

## MASTER ISE CURRICULUM

For Batch 2014 and Backwards

Code	Course	No. of Credits			Semester
		Theory	Practice	Total	
<b><i>Part 1: Foundation (4 credits)</i></b>				<b>4</b>	
PE500	Philosophy*	4	0	4	1
<b><i>Part 2: Basement knowledge</i></b>				<b>14</b>	
<i>Compulsory (4 credits)</i>					
ISE002IU	Research Methodology	2	0	2	1
ISE001IU	Special Study	3	0	3	1
<i>ISE Compulsory courses (9 credits)</i>				<b>9</b>	
ISE501IU	Production and Service Analysis	2	1	3	1
ISE502IU	Deterministic Optimization Models	2	1	3	1
ISE503IU	Stochastic Models	2	1	3	1
<b><i>Part 3: Specialized knowledge</i></b>				<b>15</b>	
<i>3.1 Compulsory courses of Industrial Engineering field</i>				<b>9</b>	
ISE504IU	System Modeling and Simulation	2	1	3	2
ISE505IU	Multi Criteria Decision Making	2	1	3	1
ISE508IU	Production Planning and Scheduling	2	1	3	2
<i>3.2 Compulsory course of Supply Chain and Logistics field</i>				<b>9</b>	
ISE504IU	System Modeling and Simulation	2	1	3	2
ISE505IU	Multi Criteria Decision Making	2	1	3	1
ISE509IU	Supply Chain Systems	2	1	3	2
<i>3.3 Compulsory course of Quantitative and computational in</i>				<b>9</b>	

<i>Finance field</i>					
ISE510IU	Finance and Investment	2	1	3	1
ISE511IU	Numerical Method in Finance	2	1	3	2
ISE512IU	Statistical Technique in Financial Data Analysis	2	1	3	2
<i>3.4 Compulsory course of Operations Research field</i>				<b>9</b>	
ISE505IU	Multi Criteria Decision Making	2	1	3	1
ISE514IU	Computational Methods of Operation Research	2	1	3	2
ISE515IU	Network and Combinational Optimization Algorithms	2	1	3	2
<i>3.5 Specialized elective courses</i> *** (student can choose any course on the list which can fulfill 6 credits on the tracks of Industrial Engineering, Supply Chain and Logistics, Quantitative and computational in Finance , and Operational Research).				<b>6</b>	
ISE506IU	Inventory Control and Management	2	1	3	2
ISE507IU	Facility Layout and Location	2	1	3	2
ISE513IU	Integer Programming	2	1	3	2
ISE601IU	Engineering Economics	2	1	3	2
ISE602IU	Statistical Model and Regression Analysis	2	1	3	2
ISE603IU	Total Quality Management	2	1	3	2
ISE604IU	Maintenance Management	2	1	3	2
ISE605IU	Transportation Economics	2	1	3	2
ISE606IU	Risk Management	2	1	3	2
ISE607IU	Derivative Securities	2	1	3	2
ISE608IU	Fixed Income Securities	2	1	3	2

ISE609IU	Project Management	2	1	3	2
ISE610IU	Lean Production	2	1	3	2
ISE611IU	Enterprise Resources Planning	2	1	3	2
ISE612IU	Experimental Design	2	1	3	2
<b>Part 4: Thesis (12 credits)</b>		<b>0</b>	<b>12</b>	<b>12</b>	<b>3</b>
<i>Thesis</i>		<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>Total (part I+II+III+IV)</b>				<b>45</b>	