

# DATA SCIENCES AND OPERATIONS

FALL 2023

## DSO 582 – Service Management:

*Economics and Operations*

*Section(s) – 16334*

### Professor

*Bala Subramanian*

### Email

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### When

*Wednesday, 3:30 PM – 6:20 PM*

### Office

*TBD*

### Units

*3.0*



## WHY TAKE THIS COURSE?

Anybody interested in general management, consulting, financial services, operations or entrepreneurship. The service sector dominates today's economy (75% of GDP; 80% of jobs in the US). Increasingly every business is a service business, and it has become mission critical for every firm to be service oriented. Hence expertise in Services Management is crucial for any career track, if you aspire to leadership positions.

## COURSE OBJECTIVES

To provide students with an understanding of operations management in services. To learn tools for resource planning, influencing customer behavior, managing quality & recovery, and improving profits in service firms. To utilize analytic tools and an integrated viewpoint towards managing service firms.

## COURSE DESCRIPTION

The goal of this course is to equip you with the tools and knowledge to effectively manage services (whether in the "pure" service sector or in manufacturing). Through several landmark cases we explore service strategy, efficient delivery, quality assurance, and yield management. Examples are drawn from several industries incl. healthcare, information-driven services, financial services, restaurants, retail, and transportation. Team project to diagnose/solve a real service problem, or to analyze key operational challenges in a service industry, or to develop an operations plan for a new service business, will make all concepts come alive. Instructor has 40-year leadership experience in Service Industries.

## KEY CONCEPTS

- **Service Management Issues**
  - *Nature of Services*
  - *Service Process Design*
  - *Managing Customer Behavior*
- **Managing Demand & Resources**
  - *Queueing*
  - *Capacity Management*
- **Managing Quality**
  - *Empowering Frontline Workers*
  - *Service Recovery*
  - *Statistical Process Control*
- **Evaluating Productivity**
  - *Data Envelopment Analysis*
- **Pricing Theory**
  - *Demand Models*
- **Pricing & Revenue Optimization**
  - *Markdown Management*
  - *Quantitative Demand Models*
  - *Consumer Choice Models*
  - *Capacity Control*
  - *Capacity Control with Demand Uncertainty*

