

OPERATIONS AREA ELECTIVES

OPER 311 Logistic Management

With a focus on sustainability, this course covers logistics and supply chain functions in a global marketplace including product design, transportation, warehousing, procurement, reverse logistics, and relevant strategic issues.

OPER 312 Supply Chain Management

This course explores the key issues associated with the design and management of supply chains. Topics covered include supply chain definition and constituents, supply chain network design, planning demand and supply, planning and managing inventories, designing and planning transportation networks, sourcing, pricing and use of information technology in supply chains. These concepts and methods of supply chain management are presented through strategic frameworks and mathematical modeling tools.

OPER 313 Revenue Management

This course introduces students to Revenue Management by focusing on the relationship between price, demand and supply. The scope of pricing revenue optimization is to set and update the prices for each combination of product, customer segment, and channel. Main topics covered are segmenting customers according to their willingness-to-pay, allocating limited supply capacity, and customizing pricing offers to each customer segment to satisfy different objectives for the firm.

OPER 314 Service Operations Management

This course familiarizes students with the unique characteristics of services, as well as the techniques and strategies necessary for the successful design and delivery of service systems. Some of the topics covered include service strategy, service quality, capacity management, management of waiting lines, and scheduling in services. The emphasis is on the strategic role of operations management in creating sustainable competitive advantage. Real-life business cases that cut across a variety of industries, such as aviation, hospitality, healthcare and financial services, help illustrate the value of the frameworks and tools covered in the course.

OPER 315 Decision Making and Optimization Models

In this course, students are exposed to quantitative modeling and decision making which help them analyze complex decision problems, develop a good understanding of the dynamics involved, and be able to generate good solutions. Topics include decision making under uncertainty, simulation and risk analysis, and optimization modeling all of which, address contexts where decisions need to be made based on rigorous analysis. Students learn to use the underlying tools within a spreadsheet environment by solving problems depicting real-world business issues.

OPER 316 Management Science Modeling with Excel

The course includes topics such as modeling in general, spreadsheet modeling, optimization modeling, linear programming models, network models, optimization models with integer variables, and multi-objective decision making (goal programming). The course format is divided between lecture/discussion sessions and laboratory sessions (to enable students to use Excel for in-class exercises and demonstrations).

OPER 318 Retail Operations

Retail is the sale of goods and services to the end consumer. This course addresses new developments in retailing, as well as the techniques and strategies necessary for the successful management of retail operations. Some of the topics covered include consumer behavior, assortment planning, the link between inventory and financial performance, retail pricing, online retailing, sustainability, and retailing in emerging markets.

OPER 412 Enterprise Resource Planning Systems with SAP

This course provides an overview of enterprise systems including their business purpose, architecture, design, typical modules, and challenges experienced in industry. Students get hands on experience with SAP ERP enterprise software achieving an intermediate level of comfort using SAP modules (Sales & Marketing, Production, Procurement, Finance, and Controlling).

OPER 413 Process Management With Six Sigma Tools

Define-Measure-Analyze-Improve and Control (DMAIC) approach, tools methods and real data applications in every phase. This includes Introduction to Six Sigma approach to process management and improvement (DMAIC), Understanding the customer (CAGE Kano and Quality Function Deployment (QFD)), Variability, Data, Basic Statistics, Graphical applications, Trend and Forecast models (Linear, Quadratic, Growth Curve, Seasonality), Probability, Distributions (Binomial, Poisson) Normal distribution and Capability, Control – Technology matrix, Tools to compare (Chi-sq, t-test, ANOVA), Tools to relate (Simple and multiple regression), Tools to experiment (2-level and General Factorial Experiment), Process Control (FMEA, Statistical Control Charts) and Measurement System Analysis (MSA).

MGMT 311 Project Management

This course covers the following topics: The roles of projects in companies; the (internal) organization of projects; the external dependencies of projects; the various aspects of the management of projects: - project definition & goals - project scope management - project (time) planning o project staffing - project resource planning - project cost & budgeting - project quality & value delivery - project information & communication - project monitoring and control - project risk