DEPARTMENT OF BUSINESS ANALYTICS AND TECHNOLOGY MANAGEMENT

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Programs of the Department


Why Study Business Systems and Processes?

- To prepare for career fields at the intersection of business and technology with positions such as systems analysts, operations analysts, master data analysts among others.
- To earn the SAP Recognition Award granted by the SAP University Alliance.
- To harness technology to orchestrate, manage and administer business processes.

Why Study Project Management and Business Analysis?

- To prepare for college-graduate, entry-level jobs such as project manager, cost estimator, business analyst, business consultant.
- To gain a professional certification to enhance one's career prospects.
- To obtain an integrated perspective of business.

Mission Statement

The mission of the Department of Business Analytics and Technology Management (https://www.towson.edu/cbe/departments/business-analytics-technology-management) is to produce technologically proficient graduates who possess the knowledge, skills and attitudes necessary to function effectively in an integrated business community. The department's aim is to develop students who are competent, ethical and capable of meeting the challenges of an increasingly complex, global and technologically-enabled environment.

Goals

The goals of the department are:

1. To achieve excellence in teaching while offering innovative and state-of-the-art programs and curriculum that are infused with cutting edge technology.
2. To increase the body of knowledge in Business Systems, Business Analysis and Project Management fields through applied scholarship activities.
3. To provide applied research, consulting and advisory services to the business and professional community.

Distinctive Features

- Strong technology focus in all courses
- SAP Recognition Award
- Linkage to professional certification
- Student Certificate in Project Management (SCiPM)
- Student Organizations
  - e-Business Student Association (e-BA)
  - Project Management Association (PMA)

Admission Requirements for Business Administration and Business Systems and Processes Majors:

Students are admitted to the major in Business Administration (BUAD) after first being admitted to Towson University. Admission to TU does not guarantee admission to the major. In order to be admitted, students must satisfy the following requirements:

1. Formal admission to TU as a degree candidate
2. Cumulative GPA of 2.00 or higher for all course work
3. Grade equivalent of 2.00 or higher in each course required for admission to the BUAD major
4. Minimum average GPA of 2.70 for ALL of the courses required for admission to the BUAD major:
   - ACCT 201
   - ECON 201
   - ECON 202
   - ECON 205
   - MATH 211 or MATH 273
   - LEGL 225

   No more than two courses may be repeated, of which no more than one course may be repeated twice.

Degree candidates intending to major in Business Administration are designated as "pre-Business Administration" (PBUA) until admission into the BUAD major. Students are required to meet each term with their assigned faculty adviser to evaluate their progress toward completing the requirements for admission to the major and the degree.

At the start of each term and before registration, the CBE Student Academic and Career Services office will notify PBUA students of their admission status by email to their TU email addresses. Students will not be allowed to register for upper-level "majors-only" CBE courses until being admitted to the Business Administration major.

- Major in Business Administration - Project Management and Business Analysis (http://catalog.towson.edu/undergraduate/
Courses

**EBTM 250 PROBLEM SOLVING IN BUSINESS I (1)**
Focus on analytic and technology skills needed to utilize spreadsheets to solve business problems. Topics covered include: managing and sharing workbooks, custom formats and layouts, creating advanced formulas, and creating advanced chart elements. To earn a satisfactory grade, students are required to pass the Microsoft Office Specialist (MOS) Excel Core exam and earn a MOS certification. The course can be waived if students have already obtained the Microsoft Office Specialist Excel Expert level certification. Students can repeat the course if they fail to pass and the grade will be replaced. Graded S/U. Prerequisites: major standing; sophomore and above standing.

**EBTM 251 PROBLEM SOLVING IN BUSINESS II (1)**
Focus on analytic and technology skills needed to utilize spreadsheets to solve business problems. Topics covered include: work with data and information in data tables, visualize data with charts, predict outcomes, and what-if analysis. Prerequisites: EBTM 250 or Microsoft Expert Excel Certification; sophomore standing or higher; major standing.

**EBTM 310 INTRODUCTION TO ERP SYSTEMS (3)**
Will provide a comprehensive understanding of Enterprise Resource Planning (ERP) systems and their role in organizations. Included are key business processes including procurement, fulfillment, production, warehouse management and material planning. Processes will be discussed in terms of how they are executed and their impact on financial and managerial accounting. Covers knowledge and skills across different functional areas, including accounting, finance, operations management, sales and human capital through hands-on exercises using a major ERP system. Particular attention will be given to the integrated nature of business processes.

**EBTM 311 PRINCIPLES OF E-BUSINESS (3)**
Uses resources on the Internet, including design of Web pages and conducting business on the Net. Not open to students who have successfully completed EBUS 311 / ECOM 311 / MNGT 311. Prerequisites: EBTM 337 / MNGT 337 (may be taken concurrently); majors only; junior/senior standing.

**EBTM 330 ERP SYSTEMS ANALYSIS AND DESIGN (3)**
Introduces ERP systems analysis and design. Major topics include the analysis of business cases, management of an ERP system project, requirement modeling, process and data modeling, and the strategies in the design, implementation, and support of an ERP system. Prerequisites: major standing, junior/senior standing.

**EBTM 337 ENTERPRISE INFORMATION SYSTEMS (3)**
Strategic, tactical, and operational applications of enterprise information systems, e-business, and enterprise use of social media. Topics include data and knowledge management and networked computing, future trends using intelligent systems, and important enterprise resource planning systems used to integrate functional areas within organizations, collaborating with external partners, and integrating stakeholders across the value chain. Not open to students who have successfully completed MNGT 337. Prerequisites: major standing; junior/senior standing.

**EBTM 340 APPLIED CRM SYSTEMS (3)**
Focuses on theories and applications of customer relationship management (CRM). Important topics include CRM theory and development, the CRM process, customer data management, using CRM as a strategic marketing, sales, service, and analytical tool, and integrating social networking and CRM. The course offers students key knowledge and skills that are essential for customer analyses and marketing strategy formulation. Students will gain hands-on experience through lab assignments that require the use of transactional and analytical CRM software commonly used by businesses. Prerequisites: major standing; junior standing or higher.

**EBTM 343 INTRODUCTION TO PROJECT MANAGEMENT (3)**
Management of projects through planning, scheduling and controlling of organizational activities. Course includes project selection, scope development and management, cost estimation and budgeting, scheduling, staffing, resource allocation, task tracking, task sequencing, and control. Project management software will be used to support the course material. Students who have successfully completed EBTM 443 or MNGT 443 will not receive additional credit for EBTM 343. Prerequisites: sophomore standing or higher; major standing.

**EBTM 350 BUSINESS ANALYTICS (3)**
Focuses on using standard business analytic models to summarize and analyze data, build models, and drive impact through quantitative decision-making. Explores methods to create and frame problems, use of descriptive, predictive, and prescriptive analytics and using data to discover patterns and trends. Prerequisites: EBTM 251; junior standing or higher; major standing.

**EBTM 360 ENTERPRISE RESOURCE SYSTEMS CONFIGURATION (3)**
Discusses the concepts, principles and techniques for configuring organizational processes in an enterprise system. The focus is to ensure that the key organizational processes are executed efficiently and effectively. Students will learn about business processes in modern organizations, managing change to those processes, and configuring an Enterprise Resource Planning (ERP) system to implement business process changes. Project Organization skills will be enhanced as students work on cross-functional teams to implement changes. Prerequisites: EBTM 310, major standing, junior/senior standing.

**EBTM 365 PRINCIPLES OF OPERATIONS MANAGEMENT (3)**
Strategies and techniques for service and manufacturing operations. A number of quantitative techniques are presented. Practical business applications and international competitiveness are stressed throughout the course. Students will use industry relevant software in the course. Students who have successfully completed MNGT 365 will not receive additional credit for EBTM 365. Prerequisites: (EBTM 251 or Computer Proficiency Exam) and (ECON 205 or MATH 231/MATH 233); major in ACCT, BUAD, CIS, EBUS, MATH, XBACI, XCIEB or XEBBA; junior/senior standing.

**EBTM 367 E-BUSINESS INFRASTRUCTURE (3)**
Introduction to e-business infrastructure topics including business data communications and networking, e-business security, and databases. Students are not only expected to master the technical aspects of those subjects through lectures and hands-on labs, but also expected to understand the business implications of those topics. Not open to students who have successfully completed EBUS 367 [ECOM 367]. Prerequisites: EBTM 337 [MNGT 337]; majors only; junior/senior standing.
EBTM 370 ERP SIMULATION AND APPLICATIONS (3)
Will provide students with the conceptual and practical understanding of ERP applications in business. The course will take students through procurement, manufacturing, and distribution applications in a simulated environment on the ERP platform. The other part of the course discusses in-memory databases such as HANA and their implications for business applications. Concepts of security are included in the discussion. Students will work on ERP software in the cloud. Prerequisites: EBTM 310, major standing, junior/senior standing.

EBTM 400 APPLIED BUSINESS INTELLIGENCE (3)
Gives students an understanding of the importance and applications of business intelligence (BI) in organizations. Its focus is on the analytical and business process uses of BI. The course will provide a high-level overview of the technical infrastructure of business intelligence, and will focus on the use of reporting and analysis tools used to extract information needed to address specific business questions and problems. Prerequisites: EBTM 310, major standing, junior/senior standing.

EBTM 419 SUPPLY-CHAIN MANAGEMENT (3)
Basic concepts and strategies adopted in SCM. Primary focus is to develop a good understanding of strategic, tactical and operational issues of SCM and become familiar with the integration of various SCM entities. A number of essential techniques of SCM are presented as supplementary materials. Topics include: transportation management and network design, e-procurement, uncertainty management, supply chain coordination & integration, value of information (sharing), global SCM, customer value and SCM, information technology/standards in SCM. Not open to students who have successfully completed MNGT 419. Prerequisites: EBTM 337 and EBTM 365; junior/senior major standing.

EBTM 423 SERVICE OPERATIONS MANAGEMENT (3)
Concepts and techniques of service operations management, emphasizing problem-solving methods and exercises. Not open to students who have successfully completed MNGT 423 Service Operations Management. Prerequisite: ECON 306 or MNGT 363, junior major standing.

EBTM 425 BUSINESS REQUIREMENTS AND ANALYSIS (3)
Addresses the business analysis discipline and describes the role of the business analyst. Describes the process model for business analysis. Describes how business analysis is undertaken in various stages of the process model as well as key techniques used at each stage. The goal of the course is to prepare students with a business analysis toolkit that can be used by them to help organizations adopt business improvements to ensure their success. Prerequisites: EBTM 337 and junior/senior standing.

EBTM 431 ADVANCED E-BUSINESS (3)
Deals with newer web-related technologies affecting the world of e-business approaches to web usability, e-collaboration tools including wikis, widgets, blogs and social networking, content management, mobile technologies, web logging and performance management, and web services. Not open to students who have successfully completed EBUS 431, ECOM 431 or MNGT 411. Prerequisites: EBTM 367; majors only. junior/senior standing.

EBTM 446 BUSINESS INTELLIGENCE (3)
Classifications of business decision problems and methods of analysis to identify the best solutions using business records for business intelligence. Methods of managing large storage of business records and related information and the discovery of knowledge to support managerial decision making. Prerequisites: Major standing, EBTM/MNGT 337, junior/senior standing.

EBTM 450 ADVANCED PROJECT MANAGEMENT (3)
Covers advanced project management topics necessary for implementation of and excellence in project management. Topics include human resource management, procurement management, contract administration, risk management, integration management, project leadership, communications management and an introduction to program and portfolio management. Project management software will be used to support the course material. Prerequisites: major standing, EBTM 443/MNGT 443, junior/senior standing.

EBTM 454 BUSINESS PROCESS MANAGEMENT (3)
Business Process Management concepts, architecture, and specifications, introduction to modeling/design tools used to design and optimize business processes as well as performance measuring approaches for evaluating business process performance. Prerequisites: major standing, EBTM 337 / MNGT 337, EBTM 365 /MNGT 365, junior or senior standing.

EBTM 456 PROJECT QUALITY AND SIX SIGMA (3)
Projects involving quality management and six sigma methodologies including quality improvement, process design, root cause analysis, quality measurement, and continuous improvement. Prerequisites: major standing, EBTM/MNGT 443 or EBTM 343; junior/senior standing.

EBTM 470 SPECIAL TOPICS IN E-BUSINESS (3)
Course content varies with each topic. In-depth study of contemporary e-Business issues. May be repeated with a different topic for a maximum of 6 units. Not open to students who have successfully completed EBUS 470. Prerequisites: EBTM 311/ EBUS 311 and consent of department; majors only; senior standing.

EBTM 475 SPECIAL TOPICS IN PMBA (3)
Course content varies with each topic. In-depth study of contemporary business issues as they affect current project management and business analysis practices. May be repeated for a maximum of 6 units provided a different topic is covered. Prerequisites: EBTM 443/MNGT 443 and consent of department; majors only; senior standing.

EBTM 491 BSAP DIRECTED READINGS (3)
Assigned readings in selected areas of Business Systems and Processes (BSAP). A total of 6 units for any combination of directed readings, independent research, and internship is allowed in BSAP area of study. Minimum of 3.00 cumulative GPA is required. Prerequisites: consent of the instructor and completion of all 200 and 300 level EBTM core requirements.

EBTM 492 PMBA DIRECTED READINGS (3)
Directed readings in selected areas of Project Management and Business Analysis. A total of 6 units for any combination of directed readings, independent research, and internship is allowed in the EBTM area of study. Prerequisites: Consent of the instructor, a minimum of 3.00 cumulative GPA, and completion of all 200 and 300 level core requirements for the PMBA concentration.

EBTM 495 BSAP INDEPENDENT RESEARCH (1-3)
Directed research in specific areas of Business Systems and Processes (BSAP). A total of 6 units for any combination of directed readings, independent research, and internship is allowed in the BSAP area of study. Minimum of 3.00 cumulative GPA is required. Prerequisites: consent of the instructor, completion of all 200 and 300 level core requirements, and department consent.
EBTM 496 PMBA INDEPENDENT RESEARCH (3)
Independent research in specific areas of project management and business and analysis. A total of 6 units for any combination of directed readings, independent research, and internship is allowed in the PMBA area of study. Prerequisites: Consent of the instructor, a minimum of 3.0 cumulative GPA, completion of all 200 and 300 level core requirements, and a special permit.

EBTM 497 BUSINESS SYSTEMS & PROCESSES PRACTICUM (3)
Students are required to work in government or industry for a minimum of 120 hours to gain practical experience in the application of concepts and methods in Business Systems and Processes (BSAP). All positions have to be reviewed and approved by the EBTM department. A total of 6 units for any combination of directed readings, independent research, and internship is allowed in the BSAP area of study. Minimum of 3.00 cumulative GPA is required. Graded S/U. Prerequisite: consent of the instructor.

EBTM 498 PMBA INTERNSHIP (3)
Students are required to work in government or industry for a minimum of 120 hours to gain practical experience in the application of project management and business analysis concepts. All positions have been reviewed and approved by EBTM faculty. A total of 6 units for any combination of directed readings, independent research, and internship is allowed in the PMBA area of study. Graded S/U. Prerequisites: a minimum 3.0 cumulative GPA and consent of the instructor.