboratory  
Department of Electrical and Computer Engineering  
University of Illinois,  
1406 W Green Street  
Urbana, IL 61801-2991  
USA

**General Enquiries**

Miss Stella Chu  
Executive Officer II  
Tel No. 2788-9859

Ms Noven Wong  
Clerical Officer II (Student Liaison)  
Tel No. 2788-7869

Fax No.  
2788-7791/2788-7227

Web site  
http://www.ee.cityu.edu.hk/


2. **GENERAL INTRODUCTION**
The Master of Science in Electronic and Information Engineering (MSEIE) is a part-time evening postgraduate programme designed primarily for young practicing electronic engineers. It aims to provide an enhancement of specialist technical knowledge in selected strategic areas, such as wireless communications, signal processing, teletraffic and data communications, that are relevant to the current and anticipated future requirements of the local electronics industry.

The Programme is entirely elective-based. Students have a good opportunity to choose electives that best suit their interest as far as possible. Wherever necessary and feasible, the understanding of fundamental concepts or designs is achieved by the use of demonstrations, mini-projects and experiments. Case studies are used to illustrate the design and intellectual concepts when required. Apart from studying taught electives, students may choose to organise, integrate and manage an individual dissertation (EE86180, 9 credits) under the supervision of an academic staff.
3.1 **General**

The Master of Science programme curriculum is made up of elective courses including the 9-credit unit dissertation. The Department of Electronic Engineering offers elective courses in three different levels, namely, level 5 & level 6 for postgraduate level and level 8 for advanced graduate level. Students can take undergraduate level courses as supplementary to the MSEIE courses but credit units will not be awarded towards the programme. In order to fulfil the programme requirement, students have to earn at least 30 credit units of elective courses.

Among the 30 credit units of elective courses, students must take at least 3 credit units of level 8 courses, 6 credit units from IT related course and can take up a maximum of 9 credit units of level 5 courses. Students must complete 12 credit units of level 5 and 6 electives before taking the level 8 courses.

This programme provides graduates with working experience an in-depth exposure in selected communication areas relevant to the current and anticipated future IT and hi-tech requirements of the Hong Kong electronics industry. Due to the rapid advances of the existing technologies, the electives of the programme will be updated from time to time. A list of electives offered in 2000/2001 are given in Figure 1.

3.2 **Laboratory**

The laboratory session, being an integral part of an elective course, consists of experiments and mini-projects to enable students to fully appreciate and make use of the lecture materials.

3.3 **Course Assessment Table**

Full details of elective courses offered in 2000/01 are provided in Figure 1.
**Figure 1 - Course Assessment Table for Students Intake in 1999/2000 and onwards**

In order to fulfil the award requirement, student must complete a total of 30 credit units of which at least 3 units must be obtained from a Level 8 course and 6 credit units from IT related courses. In addition, not more than 9 credit units can be obtained from Level 5 courses. Students are allowed to take a Level 8 course only when they have completed 12 credit units. Students can decide on their own pace of studies by selecting courses of up to 11 credit units in each semester and complete the programme within 2 to 5 years’ time.

This table provides details of all courses offered in 2000/2001. Please note that the courses offered are subject to change from time to time. You are advised to refer to the latest Course Registration information available at the EE homepage (http://www.ee.cityu.edu.hk) before the start of each semester.

**Programme: Master of Science in Electronic and Information Engineering (MSEIE) (PTE)**

<table>
<thead>
<tr>
<th>Pre-Cursor</th>
<th>Pre-Requisite</th>
<th>Offer</th>
<th>Course Code &amp; Title</th>
<th>CU</th>
<th>Contact Hours</th>
<th>C %</th>
<th>X %</th>
<th>Exam Dur</th>
<th>W</th>
<th>Equivalent Course (with restriction)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>EE30108</td>
<td>A</td>
<td>33 0 9 42</td>
<td>40</td>
<td>60</td>
<td>3 1 Nil</td>
<td></td>
<td>EE40310</td>
<td>@</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EE32210 or EE40211 or EE54210</td>
<td>A</td>
<td>33 0 9 42</td>
<td>40</td>
<td>60</td>
<td>3 1 Nil</td>
<td></td>
<td>EE10135</td>
<td>@</td>
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<td></td>
<td></td>
<td></td>
<td>EE30108</td>
<td>A</td>
<td>33 0 9 42</td>
<td>40</td>
<td>60</td>
<td>3 1 Nil</td>
<td></td>
<td>EE40310</td>
<td>@</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EE40313 or EE40314 or EE40312</td>
<td>A</td>
<td>33 0 9 42</td>
<td>40</td>
<td>60</td>
<td>3 1 Nil</td>
<td></td>
<td>EE10135</td>
<td>@</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EE20331 or EE31331 or EE54312</td>
<td>A or B</td>
<td>33 0 9 42</td>
<td>40</td>
<td>60</td>
<td>3 1 Nil</td>
<td></td>
<td>EE40147</td>
<td>@</td>
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<td></td>
<td></td>
<td></td>
<td>EE54330</td>
<td>B</td>
<td>33 0 9 42</td>
<td>40</td>
<td>60</td>
<td>3 1 Nil</td>
<td></td>
<td>EE10135</td>
<td>@</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EF5061 The Economics &amp; Finance of Innovation Management</td>
<td>B</td>
<td>33 0 9 42</td>
<td>40</td>
<td>60</td>
<td>3 1 Nil</td>
<td></td>
<td>EE40147</td>
<td>@</td>
</tr>
</tbody>
</table>

(To be cont’d……)
Figure 1 - Course Assessment Table for Students Intake in 1999/2000 and onwards

<table>
<thead>
<tr>
<th>Pre-Cursor</th>
<th>Pre-Requisite</th>
<th>Offer In</th>
<th>Course Code &amp; Title</th>
<th>CU</th>
<th>Contact Hours</th>
<th>C %</th>
<th>X %</th>
<th>Exam Dur</th>
<th>W</th>
<th>Equivalent Course (with restriction)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE64128</td>
<td></td>
<td>B</td>
<td>EE64124 Optical Sensors &amp; Applications (not offered in 00/01)</td>
<td>3</td>
<td>33 0 9 42</td>
<td>40</td>
<td>60</td>
<td>3 1</td>
<td>Nil</td>
<td></td>
<td>@</td>
</tr>
<tr>
<td>EE64125</td>
<td></td>
<td>B</td>
<td>EE64126 Radio Frequency (RF) Circuit Engineering</td>
<td>3</td>
<td>33 0 9 42</td>
<td>40</td>
<td>60</td>
<td>3 1</td>
<td>Nil</td>
<td></td>
<td>@</td>
</tr>
<tr>
<td>EE64150</td>
<td></td>
<td>B</td>
<td>EE64151 Advanced Topics in Engineering II (not offered in 00/01)</td>
<td>3</td>
<td>28 14 0 42</td>
<td>50</td>
<td>50</td>
<td>2 1</td>
<td>Nil</td>
<td></td>
<td>#</td>
</tr>
<tr>
<td>EE32210 or EE40211 or EE54210</td>
<td></td>
<td>B</td>
<td>EE64211* Speech and Audio Technology for Multimedia Applications on Internet</td>
<td>3</td>
<td>30 0 12 42</td>
<td>40</td>
<td>60</td>
<td>3 1</td>
<td>Nil</td>
<td></td>
<td>@</td>
</tr>
<tr>
<td>EE54312</td>
<td></td>
<td>B</td>
<td>EE64312* Switching &amp; Routing in Telecommunication Networks</td>
<td>3</td>
<td>33 0 9 42</td>
<td>40</td>
<td>60</td>
<td>3 1</td>
<td>Nil</td>
<td></td>
<td>@</td>
</tr>
<tr>
<td>EE40135 or EE64128 EE84133</td>
<td></td>
<td>B</td>
<td>MEEM 6012 Management of Technological Innovation</td>
<td>3</td>
<td>42 0 0 42</td>
<td>50</td>
<td>50</td>
<td>2 1</td>
<td>Nil</td>
<td></td>
<td>#</td>
</tr>
<tr>
<td>EE64128</td>
<td>EE64128</td>
<td>B</td>
<td>EE84129 Fibre and Integrated Optics</td>
<td>3</td>
<td>42 0 0 42</td>
<td>40</td>
<td>60</td>
<td>3 1</td>
<td>Nil</td>
<td></td>
<td>#</td>
</tr>
<tr>
<td>EE40135 or EE64128 EE84133</td>
<td></td>
<td>B</td>
<td>EE84134 Advanced Topics in Microwave &amp; Electromagnetics II</td>
<td>3</td>
<td>42 0 0 42</td>
<td>100</td>
<td>0</td>
<td>0 1</td>
<td>Nil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE64112 or EE6412</td>
<td></td>
<td>B</td>
<td>EE84215 Advances in Digital Signal Processing</td>
<td>3</td>
<td>42 0 0 42</td>
<td>100</td>
<td>0</td>
<td>0 1</td>
<td>Nil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE54330</td>
<td>EE54330</td>
<td>B</td>
<td>EE84330 VLSI Design &amp; Yield Optimization (not offered in 00/01)</td>
<td>3</td>
<td>42 0 0 42</td>
<td>40</td>
<td>60</td>
<td>3 1</td>
<td>Nil</td>
<td></td>
<td>#</td>
</tr>
<tr>
<td>EE64128</td>
<td></td>
<td>A/B</td>
<td>EE86180 Dissertation</td>
<td>9</td>
<td>0 0 450 450</td>
<td>100</td>
<td>0</td>
<td>0 1</td>
<td>Nil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE64128</td>
<td></td>
<td>A/B</td>
<td>EE84461 Research Seminar I</td>
<td>0.5</td>
<td>0 0 0 0</td>
<td>0</td>
<td>0</td>
<td>0 1</td>
<td>Nil</td>
<td>P/F</td>
<td></td>
</tr>
<tr>
<td>EE64128</td>
<td></td>
<td>A/B</td>
<td>EE84462 Research Seminar II</td>
<td>0.5</td>
<td>0 0 0 0</td>
<td>0</td>
<td>0</td>
<td>0 1</td>
<td>Nil</td>
<td>P/F</td>
<td></td>
</tr>
</tbody>
</table>

Key:  
CU = Credit Unit  
Lec = Lecture  
Tut = Tutorial  
Lab = Laboratory  
C = Coursework  
X = Examination  
Exam Dur = Exam Duration  
W = GGPA Weighting (per CU)  
A/B = Semester A/Semester B

Ψ - Students must have completed 12 credit units before taking any Level 8 courses.
@
@ - For a student to pass the course, at least 30% of the maximum mark for the examination must be obtained, and a laboratory attendance of at least 75% recorded.
# - For a student to pass the course, at least 30% of the maximum mark for the examination must be obtained.
● - Equivalent courses proposed by students, other than those listed below, are to be considered and approved by the course lecturer concerned.
Φ - 4 credit units in Semester A and 5 in Semester B.
P/F - Course Assessed in Pass/Fail basis.
* - IT related course.
4. **Assessment**

4.1 **Grading of Courses**

The assessment of your academic work is published and recorded in terms of grades. Course grades are approved by Assessment Panels (please refer to the Student Handbook). It is important to note that in order to achieve a pass grade for most EE courses, students are required to attain

(i) a minimum examination mark of 30% (where a course is assessed wholly or partly by examination),

(ii) a laboratory attendance of at least 75% (for courses which include a laboratory component),

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Grade Point</th>
<th>Grade Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>4.3</td>
<td>Strong evidence of original thinking; good organization, capacity to analyse and synthesize; superior grasp of subject matter; evidence of extensive knowledge base.</td>
</tr>
<tr>
<td>A</td>
<td>4.0</td>
<td>Excellent</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
<td></td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
<td>Evidence of grasp of subject, some evidence of critical capacity and analytic ability; reasonable understanding of issue, evidence of familiarity with literature.</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
<td>Good</td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
<td></td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
<td>Student who is profiting from the university experience; understanding of the subject; ability to develop solutions to simple problems in the material.</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
<td>Adequate</td>
</tr>
<tr>
<td>C-</td>
<td>1.7</td>
<td></td>
</tr>
<tr>
<td>Grade</td>
<td>Numerical Value</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>----------------</td>
<td>-------------</td>
</tr>
<tr>
<td>D</td>
<td>1.0</td>
<td>Marginal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sufficient familiarity with the subject matter to enable the student to progress without repeating the courses.</td>
</tr>
<tr>
<td>F</td>
<td>0.0</td>
<td>Failure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Little evidence of familiarity with the subject matter; weakness in critical and analytic skills; limited, or irrelevant use of literature.</td>
</tr>
<tr>
<td>P</td>
<td></td>
<td>“Pass” in a pass-fail course. Courses to be graded on a pass-fail basis for a Programme are specifically identified under the Programme in the University Calendar.</td>
</tr>
<tr>
<td>I</td>
<td></td>
<td>“Incomplete”. A grade of incomplete may be granted (1) where there are extenuating circumstances that have prevented a student from completing required work, or attending the examination; (2) at the discretion of the Assessment Panel. Where an I grade is assigned, the Assessment Panel will approve a schedule for the completion of work, or a supplementary examination. An I grade will be converted into a F grade four weeks after the I grade is first reported to the Registrar, unless an alternative grade has been assigned.</td>
</tr>
<tr>
<td>X</td>
<td></td>
<td>Assigned when a student is permitted to drop the course after the normal drop date.</td>
</tr>
</tbody>
</table>

Grades of P, I and X are not counted in the calculation of a student’s GPA.

4.2 **Classification and Conferment of Awards**

Students may be granted a postgraduate award, only if they have achieved a Graduation GPA of 2.0 or above.
Classification of Master’s Degrees

Distinction
Credit
Pass

University awards are classified by the Faculty Examination Board which makes a recommendation to Senate for the conferment of awards.

4.3 Academic Regulations

Where a postgraduate student’s SGPA falls below 2.0, the student is warned and the relevant Faculty/College Examination Board is informed. The Faculty/College Examination Board will then consider appropriate action, including the termination of the student’s studies (AR 11.7). Detailed Academic Regulations are available from the CityU’s Students Handbook 2000/01.

5. PROGRAMME MONITORING AND ADMINISTRATION

5.1 Programme Committee

The Programme Committee forms a formal consultative channel between staff and students. It consists of the Head of Department (or his/her nominee), the Programme Leader, the Associate Programme Leader, the Assistant Programme Leader / Student Academic Advisor, staff representatives from each subject group within the Department of Electronic Engineering, staff representatives from servicing departments, and student representatives.

The Programme Committee will typically meet once per semester. Its main functions are to monitor and manage the operation of the programme, to ensure the maintenance of quality, and to enable a process of continuous review of the programme to take place so that curriculum and organizational improvements may be introduced.
5.2 **Programme Leader and Associate Programme Leader**

The Programme Leader and Associate Programme Leader are appointed by the Head of Department. Their duties include the day-to-day management of the programme, the running of the Programme Committee, and the preparation of any reports which are required at the faculty or institutional level concerning the status of the programme.

5.3 **Course Examiner**

A Course Examiner is appointed for each course in the programme. The Course Examiner is responsible for co-ordinating the preparation and marking of the coursework and examination papers for the course concerned.

5.4 **Assistant Programme Leader / Student Academic Advisor**

The Assistant Programme Leader / Student Academic Advisor is appointed by the Programme Leader. He/she is responsible for providing guidance for students concerning course selection. Students can also consult advisor about the administrative matters of courses or academic affairs.

5.5 **External Examiner**

An External Examiner has been appointed for the programme. He/she’s primary function is to ensure that the academic standards of the courses in the programme are maintained at an appropriate level. Please refer to the Academic Calendar for details on the responsibilities and duties of external examiners.

5.6 **Communication and Feedback**

Students who have academic difficulties with a particular course should speak directly to the lecturer responsible for the course.
Administrative or academic problems of a more general nature, such as the study plan and selection of electives should be referred to either the Student Academic Advisor/Assistant Programme Leader, the Associate Programme Leader or the Programme Leader.

5.7 Joint Staff/Student Consultative Committee

The Joint Staff/Student Consultative Committee is a formal channel of the consultation between students and the academic staff of the Department.

Objectives:

i/ To provide students with an opportunity to present their views on the content, organization and operation of the Programme.

ii/ To raise any complaints or make any suggestions on teaching methods and on other academic matters.

Constitution:

i/ The Committee shall consist of:

the Programme Leader (Chairman);
the Associate Programme Leader;
the Assistant Programme Leader/Student Academic Advisor;
Student representatives from each intake year of the Programme.

ii/ The Committee meets at least once a year and the meetings are conducted in an informal manner with no official minutes.

iii/ The meeting is consultative in nature and does not constitute any obligation to either party. No discussion is to be related to the performance of individual staff or students.
6. **STAFF LIST**

Please refer to http://www.ee.cityu.edu.hk
**Assessment Panels**  
University bodies responsible for assigning grades to students for their courses.

**Course**  
The basic units of instruction into which students are registered and for which grades may be assigned.

**Credit Transfer**  
The assignment of credit units toward the credit unit requirements of a Programme on the basis of work done outside that Programme. Credit units are normally assigned against specific courses for work equivalent in content and standard.

**Credit Unit**  
Each course is assigned a number of credit units. A credit unit is earned by approximately forty-to-fifty hours of student work.

**Department**  
Department of Electronic Engineering

**Grade Point Average (GPA)**  
\[ \text{GPA} = \frac{\sum_{i=1}^{n} G_i U_i}{\sum_{i=1}^{n} U_i} \]

Where \( G \) is the grade point awarded and \( U \) the credit units earned for the \( i \)th course.

**Graduation GPA (GGPA)**  
\[ \text{GGPA} = \frac{\sum_{i=1}^{n} G_i U_i W_i}{\sum_{i=1}^{n} U_i W_i} \]

Where \( W \) is the weight of the \( i \)th course as assigned for the Programme(s) in which it is included. Course weights are included in the description of the programme in the University Calendar. Courses assigned grades F, I, P and X are not counted in the calculation of GGPA.

**Prerequisite & Precursors**  
A requirement that must be fulfilled before a student can register in a particular course. Precursors are set for some courses. Precursors are not requirements, but
students are advised to complete precursors before registering in these courses.

<table>
<thead>
<tr>
<th>Programme</th>
<th>The structured academic programme leading to a named award of the University into which students are registered.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester</td>
<td>The Academic Year is divided into three Semesters, Semester A, Semester B and the Summer Semester.</td>
</tr>
<tr>
<td>University</td>
<td>City University of Hong Kong</td>
</tr>
</tbody>
</table>
Please refer to Academic Information System
CPN No: EE/01/99/08/01D