

GUIDE TO GRADUATION
Effective Fall 2014

B.S. IN

INFORMATION SYSTEMS
AND TECHNOLOGY MANAGEMENT

www.ubalt.edu/istm

The Merrick School of Business is committed to providing the guidance and support you need to complete your program in a timely manner. This **Guide to Graduation** provides the in-depth information necessary to assist you in planning your undergraduate academic career. It contains a complete checklist of required courses and a suggested plan of study, as well as detailed course information, including course prerequisites and projected course offerings.

While this information will be helpful to you, you should also contact the **Merrick Advising Center**. The advisers are there to assist you in planning your program plan of study and to answer any questions that you may have. Advisers are available during the day and the evening. Students in the online programs and who do not have access to the campus will be advised electronically. All new students are required to meet with an adviser prior to registering for their first semester to receive a personalized program plan of study.

Although your academic adviser will assist you in planning your program, it is ultimately your responsibility to complete the degree requirements and acquaint yourself with the University's academic policies.

Merrick School of Business Code of Conduct

The Merrick School of Business offers a student-centered education, in which degree candidates must take primary responsibility for their own learning. Our faculty promotes high academic standards that enable engaged and curious students from diverse backgrounds to maximize their chances of career success. In a global economy that is increasingly uncertain, a School of Business degree stands for a commitment to lifelong learning, rigorous thinking, and professional, ethical and civil behavior. These attributes are valued by employers, customers, investors, and other stakeholders in the local, national, and global marketplaces. For the complete **Merrick School of Business Code of Conduct** please visit: www.ubalt.edu/merrickconduct. Also visit www.ubalt.edu/campus-life/student-handbook to review the University's Academic Integrity Policy.

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Office of Records and
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www.ubalt.edu/records

Office of Financial Aid
www.ubalt.edu/financialaid

Bursar's Office
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Achievement and
Learning Center
www.ubalt.edu/alcenter

Career Center
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Call to schedule your advising
appointment today!

PROGRAM CHECKLIST

B.S. in Information Systems and Technology Management

Effective Fall 2014

Name: _____ Student ID Number: _____ Semester: _____

DEGREE REQUIREMENTS	UB COURSE	CREDITS	TRANSFERRED	UB
GENERAL EDUCATION AND UNIVERSITY REQUIREMENTS¹				
GENERAL EDUCATION REQUIREMENTS (34-37 Credits)				
First-Year Seminar: Intro to Univ. Learning [PPS] (only for UB freshmen)	IDIS 101	3		
Arts [GIK/HAT]		3		
English Composition [COM]		3		
English [GIK/HAT]		3		
History or Philosophy [GIK/HAT]		3		
Natural Science 1 [QQT]		3		
Natural Science 2 (with lab) [QQT]		4		
Social Science 1 (other than ECON) [GIK]		3		
Sophomore Seminar [CTE] / Info Literacy ²	UNIV 203/INFO 110	6		
Ethical Issues in Business and Society [CTE]	IDIS 302	3		
Advanced Expository Writing (by 2nd semester) [COM]	WRIT 300			
BUSINESS REQUIREMENTS				
LOWER-DIVISION CORE REQUIREMENTS (27 Credits)				
Introduction to Financial Accounting	ACCT 201	3		
Introduction to Managerial Accounting	ACCT 202	3		
Business Law I	BULA 151	3		
Oral Communications [COM]	CMAT 201/303	3		
The Economic Way of Thinking [QQT]	ECON 200	3		
Introduction to Programming Language	INSS 209	3		
Structural Programming Using Proc. Lang.	INSS 225	3		
College Algebra [QQT]	MATH 111	3		
Introductory Statistics [QQT/PPS]	MATH 115	3		
Statistical Data Analysis	OPRE 202	3		
UPPER-DIVISION CORE REQUIREMENTS (19 Credits)				
Management Information Systems [CTE]	INSS 300	3		
Management & Organizational Behavior	MGMT 301	3		
Personal & Professional Skills for Business ²	MGMT 330	1		
Business Application of Decision Science	OPRE 315	3		
BUSINESS ELECTIVES –Choose three of the following courses: FIN 331, MGMT 302, MGMT 339, MKTG 301, or MKTG 430.				
		3		
		3		
		3		
INFORMATION SYSTEMS REQUIREMENTS (24 Credits)				
Project Management	INSS 370	3		
Systems Analysis & Logical Design	INSS 406	3		
Design of Database Management Systems	INSS 421	3		
Business Intelligence	INSS 422	3		
Business Data Communications	INSS 427	3		
IT Service Delivery (Capstone)	INSS 470	3		
Approved INSS Elective (see Guide to Graduation)				
Approved INSS Elective (see Guide to Graduation)				
Number of electives required to meet 120 credits _____				
Total Transfer Credits: _____		Total Credits Required: _____		Total Credits Earned: _____
				Minimum of 120 credits

¹ Please refer to the UB General Education Requirements sheet for a complete list of general education course options.

² Students transferring with less than 45 credits are required to take UNIV 203, which must be taken concurrently with INFO 110. Students who take UNIV 203 are not required to take MGMT 330. Students transferring with more than 45 credits satisfy this requirement with INSS 300 and are therefore not required to take UNIV 203 or INFO 110.

GUIDE TO GRADUATION

B.S. in Information Systems and Technology Management

Below is an example plan of study for the B.S. in Information Systems and Technology Management. This is meant to act as a guide, but need not be followed in the same order for every student. Part-time students and those students transferring in credits from another university or college will need to adjust their plan accordingly. This plan does not account for courses taken during summer sessions. Students should consult with their adviser each semester prior to registration.

FALL SEMESTER		SPRING SEMESTER	
Freshmen			
IDIS 101	Applied Learning & Study Skills	CMAT 201	Communicating Effectively
DVMA or MATH 111	College Algebra	WRIT 101	College Composition
	General Education or Lower-Level Elective		General Education or Lower-Level Elective
	General Education or Lower-Level Elective		General Education or Lower-Level Elective
	General Education or Lower-Level Elective		General Education or Lower-Level Elective
Sophomore			
ACCT 201	Intro to Financial Accounting	ACCT 202	Intro to Managerial Accounting
INFO 110	Into to Information Literacy	ECON 200	Economic Way of Thinking
INSS 209	Introduction to Programming	INSS 225	Struc. Prog. Using Proc. Lang.
MATH 115	Introductory Statistics	OPRE 202	Statistical Data Analysis
UNIV 203	Sophomore Seminar		General Education or Lower-Level Elective
Junior			
INSS 300	Management Information Systems	INSS 370	Project Management
INSS 406	Systems Analysis & Logical Design	INSS 421	Design of Database Mgmt. Systems
MGMT 330	Personal & Professional Skills for Business	MGMT 315	Human Resource Management
OPRE 315	Business Apps. of Decision Science		Information Systems Elective
WRIT 300	Advanced Expository Writing		Business Elective
Senior*			
INSS 422	Business Intelligence	IDIS 302	Ethical Issues in Business & Society
INSS 427	Business Data Communications		Business Elective
INSS 470	IT Service Delivery (Capstone)		Information Systems Elective
MGMT 301	Management and Organizational Behavior		Elective
	Business Elective		Elective

***Be sure to apply for graduation.**

Important Student Information:

- Maintain a minimum cumulative grade point average of 2.0.
- Earn a minimum grade of “C” in all lower- and upper-division business core and specialization requirements (including business elective requirements).
- Earn a minimum grade of “C-” in all lower-level general education requirements taken at UB and a minimum grade of C (2.0) in all upper-level general education requirements.
- Students are limited to three attempts to successfully complete all lower- and upper-division business core and specialization requirements.
- Apply up to 60 credits of community college work or up to 90 credits of four-year college or university work toward degree requirements, unless an articulation agreement stipulates otherwise.
- Complete at least 30 credits at the University of Baltimore.
- PLACEMENT TESTING is required for MATH 111 College Algebra and WRIT 300 Advanced Expository Writing. For complete information visit the following Web site: www.ubalt.edu/placement.
- Please check the current catalog for all courses that satisfy general education requirements.
- The last 30 credit hours of your program must be taken at UB. To take courses outside UB toward your program, you must obtain approval from your academic adviser.

Note: The provisions of this fact sheet are not to be regarded as a contract between the student and the University of Baltimore. The Merrick School reserves the right to change courses, schedules, calendars, and any other provisions or requirements. Students are responsible for the selection of courses, completion of degree requirements, and acquainting themselves with academic policies.

LOWER DIVISION BUSINESS REQUIREMENTS

Course	Course Title	Course Description	Prerequisite	Semesters Offered
ACCT 201	Introduction to Financial Accounting	A comprehensive study of basic financial accounting processes applicable to a service, merchandising and manufacturing business. An analysis of transactions, journalizing, posting, preparation of working papers and financial statements.		Fall, Spring and Summer*
ACCT 202	Introduction to Managerial Accounting	An introductory study of basic financial accounting processes including job order costing, process costing, cost-volume-profit analysis, standard costs, activity-based costing, cost analysis, budgeting and managerial decision making.	ACCT 201 or equivalent with a minimum grade of C	Fall, Spring and Summer*
CMAT 201	Communicating Effectively	Introduction to oral communication: interpersonal, small group and public speaking. Emphasis on accurately transmitting information, using effective strategies for informing and persuading, using effective communication techniques to work with others, and feeling at ease in front of an audience.		Fall and Spring
CMAT 303	Oral Communication in Business	Extensive practice in presentational speaking, briefing techniques, the mechanics and dynamics of group meetings and the development of interviewing, critical listening and interpersonal communication skills. Laboratory fee required. Note: If students have already completed CMAT 201, they don't need to complete CMAT 303.		Fall, Spring and Summer*
ECON 200	The Economic Way of Thinking	An economist sees the world in a unique way and is able to provide a different perspective on many issues. This course presents the "economic way of thinking" with an emphasis on being able to make effective decisions in a wide variety of economic and business situations. In addition, the "economic way of thinking" is used to understand the impact of business and government policies and actions on our daily lives.		Fall, Spring and Summer*
INSS 209	Introduction to Programming Language	Develops logical and analytical thinking through basic programming concepts like looping, simple sequence, decision and branching. Provides an exposure to algorithm development for the design of simple programs. Topics include basic concepts of data and file organization.		Fall
INSS 225	Structured Programming Using Procedural Languages	Introduces good coding practices using structured programming concepts. Modules and shared routines with single-entry and single-exit points are emphasized. Sequence, selection, repetition and nesting techniques are reinforced as acceptable means of controlling program logic. Students work on projects that involve analyzing, designing, coding, executing and testing programs.	INSS 209 or permission of the instructor	Spring
MATH 111	College Algebra	Provides students with more advanced skills required for high-level applications of mathematics. Negative and rational exponents; functions, their properties and operations including inverse functions; linear, quadratic, polynomial, rational, absolute value, exponential and logarithmic functions are explored. Students develop graphical and algebraic skills and study applications of concepts.	Adequate placement test score or successful completion of DVMA 95: Intermediate Algebra	Fall, Spring and Summer*
MATH 115	Introductory Statistics	An overview of descriptive and inferential statistics. Statistics is inherently applied; the course emphasizes solutions to problems in a variety of applied settings. Measures of location and variability, probability distributions, correlation and regression, sampling and sampling distributions, hypothesis testing and estimation with confidence intervals for means and proportions are explored.	Adequate score on placement test or successful completion of MATH 111 or its equivalent or successful completion of DVMA 95: Intermediate Algebra.	Fall, Spring and Summer*
OPRE 202	Statistical Data Analysis	A second course in the statistical analysis of data related to business activities with emphasis on applications in various functional areas including accounting, finance, management, marketing and operations management, among others. Topics include estimation, hypothesis testing, contingency tables and chi-square test, analysis of variance and covariance, simple and multiple regression analysis and correlation analysis. Computer implementation using Excel-based statistical data analysis or other relevant software and interpretation of results for business applications are emphasized.	MATH 115 and basic computer skills	Fall, Spring and Summer*

* Summer offerings may vary

BUSINESS CORE REQUIREMENTS

Course	Course Title	Course Description	Prerequisite	Semesters Offered
INSS 300	Management Information Systems	Provides a fundamental knowledge of information systems and technology (IS&T) issues from the perspective of business professionals. This includes information technology concepts and vocabulary, as well as insights into IS&T applications in business organizations. Topics include searching and extracting information to solve business problems; the role of organizational context in IS&T effectiveness; the economic, social, legal and ethical impacts of IS&T; the systems life cycle approach; and key technologies such as the Internet, networking and database management systems.		Fall, Spring and Summer*
MGMT 301	Management and Organizational Behavior	An exploration into the functions of management, management history, individual behavior, interpersonal relationships in organizations, the nature of work, values and ethics, motivation and morale, teamwork, communication and group dynamics, leadership and supervision, and organizational structure and culture. Course coverage includes global perspectives and significant research from the behavioral sciences.	WRIT 300	Fall, Spring and Summer*
MGMT 330	Personal and Professional Skills for Business	Provides students with the skills necessary to advance their career development. Strategies and practices that allow the student to successfully interface with potential employers are explored and applied. Course modules include business etiquette and professional behavior; appropriate use of workplace communication techniques; written business communications; and showcasing career building talents and skills within an organizational context. There is a \$30 lab fee associated with this course.		Fall, Spring and Summer*
OPRE 315	Business Application of Decision Science	A study of managerial decision-making processes using a decision sciences approach. Topics include linear and integer models and decision analysis and their application in investment problems, media selection, market research, product mix, production planning, personnel scheduling and transportation design, among others. Special emphasis is on understanding the concepts and computer implementation and interpreting the results to write management reports.	MATH 111 and MATH 115	Fall, Spring and Summer*

BUSINESS ELECTIVES Choose three courses from the following:

Course	Course Title	Course Description	Prerequisite	Semesters Offered
FIN 331	Financial Management	An overview and understanding of fundamental principles of financial decision making and their application to internal and external problem solving by the business enterprise. Topics include financial statement analysis and forecasting, time value of money and security valuation, corporate capital budgeting, cost of capital and capital structure. Thematic coverage encompasses the traditional, international and ethical dimensions of financial decision making.	ACCT 201, ECON 200 or 3 hours of micro- or macroeconomics, and MATH 115	Fall, Spring and Summer*
MGMT 302	Global Business Environment	Enhances students' abilities to operate successfully in today's multicultural, global environment. Students will gain a theoretical basis for understanding key aspects of the global business environment, as applied to small companies, multinational corporations, multilateral institutions and nongovernmental organizations. Students will explore the impact of globalization at home and abroad. Course modules aim to broaden students' understanding of similarities and differences among national political economies, legal systems and sociocultural environments including world religions, business ethics and social responsibility. Students will survey business functions as they are applied to expand and manage international operations.		Fall, Spring and Summer*
MGMT 339	Process and Operations Management	Provides an overview of managing critical resources efficiently and effectively to create physical goods, services and information goods in manufacturing and service organizations. Topics include operations strategy, project management, forecasting, location and layout of facilities, capacity and process planning, upstream and downstream supply chains and the role of the Internet, operations and environment, matching supply and demand, scheduling, job design and quality management. Integrated throughout are considerations of ethics, information systems, people involved and the domestic and international environment.	Prior or concurrent enrollment in OPRE 315	Fall, Spring and Summer*

* Summer offerings may vary

Choose four courses from the following: (continued)

Course	Course Title	Course Description	Prerequisite	Semesters Offered
MKTG 301	Marketing Management	A basic course in the contribution of marketing to the firm or organization that includes decision-making tools for integrating product, price, distribution, and communication decisions and processes into an organization competing in a global environment. Students also build skills in oral and written communication.		Fall, Spring and Summer*
MKTG 430	Personal Selling	Presents the sales principles and skills required by today's professional salesperson, with emphasis on both the business-to-consumer and business-to-business selling environments. Examines current approaches to a variety of selling challenges including prospecting, the selling process, closing the sale and post sale follow up. Presents the principles underlying the sales process and the practical application of these principles to selling situations. Studies the role of selling in the total marketing process.		Spring

INFORMATION SYSTEMS AND TECHNOLOGY MANAGEMENT REQUIRED COURSES

Course	Course Title	Course Description	Prerequisite	Semesters Offered
INSS 370	Project Management	This course provides the fundamentals of project management, with a focus on managing information systems projects. Upon successful completion of this course, candidates may be eligible to take the Project Management Institute (PMI) exam for Certified Associate in Project Management (CAPM).	INSS 300 or permission of instructor	Spring
INSS 406	System Analysis and Logical Design	Introduces key principles and techniques used to develop or modify information systems to support business undertakings. The course will cover the lifecycle of software systems, with an emphasis on the analysis and logical design phases. Topics will include the determination and modeling of the requirements of information systems and software, business process modeling and reengineering, data modeling, data gathering and requirements specification, interface design, and the development of system prototypes, including electronic forms and reports. Students will gain experience with leading industry development tools such as those from Oracle and PeopleSoft.	INSS 209 or INSS 225 or equivalent	Fall
INSS 421	Design of Database Management Systems	Introduces the concepts and technologies relevant to the design, development and implementation of database systems. Data modeling concepts and principles of database design are used to illustrate the construction of integrated databases. Database management systems (DBMS) and their purpose, advantages, disadvantages and application in business are covered.	INSS 300 or permission of the instructor	Spring
INSS 422	Business Intelligence	Business Intelligence (BI) refers to the use of information technology to analyze complex information about an organization and its competitors for use in business planning and decision making. This course details the components of BI systems, important techniques as well as the critical variables needed to implement an effective BI program. The course takes a managerial approach to Business Intelligence, emphasizing BI applications and implementations. The course will involve use of industry standard software packages.	MATH 115 and INSS 421, or permission of instructor	Fall
INSS 427	Business Data Communications	Provides a basic understanding of terminology, techniques and concepts of business data communications. The emphasis is on both the technical aspects of data communication and related managerial issues. Topics include, but are not limited to, physical aspects of data communication, common carrier services, local area networks, wide area networks, Internet and electronic commerce, network management and network applications.	INSS 300 or permission of the instructor	Fall
INSS 470	IT Service Delivery	As businesses become more dependent on technology, it is crucial that a company's IT systems are designed and delivered to consistently support its business processes. One increasingly popular way to achieve this, particularly as applications hosted and managed "in the cloud" become more pervasive, is to take a service management approach. This course presents the fundamentals of IT service management, including service management strategies, the service lifecycle, metrics and performance indicators, and the impact a service mgt approach has on issues such as data management, virtualization, and security. The course material will prepare students for the ITILV3 Foundation certification exam. (Capstone)	INSS 370, or permission of instructor	Fall

* Summer offerings may vary

INFORMATION SYSTEMS AND TECHNOLOGY MANAGEMENT REQUIRED COURSES (continued)

Choose two courses from the following:

Course	Course Title	Course Description	Prerequisite	Semesters Offered
INSS 401	Internet and Business	Provides an understanding of the Internet and the information superhighway through hands-on experience with the main Internet services and applications. The course also answers questions about how to use the Internet for communications; search for free information, files and programs; and create a presence on the Internet for individuals and businesses using hypermedia and the Web.	INSS 300 or permission of the instructor	Spring
INSS 431	Electronic Commerce	Provides both a managerial and technical perspective on e-commerce applications, with an emphasis on the operational, tactical and strategic applications of e-commerce and the major technologies involved in their development. The course will cover the different types of e-commerce, the technologies and techniques involved and the major issues facing organizations conducting electronic commerce. Managerial topics include mobile commerce; business, consumer and government e-commerce uses; and legal, ethical and regulatory issues. Technical topics explored include network infrastructure, e-commerce security and technologies for data transformation and exchange, such as XML.	INSS 300	Semester varies
INSS 453	Internet and Network Security	Familiarizes students with basic security threats on networks connected to the Internet and basic tools to provide user and system security resources available on the Internet. The main focus is on digital and infrastructure security. Topics include security framework overview; footprinting; scanning; enumeration; hacking framework; backdoor servers and Trojans; root-kits; Windows (98/NT, 2000/XP) and Linux vulnerabilities; dialup, VPN and network devices vulnerabilities; firewalls; Intrusion Detection System (IDS); Denial of Service (DoS) and Ddos; buffer overflow; spyware; phishing; social engineering and protecting the Web end-user. This is a project-oriented course using a restricted-access UB Lab to practice the use of hacking and security tools.	INSS 315 and INSS 427 or permission of the instructor	Semester varies
INSS 454	Operating Systems	Functions of operating systems, including process management and concurrency, memory management, scheduling, and user and file management security are studied, as are hardware features required by modern operating systems. Course content also includes a study of symmetric multiprocessing, clusters' hardware and operating systems concepts, and the capabilities of several commercial operating systems. Provides hands-on experience in a specialized laboratory that includes PC, work-station, and mini- and mainframe computer operating systems, including system setup and basic system administration functions.	INSS 225 or 327, or permission of the instructor	Offered according to demand
INSS 495	Internship in MIS	Provides students with practical real world experience in an organization. The course requires a minimum of 120 hours of practical work with a qualified firm based on explicit statements of student responsibilities and faculty/firm monitoring mechanism. Students will work closely with both the firm and a faculty member.	Fifteen hours of INSS courses, (excluding INSS 300) with a minimum GPA in these courses of 3.0 and permission of the instructor.	See your faculty internship adviser
INSS 497	Special Topics in Information Systems	The INSS faculty, from time to time, offer an opportunity to integrate new material into the undergraduate program reflecting changes in the field and in the educational needs of students.	Determined by the instructor	Offered according to demand
INSS 499	Independent Study: Information Systems	An independent study completed under the direction of a faculty member.	See your academic adviser	

** Select COSC courses may be approved to satisfy an INSS elective requirement at the discretion of the department chair.

Consider an Internship to Enhance Your Résumé

Internships allow you to apply your education to real-world practice in your chosen field. They are typically part-time positions in which you work at least 120 hours over the course of a semester. As an intern you will gain valuable experience, have the opportunity to obtain academic credit, and may even get paid. The internship should be related to your academic and career interests.

An internship can provide:

- practical and meaningful work experience;
- specific preparation for employment in a field of your choice;
- increased marketability to future employers;
- enhanced professional network;
- possible full-time employment in that organization;
- credit towards degree requirements.

For more information, including a list of faculty internship advisers, forms required to receive academic credit, and details on how to get started, please visit the following Web site: www.ubalt.edu/merrickinternships. Consult your program checklist or your academic adviser to determine how to integrate the internship course into your program.

Apply to the Business Honors Program

The Merrick School of Business offers a Business Honors Program designed to produce leaders in business. Business Honors students have the opportunity for an enriched curriculum, small class sizes, and exceptional internship opportunities. Students interact closely with faculty and alumni in informal settings and have the opportunity to visit employer sites on special Honors Program field trips. Honors students are also encouraged to participate in the accelerated Bachelor's/Master's option. For more information including entry and program requirements, visit the following Web site: www.ubalt.edu/honors.

Pursue a Minor

Minors are typically 15 to 21 credit hours and allow you to expand your skills and knowledge through concentrated study in an area outside of your major. To declare a minor, you must:

- have already declared a major (or declare both a major and a minor at the same time);
- have completed at least 24 credits with a minimum cumulative grade point average of 2.0-2.5, depending on the minor;
- obtain the approval of your academic adviser.

For more information including a list of available minors and requirements, please visit the following Web site: www.ubalt.edu/minors.



www.ubalt.edu/merrick