

## Masters Degree – Operations Research Engineering Progressive Degree Option

The MSORE degree is for students who hold a bachelor's degree in engineering, mathematics, science or related fields, who would like to enter careers in the use of computers and mathematics in solving business problems.

### Required Courses (15 units)

- ISE 532 Network Flows Units: 3 (will substitute with ISE-632) (Sp)
- ISE 536 Linear Programming and Extensions Units: 3 (Fa, Sp)
- ISE 538 Performance Analysis Using Markov Models Units: 3 (Fa)
- ISE 580 Performance Analysis with Simulation Units: 3 (Fa, Sp)
  
- ISE 582 Web Technology for Industrial Engineering Units: 3 or
- ISE 583 Enterprise Wide Information Systems Units: 3 (Fa, Sp, Su)

### Select at least two of the following 10 courses: (6 units)

- CE 645 Uncertainty Modeling and Stochastic Optimization Units: 3
- ISE 513 Inventory Systems Units: 3 (Sp)
- ISE 514 Advanced Production Planning and Scheduling Units: 3 (Fa, Sp)
- ISE 520 Optimization Theory and Algorithms: Numerical Optimization Units: 3
- ISE 525 Design of Experiments Units: 3 (Sp)
- ISE 539 Stochastic Elements of Simulation Units: 3 (Sp) (ISE538 is prerequisite)
- ISE 562 Decision Analysis Units: 3 (Fa, Sp)
- ISE 563 Financial Engineering Units: 3 (Fa, Sp)
- ISE 576 Industrial Ecology: Technology-Environment Interaction Units: 3 (Sp)
- SAE 541 Systems Engineering Theory and Practice Units: 3 (Fa, Sp)

### Computer Science Course (3-4 units)

- 400- or 500-level computer science course, approved by faculty adviser

**\*Total Units Required for the Operations Research Engineering PDP degree: 24-25**

(term offerings in parenthesis are expected but not guaranteed)

