

# OPERATIONS (UNDERGRADUATE) (OPBU)

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## **OPBU 3438. Operations and Production Management. (3 Credits)**

The operations function within an organization is responsible for managing the process flow that an organization has to use to produce a product, deliver a service, or both. Operations managers are responsible for the design, the daily operation, and the improvement of these processes. This course provides an introduction to the field of operations management: to understand the key decisions and to see how these decisions directly impact an organization's competitiveness and market performance.

**Prerequisites:** MGBU 2142 or HPCB 4703 or ECON 2142 or SABU 2142.

## **OPBU 3442. ST: Health Care Operations Mgt. (3 Credits)**

Health Care Operations Management is a discipline that integrates scientific principles of operations management to determine the most effective and efficient methods to support patient care delivery. The biggest challenge in health care is to provide high quality care while at the same time keeping cost down. As such, all health care sectors must be driven by process management, quality improvement, information technology, knowledge management, and resource alignment. This course addresses the challenge in many ways, from the design of patient flow to streamlined process, from resource management to supply chain management, from quality control to patient safety, from forecasting to capacity planning, from continuous improvement to project management.

**Attributes:** OCST, PRQU.

## **OPBU 3449. ST: Process Mgt & Six Sigma. (3 Credits)**

This course focuses on process management and how to improve organizational processes by using a body of knowledge known as Six Sigma. A process is the unity of multiple activities that transform required inputs into desired outputs. Poorly-designed processes produce defective goods and services that lead to customer dissatisfaction and a higher level of internal and external failure cost. Therefore, continually improving process performance is critical to organizations' survival and success. Class lectures, discussions, and case studies in the course cover the methods and tools used for a Six Sigma project, such as project selection, process mapping and analysis, data collection, statistical data analysis, root-cause analysis, and creative thinking for both continual and breakthrough improvements.

## **OPBU 3451. ST: Team Dynamics. (3 Credits)**

This course is designed to help students understand team dynamics, be a more productive team member, build teams, lead teams, and address team challenges. Through a combination of lectures and team-based activities, students will learn about concepts such as team design, team performance, team identity, decision making, conflict in teams, creativity, leadership, and diversity in teams.

**Attributes:** OCMG, OPMA.

## **OPBU 3453. ST: Business Dynamics. (3 Credits)**

Managers and business leaders need to make sense of a complex and fast-changing business landscape. They need to map, analyze, and manage complexity to achieve superior performance. This course introduces systems thinking, as well as associated modeling methods, techniques, and software tools that are essential to master complexity and drive business performance. The course explores models, model-based thinking, complex system dynamics, network dynamics, and other computational modeling approaches. These skills can be used to understand system structure and dynamic behavior across a variety of business domains and applications, including business transformation, digital transformation, business model design, and sustainability. Case studies across a variety of industries and a group project add to the student learning experience.

## **OPBU 3454. ST: Sustainable Supply Chain. (3 Credits)**

Supply chain management is vital for companies to compete in the global economy. Traditional thinking of cost minimization and lead-time reduction, however, can lead to logistics designs with significant environmental costs. Sustainable supply chain practices aim to respond to the market demand for eco-friendly products and processes while fulfilling corporate social responsibility. This course introduces concepts and models for supply chain design and performance measurement. Sample case studies include carbon dioxide emission reduction through improved supply chain management and the mechanism of the carbon market.

**Attribute:** PRQU.

## **OPBU 4507. Project Management. (3 Credits)**

This course provides the project management skills needed to develop information and communications systems on time and within budget. It concentrates on methods and issues of organizing, planning and controlling projects, and the use of computer-based project management tools.

**Attribute:** OCST.

## **OPBU 4999. Independent Study. (1 to 3 Credits)**

Independent Study.

## **OPBU 49999. Independent Study. (1 to 3 Credits)**

Independent Study.