

**GUIDE TO GRADUATION**  
**Effective Fall 2011**

B.S. IN

**INFORMATION SYSTEMS**  
AND **TECHNOLOGY MANAGEMENT**

[www.ubalt.edu/istm](http://www.ubalt.edu/istm)

**T**he 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.

**Call to schedule your advising appointment today!**

## CONTACT INFO:

### **Merrick Advising Center**

Business Center Room 142

410.837.4944

[www.ubalt.edu/merrickadvising](http://www.ubalt.edu/merrickadvising)

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### **Office of Records and Registration**

[www.ubalt.edu/records](http://www.ubalt.edu/records)

### **Office of Financial Aid**

[www.ubalt.edu/financialaid](http://www.ubalt.edu/financialaid)

### **Bursar's Office**

[www.ubalt.edu/bursar](http://www.ubalt.edu/bursar)

### **Achievement and Learning Center**

[www.ubalt.edu/alcenter](http://www.ubalt.edu/alcenter)

### **Career Center**

[www.ubalt.edu/careercenter](http://www.ubalt.edu/careercenter)

# PROGRAM CHECKLIST

## B.S. in Information Systems and Technology Management

Effective Fall 2011

Name: \_\_\_\_\_

Student ID Number: \_\_\_\_\_

Semester: \_\_\_\_\_

DEGREE REQUIREMENTS	UB COURSE	CREDITS	GEN. ED.	SEMESTER COMPLETED
<b>GENERAL EDUCATION AND UNIVERSITY REQUIREMENTS</b>				
<b>University Requirements</b>		<i>Note: The following course is only required of UB freshmen.</i>		
Seminar – Applied Learning & Study Skills	IDIS 101	2		
<b>Lower Division General Education Requirements</b>				
English Composition	WRIT 101	3	WRIT	
Literature		3	ENGL	
History or Philosophy		3	HIPL	
Fine Arts		3	ART	
Social Science 1 (Other than ECON)		3	SOSC 1	
Biological and Physical Science 1		3	GSCI 1	
Biological and Physical Science 2 (1 with lab)		4	GSCI 2	
<b>Upper Division General Education Requirements</b>				
Ethical Issues in Business and Society	IDIS 302	3	IDIS	
Advanced Expository Writing (by 2 <sup>nd</sup> semester in the program)	WRIT 300	3	WRIT	
<b>BUSINESS REQUIREMENTS</b>				
<b>Lower Division Core Requirements</b>				
Introduction to Financial Accounting	ACCT 201	3		
Introduction to Managerial Accounting	ACCT 202	3		
Oral Communications	CMAT 201 or 303	3	CMAT	
The Economic Way of Thinking	ECON 200	3	SOSC 2	
Introduction to Programming Language	INSS 209	3		
Struct. Programming Using Procedural Lang.	INSS 225	3		
College Algebra	MATH 111	3	MATH	
Introduction to Business Statistics	OPRE 201	3	MATH	
Statistical Data Analysis	OPRE 202	3		
<b>Upper-Division Core Requirements</b>				
Management Information Systems	INSS 300*	3	COSC	
Management and Organizational Behavior	MGMT 301	3		
Personal & Professional Skills for Business	MGMT 330	1		
Business Application of Decision Science	OPRE 315	3		
<b>Business Electives</b> - Choose three of the following courses: FIN 331, MGMT 302, MGMT 339, MKTG 301, or MKTG 430				
		3		
		3		
		3		
<b>MANAGEMENT INFORMATION SYSTEMS REQUIREMENTS</b>				
Project Management	INSS 370	3		
Systems Analysis and 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	INSS 470	3		
Approved INSS Elective (see courses in back of this guide**)		3		
Approved INSS Elective (see courses in back of this guide**)		3		
<b>Electives</b> - Number of electives may vary and will be determined at initial advising meeting.				
<b>Total Transfer Credits:</b> _____		<b>Total Credits Required:</b> _____		<b>Total Credits Earned:</b> _____
				<b>Minimum of 120 credits</b>

\*This course also satisfies the University's information literacy requirement.

\*\*Select COSC courses may be approved at the discretion of the department chair.

# 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
INSS 209	Introduction to Programming	ECON 200	Economic Way of Thinking
OPRE 201	Intro to Business Statistics	INSS 225	Struc. Prog. Using Proc. Lang.
General Education or Lower-Level Elective		OPRE 202	Statistical Data Analysis
General Education or Lower-Level Elective		General Education or Lower-Level Elective	

#### Junior

INSS 300	Management Information Systems	INSS 370	Project Management
MGMT 301	Management and Organizational Behavior	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 406	Systems Analysis & Logical Design	IDIS 302	Ethical Issues in Business & Society
INSS 427	Business Data Communications	INSS 422	Business Intelligence
INSS 470	IT Service Delivery	Business Elective	
Information Systems Elective		Elective	
Business Elective		Elective	

### 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/placementtesting](http://www.ubalt.edu/placementtesting).
- 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
<b>ACCT 201</b>	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*
<b>ACCT 202</b>	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*
<b>CMAT 201</b>	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
<b>CMAT 303</b>	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*
<b>ECON 200</b>	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*
<b>INSS 209</b>	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
<b>INSS 225</b>	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
<b>MATH 111</b>	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*
<b>OPRE 201</b>	Introduction to Business Statistics	An introductory course in descriptive and inferential statistical concepts and techniques used in business. The study of probability concepts includes discrete and continuous probability distributions. Topics in descriptive statistics explore measures of location and dispersion and the correlation coefficient. The study of inferential statistics includes sampling distributions of statistics, confidence interval estimation and an introduction to hypothesis testing.	Adequate placement test scores or successful completion of DVMA 95: Intermediate Algebra	Fall, Spring and Summer*
<b>OPRE 202</b>	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.	OPRE 201 and INSS 100 or equivalent	Fall, Spring and Summer*

\* Summer offerings may vary

## BUSINESS CORE REQUIREMENTS

Course	Course Title	Course Description	Prerequisite	Semesters Offered
<b>INSS 300</b>	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*
<b>MGMT 301</b>	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.		Fall, Spring and Summer*
<b>MGMT 330</b>	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*
<b>OPRE 315</b>	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 OPRE 201	Fall, Spring and Summer*

## BUSINESS ELECTIVES Choose three courses from the following:

Course	Course Title	Course Description	Prerequisite	Semesters Offered
<b>FIN 331</b>	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 OPRE 201	Fall, Spring and Summer*
<b>MGMT 302</b>	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*
<b>MGMT 339</b>	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
<b>MKTG 301</b>	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*
<b>MKTG 430</b>	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
<b>INSS 370</b>	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
<b>INSS 406</b>	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 300 or permission of instructor	Fall
<b>INSS 421</b>	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
<b>INSS 422</b>	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.	OPRE 201 and INSS 421, or permission of instructor	Spring
<b>INSS 427</b>	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
<b>INSS 470</b>	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.	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
<b>INSS 401</b>	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
<b>INSS 431</b>	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	Fall
<b>INSS 453</b>	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	Fall
<b>INSS 454</b>	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
<b>INSS 495</b>	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
<b>INSS 497</b>	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
<b>INSS 499</b>	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 Resumé

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](http://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, visit employer sites on special Honors Program field trips, and enjoy a streamlined application process for the graduate business programs in the Merrick School of Business. 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](http://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](http://www.ubalt.edu/minors).