

Name _____

ID# _____

Twenty units must be at 500 level or above.

Graduate courses used toward a degree completed elsewhere may not be applied toward a master's degree at USC. If courses were not used toward a completed degree, the maximum number of transfer credits that may be applied towards a 28- unit master's degree, subject to departmental approval, is four units.

Required Prerequisite Courses (or equivalent)

Calculus I, II, III

Linear Algebra & Diff. Eq. (e.g. Math 225)

Probability & Statistics (e.g. ISE 220, ISE 225)

Engr. Economy (e.g. ISE 460)

MAJOR - REQUIRED COURSES – 12 Units

Semester	Course	Prerequisite
	ISE 513 – Inventory Systems (4, Sp)	
	ISE 514 – Advanced Production Planning and Scheduling (4, FaSpSm)	
	ISE 515 – Engineering Project Management (4, FaSpSm)	

Select one course from the following Groups – 12 units

Group A: Quantitative Techniques

Choose One

Semester	Course	Prerequisite
	ISE 530 – Optimization Methods for Analytics (4, FaSp)	
	ISE 536 – Linear Programming and Extensions (4, FaSp)	
	ISE 538 – Performance Analysis Using Markov Models (4, Fa)	
	ISE 539 – Stochastic Elements of Simulation (4, Sp)	Co-Req ISE 538
	ISE 580 – Performances Analysis with Simulation (4, FaSp)	

Group B: Quality and Operations

Choose One

Semester	Course	Prerequisite
	ISE 506 – Lean Operations (4, Sp)	
	ISE 525 – Design of Experiments (4, Sp)	
	ISE 527 – Quality Management for Engineers (4, FaSp)	
	ISE 583 – Enterprise Wide Information Systems (4, FaSpSm)	

Group C: Engineering Management

Choose One

Semester	Course	Prerequisite
	ISE 561 – Economic Analysis for Engineering Projects (4, Fa, Sp)	ISE 500
	ISE 562 – Decision Analysis (4, FaSp)	
	ISE 564 – Performance Analysis (4, Fa)	
	ISE 570 – Human Factors in Engineering (4, Fa)	

Electives – 4 units, subject to approval by advisor

Semester	Course	Prerequisite

Master of Science in Industrial & Systems Engineering
Total Minimum Units: 28