INFORMATION TECHNOLOGY MANAGEMENT

Department of Accounting and Information Systems
Eli Broad College of Business and The Eli Broad Graduate School of Management

209 Business Analytics and Information Systems
Fall, Spring, Summer. 3(3-0) P: CSE 102 R: Open to undergraduate students in the Business - Admitted major and open to undergraduate students in the Information Technology Minor.
Use of data and analytics to identify and create business value.

311 Systems Analysis and Design
Fall, Spring. (3-3) R: Open to juniors or seniors in the Eli Broad College of Business and The Eli Broad Graduate School of Management or in the Information Technology Minor.
Structured analysis and design of information systems. Understanding of the system development process, and organizational issues associated with the design and implementation of information systems.

412 Digital Marketing
Spring. (3-0) Interdepartmental with Marketing. Administered by Marketing. P: MKT 300 or MKT 327 R: Open to juniors or seniors in the Eli Broad College of Business and The Eli Broad Graduate School of Management. SA: MSC 412
Theoretical foundation of digital marketing. Recent tactics, applications, and trends in the online marketplace. Basics of online marketing communications, search engine marketing, social media marketing, and web analytics.

444 Information Technology Project Management
Spring. (3-3) Interdepartmental with Computer Science and Engineering and Media and Information. Administered by Information Technology Management. P: ITM 311 R: Open to students in the Information Technology Minor.
Practical training and experiences in design, testing, and launch of new information technologies and systems.

481 Introduction to Business Analytics
Fall, Spring. (3-3) P: CSE 201 or CSE 231 or MKT 317 RB: Other courses in the IT major or statistics R: Open to undergraduate students in the Eli Broad College of Business and The Eli Broad Graduate School of Management or in the Information Technology Minor.
Exploration and predictive analytics of business problems. Analysis concepts and skills in business contexts. Strategic and operational impacts of a firm’s analytics efforts. Basic concepts of big data and specific methods of conceptualizing and analyzing business problems.

490 Independent Study in Information Technology
Fall, Spring, Summer. 1 to 4 credits. P: ITM 209 R: Open to students in the Eli Broad College of Business and The Eli Broad Graduate School of Management.
Directed study in information technology under faculty supervision.

491 Special Topics in Information Technology
Fall, Spring. 1 to 4 credits. P: ITM 209 R: Open to students in the Eli Broad College of Business and The Eli Broad Graduate School of Management.
Current topics in information technology.

818 Data Management and Visualization in Analytics
Fall. 1 to 3 credits. R: Open to graduate students in the Business Analytics Major or approval of department.
Role of analytics in shaping competitive strategy and improving the design and implementation of business processes. Emphasis on enterprise data management and visualization skill development. Analysis of enterprise data identifying findings and making recommendations. Real-world cases of successes and failures with analytics-based business strategies.

821 Enterprise Database Systems
Fall. 3(3-0) Interdepartmental with Accounting. Administered by Accounting. R: Open to master's students in the Accounting major or approval of department. Not open to students with credit in ACC 321.

822 Information Systems Project Management
Fall, Spring. 1 to 3 credits. Interdepartmental with Accounting. Administered by Accounting. R: Open to graduate students in the Accounting major and open to MBA students or approval of department.

823 Advanced Enterprise Database Systems
Spring. 3(3-0) Interdepartmental with Accounting. Administered by Accounting. P: ACC 321 or ACC 821 R: Open to graduate students in the Accounting major or approval of department.

824 Governance and Control of Enterprise Systems
Fall, Spring. 3(3-0) Interdepartmental with Accounting. Administered by Accounting. R: Open to graduate students in the Accounting major or in the Master of Business Administration in Business Administration or approval of department.
Governance and control of information technologies. Identification and valuation of key information and communication technologies, frameworks for assessing information system risk, information system auditing, and international standards for information technology governance and control.

825 Object-Oriented Business Information Systems
Fall, Spring. 3(3-0) Interdepartmental with Accounting. Administered by Accounting. P: ACC 321 or ACC 821 R: Open to graduate students in the Accounting major or approval of department.
Analysis and design of object-oriented business systems. Unified modeling language descriptions of business phenomena and rules, object-oriented programming, use-case analysis and specifications, and XML tag sets for transactions and reporting.

826 Enterprise Information Systems
Spring. (3-0) Interdepartmental with Accounting. Administered by Accounting. R: Open to graduate students in the Accounting major or in the Master of Business Administration or approval of department.
Enterprise resource planning (ERP) systems. ERP implementation issues and success factors. Use of enterprise systems, and exploring future directions in ERP systems.

827 Accounting Analytics
Fall. 3(3-0) Interdepartmental with Accounting. Administered by Accounting. P: (ACC 321 or ACC 821) and ACC 411 R: Open to master's students in the Accounting Major.
Develop an accounting analytics mindset. Determine and apply appropriate data analytic techniques based upon the accounting environment and situation. Use data visualization, predictive analytics and other analytics software as appropriate.

881 Network Analytics
Fall, Spring. Summer. 1 to 3 credits. P: MKT 829 or MBA 820 R: Open to master's students in the Business Analytics Major or approval of department.
Application of network analysis in business contexts. Basic methods and terminology associated with network analysis and text analytics leading to broad-based applications. Applications of these techniques span a broad range of business contexts including human resource management, customer relationship management systems, supplier networks, and online networks.

882 Analytics Practicum
Summer. 3 credits. R: Approval of department
Supervised analytics practicum. The design, analysis, execution, and presentation of an analytics project.
883 Business Analytics Problem Solving-
Spring. 1 to 3 credits. R: Open to graduate
students in the Business Analytics Major or
approval of department.
Statistical techniques, use of statistical software
platform, exposure to statistical programming lan-
guages.

885 Machine Learning and Optimization in
Analytics
Fall. 1 to 3 credits. R: Open to graduate
students in the Business Analytics Major or
approval of department.
Applying different machine learning and optimization
techniques to solve organizational problems.

886 Communication Strategies for Analytics-
Spring. 1 to 3 credits. R: Open to graduate
students in the Business Analytics Major or
approval of department.
Professional communication skills, from basic busi-
ness writing techniques to cutting-edge digital and
social-media strategies.

888 Capstone: Business Analytics
Fall. 1 to 3 credits. R: Approval of depart-
ment.
Practicum in the development and delivery of predic-
tive data analysis for strategic decision making in or-
ganizations. Application of the principles and tools of
analytics to real-world problems in research and de-
velopment, marketing, supply chain, accounting, fi-
nance and human resources management. Develop-
ment and presentation of analytical insights and
recommendations.

890 Independent Study
Fall, Spring, Summer. 1 to 3 credits. A stu-
dent may earn a maximum of 6 credits in all
enrollments for this course. R: Open to gradu-
ate students in the Eli Broad College of Business
and The Eli Broad Graduate School of Management. Approval of de-
partment.
Faculty-supervised independent study.

891 Special Topics in Information
Technology Management
Fall. 1 to 3 credits. A student may earn a
maximum of 9 credits in all enrollments for this
course. R: Approval of department.
Selected topics in current and emerging issues re-
lated to information technology management.

893 Business Analytics Internship
Summer. 1 to 3 credits. R: Open to mas-
ter's students in the Business Analytics Ma-
ajor or approval of department.
Professional internship in a public, industrial, or gov-
ernmental organization where one or more business
analytics projects are performed under faculty su-
pervision.

911 Doctoral Seminar in Information
Systems
Fall. 3(3-0) RB: Master's degree in busi-
ness, computer science, telecommunication
or engineering.
Seminars in management information systems for
new doctoral students and researchers new to the
field.

912 Information Technology Transactional
Perspectives
Spring of even years. 3(3-0) Interdepart-
cmental with Media and Information. Admin-
istered by Information Technology Manage-
ment. R: Open to doctoral students.
Multiple perspectives on relationships between or-
ganizations and information technology. Information
processing, communications and management strat-
ey approaches. Economic perspectives.

913 Seminar in Information Systems Design
Science
Spring of odd years. 3(3-0) RB: ITM 911
Research in design science in information systems.
Ontological issues in design science research.

914 Behavioral Aspects of Information
Systems
Fall. 3(3-0) RB: Two prior courses in infor-
mation systems. R: Open to graduate stu-
dents in the Eli Broad College of Business
and The Eli Broad Graduate School of
Management or approval of college.
Information systems theory from a behavioral and
social science perspective.

915 Seminar in Information Systems and
Networks
Spring of odd years. 3(3-0) RB: ITM 911 R: 
Open to doctoral students in the Eli Broad
College of Business and The Eli Broad
Graduate School of Management.
Research in social networks in information systems.

917 Research Methods in Information
Systems
Fall. 3(3-0) RB: (MSC 905) or graduate
courses in Philosophy of Science, Interme-
diate Statistics. R: Open to graduate stu-
dents in the Eli Broad College of Business
and The Eli Broad Graduate School of
Management or in the College of Communi-
cation Arts and Sciences or approval of col-
lege.
Research methodologies utilized to study infor-
mation systems phenomena from social science,
computational science, and clinical approaches.
Critique information systems literature from various
methodological perspectives.