# Operations Research (PhD)

## Degree Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Required Courses</strong></td>
<td></td>
<td>17</td>
</tr>
<tr>
<td><strong>Requirement A Course</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OR 801</td>
<td>Seminar in Operations Research</td>
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<tr>
<td><strong>Requirement B Course</strong></td>
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<tr>
<td>Select one of the following:</td>
<td></td>
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<tr>
<td>OR 505</td>
<td>Linear Programming</td>
<td></td>
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<tr>
<td>OR 506</td>
<td>Algorithmic Methods in Nonlinear Programming</td>
<td></td>
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<tr>
<td>OR 709</td>
<td>Dynamic Programming</td>
<td></td>
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<tr>
<td><strong>Requirement C Courses</strong></td>
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<tr>
<td>Select four of the following:</td>
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<tr>
<td>OR 501</td>
<td>Introduction to Operations Research</td>
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<tr>
<td>OR 504</td>
<td>Introduction to Mathematical Programming</td>
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<tr>
<td>or OR 505</td>
<td>Linear Programming</td>
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<tr>
<td>CSC 505</td>
<td>Design and Analysis Of Algorithms</td>
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<td>OR 506</td>
<td>Algorithmic Methods in Nonlinear Programming</td>
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<tr>
<td>ST 516</td>
<td>Experimental Statistics For Engineers II</td>
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<tr>
<td>OR 531</td>
<td>Dynamic Systems and Multivariable Control I</td>
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<tr>
<td>OR 537</td>
<td>Computer Methods and Applications</td>
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<tr>
<td>MA/ST 546</td>
<td>Probability and Stochastic Processes I</td>
<td></td>
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<tr>
<td>OR 560</td>
<td>Stochastic Models in Industrial Engineering</td>
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<tr>
<td>OR 562</td>
<td>Simulation Modeling</td>
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<tr>
<td>OR 706</td>
<td>Nonlinear Programming</td>
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<tr>
<td>OR 708</td>
<td>Integer Programming</td>
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<tr>
<td>OR 709</td>
<td>Dynamic Programming</td>
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<tr>
<td>MA/ST 747</td>
<td>Probability and Stochastic Processes II</td>
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<td>OR 760</td>
<td>Applied Stochastic Models in Industrial Engineering</td>
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<tr>
<td>OR 761</td>
<td>Queues and Stochastic Service Systems</td>
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<tr>
<td>OR 762</td>
<td>Computer Simulation Techniques</td>
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<tr>
<td>OR 772</td>
<td>Stochastic Simulation Design and Analysis</td>
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<tr>
<td><strong>Elective Courses</strong></td>
<td></td>
<td>6-55</td>
</tr>
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</table>

"Elective Courses" are determined in conjunction with the academic committee to meet the 72 total credit hours

Total Hours | 23-72

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1. OR 505, OR 506, and OR 709 cannot be double counted toward "Requirement C" courses if already used toward "Requirement B" courses.

2. "Elective Courses" cannot be double counted if already used to fulfill requirements "A-C" courses

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### Full Professors

Shu-Cherng Fang
Yahya Fathi
Subhashis Ghosal
Robert B. Handfield
Robert E. Hartwig
Christopher Graham Healey
Hans Sebastian Heese
Ilse Ipsen
Kazufumi Ito
Julie S. Ivy
Jeffrey A. Joines
Carl Timothy Kelley
Russell E. King
Zhilin Li
George F. List
Min Liu
Ning Lu
Louis A. Martin-Vega
Maria A. Mayorga
Negash G. Medhin
Arne Nilsson
Tao Pang
Harry G. Perros
Ranji S. Ranjithan
Michael A. Rappa
Joseph P. Roise
George N. Rouskas
Nagiza F. Samatova
Carla D. Savage
Munindar P. Singh
Ralph C. Smith
Matthias F.M. Stallmann
Julie LeAnne Swann
Hien T. Tran
Yannis Viniotis
Mladen Alan Vouk

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John W. Baugh
Rada Yuryevna Chirkova
Do Young Eun
Wenye Wang
Fen Wu
Zhaobang Zeng
Dmitry V. Zenkov

**Associate Professors**
Jacob James Adams
Kristin Anne Barletta
Joseph F. DeCarolis
Min Jeong Kang
Michael G. Kay
Eda Kemahlioglu-Ziya
Yunan Liu
Osman Yalin Ozaltin
William Michael Rand
Thomas W. Reiland
Charles Eugene Smith
Hong Wan
Donald P. Warsing

**Emeritus Faculty**
Peter Bloomfield
Stephen L. Campbell
Thom Hodgson

**Adjunct Faculty**
Brian Denton
Mihail Devetsikiotis
Patricia L. Hersh
Simon M. Hsiang
Anderson Rodrigo de Queiroz
Ting Yu

**Assistant Professors**
Leila Hajibabai Dizaji
Xiaolei Fang
Jordan Kern
Timothy Charles Kraft
David Papp
Sara Shashaani
Mengmeng Zhu

**Practice/Research/Teaching Professors**
Billy L. Edge
Daniela Sofia Jones
David Lee Lubkeman
Brandon Mark McConnell
Javad Taheri