

IE4100R B.Eng. Dissertation (Final Year Project)

Module Outline Sem 2 AY2008/2009

| | |
|----------------------|--|
| Modular Credit | 8 |
| Hours per Week | 10 |
| Duration | 2 semesters |
| Pre-requisite | ISE Eng. 4 standing |
| Module Advisors | A/Prof Poh Kim Leng (isepohkl@nus.edu.sg) |
| Module Administrator | Miss Ida Heryani Sohdi (iseihs@nus.edu.sg) |
| Website | B.Eng. (ISE) Students Website http://www.ise.nus.edu.sg/beng_students |

IMPORTANT INFORMATION

The Module Outline (this document) gives the student important information about the module, guidelines, assessments, schedules and project allowance.

Note that important general information including announcements, forms and guidelines is available on the B.Eng. (ISE) Students Website
< http://www.ise.nus.edu.sg/beng_students >

23 December 2008

MODULE DESCRIPTION

The objective of the module is to give students exposure to research. In this module, each student is assigned to a research project that requires application of industrial and systems engineering concepts. The module provides the opportunity for students to conduct self study by reviewing literature, defining a problem, analyzing the problem critically, conducting design of experiments, and recommending solutions. It also enables students to improve their communication skills through technical report writing and oral presentation.

IMPORTANT DOCUMENTS

Please note that students are to submit the following documents on the stated submission dates to ISE department. All forms can be downloaded from the B.Eng. (ISE) Students Website.

1. Transport Claim Form
Students may claim for travelling expenses for the purpose of research for the project. Claims must be accompanied by receipts and submitted to the ISE Department at the end of the month.
2. Payment Voucher
Students may claim purchases or consumables for the purpose of research for the project. Claims must be accompanied by receipts and submitted to the ISE Department at the end of the month.
3. IE4100R B.Eng. Dissertation Declaration Form
Students must sign a Declaration Form to ascertain your contribution in the achievement of the dissertation and the assistance you have received from others. This declaration must be vetted and signed by your supervisor/s before it is submitted to the ISE Department Office together with the typewritten, unbound (or ring bound) copies of your thesis. Only **one** copy of the Declaration Form is required.

PROJECT ALLOWANCE

Students are allocated a maximum sum of **S\$100 each** for local transport claims and reimbursements for materials used during the research and for the completion of the project. **Please attach receipts to the forms and submit your claims at the end of the month.**

Students may claim for expenses or consumables, such as photocopying of journal papers, surveys forms, mailing, etc. However, students **cannot** claim expense on the binding of thesis, making copies of thesis and making draft copies of thesis for examination. These cost should be borne by the students.

Other costs and expenses not stated here will be dealt with on a case by case basis and is subjected to Department's approval. The Department's decision is final. The Department may request for items to be returned at the end of the project.

Guidelines for transport claims:

a) Students travelling for the purpose of research for the project may claim according to bus fare or MRT fare rates if they use public transport. When making a bus/MRT fare claim, please state the time and place of the start and end of the journey in the form.

b) Travel by taxi is only allowed when the student has to travel to remote/inaccessible places for the purpose of research for the project. When claiming reimbursement for taxi-fare, receipts issued by taxi drivers must be attached to the claim form.

c) Students may claim for Electronic Pricing Fees (ERP) fees when travelling for the purpose of research for the project. Such claims should be accompanied by supporting documents like ERP receipts.

d) Students may claim for mileage, if they use their private vehicles for travelling for the purpose of research for the project, at the following rates:

Motor car : \$0.60 per km

Motor cycle/scooter : \$0.20 per km

You may refer to www.gothere.sg for the route distance travelled.

EVALUATION OF PROJECTS

The assessment of the dissertation comprises three parts:

1. **Class Attendance and Participation (5%)**

All ISE 4 students are required to attend 5 hours of lecture in research methodology.

2. **Progress Report (10%)**

Students are required to submit a hardcopy progress report to their supervisor/s according to the schedule below.

All copies of the progress report must be printed, typewritten and double-spaced, with ample margins, on one side of A4-size papers. The length of report should not exceed ten pages, excluding figures. It should include a brief description of the project, literature review, progress made to-date and future direction of study.

Failure to submit the progress report by the given deadline may result in a penalty and the student may be barred from the final examination.

3. **Final Examination (85%)**

The final assessment of the dissertation includes the following items:

- (i) working attitude (15%; awarded by supervisor/s)
- (ii) research methodology (15%)
- (iii) project achievement (20%)
- (iv) report writing (20%)
- (v) final oral presentation (15%)

- **Draft Report**

A copy of the draft report in a standard report format must be submitted to the supervisor/s for approval by the date stated in the schedule below.

The report should be concise and follow a standard dissertation style. Please access the B.Eng. (ISE) Students Website for the **Guidelines for the Preparation of IE4100R/IE4100 B.Eng. Dissertation Report.**

- **Unbound Thesis (Final Report)**

A final report which incorporates all the corrections to the draft report must be re-submitted (together with the original version of the examined draft report) to the supervisor/s and examiner/s for vetting.

Upon approval, students must submit typed unbound (or ring bound) copies of the thesis for oral examination and final grading. Please ensure that **each supervisor and examiner receives a copy. All copies for supervisor/s and examiner are to be submitted to the Department office.**

Failure to submit the final report by the given deadline will result in a penalty (i.e. deduction of marks) unless with valid reason.

- **Final Oral Presentation**

Each student is given 20 minutes for the presentation of the project and another 10 minutes for question and answer. Students are advised to adhere strictly to the time limit otherwise they may be penalised. Please save the presentation materials in a thumbdrive or CD-ROM. A LCD projector and a PC/notebook will be provided in all examination rooms. Students may bring their own notebook but they must ensure that it is compatible with the projector provided.

- **Submission of Bound Thesis and Electronic Copy**

The thesis is to be bound for final submission upon approval by your supervisor/s. The hardcover of the bound thesis should be black with words printed in gold. Please submit **one copy to the ISE Department Office.** Please check with the respective supervisors if a hardcopy submission is required for themselves.

In the case of industrial projects, depending upon prior arrangements, copies of your thesis may have to be submitted to the company concerned through your supervisor/s.

In addition, an electronic version of the thesis in pdf format, presentation slides and other relevant materials must be saved in CD-ROM and submitted to the Department.

Department reserves the right to withhold the student's exam results if the student fails to submit the bound thesis and the electronic copy by the given deadline.

FAILURE IN DISSERTATION

If students fail to achieve a pass mark in the dissertation, they will be required to re-write the thesis and/or perform further research (depending on the recommendation of the supervisor/s and examiner). They must then re-submit the thesis for examination.

SCHEDULE FOR IE4100R B.Eng. DISSERTATION EXAMINATIONS FOR PROJECTS STARTING SEM 2 AY2008/2009

| | | |
|--------------|--|---|
| Sem 1 | Progress Report Submission of progress report | Friday, 15 May 2009 |
| Sem 2 | Final Examination Completion of main research | Wednesday, 9 September 2009 |
| | Submission of draft report for approval by supervisor/s | Friday, 9 October 2009 |
| | Submission of final report in typed unbound (or ring bound) copies of thesis to supervisor/s and examiner for oral examination and final grading. Submission of Declaration Form to ISE Department. | Friday, 23 October 2009 |
| | Final oral presentation | Monday, 9 November 2009 – Thursday, 12 November 2009 |
| | Submission of bound thesis (ONE Copy for department) and all FYP materials in softcopy to ISE Department. *Hard copies for supervisors are optional. Kindly check with the respective supervisors. | Monday, 28 December 2009 |

* Please observe the above deadlines strictly unless advised otherwise.