

Catalog of Postgraduate Programs and Curricula

Curriculum for PhD(IELM) (For students admitted in 2010-11)

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

Credits

1. To complete a **minimum of 36 credits** of approved coursework.
2. Subject to the approval of the student's thesis supervisor and the PG Committee, a maximum of 6 credits of undergraduate 4000-level coursework may be counted toward the degree requirements.
3. Students entering with master's degrees from other universities may be granted credit transfer of up to 12 credits.
4. Students are required to take:
 - 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*
 - At least one 3-credit IELM Special Topics or 6000-level course.

Postgraduate Seminar

Full-time students must take and pass IELM 6800 *Departmental Seminar* for at least 4 terms during their residency.

Part-time students may be exempted from this requirement.

Language Requirements

Students must pass LANG 5001 *Postgraduate English for Academic Purposes*.

- (a) *The 1 credit earned from LANG 5001 cannot be counted toward the credit requirements.*
- (b) *Exemption from taking LANG 5001 may be granted by the Department Head and PG Coordinator.*

Qualifying Examination

To pass a qualifying examination.

Research and PhD Thesis Examination

1. To pass a preliminary oral examination to review and approve the student's written thesis research proposal;
2. To conduct research and enroll in IELM 7990 *Doctoral Thesis Research*; and
3. To defend the PhD thesis successfully.

Concentration

Energy Technology Concentration

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

- Take 1 ENEG course;
- Complete ENEG 6010 *Advanced Topics in Energy Technology* for 1 term. (*ENEG 6010 can be used to replace 1 term of registration of IELM 6800*); and
- Conduct research in energy area.