

DATA SCIENCES AND OPERATIONS

FALL 2024 SEMESTER

DSO 455 – Project Management

Section – 16236

Professor

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Email

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When

Tue/Thu 10:00 AM – 11:50 AM

Office

BRI-400 E

Units

4.0



WHO SHOULD TAKE THIS COURSE?

Regardless of the career you choose, you will likely work on projects. You may be a project contributor, or you may be asked to lead. Often, as you advance in your career and become the subject matter expert, you will be asked to lead a team to deliver a product or service. You may not be called the project manager, but you are managing a project. This course will provide you the background to understand projects and where to focus to give your project the best possible chance of success.

COURSE OBJECTIVES

- Describe project success factors
- Describe the structure of successful project teams
- Describe the organizational issues in project management
- Analyze the components of project scope, time, and cost management.
- Describe the elements of project resource, risk, and procurement management
- Utilize analytical tools to do quantitative trade-offs in project management
- Utilize analytical tools to help decision making under uncertainty and risk management
- Perform analysis using Excel in project management
- Perform quantitative project risk management analysis using Crystal Ball software
- Perform various analyses using Microsoft Project software
- Explain ideal skills and roles of effective project leaders
- Explain strategies for controlling, monitoring, and terminating projects

KEY CONCEPTS

A project is a time-bound endeavor that delivers unique value (a product or service).

For a company, non-profit, government, or any other entity to deliver value (either a product or a service), a project is required. Without projects to keep up and surpass their competition a company will wither and die, governments will not be able implement change in their communities, and non-profits will not be able to grow for their beneficiaries.

This course includes topic such as

- Traditional Waterfall Project Management
- Managing scope, schedule, costs
- How to use Microsoft Project to manage a project plan
- Using other tools like Oracle Crystal Ball to manage risk
- Agile Project Management
- There are hands on activities to solidify concepts, and
- A Project Simulation in which you will experience what it is like to be a project manager

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COURSE DESCRIPTION

This course introduces important behavioral skills and analytical tools for managing complex projects across multiple functions. The behavioral skills focus on organizing, planning, and controlling projects and managing teams, risks and resources to produce a desired outcome. The course also covers analytical tools to do quantitative trade-offs and to make the best possible decision under uncertainty.

We will discuss cases describing successful projects and failures throughout the semester and learn project success factors. In addition to guest speakers, lectures, case discussions, project simulations, a simulation software called Crystal Ball for project risk management, and Microsoft Project are integrated in many modules of the class.

This course begins with organizational issues in project management and focuses on skills and roles of project leaders and structure of project teams. Then the course moves on to more technical areas and covers traditional project scope, time, cost and quality management. It will also cover project resource, risk, and budget management, followed by controlling, monitoring, and terminating projects.

We will also investigate agile project management, including hands-on activities and guest speakers who have transformed their project management method to agile.