HUMAN SYSTEMS ENGINEERING GRADUATE OPTION

This option is offered within the following major(s):

- Industrial Engineering - College of Engineering (http://catalog.oregonstate.edu/college-departments/engineering/school-mechanical-industrial-manufacturing-engineering/industrial-engineering-meng-ms-phd/)

This graduate option within the Industrial Engineering major distinguishes an area of specialization, human systems engineering, within the broader discipline of industrial engineering. Human Systems Engineering (HSE) uses engineering methods and knowledge from the physical, biological, information, social, and management sciences to develop, implement, operate, evaluate, and improve human-machine, human-human, and human-organization systems. Topical areas include management systems engineering and human factors and ergonomics.

Option Code: 3192

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IE 545</td>
<td>HUMAN FACTORS ENGINEERING</td>
<td>4</td>
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<tr>
<td>or IE 570</td>
<td>MANAGEMENT SYSTEMS ENGINEERING</td>
<td></td>
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<tr>
<td>IE 546</td>
<td>HUMAN-MACHINE SYSTEMS ENGINEERING</td>
<td>3-4</td>
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<tr>
<td>or MFGE 536</td>
<td>LEAN MANUFACTURING SYSTEMS ENGINEERING</td>
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<tr>
<td>IE 548</td>
<td>COGNITIVE ENGINEERING</td>
<td>3</td>
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<td>or IE 571</td>
<td>PROJECT MANAGEMENT IN ENGINEERING</td>
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</tbody>
</table>

Select one course from the following: 3-4

- H 594  APPLIED ERGONOMICS
- IE 515  SIMULATION AND DECISION SUPPORT SYSTEMS
- ME 515  RISK AND RELIABILITY ANALYSIS IN ENGINEERING DESIGN
- MFGE 535  INDUSTRIAL SUSTAINABILITY ANALYSIS
- PSY 537  MOTIVATION
- PSY 544  LEARNING AND MEMORY
- PSY 596  INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY
- SOC 518  QUALITATIVE RESEARCH METHODS
- ST 531  SAMPLING METHODS
- ST 539  SURVEY METHODS
- ST 559  BAYESIAN STATISTICS

Total Credits 13-15

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