

Industrial Engineering (PhD)

Degree Requirements

Code	Title	Hours	Counts towards
Required Course		19	
ISE 801	Seminar		
Select a minimum of two 700-level ISE course approved in conjunction with the academic committee			
See "Core Courses" listed below			
Elective / Research Courses		54	
"Elective / Research Courses" are approved in conjunction with the academic committee			
Total Hours		73	

Core Courses

Code	Title	Hours	Counts towards
Select a minimum of one course from each category:			
Human Factors and Ergonomics Category			
ISE 540	Human Factors In Systems Design		
ISE 541	Occupational Safety Engrg		
ISE 544	Occupational Biomechanics		
ISE 744	Human Information Processing		
ISE 745	Human Performance Modeling		
Manufacturing Systems Category			
ISE 515	Manufacturing Process Engineering		
ISE 519	Database Applications in Industrial and Systems Engineering		
ISE 714	Product Manufacturing Engineering for the Medical Device Industry		

ISE 716 Automated Systems Engineering

Production Systems Category

ISE 552 Design and Control of Production and Service Systems

ISE 723 Production Planning, Scheduling and Inventory Control

ISE 726 Theory of Activity Networks

ISE 748 Quality Engineering

ISE 754 Logistics Engineering

Systems Analytics and Optimization Category

ISE 501 Introduction to Operations Research

OR 504 Introduction to Mathematical Programming

ISE 505 Linear Programming

ISE 560 Stochastic Models in Industrial Engineering

ISE 562 Simulation Modeling

ISE 709 Dynamic Programming

ISE 760 Applied Stochastic Models in Industrial Engineering

ISE 761 Queues and Stochastic Service Systems

ISE 762 Computer Simulation Techniques

Total Hours **9**

Faculty

Full Professors

Jingyan Dong

Shu-Cherng Fang

Yahya Fathi

Ola Lars Anders Harrysson

Julie Simmons Ivy

Russell E. King

Yuan-Shin Lee

Maria Esther Mayorga

Chan S. Nam

Rohan Ajit Shirwaiker

Julie Swann

Reha Uzsoy

Associate professors

Adolfo Escobedo

Michael G. Kay

Yunan Liu

Osman Yalin Ozaltin

Hong Wan

Xu Xu

Assistant Professors

Karen Boru Chen

Xiaolei Fang

Leila Hajibabai Dizaji

Jordan Kern

Benjamin A. Rachunok

Sara Shashaani

Zhuoting Yu

Practice/Research/Teaching Professors

Semra Sebnem Ahiska King

Fred Livingston

Brandon Mark McConnell

Nur Ozaltin

Kanton Tyrone Reynolds

Christopher Rock

Michael Spano

Harvey A. West II

Adjunct Professor

Amy Diane Wilson

Emeritus Faculty

Mahmoud A. Ayoub

Richard Harold Bernhard

Paul Cohen

Charles Thomas Culbreth Jr.

Thom Joel Hodgson

Henry Nuttle

Richard G. Pearson

Stephen Dean Roberts

Ezat Sanli

Clarence Smith Jr.

James Reed Wilson

Richard Wysk

Robert E. Young