

# The College of Business Administration

*P.N. Saksena, Dean*

*Steven Frankforter, Associate Dean for Administration*

*Laura Ullrich, Assistant Dean for Innovation and Production*

## Undergraduate Degree Programs and Requirements

Four undergraduate programs are offered by the College of Business Administration: the Bachelor of Science in Business Administration, the Bachelor of Science in Computer Science, the Bachelor of Arts in Economics, and the Bachelor of Science in Digital Information Design. The baccalaureate degree program in Business Administration is accredited by AACSB International--The Association to Advance Collegiate Schools of Business and the baccalaureate degree in Computer Science is accredited by ABET ([www.abet.org](http://www.abet.org)).

Our mission is to prepare students in a learning-centered environment, through effective teaching, scholarship, and service, with the professional and leadership skills necessary for positions in the global marketplace, while fostering life-long learning and service to the external community.

Ten areas of concentration are available within the Bachelor of Science in Business Administration degree program. These concentrations are accounting, computer information systems, economics, entrepreneurship, finance, health care management, human resource management, international business, marketing and management. Two of these concentrations, accounting and management, can be earned through our evening program. The accounting concentration offers an integrated undergraduate/graduate curriculum that allows for optimum efficiency in continuing into a graduate program with an accounting emphasis.

The Business degree program prepares undergraduates for careers in the business world by offering an academically challenging program that produces a new kind of leader for business, industry, government, the arts, and health services. This new leader leaves the program with the skills needed to function as a professional in the complex organizations of the 21st century. The core business curriculum includes two integrating threads: professional development and technology with analytics. Throughout the business foundation and core courses, professional development opportunities are provided through classroom assignments and interaction with business professionals. In addition, each concentration has identified a course that will include a professional development component as students face graduation and search for positions in their field. Analytical skills are increasingly important in the business world. Technology and business analytics are emphasized throughout the entire business program. Along with an integrated curriculum, the faculty and business leaders have developed a comprehensive list of competencies that students must attain before graduation from this program. The competency categories for the business degree are communication, teamwork/diversity, adaptability, problem solving, accountability and ethics. Most business courses also emphasize team projects in addition to individual assignments. Internship experiences are integrated into some concentrations and encouraged in others.

The College of Business Administration is dedicated to offering quality classroom instruction and to enhancing personal development through interaction between faculty and students. A faculty open-door policy facilitates this approach. Quality classroom instruction is provided by a faculty who meet the high standards of scholarship required for AACSB and ABET accreditation.

A number of scholarships are awarded annually to College of Business Administration students. Eligibility is determined on the basis of outstanding academic performance.

For those students working toward a degree outside of the College of Business Administration, minors in the areas of accounting, business administration, computer science, digital information design, economics, entrepreneurship, health care management, human resource management, marketing and professional business are offered. For specific requirements for individual minors, see page 131.

## Academic Advising

Academic advising is an integral part of the learning process in the College of Business Administration. The role of the academic adviser is to assist in making appropriate decisions about academic programs and career goals, provide academic information about Winthrop University and degree programs, and suggest appropriate involvement in on-campus, off-campus and experiential opportunities. Freshmen are assigned a faculty adviser after summer orientation and keep the same adviser during the freshman year. Not only will advisers help with program selections and scheduling, but will also be available to assist with the adjustment to university life throughout the first year. At the end of the freshman year, a concentration in the College of Business will be chosen and an adviser will be assigned from that area. Students who transfer after their freshman year are assigned an adviser in the academic concentration of their choice.

Transfer evaluations are completed by the Office of Student Services. The subject matter and the level of the course are considered for evaluation. Upper-level courses in the core and concentration, which have been completed prior to achieving junior status, may be used to meet elective requirements, but must be replaced in the core or concentration by approved advanced courses (if not transferred from an AACSB accredited institution). Upper-level business and computer science courses may not transfer from two-year institutions. In addition to the requirement that the final 30 hours be completed at Winthrop, only 50% of the business core and concentration may transfer toward a business administration degree. CSCI majors must complete 30 hours of computer science courses numbered above 299. Only nine hours of upper-level courses may transfer into the program and must be from an ABET-accredited program.

The Director of Student Services in the College of Business Administration is:  
Gay Randolph, Office of Student Services  
226 Thurmond Building  
(803) 323-4833, Fax (803) 323-3960  
[randolphg@winthrop.edu](mailto:randolphg@winthrop.edu).

**Faculty****Professors**

Charles E. Alvis  
 Keith Benson, *Graduate Director*  
 Qidong Cao  
 Clarence Coleman  
 Steven Frankforter  
 Chlotia Garrison  
 Louis J. Pantuosco  
 Hemant Patwardhan  
 Cara Peters  
 Emma Jane Riddle  
 D. Keith Robbins, *Chair, Management & Marketing*  
 Marilyn Smith  
 Gary L. Stone, *Chair, Accounting, Finance and Economics*  
 William I. Thacker  
 Jane B. Thomas  
 P. N. Sakena, *Dean*  
 Laura Ullrich

**Associate Professors**

Antonia Berbrick  
 Barbara Burgess-Wilkerson  
 Melissa Carsten  
 Stephen Dannelly, *Chair, Computer Science & Quantitative Methods*  
 Malayka Klimchak  
 Willis Lewis  
 Michael Matthews  
 Robert Stonebraker  
 Nicki Washington

**Assistant Professors**

Andrew Besmer  
 Jimmy Cheng  
 Adriana Cordis  
 Edie Dille  
 Marguerite Doman  
 Philip Gibson  
 Tracy Griggs  
 Terri Guidry  
 Stephanie Lawson  
 Jayne Maas  
 Steven Martin  
 Max Ostinelli  
 Portia Plante  
 Gay Randolph  
 Anna Romanova  
 Larry Stevens  
 Celeste Tiller  
 Vanessa Valdez  
 Michael Whitney  
 Glyn Winterbotham

**Bachelor of Science in Business Administration**

Students enrolled in the Bachelor of Science in Business Administration program or enrolled in business classes may not enroll in courses numbered above 299 unless they have at least a 2.0 grade-point average, completed 54 hours, and a grade of C- or better in HMXP 102.

Transfer students must complete HMXP 102 prior to taking upper-level courses in the College of Business Administration. Students who transfer in 54 or more semester hours must complete this course within their first semester. If, during this time, such students do not earn a C- or better in HMXP 102, they will not be permitted to take additional courses above 299 until this general education requirement is met.

Within the 120 hours required for this degree, the student must include 40 hours in courses numbered above 299. Students pursuing a Bachelor of Science in Business Administration must select one of ten concentrations. Many students choose to fulfill elective hours with a second concentration or business administration minor. No more than six hours of business course credit may overlap between two concentrations or a concentration and a business minor.

**Accelerated Programs**

The Management, Marketing, and Human Resource Management concentrations have opportunities for students to complete an undergraduate and graduate degree in five years with a total of 150 hours: 120 undergraduate hours and 36 graduate where the programs would share six 500-level hours. The combined program includes increased rigor, when compared to the undergraduate program, while allowing certain classes to overlap between the B.S. and M.B.A.

Students must complete an *Intent to Pursue a Combined Program* form prior taking any of the 500-level courses for graduate credit as an undergraduate student; must have a 3.0 undergraduate GPA at the time of completion of the Intent to Pursue a Combined Program form and prior to taking each of the 500-level courses for graduate credit; and are limited to a maximum load of 16 credit hours when taking the 500-level courses for graduate credit.

## Bachelor of Science in Business Administration

General Education Courses		Semester Hours
ACAD 101	Principles of the Learning Academy	1
<b>Shared Skills and Proficiencies</b>		
<b>Writing and Critical Thinking</b> (C- or better required for each course)		
WRIT 101, HMPX 102, CRTW 201	Composition; The Human Experience: Who Am I? Crit Reading, Thinking, & Writing	9
<b>Oral Communication</b>	See approved list, p. 16	3
<b>Technology</b>	Met in major with CSCI 101 & labs	3
<b>Intensive Writing</b>	See approved list, p. 16; may be met by other req	0-3
<b>Constitution Requirement</b>	See approved list, p. 16; may be met by other req	0-3
<b>Physical Activity</b>	See approved list, p. 16	1
<b>Thinking Critically Across Disciplines*</b>		
<b>Global Perspectives</b>	See approved list, p. 16	3
<b>Historical Perspectives</b>	See approved list, p. 16	3
<b>Introducing Students to Broad Disciplinary Perspectives*</b>		
<b>Social Science</b>	See approved list, p. 16; must include 2 designators 3 hours met in major with ECON 215	3
<b>Humanities and Arts</b>	See approved list, p. 16; must include 2 designators	6
<b>Quantitative Skills and Natural Science* (3 courses)</b>		
<b>Quantitative Skills</b>	Met in major with MATH	6-8 (0-4)
<b>Natural Science</b>	See approved list, p. 16 [Must include a lab science. If 2 courses taken, must be in 2 different groups: <i>Life, Physical, Earth</i> ].	(3-8)
*No more than two courses in the major may count toward requirements in these areas		
<b>Subtotal</b>		<b>32-43</b>
<b>Business Administration Program Requirements</b>		
		<b>70-80</b>
<b>Foundation Courses</b> (C- or better required for each course)		
CSCI 101, 101B, 101C & 101D	Intro to Comp & Info Processing, Excel, Access, Adv, Excel	24-25 3
MATH 105, 151 or 201	Applied Calculus, Applied College Algebra, Calculus I	3-4
QMTM 205	Business Statistics	3
QMTM 210	Business Analytics	3
ECON 215	Principles of Microeconomics	3
ECON 216	Principles of Macroeconomics	3
ACCT 280	Introduction to Financial Accounting	3
ACCT 281	Introduction to Managerial Accounting	3
<b>Core Courses</b> (C- or better required for each course)		
BADM 180	Business Issues and Careers	28 3
BADM 250 or ACCT 351+	Legal & Ethical Environ of Business, Business Law for Acct	3
FINC 111	Financial Literacy	1
FINC 311	Principles of Finance	3
MGMT 321	Management and Leadership	3
MGMT 326	Sustainable Operations	3
MGMT 341	Information Systems and Business Analytics	3
MGMT 355	Business Communication and Professional Development	3
MGMT 480	Business Policy	3
MKTG 380	Principles of Marketing	3
<b>Business Concentration Requirement; choose one of the following:</b> (C- or better required for each course)		
Accounting, page 67	Computer Information Systems, page 67	18-27
Economics, page 67	Entrepreneurship, page 67	
Finance, page 68	Health Care Management, page 68	
Human Resource Management, page 69	International Business, page 69	
Management, page 69	Marketing, page 70	
<b>Electives</b> (Number varies depending on hours required for concentration.)		<b>0-18</b>
<b>Total</b>		<b>120</b>
*Recommended for Accounting concentration		

See pages 16-18 for additional degree requirements.

**Bachelor of Science in Business Administration - Accounting**

<b>General Education, see page 65</b>		<b>32-43</b>
<b>Foundation and Core Courses, see page 65</b>		<b>52-53</b>
<b>Accounting Concentration</b>		<b>24</b>
ACCT 303	Accounting Information Systems	3
ACCT 305	Intermediate Accounting I	3
ACCT 306	Intermediate Accounting II	3
ACCT 309	Cost Accounting	3
ACCT 401	Introduction to Tax	3
ACCT 509	Auditing Principles & Procedures	3
ACCT course above 299		3
One course from PHIL 230, 575 or MGMT 575		3
<b>Electives</b>		<b>0-12</b>
<b>Total</b>		<b>120</b>

**Bachelor of Science in Business Administration - Computer Information Systems**

<b>General Education, see page 65</b>		<b>32-43</b>
<b>Foundation and Core Courses, see page 65</b>		<b>52-53</b>
<b>Computer Information Systems Concentration</b>		<b>27</b>
CSCI 207 & 208	Intro to Computer Sci I & II	8
CSCI 293 or 295 or 297 or 392	C#, Visual Basic, Scripting, Java Languages	1
CSCI 355	Database Processing	3
CSCI 475	Software Engineering I	3
CSCI 476 or 491	Software Engineering II, Internship in Comp Sci	3
MATH 261 or QMTH 310	Found of Discrete Mathematics, Intro to Data Mining	3
<b>Two of:</b>		<b>6</b>
ACCT 303	Accounting Information Systems	3
CSCI 365	Information Security	3
CSCI 441	Web Application Design	3
CSCI 451	Mobile Application Development	3
CSCI 466	Network Processing	3
CSCI 521	Software Project Management	3
<b>Electives</b>		<b>0-9</b>
<b>Total</b>		<b>120-123</b>

**Bachelor of Science in Business Administration - Economics**

<b>General Education, see page 65</b>		<b>32-43</b>
<b>Foundation and Core Courses, see page 65</b>		<b>52-53</b>
<b>Economics Concentration</b>		<b>18</b>
ECON 315	Microeconomic Theory	3
ECON 316	Macroeconomic Theory	3
ECON 335	Money and Banking	3
Three of any ECON above 299		9
<b>Electives</b>		<b>6-18</b>
<b>Total</b>		<b>120</b>

**Bachelor of Science in Business Administration - Entrepreneurship**

<b>General Education, see page 65</b>		<b>32-43</b>
<b>Foundation and Core Courses, see page 65</b>		<b>52-53</b>
<b>Entrepreneurship Concentration</b>		<b>18</b>
ENTR 373	Intro to Entrepreneurship	3
ENTR 374	Strategic Entrepreneurial Growth	3
ENTR 473	Entrepreneurial Finance	3
ENTR 579	Business Plan Development	3
<b>Two of:</b>		
BADM 561	Electronic Commerce for Managers	3
MGMT 322	Introduction to Talent Management	3

COLLEGE OF BUSINESS ADMINISTRATION--FINANCE/HEALTHCARE MGMT

MKTG 485	Services Marketing	3
MKTG 387	Promotion Management and Digital Marketing	3
MKTG 385	Marketing Research	3
ENTR 491	Internship in Entrepreneurship	3
MKTG 581	Marketing for Global Competitiveness	3
<b>Electives</b>		<b>6-18</b>
<b>Total</b>		<b>120</b>

**Bachelor of Science in Business Administration - Finance**

<b>General Education, see page 65</b>		<b>32-43</b>
<b>Foundation and Core Courses, see page 65</b>		<b>52-53</b>
<b>Take one of two tracks:</b>		
<b>Finance Concentration--Corporate Finance Track</b>		<b>18</b>
FINC 312	Intermediate Corporate Financial Management	3
FINC 498	Adv Corp Financial Mgmt	3
FINC 512	Investments	3
FINC 513	Banking and Financial Service Management	3
FINC 514	International Financial Management	3
<b>One of:</b>		
ACCT 305	Intermediate Accounting I	3
ECON 335	Money and Banking	3
FINC 491	Internship in Finance	3
<b>Electives</b>		<b>6-18</b>
<b>Total</b>		<b>120</b>

<b>Finance Concentration--Financial Planning Track</b>		<b>21</b>
ACCT 401	Introduction to Tax	3
BADM 501	Estate Planning	3
FINC 315	Principles of Financial Planning	3
FINC 512	Investments	3
FINC 515	Insurance and Risk Management	3
FINC 516	Employee Benefits and Retirement Planning	3
FINC 420	Financial Plan Development	3
<b>Electives</b>		<b>3-15</b>
<b>Total</b>		<b>120</b>

*Note: Anyone completing any combination of 15 hours of FINC from the above lists plus 3 hours of ACCT, BADM or ECON from the above lists would qualify for the Finance option, general track.*

**Bachelor of Science in Business Administration - Health Care Management**

<b>General Education, see page 65</b>		<b>32-43</b>
<b>Foundation and Core Courses, see page 65</b>		<b>52-53</b>
<b>Health Care Management Concentration</b>		<b>21</b>
HCMT 200	Intro to Health Care Management	3
HCMT 300	The Health Care Manager	3
HCMT 302	Health Care Planning & Marketing	3
HCMT 303	Health Care Organizations & the Legal Environ	3
HCMT 491	Health Care Management Internship	3
HCMT 492	Econ & Health Care Finance	3
HCMT 493	Seminar in Health Care Management	3
Required internship to be taken summer between Jr & Sr year.		
<b>Electives</b>		<b>3-15</b>
<b>Total</b>		<b>120</b>

**Bachelor of Science in Business Administration - Human Resource Management**

<b>General Education, see page 65</b>		<b>32-43</b>
<b>Foundation and Core Courses, see page 65</b>		<b>52-53</b>
<b>Human Resource Management Concentration</b>		<b>18</b>
MGMT 322	Introduction to Talent Management	3
MGMT 323	Acquiring Talent	3
MGMT 325	Organizational Theory and Behavior	3
MGMT 522	Growing and Developing Talent	3
MGMT 524	Employment Law	3
MGMT 526	Talent Management Seminar	3
<b>Electives</b>		<b>6-18</b>
<b>Total</b>		<b>120</b>

**Bachelor of Science in Business Administration - Human Resource Management (Accelerated)**

<b>General Education, see page 65</b>		<b>32-43</b>
<b>Foundation and Core Courses, see page 65</b>		<b>52-53</b>
<b>Human Resource Management Concentration</b>		<b>18</b>
MGMT 322	Introduction to Talent Management	3
MGMT 323	Acquiring Talent	3
MGMT 491	Management Internship	3
MGMT 522	Growing and Developing Talent	3
MGMT 524	Employment Law	3*
MGMT 526	Talent Management Seminar	3*
<b>Electives</b>		<b>6-18</b>
<b>Total</b>		<b>120</b>

\* Must earn a B or better to receive both graduate and undergraduate credit for the course.

**Bachelor of Science in Business Administration - International Business**

<b>General Education, see page 65</b>		<b>32-43</b>
<b>Foundation and Core Courses, see page 65</b>		<b>52-53</b>
<b>International Business Concentration</b>		<b>18</b>
ECON 521	International Trade & Investment	3
FINC 514	International Financial Management	3
MGMT 529	International Management	3
MKTG 581	Marketing for Global Competitiveness	3
<b>One of:</b>		
BADM 492	Internship in International Business	3
BADM 400	International Field Experience	
BADM 401	Business and Study Abroad	
Choose 3 hours from ANTH 301, 321; FREN 302; GEOG 303, 306; GERM 301; HIST 334, 345, 351, 547, 548, 560, 561; MCOM 302; PLSC 332, 335, 338; RELG 300; SPAN 421,422		3
<b>Courses that support the concentration</b>		<b>0-6</b>
Foreign language (non-native speakers of English must obtain permission from the department)		
<b>Electives</b>		<b>0-18</b>
<b>Total</b>		<b>120</b>

**Bachelor of Science in Business Administration - Management**

<b>General Education, see page 65</b>		<b>32-43</b>
<b>Foundation and Core Courses, see page 65</b>		<b>52-53</b>
<b>Management Concentration</b>		<b>18</b>
MGMT 475	Leadership Theory and Development	3
MGMT 575 or PHIL 575	Business Ethics	3
<b>Two of:</b>		
ENTR 373	Introduction to Entrepreneurship	3
BADM 561	Electronic Commerce for Managers	3
MGMT 322	Introduction to Talent Management	3
MGMT 325	Organizational Theory & Behavior	3

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MGMT 330	Sustainable Business Practices	3
MGMT 491	Internship in Management	3
MGMT 529	International Management	3
Two additional courses over 299 from the following designators: ACCT, BADM, CSCI, ECON, ENTR, FINC, HCMT, MGMT, MKTG, QMTH		6
<b>Electives</b>		<b>6-18</b>
<b>Total</b>		<b>120</b>

*At least 9 hours (including MGMT 475 and MGMT 575/PHIL 575) must be courses numbered over 399.  
Only one internship, regardless of designator, may be counted toward the required concentration credit hours.*

**Bachelor of Science in Business Administration - Management (Accelerated)**

<b>General Education, see page 65</b>		<b>32-43</b>
<b>Foundation and Core Courses, see page 65</b>		<b>52-53</b>
<b>Management Concentration (must earn a C- or better)</b>		<b>18</b>
MGMT 475	Leadership Theory and Development	3
MGMT 575 or PHIL 575	Business Ethics *	3
MGMT 491	Management Internship	3
One of the following:		3
ENTR 373	Introduction to Entrepreneurship	
MGMT 322	Introduction to Talent Management	
MGMT 330	Sustainable Business Practices	
One of the following: *		3
BADM 561	Electronic Commerce for Managers *	
BADM 571	Business Analytics *	
MGMT 522	Growing and Developing Talent *	
MGMT 529	International Management *	
One additional course over 299 from the following designators: ACCT, BADM, CSCI, ECON, ENTR, FINC, HCMT, MGMT, MKTG, QMTH		3
<b>Electives</b>		<b>6-18</b>
<b>Total</b>		<b>120</b>

*\* Must earn a B or better to receive both graduate and undergraduate credit for the course.*

**Bachelor of Science in Business Administration - Marketing**

<b>General Education, see page 65</b>		<b>32-43</b>
<b>Foundation and Core Courses, see page 65</b>		<b>52-53</b>
<b>Marketing Concentration</b>		<b>18</b>
MKTG 381	Consumer Behavior	3
MKTG 387	Promotion Management and Digital Marketing	3
MKTG 385	Marketing Research	3
MKTG 489	Marketing Strategy	3
<b>One of:</b>		
MKTG 485	Services Marketing	3
MKTG 483	Sales and Relationship Marketing	3
MKTG 581	Marketing for Global Competitiveness	3
<b>One of:</b>		
BADM 561	Electronic Commerce for Managers	3
VCOM 354	Basic Design Applications	3
QMTH 310	Introduction to Data Mining	3
<b>Electives</b>		<b>6-18</b>
<b>Total</b>		<b>120</b>

**Bachelor of Science in Business Administration - Marketing (Accelerated)**

<b>General Education, see page 65</b>		<b>32-43</b>
<b>Foundation and Core Courses, see page 65</b>		<b>52-53</b>
<b>Marketing Concentration</b>		<b>18</b>
MKTG 381	Consumer Behavior	3
MKTG 385	Marketing Research	3
MKTG 387	Promotion Management	3

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MKTG 581	Marketing for Global Competitiveness	3*
BADM 571	Business Analytics	3*
One of: MKTG 491 Internship in Marketing, MKTG 489 Marketing Strategy		3
<b>Electives</b>		<b>6-18</b>
<b>Total</b>		<b>120</b>

\* Must earn a B or better to receive both graduate and undergraduate credit for the course.

### Bachelor of Science in Computer Science

The Bachelor of Science in Computer Science is accredited by the Computing Accreditation Commission of ABET (www.abet.org).

The goals of the Bachelor of Science in Computer Science are to prepare students for careers in software design and implementation and for graduate study in Computer Science. The students in this program are provided with a background that allows them to progress toward leadership roles.

These goals are implemented by a curriculum that carefully blends theory and applications. After completing a two semester introductory sequence in computer science, the student takes a series of courses that provide a strong background in the basic mathematical tools of calculus, logic, discrete mathematics, and probability and statistics and that provide a good background in the natural and social sciences and the humanities.

Transfer students bringing in upper level Computer Sciences courses may transfer those courses from any school with programs in Computer Science accredited by the Computing Accrediting Commission, ABET.

General Education Courses		Semester Hours
ACAD 101	Principles of the Learning Academy	1
<b>Shared Skills and Proficiencies</b>		
<b>Writing and Critical Thinking</b> (C- or better required in each course)		
WRIT 101, HMXP 102, CRTW 201	Composition; The Human Experience: Who Am I? Crit Reading, Thinking, & Writing	9
<b>Oral Communication</b>	Met in major with CSCI 327	0
<b>Technology</b>	Met in major with CSCI 207 and 327	0
<b>Intensive Writing</b>	Met in major with CSCI 327	0
<b>Constitution Requirement</b>	See approved list, p. 16; may be met by other req	0-3
<b>Physical Activity</b>	See approved list, p. 16	1
<b>Thinking Critically Across Disciplines</b>		
<b>Global Perspectives</b>	See approved list, p. 16	3
<b>Historical Perspectives</b>	See approved list, p. 16	3
<b>Introducing Students to Broad Disciplinary Perspectives</b>		
<b>Social Science</b>	See approved list, p. 16; must include 2 designators	6
<b>Humanities and Arts</b>	See approved list, p. 16; must include 2 designators	6
<b>Quantitative Skills and Natural Science (3 courses)</b>		
<b>Quantitative Skills</b>	Met in major with MATH 201 and 202	0
<b>Natural Science</b>	Met in major with science requirement	0
<b>Subtotal</b>		<b>29-32</b>
<b>Computer Science Program Requirements</b>		
CSCI 207	Introduction to Computer Science I	4
CSCI 208	Introduction to Computer Science II	4
CSCI 271	Algorithm Analysis and Data Structures	4
CSCI 311	Computer Architecture and Organization	4
CSCI 327	Social Implications of Computing	3
CSCI 371	Theoretical Foundations	3
CSCI 431	Organization of Programming Languages	3
CSCI 475	Software Engineering I	3
CSCI 476	Software Engineering II	3
CSCI 411 or 466	Operating Systems, Network Processing	3
One of CSCI 355, 411, 466, or 470	Database Processing, (355) Parallel Computing (470)	3
CSCI courses numbered above 299 (excluding CSCI 514, max 3 hrs from combination of 471 and 491)		6
Choose two different courses from: CSCI 293, 295, 297, 392, or 395		2
<i>Students are required to complete the CSCI culminating assessment exam in the semester in which they graduate. This assessment exam is administered by the Computer Science &amp; Quantitative Methods Department Chair.</i>		
<b>Additional Math and Science Requirements</b>		<b>30</b>
MATH 201 and 202	Calculus I, Calculus II	8
MAED 200	Introduction to Mathematica	1
MATH 261	Foundations of Discrete Mathematics	3



QMTH 205 or MATH 341	Business Statistics, Statistical Methods	3
PHYS 211 or BIOL 203/204	Physics with Calculus, Principles of Biology & Lab	4
Additional science from PHYS 211, 212, BIOL 203/204, 205, 206, 303, 304, 307, 308 (all 4-hour lab courses that majors can take), GEOL lab courses that count in the GEOL minor		
		4
MATH course(s) over 299 and/or CHEM 105 and/or science course(s) from the above list		
		7
<b>Second Discipline (may count courses in other areas)</b>		<b>0-24</b>
Choose one of the following or a minor (other than CSCI):		
<i>Information Systems:</i> ACCT 280-281, 303 or 309; MGMT 321, and one of FINC 311, MKTG 380		
<i>Physics and Mathematics:</i> PHYS 301, and one of PHYS 315, 321, or 350; MATH 301 and 305		
<b>Electives</b>		<b>0-16</b>
<b>Total</b>		<b>120</b>

A cumulative 2.0 GPA or better is required on courses in the Computer Science Program Requirements.

*Note: Degree requirements may not be waived.*

*See pages 16-18 for additional degree requirements.*

### Bachelor of Arts in Economics

Economics provides students with an analytical training that is a valuable asset in any career. Many graduates enter the workforce directly and find employment in such diverse areas as banking and finance, management, government service, labor relations, policy research, sports management, consulting, journalism, and marketing. Other students use economics as a foundation for graduate programs in law, business, economics, and policy studies.

General Education Courses		Semester Hours
ACAD 101	Principles of the Learning Academy	1
<b>Shared Skills and Proficiencies</b>		
<b>Writing and Critical Thinking</b> ( <i>C- or better required in each course</i> )		
WRIT 101, HMXP 102, CRTW 201	Composition; The Human Experience: Who Am I? Crit Reading, Thinking, & Writing	9
<b>Oral Communication</b>	See approved list, p. 16 may be met by other req	0-3
<b>Technology</b>	Met in major with CSCI 101 and labs	0
<b>Intensive Writing</b>	See approved list, p. 16; may be met by other req	0-3
<b>Constitution Requirement</b>	See approved list, p. 16; may be met by other req	0-3
<b>Physical Activity</b>	See approved list, p. 16	1
<b>Thinking Critically Across Disciplines</b>		
<b>Global Perspectives</b>	See approved list, p. 16	3
<b>Historical Perspectives</b>	See approved list, p. 16	3
<b>Introducing Students to Broad Disciplinary Perspectives</b>		
<b>Social Science</b>	See approved list, p. 16; must include 2 designators 3 hours met in major with ECON 215	3
<b>Humanities and Arts</b>	See approved list, p. 16; must include 2 designators	6
<b>Quantitative Skills and Natural Science (3 courses)</b>		9-12
<b>Quantitative Skills</b>	3 hours met in major with MATH	(0-4)
<b>Natural Science</b>	See approved list, p. 16 [Must include a lab science. If 2 courses taken, must be in 2 different groups: <i>Life, Physical, Earth</i> ].	(3-8)
<b>Subtotal</b>		<b>32-43</b>
<b>Economics Courses</b>		<b>30</b>
ECON 215	Prin of Microeconomics	3
ECON 216	Prin of Macroeconomics	3
ECON 315	Microeconomic Analysis	3
ECON 316	Macroeconomic Analysis	3
Six courses from ECON above 299		18
<b>Courses Supporting the Major</b>		
MATH 105 or 201	Applied Calculus, Calculus I	3-4
QMTH 205	Business Statistics	3
QMTH 210	Business Analytics	3
CSCI 101, 101B, 101D and 101A, C or P	Intro to Information Processing, Excel, Advanced Excel	3
<b>Minor</b>		<b>15-24</b>
<b>Electives</b>		<b>10-31</b>
<b>Total</b>		<b>120</b>

*Not more than 36 semester hours in any one subject designator may be applied toward the major for a Bachelor of Arts degree. See page 14 for more information.*

*See pages 16-18 for additional degree requirements.*

COLLEGE OF BUSINESS ADMINISTRATION--DIGITAL INFORMATION DESIGN/DIGITAL COMMERCE

Students majoring in Digital Information Design have four concentrations to choose from: Digital Commerce, Digital Mass Media , Interactive Media, and Web Application Design. Within the program, all students take a 30 semester-hour core of courses emphasizing basic and advanced skills in design, digital information, communication theory and the Internet, information systems and organizations, visual design of complex systems, law and ethics, and seminar courses. Students from all tracks work together in a final senior experience that involves collaborating with real-world clients.

**Bachelor of Science in Digital Information Design with a concentration in Digital Commerce**

General Education Courses		Semester Hours
ACAD 101	Principles of the Learning Academy	1
<b>Shared Skills and Proficiencies</b>		
<b>Writing and Critical Thinking</b> (C- or better required in each course)		
WRIT 101, HMXP 102, CRTW 201	Composition; The Human Experience: Who Am I? Crit Reading, Thinking, & Writing	9
<b>Oral Communication</b>	See approved list, p. 16	3
<b>Technology</b>	Met in major with CSCI 151	0
<b>Intensive Writing</b>	See approved list, p. 16; may be met by other req	0-3
<b>Constitution Requirement</b>	See approved list, p. 16; may be met by other req	0-3
<b>Physical Activity</b>	See approved list, p. 16	1
<b>Thinking Critically Across Disciplines*</b>		
<b>Global Perspectives</b>	See approved list, p. 16	3
<b>Historical Perspectives</b>	See approved list, p. 16	3
<b>Introducing Students to Broad Disciplinary Perspectives*</b>		
<b>Social Science</b>	See approved list, p. 16; must include 2 designators	6
<b>Humanities and Arts</b>	See approved list, p. 16; must include 2 designators	6
<b>Quantitative Skills and Natural Science* (3 courses)</b>		9-12
<b>Quantitative Skills</b>		
MATH 151 or a MATH that includes Calculus or has Calculus as a pre-requisite		(3-4)
Additional Quantitative course		(0-4)
<b>Natural Science</b>	See approved list, p. 16 [Must include a lab science. If 2 courses taken, must be in 2 different groups: <i>Life, Physical, Earth</i> ].	(3-8)
<i>*No more than two courses in the major may count toward requirements in these areas</i>		
<b>Subtotal</b>		<b>41-50</b>
<b>Information Design Core</b>		<b>29</b>
CSCI 151	Overview of Computer Science	3
DIFD 141	Introduction to Web Application Design	4
DIFD 151	Introduction to Information Design	1
VCOM 261	Electronic Image Making	3
VCOM 262	Introduction to Web Design	3
DIFD 211	Communication Theory and the Internet	3
DIFD 321	Information Systems and Organizations	3
DIFD 322	Visual Design of Complex Systems	3
DIFD 415	Law and Ethics for Digital Media	3
DIFD 451	Senior Synthesis	3
<b>Digital Commerce Concentration</b>		<b>31</b>
CSCI 101 B & D	Microsoft Excel & Advanced Excel	1
ACCT 280	Intro to Financial Accounting	3
QMTM 205 & 210	Business Statistics and Applied Analytics	6
MKTG 380	Principles of Marketing	3
MGMT 341	Information Systems and Business Analytics	3
BADM 561	Electronic Commerce for Managers	3
MCOM 226	Multimedia Storytelling and Production	3
MCOM 341	Advertising Principles	3
Choose 2 courses from the following: MKTG 381, 385, 387, 485, 581		6
<b>Electives</b>		<b>10-19</b>
<b>Total</b>		<b>120</b>

See pages 16-18 for additional degree requirements.

COLLEGE OF BUSINESS ADMINISTRATION--DIGITAL INFORMATION DESIGN/DIGITAL MASS MEDIA  
**Bachelor of Science in Digital Information Design with a concentration in Digital Mass Media**

General Education Courses		Semester Hours
ACAD 101	Principles of the Learning Academy	1
<b>Shared Skills and Proficiencies</b>		
<b>Writing and Critical Thinking**</b>		
WRIT 101, HMPX 102, CRTW 201	Composition; The Human Experience: Who Am I? Crit Reading, Thinking, & Writing	9
<b>Oral Communication</b>	Met in major with SPCH 201	0
<b>Technology</b>	Met in major with CSCI 151	0
<b>Intensive Writing</b>	Met in major with MCOM 441	0
<b>Constitution Requirement</b>	See approved list, p. 16; may be met by other req	0-3
<b>Physical Activity</b>	See approved list, p. 16	1
<b>Thinking Critically Across Disciplines*</b>		
<b>Global Perspectives</b>	See approved list, p. 16	3
<b>Historical Perspectives</b>	See approved list, p. 16	3
<b>Introducing Students to Broad Disciplinary Perspectives*</b>		
<b>Social Science</b>	See approved list, p. 16; must include 2 designators	6
<b>Humanities and Arts</b>	See approved list, p. 16; must include 2 designators	6
<b>Quantitative Skills and Natural Science* (3 courses)</b>		
<b>Quantitative Skills</b>		9-12
MATH 151 or a MATH that includes Calculus or has Calculus as a pre-requisite		(3-4)
Additional Quantitative course		(0-4)
<b>Natural Science</b>	See approved list, p. 16 [Must include a lab science. If 2 courses taken, must be in 2 different groups: <i>Life, Physical, Earth</i> ].	(3-8)
<i>*No more than two courses in the major may count toward requirements in these areas</i>		
<b>Subtotal</b>		<b>38-44</b>
<b>Information Design Core</b>		
		<b>29</b>
CSCI 151	Overview of Computer Science	3
DIFD 141	Introduction to Web Application Design	4
DIFD 151	Introduction to Information Design	1
VCOM 261	Electronic Image Making	3
VCOM 262	Introduction to Web Design	3
DIFD 211	Communication Theory and the Internet	3
DIFD 321	Information Systems and Organizations	3
DIFD 322	Visual Design of Complex Systems	3
DIFD 415	Law and Ethics for Digital Media	3
DIFD 451	Senior Synthesis	3
<b>Digital Mass Media Concentration</b>		
		<b>27.5</b>
CSCI 101B	Excel	0.5
MCOM 241**	Media Writing	3
MCOM 226**	Multimedia Storytelling and Production	3
MCOM 342	Advanced Reporting and Writing	3
MCOM 346	Television Production	3
MCOM 441	Reporting Public Affairs	3
VCOM 363	Multimedia Design I	3
QMTH 205	Applied Statistics	3
Choose 2 courses from the following (Internship optional)		6
MCOM 325, 333, 341, 349, 370, 425, 461, 462, 463, 464, 471		
<b>Courses Supporting the Concentration</b>		
		<b>3</b>
SPCH 201	Public Speaking	3
<b>Electives</b>		
		<b>16.5-22.5</b>
<b>Total</b>		
		<b>120</b>

\*\*Requires C- or higher

*See pages 16-18 for additional degree requirements.*

COLLEGE OF BUSINESS ADMINISTRATION--DIGITAL INFORMATION DESIGN/INTERACTIVE MEDIA  
**Bachelor of Science in Digital Information Design with a concentration in Interactive Media**

General Education Courses		Semester Hours
ACAD 101	Principles of the Learning Academy	1
<b>Shared Skills and Proficiencies</b>		
<b>Writing and Critical Thinking</b> ( <i>C- or better required in each course</i> )		
WRIT 101, HMXP 102, CRTW 201	Composition; The Human Experience: Who Am I? Crit Reading, Thinking, & Writing	9
<b>Oral Communication</b>	Met in major with WRIT 465	0
<b>Technology</b>	Met in major with CSCI 151	0
<b>Intensive Writing</b>	Met in major with WRIT 465	0
<b>Constitution Requirement</b>	See approved list, p. 16; may be met by other req	0-3
<b>Physical Activity</b>	See approved list, p. 16	1
<b>Thinking Critically Across Disciplines*</b>		
<b>Global Perspectives</b>	See approved list, p. 16	3
<b>Historical Perspectives</b>	Met in major with ARTH 176	0
<b>Introducing Students to Broad Disciplinary Perspectives*</b>		
<b>Social Science</b>	See approved list, p. 16; must include 2 designators	6
<b>Humanities and Arts</b>	See approved list, p. 16; must include 2 designators	6
<b>Quantitative Skills and Natural Science* (3 courses)</b>		<b>9-12</b>
<b>Quantitative Skills</b>		
MATH 151 or a MATH that includes Calculus or has Calculus as a pre-requisite		(3-4)
Additional Quantitative course		(0-4)
<b>Natural Science</b>	See approved list, p. 16 [Must include a lab science. If 2 courses taken, must be in 2 different groups: <i>Life, Physical, Earth</i> ].	(3-8)
<i>*No more than two courses in the major may count toward requirements in these areas</i>		
<b>Subtotal</b>		<b>35-41</b>
<b>Information Design Core</b>		<b>29</b>
CSCI 151	Overview of Computer Science	3
DIFD 141	Introduction to Web Application Design	4
DIFD 151	Introduction to Information Design	1
VCOM 261	Electronic Image Making	3
VCOM 262	Introduction to Web Design	3
DIFD 211	Communication Theory and the Internet	3
DIFD 321	Information Systems and Organizations	3
DIFD 322	Visual Design of Complex Systems	3
DIFD 415	Law and Ethics for Digital Media	3
DIFD 451	Senior Synthesis	3
<b>Interactive Media Concentration</b>		<b>55</b>
ARTH 176	Intro to Art History from Renaissance to Present	3
CSCI 241 & 242	Client/Server Programming for the World Wide Web I & II	7
VCOM 120	Rapid Visualization Drawing	3
VCOM 150	Design Studio Skills	3
VCOM 151	Design Fundamentals	3
VCOM 154	Design and Color	3
VCOM 258	Introduction to Typography	3
VCOM 259	Introduction to Graphic Design	3
VCOM 300	Specialization Portfolio Review	0
VCOM 355	Design Concepts	3
VCOM 362	Interactive Media	3
VCOM 363	Multimedia Design I	3
VCOM 374	History of Graphic Design and Illustration	3
VCOM 462	Interface Design in Alternative e-media	3
VCOM 463	Multimedia Design II	3
VCOM 578	Professional Portfolio and Practices	3
Choose two courses from one of the following groups:		6
Mass communication: MCOM 226 & 342	Multimedia Storytelling & Prod, Adv Reporting & Writing	
Music: MUST 531 & 532	Computer Music Composition I & II	
Illustr/Graph Design: VCOM 222, 358, 361	Visual Thinking, Intermed Typography, Digital Illustration	
<b>Course Supporting the Concentration</b>		<b>3</b>
WRIT 465	Preparation of Oral and Written Reports	3
<b>Electives</b>		<b>0</b>
<b>Total</b>		<b>122-128</b>

*See pages 16-18 for additional degree requirements.*

COLLEGE OF BUSINESS ADMINISTRATION--DIGITAL INFORMATION DESIGN/WEB APPLICATION DESIGN  
**Bachelor of Science in Digital Information Design with a concentration in Web Application Design**

General Education Courses		Semester Hours
ACAD 101	Principles of the Learning Academy	1
<b>Shared Skills and Proficiencies</b>		
<b>Writing and Critical Thinking</b> ( <i>C- or better required in each course</i> )		
WRIT 101, HMXP 102, CRTW 201	Composition; The Human Experience: Who Am I? Crit Reading, Thinking, & Writing	9
<b>Oral Communication</b>	See approved list, p. 16; CSCI 327 recommended	3
<b>Technology</b>	Met in major with CSCI 151	0
<b>Intensive Writing</b>	See approved list, p. 16; CSCI 327 recommended	0-3
<b>Constitution Requirement</b>	See approved list, p. 16; may be met by other req	0-3
<b>Physical Activity</b>	See approved list, p. 16	1
<b>Thinking Critically Across Disciplines*</b>		
<b>Global Perspectives</b>	See approved list, p. 16	3
<b>Historical Perspectives</b>	See approved list, p. 16	3
<b>Introducing Students to Broad Disciplinary Perspectives*</b>		
<b>Social Science</b>	See approved list, p. 16; must include 2 designators	6
<b>Humanities and Arts</b>	See approved list, p. 16; must include 2 designators	6
<b>Quantitative Skills and Natural Science* (3 courses)</b>		<b>9-12</b>
<b>Quantitative Skills</b>		
MATH 151 or a MATH that includes Calculus or has Calculus as a pre-requisite		(3-4)
Additional Quantitative course		(0-4)
<b>Natural Science</b>	See approved list, p. 16 [Must include a lab science. If 2 courses taken, must be in 2 different groups: <i>Life, Physical, Earth</i> ].	(3-8)
<i>*No more than two courses in the major may count toward requirements in these areas</i>		
<b>Subtotal</b>		<b>38-50</b>
<b>Information Design Core</b>		<b>29</b>
CSCI 151	Overview of Computer Science	3
DIFD 141	Introduction to Web Application Design	4
DIFD 151	Introduction to Information Design	1
VCOM 261	Electronic Image Making	3
VCOM 262	Introduction to Web Design	3
DIFD 211	Communication Theory and the Internet	3
DIFD 321	Information Systems and Organizations	3
DIFD 322	Visual Design of Complex Systems	3
DIFD 415	Law and Ethics for Digital Media	3
DIFD 451	Senior Synthesis	3
<b>Web Application Design Concentration</b>		<b>31.5</b>
QMTM 205	Applied Statistics	3
CSCI 101B	Microsoft Excel	0.5
CSCI 241 & 242	Client/Server Programming for the World Wide Web I & II	7
CSCI 355	Database Processing	3
CSCI 441	Web Application Design and Development	3
CSCI 475 & 476	Software Engineering I & II	6
CSCI 521	Software Project Management	3
VCOM 362	Interactive Media	3
VCOM 462	Interface Design in Alternative e-media	3
<b>Electives</b>		<b>9.5-21.5</b>
<b>Total</b>		<b>120</b>

*See pages 16-18 for additional degree requirements.*