

# Business Administration (BS): Information Technology Concentration

To see more about what you will learn in this program, visit the Learning Outcomes website (<https://apps.oirp.ncsu.edu/pgas/>)!

Information Technology students specialize in the support of business processes through the use of IT. Concentration students are business oriented but work with various technologies and systems to support business needs. In contrast with computer science programs, the IT concentration focuses on how to use information technology to support business needs rather than how to program and create new software. Our students focus on using technology to organize, represent and manipulate data to support business decision making. These students also gain experience with a variety of computing technologies. The IT concentration is valuable by itself, but it can provide other concentration students with a competitive advantage if they add IT as a second concentration.

## Curriculum Overview

Students in the information technology concentration learn the basics of computer hardware, software and networking, and more importantly, how to apply that technical knowledge to business functions such as finance, marketing and product management.

The information technology concentration is designed to prepare students in the following areas:

- Software use and development
- Database development and management
- Basic computer networking and telecommunications
- Information security and privacy
- Knowledge management

## Contact

### Business Management

Poole College of Management  
2300 Nelson Hall  
Raleigh, NC 27695  
919.515.5565

Website (<https://poole.ncsu.edu/business-management/>)

### Jonathan Bohlmann

Interim Department Head

## Plan Requirements

Overall GPA for all courses attempted at NC State must be 2.0 or higher; and

Overall GPA for all BUS, MIE, and M courses attempted at NC State must be 2.0 or higher.

Code	Title	Hours	Counts towards
<b>Humanities and Social Sciences</b>			
Acad Writing Research (p. 3)	<sup>1</sup>	4	
Select one of the following:		3	
COM 110	Public Speaking		
COM 112	Interpersonal Communication		
COM 211	Argumentation and Advocacy		
PSY 200	Introduction to Psychology	3	
Select one of the following: <sup>1</sup>		3	
ARE 201	Introduction to Agricultural & Resource Economics		
ARE 201A	Introduction to Agricultural & Resource Economics		
EC 201	Principles of Microeconomics		
EC 202	Principles of Macroeconomics	3	
Select one of the following:		3	
ENG 331	Communication for Engineering and Technology		
ENG 332	Communication for Business and Management		
ENG 333	Communication for Science and Research		
GEP Humanities ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/</a> )		6	
Students must also take one course from the Poole College of Management Ethics list (no credit hour requirement); If a student takes a PHI course to satisfy the Ethics requirement, it may double-count as the second humanities course provided the first course was not also a PHI course.			
GEP US Diversity, Equity, and Inclusion ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-usdei/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-usdei/</a> )		3	
Select one of the following: (verify requirement)			
MIE 306	Managing Ethics in Organizations		
PHI 214	Issues in Business Ethics		

PHI 221	Contemporary Moral Issues	
PHI 313	Ethical Problems in the Law	
PHI 375	Ethics	
Foreign Language Proficiency ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/foreign-language-proficiency/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/foreign-language-proficiency/</a> ) (verify requirement)		
<b>Mathematical and Natural Sciences</b>		
GEP Natural Sciences ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-natural-sciences/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-natural-sciences/</a> )		7
Select one of the following: <sup>1</sup>		3
MA 131 or MA 141 are encouraged for students who qualify and aspire to take additional calculus. For students completing MA 141, one credit of MA141 will count as free elective credit.		
MA 121	Elements of Calculus	
MA 131	Calculus for Life and Management Sciences A	
MA 141	Calculus I	
MA 114	Introduction to Finite Mathematics with Applications	3
or MA 242	Calculus III	
Select one of the following: <sup>1</sup>		3
BUS 350	Economics and Business Statistics	
ST 350	Economics and Business Statistics	
ST 312	Introduction to Statistics II	
ST 370	Probability and Statistics for Engineers	
ST 372	Introduction to Statistical Inference and Regression	
BUS 351	Introduction to Business Analytics	3
ST 307	Introduction to Statistical Programming-SAS	1

or ST 308	Introduction to Statistical Programming - R	
<b>Interdisciplinary Perspectives</b>		
GEP Interdisciplinary Perspectives ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-interdisciplinary-perspectives/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-interdisciplinary-perspectives/</a> )		2
<b>Physical Education</b>		
GEP Health and Exercise Studies ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/</a> )		2
<b>Corequisites</b>		
GEP Global Knowledge ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-global-knowledge/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-global-knowledge/</a> ) (verify requirement)		
<b>Major Requirements</b>		
M 100	Personal and Professional Identity Development	1
MIE 201	Introduction to Business Processes	3
ACC 210	Concepts of Financial Reporting <sup>1</sup>	3
ACC 220	Introduction to Managerial Accounting <sup>1</sup>	3
MIE 310	Introduction to Entrepreneurship	3
BUS 320	Financial Management	3
MIE 330	Human Resource Management	3
BUS 340	Information Systems Management	3
BUS 360	Marketing Methods	3
BUS 370	Operations and Supply Chain Management	3
MIE 305	Legal and Regulatory Environment	3
MIE 480	Business Policy and Strategy	3
<b>Concentration</b>		
Select two of the following:		6
BUS 440	Database Management	

BUS 441	Business Data Communications and Networking	
BUS 442	Information Systems Development	
Select two of the following:		6
BUS 440	Database Management	
BUS 441	Business Data Communications and Networking	
BUS 442	Information Systems Development	
BUS 443	Web Development for Business Applications	
BUS 444	Systems Analysis and Design	
BUS 449	Information Technology Capstone	
<b>Free Electives</b>		
Free Electives (12 Hr S/U Lmt) <sup>2,3</sup>		22
<b>Total Hours</b>		<b>120</b>

<sup>1</sup> C- or better

<sup>2</sup> Students should consult their academic advisors to determine which courses fill this requirement.

<sup>3</sup> Some courses will not count as free electives, such as FL 101, or 105 (in the language in which proficiency requirement is met), or MA 101, 103, 105. (12 hours of free electives may be taken for credit only.)

## Acad Writing Research

Code	Title	Hours	Counts towards
<b>Acad Writing Research</b>			
ENG 101	Academic Writing and Research	4	
FLE 101	Academic Writing and Research	4	
<b>Transfer Sequence</b>			
ENG 202	Disciplinary Perspectives in Writing	3	
ENG 1GEP		3	

## Semester Sequence

This is a sample.

### First Year

Fall Semester	Hours
M 100 Personal and Professional Identity Development	1

ENG 101	Academic Writing and Research (or GEP Natural Sciences ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-natural-sciences/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-natural-sciences/</a> ) with Lab) <sup>1</sup>	4
Select one of the following: <sup>1</sup>		3
MA 121	Elements of Calculus	
MA 131	Calculus for Life and Management Sciences A	
MA 141	Calculus I	
MIE 201	Introduction to Business Processes	3
Free Elective		3
GEP Health and Exercise Studies ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/</a> )		1
<b>Hours</b>		<b>15</b>

### Spring Semester

MA 114 or MA 242	Introduction to Finite Mathematics with Applications or Calculus III	3
Select one of the following:		3
COM 110	Public Speaking	
COM 112	Interpersonal Communication	
COM 211	Argumentation and Advocacy	
GEP Humanities ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/</a> )		
ENG 101	Academic Writing and Research (or GEP Natural Sciences ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-natural-sciences/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-natural-sciences/</a> ) with Lab) <sup>1</sup>	4
EC 201 or ARE 201	Principles of Microeconomics <sup>1</sup> or Introduction to Agricultural & Resource Economics	3
ACC 210	Concepts of Financial Reporting <sup>1</sup>	3
<b>Hours</b>		<b>16</b>

### Second Year

Fall Semester	Hours	
ACC 220	Introduction to Managerial Accounting <sup>1</sup>	3
Select one of the following:		3
COM 110	Public Speaking	
COM 112	Interpersonal Communication	
COM 211	Argumentation and Advocacy	
GEP Humanities ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/</a> )		3
BUS/ST 350	Economics and Business Statistics <sup>1</sup>	3
GEP Natural Sciences ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-natural-sciences/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-natural-sciences/</a> )		3
EC 202	Principles of Macroeconomics	3
GEP Health and Exercise Studies ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/</a> )		1
<b>Hours</b>		<b>19</b>

### Spring Semester

Select three of the following:		9
BUS 320	Financial Management	
BUS 340	Information Systems Management	

BUS 360	Marketing Methods	
BUS 370	Operations and Supply Chain Management	
MIE 305	Legal and Regulatory Environment	
MIE 310	Introduction to Entrepreneurship	
MIE 330	Human Resource Management	
PSY 200	Introduction to Psychology	3
GEP US Diversity, Equity, and Inclusion ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-usdei/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-usdei/</a> )		3
ST 307 or ST 308	Introduction to Statistical Programming- SAS or Introduction to Statistical Programming - R	1
<b>Hours</b>		<b>16</b>

**Third Year****Fall Semester**

Select two of the following:		6
BUS 320	Financial Management	
BUS 340	Information Systems Management	
BUS 360	Marketing Methods	
BUS 370	Operations and Supply Chain Management	
MIE 305	Legal and Regulatory Environment	
MIE 310	Introduction to Entrepreneurship	
MIE 330	Human Resource Management	
Select one of the following:		3
ENG 331	Communication for Engineering and Technology	
ENG 332	Communication for Business and Management	
ENG 333	Communication for Science and Research	
Free Electives		6
<b>Hours</b>		<b>15</b>

**Spring Semester**

Select two of the following:		6
BUS 320	Financial Management	
BUS 340	Information Systems Management	
BUS 360	Marketing Methods	
BUS 370	Operations and Supply Chain Management	
MIE 305	Legal and Regulatory Environment	
MIE 310	Introduction to Entrepreneurship	
MIE 330	Human Resource Management	
Concentration course		3
Free Electives		6
<b>Hours</b>		<b>15</b>

**Fourth Year****Fall Semester**

Select two Concentration courses		6
GEP Interdisciplinary Perspectives ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-interdisciplinary-perspectives/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-interdisciplinary-perspectives/</a> )		2
GEP Humanities ( <a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/</a> )		3
Free Elective		4
<b>Hours</b>		<b>15</b>

**Spring Semester**

MIE 480	Business Policy and Strategy	3
Concentration course		3
Free Electives		6
<b>Hours</b>		<b>12</b>
<b>Total Hours</b>		<b>123</b>

<sup>1</sup> Must be completed with "C-" or better.

**GPA Graduation Requirements**

- Overall GPA *for all courses* attempted at NC State must be 2.0 or higher; and
- Overall GPA *for all BUS, MIE, and M courses* attempted at NC State must be 2.0 or higher.

**Career Opportunities**

Graduates in business administration are prepared for a variety of careers in business or industry including new product development, marketing, manufacturing, human resources, IT management, business analysis, banking and finance, consulting, and business development. They have the knowledge and tools to launch new business ideas and succeed in management positions.