

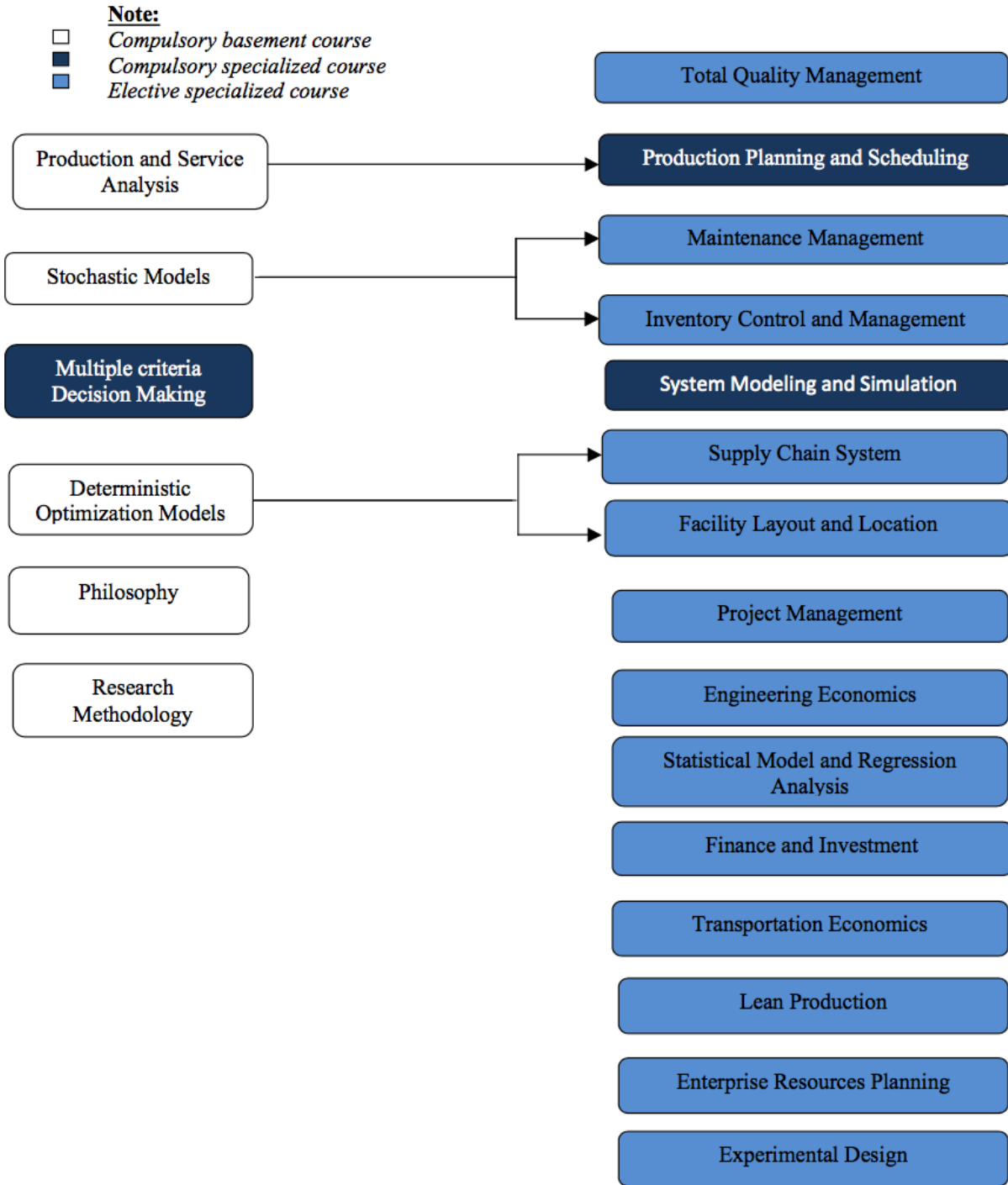
## Program Curriculum

| Code   | Course                             | No. of Credits |          |           | Semester |
|--|------------------------------------|----------------|----------|-----------|----------|
|  |                                    | Theory         | Practice | Total     |          |
| <b>Part 1: Foundation (4 credits)</b>  |                                    |                |          | <b>4</b>  |          |
| PE500  | Philosophy*                        | 4              | 0        | 4         | 1        |
| <b>Part 2: Basement knowledge</b>  |                                    |                |          | <b>14</b> |          |
| <i>Compulsory (4 credits)</i>  |                                    |                |          |           |          |
| ISE002IU   | Research Methodology               | 2              | 0        | 2         | 1        |
| ISE001IU   | Thesis                             | 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>Part 3: Specialized knowledge</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 Specialized elective courses ***<br/>(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).</i> |                                    |                |          | <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 3: 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>42</b> |          |

# Curriculum Mapping

## Map of Pre-requisite courses- Industrial Engineering field



**Map of Pre-requisite courses- Supply chain and Logistics field**

**Note:**

- Compulsory basement course*
- Compulsory specialized course*
- Elective specialized course*

