

# Curriculum Map for PhD Program in Industrial Management (Academic Years 2011-12)

## Education Goals

- Possess academic expertise
- Solve problems
- Possess global industrial development analytical skills
- Do research and development innovatively
- Create knowledge
- Possess professional IT and software application skills

Required Courses: 8 credits

Elective Courses: 27 credits

Oral Defense: 0 credits

## Remarks

- ⊙ In addition to fulfilling the minimum credit requirements within the course of study, students are also required to satisfy with the "Guidelines on Pursuit of Doctoral Degree" before they graduate.
- ⊙ Elective Courses: Operations Management/ Decision Management/ General Management

Semester 1

Semester 2

Semester 3

Semester 4

Seminar I  
(1)

Thesis I  
(1)

Seminar II  
(1)

Thesis II  
(1)

Seminar III  
(1)

Thesis III  
(1)

Seminar IV  
(1)

Thesis IV  
(1)

Thesis – Oral Defense  
(0)

## Track A: Operations Management

Computer Aided Design and Manufacturing (3) Automated Inspection (3) Advanced Quality Control (3) Operations Management (3)  
 International Quality and Environmental Management (3) Semi-Conductor Manufacturing Management (3) Total Quality Management (3) Computer Integrated Manufacturing (3)  
 Seminar in Manufacturing and Quality I (3) The Operational Models of Electronic Enterprise (3) International Logistics Management (3) Automated Production System (3)  
 Metrology and Quality (3) Seminar in Manufacturing and Quality II (3)

Logistics Management (3) Production Economics Analysis (3)  
 System Simulation (3) Scheduling and Inventory Management (3) Reliability Engineering (3) Six Sigma (3) System Simulation (3) Machine Vision (3)  
 Process Management (3) Logistics and Physical Distribution Management (3) Gray Theory (3) Soft Computing (3)  
 System Analysis and Design (3) Advanced Operations Research (3) Experimental Design (3) Fuzzy Set Theory (3) Advanced Statistics (3)  
 Information Technology for Supply Chains (3) Artificial Neural Networks (3) Multivariate Analysis (3) Intelligent Systems (3)  
 Probability Theory (3) Digital Image Processing (3) Enterprise Resource Planning (3) Fuzzy Set Theory Applications and Practice (3)  
 Heuristic Algorithms (3) Computer Data Analysis (3) Quality Management in Service Industry (3)

Integer Programming (3) Network Analysis (3)  
 Mathematical Programming (3) Dynamic Programming (3)  
 Operations Research (3) Non-Linear Programming (3)  
 Queuing Theory (3)

Data Envelopment Analysis (DEA) (3) Knowledge Management (3)  
 Value Engineering (3)  
 Customer Relationship Management (3) Electronic Commerce (3)  
 Expert System (3) Financial Management (3) Project Management (3)  
 Decision Analysis (3) Management Information System (3)  
 Decision Support System (3)

Research Methodology (3)  
 Organizational Theory and Management (3)  
 Advanced Human Resource Management (3)  
 International Business Management (3)  
 Occupational Biomechanics (3)  
 Advanced Ergonomics (3)  
 Human-Computer Interactions (3)

Leadership (3)  
 Special Issues in Technology Management (3)  
 Special Issues in Strategic Management (3)  
 Work Physiology (3)  
 Cognitive Engineering (3)  
 Labor Relationship (3)

## Track B: Decision Management

Seminar in Information and Decision I (3)  
 Seminar in Information and Decision II (3)

Innovation Management (3)  
 Seminar in Human and Systems I (3)  
 Seminar in Human and Systems II (3)

## Track C: General Management

.....➔ Courses in order recommended  
 Total Credit Points Requirement: 35