

Services Management

CSC 591E-005 and BUS 590E-004

Faculty

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Course Description

A service is a provider/client interaction that creates and captures value. Because a successful services provider/client relationship has a critical dependency upon a well-defined and functional relationship, this course will provide an overview of service management from an integrated viewpoint with a focus on customer satisfaction. The material will integrate operations, marketing, strategy, information technology and organizational issues.

Course Objectives

- Understand the "state of the art" in service management strategies.
- Develop an awareness of how information technology can enhance service firms' competitiveness.
- Understand the tools for analyzing and optimizing the service experience.
- Understand the operational processes for managing the service encounter to achieve internal and external customer satisfaction.
- Understand the complexities associated with implementing change.

Prerequisites

Graduate standing in Computer Science, or Computer Engineering, or MBA.

Class Schedule

Week 1: August 24

Introduction/course outline
Overview of networking and IT services
Examples of services

Week 2: August 31st

Service strategy
Framework of the role of technology as enabler of services

Week 3: September 7th

Guest lecture: Dr. Peng Ning, NC State University, "Network security"
New service development

Week 4: September 14th (Mitzi out)

Guest lecture: Dr. Jon Doyle, NC State University, "Knowledge Management"
Service modelling overview

Week 5: September 21st

Service quality
Service encounter

Week 6: September 28st

Computer Networks, QoS, and SLAs

Week 7: October 5th

Guest lecture: Dr. Munindar Singh, NC State University,
“Service-Oriented Computing”
Service Development and Design

Week 8: October 12th– Fall break

Week 9: October 19th

Interim Project Reports

Week 10th: October 26th

Guest lecture: Joe Gulla, IBM, “Middleware”
Service simulation kickoff

Week 11th: November 2nd

Service recovery
Service simulation project
Service modeling: Linear Programming

Week 12th : November 9th

Service modelling: Queueing theory

Week 13th: November 16th

Service modelling: Simulation techniques

Week 14th: November 23rd - Thanksgiving

Week 15th: November 30th

Wrapup service simulation project
Final project presentations

Week 16th: December 7th

Final project presentations

Exam period:

Final project report due.

Service Simulation

ServiceSim: The service quality simulation

Projects

Students will develop a concept and plan for a new service solution related to location awareness technology or grid-based applications. Students will develop their concept for a specific industrial sector (e.g., retail, medical, transportation/travel, military, media/entertainment). Students will be required to develop a business case and a technical feasibility assessment for the proposed service solution.

Custom Textbook (created from the following sources)

- *Service Management*, Fourth Edition, J.A. Fitzsimmons and M.J. Fitzsimmons, McGraw Hill.
- *Services Marketing*, Valerie Zeithaml, Mary Jo Bitner, and Dwayne Gremler, McGraw-Hill.
- *Introduction to Operations Research*, Hillier and Lieberman

Additional readings:

- *Service modeling, Principles and Applications*. Vilho Råisänen, Wiley
- *Understanding Service Business*, S.E. Sampson, Wiley.
- *Managing Services*, Alan Nankervis, Cambridge Press.

- *Principles of Service Marketing and Management*, Christopher Lovelock and Lauren Wright, Prentice Hall.
- *Blue Ocean Strategy*, W. Chan Kim and R. Mauborgne, Harvard Business School Press.
- *Development as Freedom*, A. Sen, Anchor Books.