

Marketing and Computer Information Systems

Dr. Robert Pellegrino
 Department of Marketing and Computer Information Systems
 Business Building, Room 159
 Box T-0170
 Stephenville, Texas U.S.A. 76402
 (254) 968-9047
 pellegrino@tarleton.edu
 www.tarleton.edu/mcis (http://www.tarleton.edu/mcis/)

The Department of Marketing and Computer Information Systems (CIS) offers two disciplines of study leading to various degrees. The Marketing discipline offers a Bachelor of Business Administration (BBA) in Marketing. The CIS discipline offers a Bachelor of Business Administration (BBA) in Management Information Systems, Bachelor of Science (BS) in Computer Information Systems, Bachelor of Applied Arts and Sciences (BAAS) in Information Technology, and Master of Science (MS) in Information Systems.

Marketing

With a focus on entrepreneurship, the BBA in Marketing accredited degree program provides knowledge and skills in all foundational marketing-related disciplines, including advertising, sales and pricing, as well as product design, quality and distribution. Business core requirements integrated within the marketing degree program curriculum also educate undergraduate learners in basic business principles that are highly desired by many industry employers. With hands-on, real-world experience, you'll learn how to make important business decisions to solve problems with innovative, creative solutions. Marketing is a business discipline that involves the process of trying to persuade consumers to use or buy your product or service through promotion. In today's job market, marketing is a fast-growing, exciting and highly sought out business profession. Business administration bachelor's degrees are well-balanced programs for learners interested in marketing as a career. A strong curriculum with internship opportunities will help you gain the theoretical knowledge and practical experience you need for marketing as a career.

- BBA-Marketing (<https://www.tarleton.edu/degrees/marketing-bba/>)

Information Systems/Information Technology

The BAAS-IT, BBA-MIS, and BS-CIS programs provide learners with several options that allow learners to augment their degree to make them more competitive in the marketplace as well as accelerate their path towards completing a master's degree in Information Systems. Each program is designated as a STEM program as defined by the Department of Homeland Security (DHS). This designation has a direct impact on international learners interested in these programs as it allows those with F-1 visas to remain in the United States after graduation for an additional 24 months under the optional practical training STEM extension. This extension makes it possible for learners to undertake practical training for a total of 36 months. If this is of interest to you, reach out to the International Programs (<https://www.tarleton.edu/common/links/academic/international.html>) office for more detail and enroll today!

- BS-Computer Information Systems (<https://www.tarleton.edu/degrees/computer-information-systems-bs/>)
- BBA-Management Information Systems (<https://www.tarleton.edu/degrees/computer-information-systems-bba/>)
- BAAS-Information Technology (<https://www.tarleton.edu/degrees/information-technology-baas/>)

Certificate in Cybersecurity

The BAAS-IT, BBA-MIS, and BS-CIS all include the opportunity for learners to pursue an additional certificate in the field of cybersecurity during their studies at Tarleton State University. Work with your COB Academic Adviser to take advantage of this opportunity.

Certificate in Cyber Security

Required Courses

CRIJ 3315	Rules of Criminal Evidence	3
BCIS 4320	Computer Forensics	3
BCIS 4342	Ethical Hacking & Network Defense	3
BCIS 4345	Network and Systems Security	3
CRIJ 4353	Global Cyber-Security	3

Total Hours

15

Accelerated Program

The MS-Information Systems includes an accelerated option, allowing undergraduate learners to begin their graduate studies early and shortening their time to graduation. Interested learners should identify their interest in pursuing this option early in their program and work with their Academic Adviser (<https://www.tarleton.edu/advising/advisor/outreach-advisors.html>) to select the appropriate degree plan options:

- BS-CIS: Accelerated CIS/MS Information Systems
- BAAS-IT: Accelerated IT/MS Information Technology
- BBA-MIS: Accelerated MIS/MS Information Systems

Learners in their final undergraduate semester, should work with the COB Graduate Programs Manager (cob.graduate@tarleton.edu) to complete the Graduate Student Provisional Form (https://www.tarleton.edu/degrees/wp-content/uploads/sites/140/2022/06/New_Provisional_Form.pdf), enabling them to register for their graduate classes. Learners who choose the accelerated option will, in their final semester, take BCIS 5311 plus an additional BCIS graduate elective, to serve as undergraduate electives and also begin work towards their graduate studies. Learners should also complete their application to the College of Graduate Studies during their final semester in preparation for admittance into the graduate program. Accelerated option details may be viewed below in each respective Program Requirements sections.

Bachelor of Science Degree in Management Information System

Through a Bachelor of Science degree in Computer Information Systems (BS-CIS), learners will learn cutting-edge programming and networking technology. With faculty and staff members who put your education as their top priority, this degree will provide you with a variety of field-related skills to ensure your success after graduation.

Bachelor of Business Administration Degree in Management Information Systems

Designed for learners interested in management of information systems and technology, our BBA-Management Information Systems degree offers a challenging program of study with a business focus and global perspective. Through a combination of management information systems and business courses, you'll learn cutting-edge programming and networking techniques, as well as how to apply knowledge and theory, to solve problems in information technology and enhance businesses.

Bachelor of Applied Arts and Sciences in Information Technology

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Designed for working professionals who already have experience in information technology and want to advance their careers, our BAAS in Information Technology is an accelerated pathway to an affordable bachelor's degree. You may receive 12 to 33 hours of prior learning credit, including training or technical certifications, toward degree program requirements that can potentially save you thousands of dollars in tuition and fees and help you earn your bachelor's faster. The two-year bachelor's completion degree program in information technology can be completed fully or mostly online for flexible options that fit your schedule.

The Bachelor of Business Administration Degree in Marketing

Required Courses

General Education Requirements (<http://catalog.tarleton.edu/academicaffairs/>) 42

Select one of the following (shared with the General Education Core)

MATH 1314	College Algebra	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 1332	Contemporary Mathematics I	
MATH 1342	Elementary Statistical Methods	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	

Common Business Core and Major Specific Requirements ¹

BCIS 1305	Business Computer Applications	3
BUSI 1301	Business Principles	3
Select one of the following:		3-4
MATH 1316	Plane Trigonometry	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 1325	Math for Business & Social Sciences II (Business Calculus)	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	
ACCT 2301	Principles of Accounting I-Financial	3
ACCT 2302	Principles of Accounting II-Managerial	3
BUSI 2301	Business Law I	3
BUSI 2305	Business Statistics	3
ECON 2301 [shared]	Principles of Macroeconomics	
ECON 2302	Principles of Microeconomics	3
BUSI 3312 [WI (http://catalog.tarleton.edu/academicaffairs/)]	Business Communication	3
FINC 3301	Principles of Financial Management	3
MGMT 3300	Principles of Management	3
MKTG 3312	Marketing	3
BCIS 4350	Management Information Systems	3
BUSI 4344	Introduction to International Business	3
BUSI 4359 [WI (http://catalog.tarleton.edu/academicaffairs/)]	Business Strategy	3

Major Specific Courses ¹

PSYC 2301	General Psychology	3
Select one of the following:		3
BCIS 3315	Web Development	
BCIS 4090	Special Topics in Computer Information Systems	
BCIS 4379	The Technology of E-Business	
MKTG 3315	Personal Selling	3
MKTG 3316	Consumer Behavior	3
MKTG 4315	Marketing Research	3
MKTG 4316	Marketing Management	3
MKTG 4354	International Marketing	3
Select three of the following:		9
MKTG 3317	Retailing	
MKTG 3318	Promotional Strategy	
MKTG 4084	Internship	
MKTG 4086	Problems	
MKTG 4090	Special Topics in Marketing	
MKTG 4302	Services Marketing	
MKTG 4312	Sales Management	
MKTG 4314	Supply Chain and Logistics Concepts	
MKTG 4389	Global Marketing Practices	

Elective(s)

Electives 3

Total Hours

120

¹ Requirements in the Common Business Core and Major Specific areas require a grade of "C" or Better.

The Bachelor of Science Degree in Computer Information Systems

Required Courses

General Education Requirements (<http://catalog.tarleton.edu/academicaaffairs/>) ¹ 42

Major Specific Requirements ²

BCIS 1305	Business Computer Applications	3
BCIS 1317	Personal Computer Maintenance and Hardware	3
Select one of the following:		3
ACCT 3300	Accounting Concepts	
MGMT 3300	Principles of Management	
MKTG 3312	Marketing	
Select one of the following		3
BCIS 3332	Java Programming	
BCIS 3333	C# Programming	
Select one of the following:		3
BCIS 3342	Advanced Java Programming	
BCIS 3343	Advanced C# Programming	
BCIS 3347	Data Communications	3
BCIS 3389 [WI (http://catalog.tarleton.edu/academicaaffairs/)]	System Analysis and Design	3
Select one of the following:		3
BUSI 3312 [WI (http://catalog.tarleton.edu/academicaaffairs/)]	Business Communication	
ENGL 3309 [WI (http://catalog.tarleton.edu/academicaaffairs/)]	Professional Writing	
BCIS 4301	Database Theory and Practice	3
BCIS 4350	Management Information Systems	3
21 Hours of Approved Electives from ACCT, BCIS, BLAW, BUSI, ECON, FINC, HRMT, MKTG, MGMT, COSC, MATH, ENGT, ENGR		21
Elective(s)		
Electives		6
Total Hours		99

Additional Required Courses for Concentrations

Information Systems

21 Hours of Approved Advanced Electives from: ACCT, BCIS, BLAW, BUSI, ECON, FINC, HRMT, MKTG, MGMT, COSC, MATH, ENGT, ENGR ²		21
Total Hours		21

Accelerated CIS/MS Information Systems

15 Hour of Approved Advanced Electives from: ACCT, BCIS, BLAW, BUSI, ECON, FINC, HRMT, MKTG, MGMT, COSC, MATH, ENGT, ENGR ²		15
BCIS 5000 Level Elective ²		3
BCIS 5311	Managing Information Systems ²	3
Total Hours		21

Cyber Security Concentration and Certificate

Cyber Security Certificate		15
BCIS 4320	Computer Forensics	
BCIS 4342	Ethical Hacking & Network Defense	
BCIS 4345	Network and Systems Security	
CRIJ 3315	Rules of Criminal Evidence	
CRIJ 4353	Global Cyber-Security	
Additional Advanced Electives Required for the Concentration:		
6 Hours of Approved Advanced Electives from ACCT, BCIS, BLAW, BUSI, ECON, FINC, HRMT, MKTG, MGMT, COSC, MATH, ENGT, ENGR ³		6
Total Hours		21

Cyber Security Concentration and Certificate/Accelerated CIS/MS Information Systems

Cyber Security Certificate		15
BCIS 4320	Computer Forensics	
BCIS 4342	Ethical Hacking & Network Defense	
BCIS 4345	Network and Systems Security	
CRIJ 3315	Rules of Criminal Evidence	
CRIJ 4353	Global Cyber-Security	
Additional Advanced Coursework Required for the Concentration:		
BCIS 5000 Level Elective ⁴		3
BCIS 5311	Managing Information Systems	3
Total Hours		21

¹ COMM 2302 Business and Professional Speaking is recommended.

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² Requirements in the Major Specific areas require a grade of "C" or Better.

³ The Cyber Security Certificate is comprised of the five (5) courses listed above. The additional 6 hours of Advanced Electives are required to meet the 120 hours necessary for the degree.

⁴ The Cyber Security Certificate is comprised of the five (5) courses listed above. The additional 6 hours of graduate courses for the Accelerated CIS/MIS in Information Systems are required to meet the 120 hours necessary for the degree.

The Bachelor of Applied Arts and Sciences Degree in Information Technology

Required Courses

General Education Requirements (http://catalog.tarleton.edu/academicaaffairs/)	42
Major Specific Requirements ¹	
BCIS 1305 Business Computer Applications	3
Choose one of the following:	3
BCIS 3332 Java Programming	
BCIS 3333 C# Programming	
BCIS 3347 Data Communications	3
BCIS 3389 [WI (http://catalog.tarleton.edu/academicaaffairs/)] System Analysis and Design	3
Choose one of the following:	3
BUSI 3312 [WI (http://catalog.tarleton.edu/academicaaffairs/)] Business Communication	
ENGL 3309 [WI (http://catalog.tarleton.edu/academicaaffairs/)] Professional Writing	
BCIS 4301 Database Theory and Practice	3
BCIS 4350 Management Information Systems	3
Advanced BCIS Electives	3
Prescribed Electives from BCIS, BUSI, COSC, ENGT, ENGR, ECON, ACCT, BLAW, FINC, MGMT, MKTG ^{1, 2}	0-21
Electives and/or Prior Learning Credit	
Prior Learning Credit	12-33
Total Hours	99

Additional Required Courses for Concentrations

Information Technology

Electives	6
Advanced Electives from BCIS, BUSI, COSC, ENGT, ENGR, ECON, ACCT, BLAW, FINC, MGMT, MKTG ¹	15
Total Hours	21

Accelerated IT/MS Information Technology

Electives	6
Advanced Electives from BCIS, BUSI, COSC, ENGT, ENGR, ECON, ACCT, BLAW, FINC, MGMT, MKTG ¹	9
BCIS 5000 Level Elective ¹	3
BCIS 5311 Managing Information Systems ¹	3
Total Hours	21

Cyber Security Concentration and Certificate

Cyber Security Certificate

BCIS 4320 Computer Forensics	3
BCIS 4342 Ethical Hacking & Network Defense	3
BCIS 4345 Network and Systems Security	3
CRIJ 3315 Rules of Criminal Evidence	3
CRIJ 4353 Global Cyber-Security	3

Additional Electives for the Concentration:

Electives ³	6
Total Hours	21

Cyber Security Concentration and Certificate/Accelerated CIS/MS Information Systems

Cyber Security Certificate

BCIS 4320 Computer Forensics	3
BCIS 4342 Ethical Hacking & Network Defense	3
BCIS 4345 Network and Systems Security	3
CRIJ 3315 Rules of Criminal Evidence	3
CRIJ 4353 Global Cyber-Security	3

Additional Advanced Coursework Required for the Concentration

BCIS 5000 Level Elective ⁴	3
BCIS 5311 Managing Information Systems	3
Total Hours	21

¹ Requirements in the Major Specific areas require a grade of "C" or Better.

² Students who qualify with Prior Learning Credits of less than 33 hours will need sufficient elective hours to reach the 120 hours required for degree conferral.

³ The Cyber Security Certificate is comprised of the five (5) courses listed above. The additional 6 hours of electives are required to meet the 120 hours necessary for the degree.

⁴ The Cyber Security Certificate is comprised of the five (5) courses listed above. The additional 6 hours of graduate courses for the Accelerated CIS/MIS in Information Systems are required to meet the 120 hours necessary for the degree.

The Bachelor of Business Administration Degree in Management Information Systems

Required Courses

General Education Requirements (<http://catalog.tarleton.edu/academicaaffairs/>) ¹ 42

Select one of the following shared with the General Education Core)

MATH 1314	College Algebra	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 1332	Contemporary Mathematics I	
MATH 1342	Elementary Statistical Methods	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	

Common Business Core and Major Specific Requirements ²

BCIS 1305	Business Computer Applications	3
BUSI 1301	Business Principles	3

Select one of the following: 3-4

MATH 1316	Plane Trigonometry	
MATH 1324	Math for Business & Social Sciences I (Finite Mathematics)	
MATH 1325	Math for Business & Social Sciences II (Business Calculus)	
MATH 2412	Precalculus Math	
MATH 2413	Calculus I	

ACCT 2301	Principles of Accounting I-Financial	3
ACCT 2302	Principles of Accounting II-Managerial	3
BUSI 2301	Business Law I	3
BUSI 2305	Business Statistics	3
ECON 2301 [shared]	Principles of Macroeconomics	
ECON 2302	Principles of Microeconomics	3
BUSI 3312 [WI (http://catalog.tarleton.edu/academicaaffairs/)]	Business Communication	3
FINC 3301	Principles of Financial Management	3
MGMT 3300	Principles of Management	3
MKTG 3312	Marketing	3
BCIS 4350	Management Information Systems	3

Select one of the following 3

BCIS 4355	Global Information Systems	
BUSI 4344	Introduction to International Business	
ECON 4301	International Economics	
FINC 4301	International Financial Management	

BUSI 4359 [WI (http://catalog.tarleton.edu/academicaaffairs/)]	Business Strategy	3
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Major Specific Courses ²

Select one of the following: 3

BCIS 3332	Java Programming	
BCIS 3333	C# Programming	

Select one of the following: 3

BCIS 3342	Advanced Java Programming	
BCIS 3343	Advanced C# Programming	

BCIS 3347	Data Communications	3
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BCIS 3389 [WI (http://catalog.tarleton.edu/academicaaffairs/)]	System Analysis and Design	3
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BCIS 4301	Database Theory and Practice	3
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Elective(s)

Elective(s)		3
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Total Hours 105

Additional Required Courses for Concentrations

Information Systems

BCIS or COSC Electives (12 hours Advanced) ²		15
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Total Hours 15

Accelerated MIS/MS Information Systems

BCIS or COSC Electives (6 hours Advanced) ²	9
BCIS 5000 Level Elective ²	3
BCIS 5311 Managing Information Systems ²	3
Total Hours	15

Cyber Security Concentration and Certificate

BCIS 4320 Computer Forensics	3
BCIS 4342 Ethical Hacking & Network Defense	3
BCIS 4345 Network and Systems Security	3
CRIJ 3315 Rules of Criminal Evidence	3
CRIJ 4353 Global Cyber-Security	3
Total Hours	15

¹ COMM 2302 Business and Professional Speaking is recommended.

² Requirements in the Common Business Core and Major Specific areas require a grade of "C" or Better.

Academic Appeals Process

In accordance with Tarleton State University policy, the College of Business hereby adopts the following as its procedure for academic appeals. Each learner encountering a grievance, academic in nature, follow the procedures for filing an academic appeal found in the following policy:

- COB Academic Appeal (<https://tarleton.sharepoint.com/:w:/s/COBA-CollegeofBusinessAdministration/EQoJzN6hqvpFoh6bg9ay99gB2tLb2eai3aipAlxAEmxWHw/?e=urpK3x>)

Other Information

- COB Netiquette (<https://www.tarleton.edu/cob/netiquette/>)
- COB Minimum Technology Requirements (<https://www.tarleton.edu/cob/QM/minimum-technology-requirements.html>)
- COB Computer Skills and Digital Information Literacy Skills (<https://www.tarleton.edu/cob/QM/computer-skills-and-digital-information-literacy-skills.html>)
- COB Vendor Privacy Statements (<https://www.tarleton.edu/cob/QM/vendor-privacy-statements.html>)
- COB Technical Support (<https://www.tarleton.edu/cob/QM/technical-support.html>)
- COB Accessibility Support (<https://www.tarleton.edu/cob/QM/accessibility-support.html>)
- COB Academic Support Services (<https://www.tarleton.edu/cob/QM/academic-support-services.html>)
- COB Student Services and Resources (<https://www.tarleton.edu/cob/QM/student-services-and-resources.html>)
- COB Vendor Accessibility Statements (<https://www.tarleton.edu/cob/QM/vendor-accessibility-statements.html>)
- COB Undergraduate Online Orientation (<https://tarleton.instructure.com/courses/19004/>)
- COB Undergraduate Advising Guides and Course Rotations (<https://www.tarleton.edu/majorinfo/>)

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Professors

- Jones, Dr. Dennis
- Schuessler, Dr. Joseph H.
- Schultz, Dr. Leah
- Shao, Dr. Chris

Associate professors

- Hsu, Dr. Chun-Kai "Tommy"
- Kilic, Dr. Ceyhan
- Pellegrino, Dr. Robert
- Wu, Dr. Yi-Chia

Assistant professors

- Amin, Dr. M.A. Shariful
- Chen, Dr. Aray
- Flores, Dr. Javier
- Senn, Dr. Will
- To, Dr. Rita

Visiting Instructor

- Whitson, Ms. Tara

Adjuncts

- Holland, Ms. Jana
- Finch, Dr. James
- Shaw, Mr. Cory
- Rasmussen, Mr. Clay

Business Administration Courses

Business Computer Information Systems Courses

BCIS 1305. Business Computer Applications. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

Introduces and develops foundational skills in applying essential and emerging business productivity information technology tools. The focus of this course is on business productivity software applications, including word processing, spreadsheets, databases, presentation graphics, data analytics, and business-oriented utilization of the internet.

BCIS 1315. Principles of Web Design. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

This course teaches students how to plan, design, and create professional websites using the latest industry tools. Students will gain a basic understanding of web design and will explore topics such as planning, accessibility, and operational issues surrounding web design.

BCIS 1317. Personal Computer Maintenance and Hardware. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

An enhanced study of technology and hardware operation of microcomputers, their peripherals, and operating systems. Also considered are hardware configuration and selection, installation, test procedures, and maintenance.

BCIS 3300. Computer Technology and Impact. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

The course explores the relationship between technology and society examining past, present, and future technologies. Many topics are present including hardware and software fundamentals, the relationship between technology and society, technology and values, sociotechnical systems, and future challenges of technology and society. An emphasis is placed on businesses and the place of business in society utilizing information technologies.

BCIS 3302. Database and Data Management for Small Businesses. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

Studies relational database packages. In addition, students improve their knowledge and skill with a current personal computer operating system.

BCIS 3305. Operating Systems Theory and Practice. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

A study of the history, development, and principles of computer operating systems and their variants in mainframe, minicomputer, server, and microcomputer application environments. Topics will include related software issues, programming capabilities, and job control languages. Selected operating systems representing various hardware environments will be studied.

BCIS 3315. Web Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

Students will explore the underlying technical foundations of web design and programming. Emphasis will be placed on HTML and CSS coding as well as principles of client side scripting languages such as Javascript.

BCIS 3332. Java Programming. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

A first course in the Java programming language. Covers the basic structure of Java, all standard features, data representation, and simple I/O. Students will analyze and program several representative programs.

BCIS 3333. C# Programming. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

A first course in the C# programming language. Covers the basic structure of C#, all standard features, data representation, and simple I/O. Students will analyze and program several representative problems.

BCIS 3342. Advanced Java Programming. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

An advanced course in the Java programming language. Covers advanced Java capabilities such as class features, error handling, graphical user interfaces, applets, and advanced object-oriented programming techniques. Students will analyze and program several representative problems. Prerequisite: BCIS 3332 or BCIS 3333 or approval of department head.

BCIS 3343. Advanced C# Programming. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

Advanced programming using the C# programming language to create Windows applications in an Internet and intra-network environment. Explores object-oriented design, client-server interaction, event-driven programming, graphical user interfaces, distributed data, and distributed applications. Prerequisite: BCIS 3332 or BCIS 3333 or approval of department head.

BCIS 3347. Data Communications. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

A study of voice and data communications technologies, concepts, and applications, including communications terminology, hardware, software, protocols, and managerial issues in data and voice communications. Topics will include alternatives available in hardware, software, and transmission facilities, design integration, selection and implementation of communications solutions. In addition, students will explore the current and future impact and direction of these technologies.

BCIS 3348. Network Architecture Design. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

A study of network architecture, industry standards and communications protocols, the placement of networking devices and components, transmission media selection, logical and physical topologies, data transmission, and structured cabling for local area networks (LANs) and wide area networks (WANs). Network designs will include required components and address services as specified in an industry specific Request for Proposal (RFP). Application exercises will include preparing and presenting a design proposal in response to an RFP and installation, configuration, testing and troubleshooting of WAN/LAN wiring interface technologies. Prerequisite: BCIS 3347 or the approval of the department head.

BCIS 3389. System Analysis and Design. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (<http://catalog.tarleton.edu/academicaffairs/>)]

A study of the systematic analysis, design, and implementation of software systems with special emphasis on the processes and skills used in the first four stages of the System Development Life Cycle. Traditional and current methodologies, including computer aided analysis and design tools will be considered. Topics will be approached through project-oriented cases and projects, which integrate theory and practical application. Prerequisite: BCIS 3332 or BCIS 3333 or approval of department head.

BCIS 4084. Internship. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-20 Hours).

Preapproved and supervised work experience in a Computer Information Systems related position with a public or private business organization. May be repeated for a total of 6 hours credit. Prerequisite: Approval of department head.

BCIS 4086. Problems. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0-0 Hours).

Selected individual topics in business on technical computer applications, practicum, field project, or other suitable computer studies. May be repeated for a maximum of 6 semester hours credit. Prerequisites: Approval of instructor and department head.

BCIS 4090. Special Topics in Computer Information Systems. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0-0 Hours).

An examination of current topics in computer information systems. Readings required from current computer information systems publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite: 9 hours in BCIS.

BCIS 4301. Database Theory and Practice. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

Database concepts and structures. File and data management principles underlying database construction. Fundamental types of database models, with emphasis on relational databases as well as on major non-relational forms. Practice in analysis, design, development, and optimization of working database applications on a variety of problems. Small and large system databases will be considered. Prerequisite: BCIS 3332 or BCIS 3333 or approval of department head.

BCIS 4308. Advanced Programming Language. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

Develops the programming proficiency in a modern programming language. Students complete many programming assignments to achieve necessary knowledge and skills. May be repeated as topics vary. Prerequisite: Approval of instructor or department head. Prerequisite: Approval of instructor or department head.

BCIS 4315. Interactive and Applied Multimedia. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

An exploration of multimedia tools and their relationships to various disciplines of study. A review of the principles of multimedia and the effective uses of multimedia will be conducted. The production and design of multimedia systems will culminate the course of study.

BCIS 4320. Computer Forensics. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

This course will examine the principles and practice of conducting computer forensics investigations for both criminal and business application. Students will apply investigative methods to properly conduct a computer forensics investigation beginning with a discussion of ethics. Students will examine and use various technologies, software and procedures applicable to forensic investigation. The course will also cover the legal responsibilities and key evidentiary procedures necessary to conduct the computer forensics process. Students should have a working knowledge of hardware and operating systems to maximize their success on projects and exercises in this course. Prerequisite: Junior Standing or the approval of the instructor or department head.

BCIS 4342. Ethical Hacking & Network Defense. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

Introduces intrusion security testing as a method for improving network defense to computer users with a solid grounding in computer and networking basics. Students will learn how to identify network security vulnerabilities by employing the techniques and software normally used by hackers to compromise networks. Students will then learn the process of determining the best practices in how to secure those vulnerabilities. Topics will include the mission and limitations of security and penetration testers along with the legal ramifications and restrictions involved. Students will be study the various methods of hackers, operating systems threats for Windows and UNIX based systems, cryptography, and modern network protection systems. Prerequisite: Junior standing or approval of instructor or department head.

BCIS 4343. Advanced Systems Analysis. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

This course concentrates on advanced systems analysis concepts with an emphasis in data and process decomposition and modeling. CASE tools support both the models and the interaction analysis of processes and data. The enterprise-wide view of system analysis stresses the theory behind and the generation of normalized relational database tables. Course includes material on user-centered requirements gathering and analysis. Prerequisites: BCIS 3389, and 4301 or approval of department head.

BCIS 4344. Advanced System Design and Development. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

This capstone course places a strong emphasis on combining the best practices of system design, including the professional, interpersonal, and technical skills required to analyze, propose, develop, and build modern large-scale business information software systems. The student will apply information engineering principles and theory to the design and development of a complex interactive system using software engineering and data management tools. This approach will involve all the stages of the full system development life cycle, through construction and implementation. This course serves to integrate the skills of the senior CIS student. Prerequisite: BCIS 4343 or approval of the instructor or department head.

BCIS 4345. Network and Systems Security. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

Studies the issues of Network and Systems Security as a continuous process involving analysis, implementation, evaluation and maintenance. Topics will include addressing computer-related risks, case analysis, and future trends. The course will provide approaches, techniques, and best practices for securing modern electronic data systems. Areas covered include electronic information and message security, database and file integrity, physical security, security management, security risk analysis, and encryption. Prerequisite: BCIS 3347 or approval of department head.

BCIS 4347. Advanced Database Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

Studies the theory and practice in the analysis, design, development, implementation, and optimization of working database applications on a variety of problems focusing on topics such as database administration. Prerequisite: BCIS 4301 or approval of instructor or department head.

BCIS 4350. Management Information Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

This course investigates management issues related to business information systems designed to meet the informational needs of the various business subsystems. The concepts of systems development, security, privacy and ethics associated with information systems are stressed. Prerequisite: BCIS 1305 or department head approval.

BCIS 4352. Structured Query Language. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

A study of SQL, including relational database schema in SQL, formulating SQL queries and sub queries of varying complexity, embedding SQL statements in a host language, defining and querying data views in SQL, and other related topics. Prerequisite: BCIS 4301 or approval of instructor or department head.

BCIS 4355. Global Information Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

A study of the international issues surrounding the planning, implementation, and management of global information systems. Topics covered include development and planning of offshoring programs, cultural aspects of information systems development and deployment and legal issues of global information systems. Prerequisite: Junior Standing.

BCIS 4359. Strategic Application of Information Systems. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours). [WI (<http://catalog.tarleton.edu/academicaffairs/>)]

A capstone course exploring the strategic alignment between business and information systems, the integration of information systems and other business functions to solve problems and facilitate decision making. Using case studies extensively, this course is designed to be taken by seniors during their last semester so they may demonstrate their ability to synthesize what they have learned over their course of study. Prerequisites: BCIS 3333 (or BCIS 3332), BCIS 3347, BCIS 3389, BCIS 4301, and BCIS 4350 or approval of department head.

BCIS 4376. Network Administration. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).

Studies communications architectures, protocols, and interfaces as they relate to network operating systems. Topics will include communications networking techniques such as circuit switching, packet switching, broadcast networking and internetworking. Also included will be installation, configuration, client handling, basic security, and troubleshooting of a network operating system. A modern network operating system will be used to provide extensive hands-on experience in configuring and administering a network. Prerequisite: BCIS 3347 or approval of instructor or department head Lab fee: \$2.

BCIS 4378. Comprehensive Networking. 3 Credit Hours (Lecture: 3 Hours, Lab: 2 Hours).

A comprehensive course requiring the student to plan, analyze, design, install, and configure a working computer network. Application exercises include the installation and configuration of a network operating system, the creation of required used interfaces, establishing network security, and establishing print services for a network. A modern network operating system will be used for extensive hands-on computer exercises to practice and demonstrate network skills. Prerequisite: BCIS 3347 or approval of instructor or department head Lab fee: \$2.

BCIS 4379. The Technology of E-Business. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

This course examines the linkage of organizational strategy and electronic methods of delivering products, services and exchanges in inter-organizational, national, and global environments. Information technology strategy and technological solutions for enabling effective business processes within and between organizations in a global environment are considered.

BCIS 4385. Professional Development Seminar. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

Professional-level enrichment for CIS majors with activities which may include participation in professional organizations, current events, research and presentations, job market analysis, interviewing and resume preparation. Prerequisite: 24 hours of BCIS/CIS courses or approval of department head.

Marketing Courses

MKTG 2314. Marketing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

Examination of the principles and concepts of marketing goods, services, and intangibles by profit and non-profit organizations in a free enterprise and global economy.

MKTG 3312. Marketing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

Examination of the principles and concepts of marketing goods, services, and intangibles by profit and non-profit organizations in a free enterprise and global economy.

MKTG 3315. Personal Selling. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

A study of the role and function of personal selling as a part of the marketing mix. Techniques in identifying and locating prospective customers, approaching the prospect, presentation, and demonstrations of products and services, closing the sale, and servicing customer accounts are covered in theory and practice. Prerequisite: MKTG 2314 or MKTG 3312.

MKTG 3316. Consumer Behavior. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

Acquaints students with individual and group behavior of people performing in consumer role. Considers such topics as buying motives, social class, and research techniques in consumer behavior. Prerequisite: MKTG 2314 or MKTG 3312.

MKTG 3317. Retailing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

Fundamental operations of retailing, studying of buying practices, pricing, store locations and layout, sales promotions, personnel management, and stock control. Designed to aid the student seeking a general knowledge of the retail field as well as those specializing in Marketing. Prerequisite: MKTG 2314 or MKTG 3312.

MKTG 3318. Promotional Strategy. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

The study of a controlled, integrated program of promotional variables. Designed to present a company and its products to prospective customers; to promote need-satisfying attributes of products toward the end of facilitating sales and long-run performance. Prerequisite: MKTG 2314 or MKTG 3312.

MKTG 4084. Internship. 1-6 Credit Hours (Lecture: 0 Hours, Lab: 1-20 Hours).

Preapproved and supervised work experience in a marketing related position with a public or private business organization. May be repeated for a total of 6 hours credit. Prerequisite: Either MKTG 2314 or MKTG 3312, and approval of Department Head.

MKTG 4086. Problems. 1-3 Credit Hours (Lecture: 0 Hours, Lab: 1-3 Hours).

A directed study of selected problems in marketing. May be repeated with approval of the department head. Prerequisites: Approval of instructor and Department Head.

MKTG 4090. Special Topics in Marketing. 1-3 Credit Hours (Lecture: 1-3 Hours, Lab: 0 Hours).

An examination of current topics in marketing. Readings required from current marketing publications and other related periodicals. May be repeated for credit when topics vary. Prerequisite: 9 hours of MKTG.

MKTG 4302. Services Marketing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

Introduce the student to the service environment. An in-depth analysis of the most successful service-oriented industries and firms within the world's fastest-growing economic sector will be presented. Prerequisite: MKTG 2314 or MKTG 3312.

MKTG 4312. Sales Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

Administration of an effective sales force, including strategy, planning, recruiting, training, motivating, coordinating, leading, and directing sales forces at all levels of marketing enterprises. Prerequisites: Either MKTG 2314 or MKTG 3312, and MKTG 3315.

MKTG 4314. Supply Chain and Logistics Concepts. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

Explore key business concepts, issues and decisions required for the organization and management of supply chains within the global marketplace. Supply Chain Management involves planning and coordinating the value-added activities and flow of materials, finished goods and information. Supply chain organizations participate in the product fulfillment process so that products are distributed to customers in the right quantity, time, and at the lowest cost subject to customer expectation and other service requirements. Prerequisite: MKTG 2314 or MKTG 3312.

MKTG 4315. Marketing Research. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

Familiarizes students with the accurate, objective, and systematic gathering, recording, and analyzing of data about problems relating to marketing goods and services. Prerequisites: Either MKTG 2314 or MKTG 3312, and either BUSI 2305 or BUSI 3311.

MKTG 4316. Marketing Management. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

The application of strategic planning and management of all functional aspects of the marketing operation of an enterprise using comprehensive analytical methods and an integrated marketing mix. Prerequisites: Either MKTG 2314 or MKTG 3312, and 6 hours of upper level MKTG.

MKTG 4354. International Marketing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

A global approach to the study of comparative marketing systems, including economic, social, technological, governmental, and political environments as they affect international marketing operations. Prerequisite: MKTG 2314 or MKTG 3312.

MKTG 4385. Seminar in Marketing. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

A study of selected topics dealing with problems or unique needs of Marketing. May be repeated for credit as topics vary. Prerequisite: Approval from instructor & department head.

MKTG 4389. Global Marketing Practices. 3 Credit Hours (Lecture: 3 Hours, Lab: 0 Hours).

A study of basic international business concepts, cultural literacy, and discipline specific content are then applied to practical experiences and activities in the foreign country visited. A study abroad at the student's expense is required. Student may complete a maximum of six hours of COBA sponsored study abroad toward degree completion. Field assignment fee of \$50. Prerequisites: Either MKTG 2314 or MKTG 3312, or approval of instructor and department head.