

Master of Philosophy (MPhil) and Doctor of Philosophy (PhD) Programs in Industrial Engineering and Logistics Management

Curriculum for Master of Philosophy (MPhil) Program in Industrial Engineering and Logistics Management

The Master of Philosophy (MPhil) program focuses on strengthening the students' background in their chosen areas of concentration, and training them for engineering research and development. The MPhil program is highly suitable for individuals with aspirations to take leading technical roles in Hong Kong's high value-added business organizations.

Students are required to take a minimum of 15 credits of approved PG coursework, with at least three courses (9 credits) from the following five course groups:

- IELM 5110 Information System Design
- IELM 5170 Advanced Production Planning and Control
- IELM 5230 Deterministic Models in Operations Research; or
IELM 5250 Stochastic Models in Operations Research
- IELM 5260 Design and Analysis of Engineering Experiments
- IELM 5320 Design for People; or
IELM 5520 Human-Computer Systems

Students are also required to participate in IELM 6800 Departmental Seminar for at least two terms.

Students must pass LANG 5001 Postgraduate English for Academic Purposes, the one credit earned from which cannot be counted toward the degree requirements. Students can be exempted from taking LANG 5001 with the approval of the Department Head and PG Coordinator.

To complete the degree program, a student must satisfactorily complete a thesis to demonstrate competency in engineering research.

Energy Technology Concentration

In addition to the program requirements specified above, students who opt for the Energy Technology concentration are required to:

- Take one ENEG course;
- Complete ENEG 6010 Advanced Topics in Energy Technology for one term. They can use ENEG 6010 to replace one term of registration of IELM 6800; and
- Conduct research in energy area.

Curriculum for Doctor of Philosophy (PhD) Program in Industrial Engineering and Logistics Management

The Doctor of Philosophy (PhD) program caters for students who wish to pursue a career in advanced industrial research and development, or university research and teaching. It emphasizes training in original thinking and independent research. Students are free to design the program of study most suitable to their interests and needs. The program of study should cover a specialized area in industrial engineering.

The PhD program aims at developing a student's skills in identifying issues related to a theoretical problem or a practical application, formulating an original research project that addresses some of the significant issues, and independently creating an effective solution to the problem.

Students who have a bachelor's degree are required to take a minimum of 36 credits of approved coursework. Students entering with master's degrees from other universities may be granted credit transfer of up to 12 credits. Subject to the approval of the student's thesis supervisor and the PG Committee, a maximum of 6 credits of UG 4000-level coursework may be counted toward the degree requirements.

Specific program requirements are as below:

1. Taking the following courses:
 - IELM5110 Information System Design
 - IELM5170 Advanced Production Planning and Control
 - IELM5230 Deterministic Models in Operations Research; or
IELM5250 Stochastic Models in Operations Research
 - IELM5260 Design and Analysis of Engineering Experiments
 - IELM5320 Design for People; or
IELM5520 Human-Computer Systems
2. Taking at least one 3-credit IELM Special Topics or 6000-level course;
3. Passing LANG 5001 Postgraduate English for Academic Purposes, the one credit earned from which cannot be counted toward the degree requirements. Students can be exempted from taking LANG 5001 with the approval of the Department Head and PG Coordinator;
4. Taking IELM 6800 Departmental Seminar for at least four terms during their residency. Part-time students may be exempted from this requirement;
5. Passing the qualifying examination and the preliminary oral examination to review and approve the student's written thesis research proposal; and
6. Presentation and oral defense of the PhD thesis.

Energy Technology Concentration

In addition to the program requirements specified above, students who opt for the Energy Technology concentration are required to:

- Take one ENEG course;
- Complete ENEG 6010 Advanced Topics in Energy Technology for one term. They can use ENEG 6010 to replace one term of registration of IELM 6800; and
- Conduct research in energy area.