

# BUDT - DECISION AND INFORMATION TECHNOLOGIES

## **BUDT700 Business Communication (1 Credit)**

Consists of written and oral base-line assessments. Students will meet with Program administrators to receive feedback on these assessments and create an individualized development plan. Workshops and core course assignments, Smith-related activities and CMP assignments.

**Restriction:** Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

**Credit Only Granted for:** BUDT758A or BUDT700.

**Formerly:** BUDT758A.

## **BUDT703 Database Management Systems (3 Credits)**

Introduction to the conceptual, logical and physical design of relational database systems and their use in business environments. Topics include information modeling and optimization via normalization; Structured Query Language (SQL); Data Warehousing.

**Restriction:** Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

**Credit Only Granted for:** BUDT758Y OR BUDT703.

**Formerly:** BUDT758Y.

## **BUDT704 Data Processing and Analysis in Python (3 Credits)**

An introduction to the Python programming language for the purpose of processing, analyzing, and visualizing data. In addition, students will be introduced to developing basic regression, optimization, and simulation models in Python, using highly popular packages. Course emphasis is on mastering basic Python functionality and developing intermediate to advanced skills in working with data, through instruction and active learning.

**Restriction:** Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

**Credit Only Granted for:** BUDT758X OR BUDT704.

**Formerly:** BUDT758X.

## **BUDT706 Social Media and Web 2.0 (2 Credits)**

Over the past years, social computing technologies such as online communities, blogs, wikis, and social networking systems have become important tools for individuals to seek information, socialize with others, get support, collaborate on work, and express themselves. Increasingly, businesses are trying to leverage web 2.0 by using social computing technologies to communicate with customers, employees, and other business partners or to build new business models. This course will review concepts and principles related to web 2.0 and examine issues and strategies associated with business use of social computing technologies.

**Restriction:** Must be in one of the following programs (Business and Management (Master's); Business and Management (Master's)).

## **BUDT721 Digital Transformation in Business (2 Credits)**

Introduces students to the strategic role of digital transformation within businesses, and provides an overview for how major information technologies may be used to inform and transform the firm's strategic, operational, and tactical decisions. Topics discussed in the course include the strategic use of digital technologies to generate sustainable competitive value; the contributions of new forms of technology infrastructure; the evaluation of new technology investments and the resulting ROI; acquiring, managing and governing technological capabilities within the firm; understanding the role of enterprise systems and social technologies within the firm; and the management of disruptive technologies within and outside the firm.

**Restriction:** Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith School of Business.

**Credit Only Granted for:** BUDT758E or BUDT721.

**Formerly:** BUDT758E.

## **BUDT722 Managing Digital Business Markets (2 Credits)**

The objective is to understand the strategic and tactical issues involved in managing digital businesses and markets. Also, some of the characteristics of digital businesses and markets that make them unique and understand how companies can best manage them will be examined.

**Restriction:** Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith.

**Credit Only Granted for:** BUDT758G or BUDT722.

**Formerly:** BUDT758G.

## **BUDT723 Business Process Analysis for IS (3 Credits)**

Helps students gain a solid foundation in the concepts, processes, tools, and techniques needed in analyzing business processes and conducting information systems projects.

**Restriction:** Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith.

**Credit Only Granted for:** BUDT758N or BUDT723.

**Formerly:** BUDT758N.

## **BUDT730 Data Models and Decisions (3 Credits)**

Analytical modeling of business decisions; uncertainty, risk and expected utility; regression modeling to infer relationships among variables.

**Restriction:** Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith.

**Credit Only Granted for:** BUSI758B, BUDT758Q or BUDT730.

**Formerly:** BUDT758Q.

## **BUDT732 Decision Analytics (3 Credits)**

Analytical modeling for managerial decisions using a spreadsheet environment. Includes linear and nonlinear optimization models, decision making under uncertainty and simulation models.

**Restriction:** Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith.

**Credit Only Granted for:** BMGT732, BUDT758P or BUDT732.

**Formerly:** BMGT732 and BUDT758P.

## **BUDT733 Data Mining and Predictive Analytics (2 Credits)**

Data mining techniques and their use in business decision making. A hands-on course that provides an understanding of the key methods of data visualization, exploration, classification, prediction, time series forecasting, and clustering.

**Prerequisite:** BUSI630.

**Credit Only Granted for:** BMGT733 or BUDT733.

**Formerly:** BMGT733.

**BUDT740 Management of Information Systems (3 Credits)**

To work together effectively for an organization's success, both business managers and IS managers must understand how to both manage and utilize information systems. This course explores management issues and opportunities of the IS function within organizations. Topics include e-business, protection of intellectual property and personal information, software development, IS operations, systems availability and business continuity, IS for multinational organizations, shadow IS organizations, business partnerships and alliances, and mergers, acquisitions, and divestitures.

**Restriction:** Must be in Business and Management (Master's) program; or permission of BMGT-Robert H Smith.

**Credit Only Granted for:** BUDT758J or BUDT740.

**Formerly:** BUDT758J.

**BUDT758 Special Topics in Decision, Operations and Information Technologies (1-4 Credits)**

Selected advanced topics in the various fields of graduate study in decision, operations and information technologies.

**Restriction:** Permission of BMGT-Robert H. Smith School of Business.

**Repeatable to:** 9 credits if content differs.

**Formerly:** BMGT798.

**BUDT759 Independent Study in Decision and Information Technologies (1-6 Credits)**

Independent study for masters students in decision and information technologies.

**Repeatable to:** 6 credits if content differs.

**Formerly:** BMGT708.

**BUDT775 Pricing and Revenue Management (2 Credits)**

Specialized course on pricing and revenue management (PRM) that provides students with tools and principles, drawn from several disciplines (Operations, Microeconomics, Decision Modeling, Statistics, Marketing, IS) to make effective pricing decisions. Topics covered include economics of pricing, strategy and tactics of PRM, pricing optimization, differentiated pricing, dynamic pricing, mark-down pricing, legal and ethical issues in models/methods used in making effective PRM decisions and managerial or organizational factors that hold the key to success in execution of PRM.

**Prerequisite:** BUSI630.

**Restriction:** Must be in a major in BMGT-Robert H. Smith School of Business; or permission of BMGT-Robert H. Smith School of Business.

**Credit Only Granted for:** BUDT758D or BUDT775.

**Formerly:** BUDT758D.