INDUSTRIAL ENGINEERING (PHD)

Doctor of Philosophy in Industrial Engineering
Unit: Speed School of Engineering (http://engineering.louisville.edu)(GS)
Department: Industrial Engineering (https://engineering.louisville.edu/academics/departments/industrial)
Academic Plan Code(s): IE_ _PHD

Program Information
General Information
The PhD degree program is intended for persons having an accredited master's and/or baccalaureate degree in Industrial Engineering, but is available to those with other backgrounds. Applicants with other backgrounds should plan on taking some undergraduate background coursework. Students interested in the PhD degree program should consult the Director of Graduate Studies in the Department of Industrial Engineering. The University of Louisville is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award doctoral degrees.

Degree Requirements
The award of a Doctor of Philosophy degree indicates that a student has attained mastery of a field and has demonstrated the capacity to perform independent scholarly research. Candidates for the Doctor of Philosophy degree must have a minimum final cumulative grade point average of 3.00 for all academic coursework attempted in Graduate Studies.

The requirements for the Doctor of Philosophy degree are explained in more detail in the Degree Requirements section (http://catalog.louisville.edu/graduate/general-policies-procedures-requirements/degree-requirements) of this catalog.

Admission Standards
The admission standards for the PhD program in industrial engineering are as follows:

1. All admission applications for the program shall include:
   a. A completed application (http://louisville.edu/graduate/apply) for the Graduate School,
   b. An application fee,
   c. Results from the Graduate Record Examination (GRE),
   d. At least two letters of recommendation, and
   e. Official transcript(s) for all previous post-secondary coursework. All transcripts not in English must be certified as authentic and translated verbatim into English.

2. The minimum requirement for admission is the baccalaureate degree or its equivalent from an accredited institution.

3. The successful applicant will typically have an undergraduate grade point average of 3.00 or above (on a 4.00 scale).

4. The successful applicant will typically have a GRE Combined Verbal and Quantitative Reasoning score of 305 or above.

5. International students whose primary language is not English must show English language proficiency by either TOEFL/IELTS score or demonstration of a degree award from an acceptable English language institution. The successful applicant will typically have a total TOEFL score of 80 or higher or overall IELTS score of 6.5 or higher.

Program Requirements
Normally, it is expected that the student will complete a master's degree before being admitted to the PhD Program. However, qualified applicants may be admitted directly to the doctoral program after receiving a baccalaureate degree. These students will be required to complete an additional 30 credit hours of coursework at the 500 and 600 level under an individual plan developed in conjunction with the department's Director of Graduate Studies. Also, remedial work may be specified for those applicants who, in the opinion of the faculty, do not have a sufficient background.

The minimum curricular requirements for the doctoral program are:

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td></td>
<td>Post-Baccalaureate Coursework</td>
<td></td>
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<tr>
<td>Approved Master's Level Coursework 1,2</td>
<td>30</td>
<td></td>
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<tr>
<td>Technical Electives 2</td>
<td>15</td>
<td></td>
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<tr>
<td>IE 700</td>
<td>Dissertation Research in Industrial Engineering</td>
<td>9</td>
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<tr>
<td>Minimum Total Hours</td>
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<td>54</td>
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1 Master's-Level Coursework and/or IE Electives must be chosen so that nine (9) credit hours of core courses are taken. The core courses are listed below. IE 515, IE 516, IE 563

2 All electives must be approved by the department

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