Business Administration (BS): Information Technology Concentration

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.

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 (https://poole.ncsu.edu/people/jdbohlma/)
Department Head
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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
Humanities and Social Sciences		
Acad Writing Research (p. 2) [1]		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: [1]		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 (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/)		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 Elective (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/)		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	
World Language Proficiency (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/world-language-proficiency/) (verify requirement)		
GEP Foundations of American Democracy (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-fad/) (verify requirement)		
Mathematical and Natural Sciences		
GEP Natural Sciences (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-natural-sciences/)		7
Select one of the following: [1]		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: [1]		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	
Interdisciplinary Perspectives		
GEP Interdisciplinary Perspectives (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-interdisciplinary-perspectives/)		2
Physical Education		
GEP Health and Exercise Studies (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/)		2
Corequisites		
GEP Global Knowledge (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-global-knowledge/) (verify requirement)		
Major Requirements		
M 100	Personal and Professional Identity Development	1
MIE 201	Introduction to Business	3
ACC 210	Concepts of Financial Reporting [1]	3
ACC 220	Introduction to Managerial Accounting [1]	3
MIE 310	Introduction to Entrepreneurship	3
BUS 320	Financial Management	3
MIE 330	Managing People	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
Concentration		
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 Practicum	
Free Electives		
Free Electives (12 Hr S/U Lmt) [2,3]		22
Total Hours		**120**

[1] C- or better
[2] Students should consult their academic advisors to determine which courses fill this requirement.
[3] 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
Acad Writing Research		
ENG 101	Academic Writing and Research	4
WLEN 101	Academic Writing and Research	4

Transfer Sequence

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 (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-natural-sciences/) with Lab) [1]	4
Select one of the following: [1]		3
MA 121	Elements of Calculus	
MA 131	Calculus for Life and Management Sciences A	
MA 141	Calculus I	
MIE 201	Introduction to Business	3
Free Elective		3
GEP Health and Exercise Studies (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/)		1
	Hours	**15**
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 (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/)		
ENG 101	Academic Writing and Research (or GEP Natural Sciences (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-natural-sciences/) with Lab) [1]	4
EC 201 or ARE 201	Principles of Microeconomics [1] or Introduction to Agricultural & Resource Economics	3
ACC 210	Concepts of Financial Reporting [1]	3
	Hours	**16**
Second Year		
Fall Semester		
ACC 220	Introduction to Managerial Accounting [1]	3
Select one of the following:		3
COM 110	Public Speaking	
COM 112	Interpersonal Communication	
COM 211	Argumentation and Advocacy	
GEP Humanities (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/)		3
BUS/ST 350	Economics and Business Statistics [1]	3

GEP Natural Sciences (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-natural-sciences/)		3
EC 202	Principles of Macroeconomics	3
GEP Health and Exercise Studies (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/)		1
Hours		**19**
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	Managing People	
PSY 200	Introduction to Psychology	3
GEP Elective (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/)		3
ST 307 or ST 308	Introduction to Statistical Programming-SAS or Introduction to Statistical Programming - R	1
Hours		**16**
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	Managing People	
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
Hours		**15**
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	Managing People	
Concentration course		3

Free Electives		6
Hours		**15**
Fourth Year		
Fall Semester		
Select two Concentration courses		6
GEP Interdisciplinary Perspectives (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-interdisciplinary-perspectives/)		2
GEP Humanities (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/)		3
Free Elective		4
Hours		**15**
Spring Semester		
MIE 480	Business Policy and Strategy	3
Concentration course		3
Free Electives		6
Hours		**12**
Total Hours		**123**

[1] 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.

Career Titles

- Accounting Clerk
- Actuary
- Administrative Service Manager
- Advertising Account Manager
- Advertising Agency Coordinator
- Advertising Sales Agent
- Airline Flight Control Administrator
- Airline Flight Operations Administrator
- Airline Flight Reservations Administrator
- Airport Administrator
- Artists Agent (Manager)
- Athletes Business Manager
- Bank and Branch Managers
- Benefits Manager
- Biofuels Production Managers
- Boat Charter Administrator
- Budget Accountant

- Budget Analyst
- Business Intelligence Analysts
- Business Professor
- Camp Director
- Catering Administrator
- Certified Public Accountant (CPA)
- Chief Executives
- Chief Financial Officer
- Child Care Center Administrator
- Compensation Administrator
- Compensation Specialist
- Compliance Managers
- Construction Manager
- Contract Administrator
- Controller
- Cost Accountant
- County or City Auditor
- Credit Analyst
- Curriculum and Assessment Director
- Customer Service Supervisor
- Document Management Specialists
- Elementary School Administrator
- Employee Benefits Analyst
- Employment Administrator
- Employment and Placement Specialist
- Estimator
- Event / Convention Planner
- Farm Management Advisor
- Financial Aid Counselor
- Financial Aid Director
- Financial Analyst
- Financial Examiner
- Financial Manager
- Financial Planner
- Financial Services Sales Agent
- Fish Hatchery Manager
- Foreign Exchange Trader
- Fund Raiser
- Fundraising Manager
- Funeral Home Managers
- Gaming Manager
- General and Operations Managers
- Geothermal Production Manager
- Golf Course Manager
- Government Budget Analyst
- Greenhouse and Nursery Manager
- High School Administrator
- Historic Site Administrator
- Hotel Manager
- Human Resources Management Advisor
- Human Resources Management Consultant
- Import/Export Customs Broker
- Industrial Relations Specialist
- Industrial-Organizational Psychologist
- Instructional Coordinators
- Insurance Adjuster
- Insurance Agent
- Insurance Claim Examiner
- Internal Auditor
- Job Analyst
- Job Development Specialist
- Labor Relations Specialist
- Legislator
- Loan Counselor
- Loan Officer
- Lobbyist
- Management Analyst
- Market Research Analyst
- Marketing Managers
- Medical and Health Services Managers
- Medical Records Administrator
- Middle School Administrator
- Non-Retail Sales Supervisor
- Occupational Analyst
- Office Supervisor
- Operations Research Analyst
- Patent Agent
- Personnel Administrator
- Personnel Coordinator
- Personnel Recruiter
- Preschool Administrator
- Production Planner
- Project Management Specialists
- Property Accountant
- Property Managers
- Psychometrist
- Public Relations Manager
- Public Relations Specialist
- Purchasing Agent
- Purchasing Manager
- Radio & TV Station Administrator
- Range Manager
- Recruiter
- Registrar Administrator
- Restaurant Manager
- Retail Buyer
- Retail Sales Department Supervisor
- Retail Store Manager
- Sales Managers
- Sales Representative (Chemicals & Drugs)
- Sales Representative (Hotel Furnishings)
- Sales Representative (Instruments)
- Sales Representative (Psychological Tests)
- Securities Broker

- Social and Community Service Managers
- Social Welfare Administrator
- Spa Managers
- Special Education Administrator
- Sports Events Planner
- Storage and Distribution Manager
- Student Admissions Administrator
- Student Affairs Administrator
- Supply Chain Managers
- Systems Accountant
- Talent Agent
- Tax Accountant
- Tax Auditor
- Tax Examiner
- Tax Lawyer
- Tax Preparer
- Title Examiner
- Traffic Administrator (Freight & Passenger)
- Transportation Supervisor
- Treasurer
- Urban and Regional Planner
- Wind Energy Project Managers

Learn More About Careers

NCcareers.org (https://nccareers.org/)
Explore North Carolina's central online resource for students, parents, educators, job seekers and career counselors looking for high quality job and career information.

Occupational Outlook Handbook (https://www.bls.gov/ooh/)
Browse the Occupational Outlook Handbook published by the Bureau of Labor Statistics to view state and area employment and wage statistics. You can also identify and compare similar occupations based on your interests.

Career One Stop Videos (https://www.careeronestop.org/)
View videos that provide career details and information on wages, employment trends, skills needed, and more for any occupation. Sponsored by the U.S. Department of Labor.

Focus 2 Career Assessment (https://careers.dasa.ncsu.edu/explore-careers/career-assessments/) (NC State student email address required)
This career, major and education planning system is available to current NC State students to learn about how your values, interests, competencies, and personality fit into the NC State majors and your future career. An NC State email address is required to create an account. Make an appointment with your career counselor (https://careers.dasa.ncsu.edu/about/hours-appointments/) to discuss the results.

Focus 2 Apply Assessment (https://www.focus2career.com/Portal/Register.cfm?SID=1929) (Available to prospective students)
A career assessment tool designed to support prospective students in exploring and choosing the right major and career path based on your unique personality, interests, skills and values. Get started with Focus 2 Apply and see how it can guide your journey at NC State.