PhD in Industrial Engineering

Admission Requirements
Following are the minimum requirements for admission to the PhD in Industrial Engineering program.

1. Applicants whose native language is not English must submit official, acceptable scores for either the TOEFL, the Academic Module of the IELTS examination, or the PTE-Academic test. Please visit the Graduate School website (http://wichita.edu/gradschool), to check English proficiency requirements;
2. Submission of official GRE scores is required;
3. Applicants must have (or be nearing the completion of) a master’s degree in engineering, physical science, or other related disciplines with a minimum cumulative GPA of 3.250 (on a 4.000 point scale) in all graduate coursework;
4. A statement of purpose indicating applicant's research interests, and evidence of the ability to carry out independent research and present it in written English is highly desirable;
5. Submission of two letters of recommendation; and
6. Prerequisites:
   a. Completion of the following or equivalent courses:
      
      | Course   | Title                                      | Hours |
      |----------|--------------------------------------------|-------|
      | IME 255  | Engineering Economy                       | 3     |
      | MATH 344 | Calculus III (students deficient in this are considered for admission only in nondegree status) | 3     |
      
      A natural science course equivalent to that of the undergraduate engineering requirement

   b. Programming competence in at least one of the following languages: C, C++, or Visual BASIC.

Direct Admission of BS Graduates in Industrial Engineering
The department of industrial, systems and manufacturing engineering (ISME) offers direct admission for truly exceptional students to its PhD program. Applicants must have consistent and exceptional credentials throughout all their academic career, including:

- An undergraduate degree in engineering, physical science, or other related discipline;
- A minimum GPA of 3.500, on a 4.000 scale, during the final 60 credit hours of coursework; and
- A letter of endorsement for admission from an ISME graduate faculty member. (This requirement reflects the willingness of an ISME graduate faculty member to serve as the research advisor for the applicant upon admission.)

All other minimum requirements for admission into the PhD in Industrial Engineering program must be met.

Program Requirements
1. Course Distribution: Total credit hours = minimum of 72 credit hours
   
   Graduate Coursework: at least 48 credit hours;
   a. Including a maximum of 24 credit hours transferred from an MS degree in industrial engineering or closely related field;
   b. Excluding dissertation hours;
   c. Preapproved by the graduate coordinator or department chair before registration;
   d. With at least 50 percent coursework (beyond credit hours transferred from the MS degree) from the department;
   e. Excluding independent study courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Dissertation</td>
<td>Select at least 24 credit hours in dissertation</td>
<td>24</td>
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<tr>
<td>Required Courses</td>
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<tr>
<td>IME 724</td>
<td>Statistical Methods for Engineers</td>
<td>3</td>
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<tr>
<td>IME 777</td>
<td>IME Colloquium (three semesters)</td>
<td>0</td>
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<td>Technical Electives</td>
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<td>Professional and scholarly integrity training (preferably completed in the first semester)</td>
<td>45</td>
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   Total Credit Hours 72

2. Advisor, Advisory Committee and Plan of Study: Before completing 12 PhD credit hours at WSU, a student must select an advisor and an advisory committee. With the help of the advisor, the student must prepare a plan of study that needs to be approved by the advisory committee, graduate coordinator and Graduate School before the preliminary and comprehensive exam is attempted. For details of the preliminary examination, please refer to the ISME website.

3. Preliminary examination: Before completing 18 PhD hours at WSU, a student must pass the preliminary examination administered by the department in at most two attempts. Students who cannot pass the preliminary exam in 1.5 years will be dismissed from the PhD program.

4. Dissertation approval examination: Prepare a dissertation research proposal and pass an oral examination of the proposal. A student cannot attempt the examination more than twice.


6. Other Program Requirements: All other requirements are the same as those established for the college and the university.

7. Time limits: From the time the student is admitted to the program, no more than 10 years may elapse until requirements for the degree have been completed.