

Business Administration (BS): Operations/Supply Chain Management

The field of operations and supply chain management focuses on creating efficiencies in an organization's global "supply chain" – the network of interconnected businesses and activities involved in getting the organization's products or services to the end users. Supply chain management spans the sourcing of raw materials and components, their movements and storage, work-in-process inventory, and finished goods/services from point-of-origin to point-of-consumption. The focus is improving the way the organization coordinates and integrates these "flows" within and among organizations.

Curriculum Overview

Students concentrating in operations and supply chain learn how to develop and evaluate business processes, perform strategic and tactical supply chain planning, and manage the activities and resources that transform inputs into finished goods and services.

The operations and supply chain concentration is designed to prepare students in the following areas:

- Knowledge of how goods, services, finances and information flow through the supply chain
- Analysis and resolution of customer and supplier business problems
- Analysis and improvement of business processes to improve customer satisfaction and business performance
- Understanding of how to link suppliers, internal customers, and external customers to create value
- Resolution of real-world supply chain problems through project work with partner companies in the Supply Chain Resource Cooperative (<https://scm.ncsu.edu/>)

Contact

Department of Information Technology, Analytics and Operations
 Poole College of Management
 1300 Nelson Hall
 Raleigh, NC 27695
 Phone: 919.515.5565
 Website (<https://poole.ncsu.edu/faculty-and-research/it-analytics-operations-department/>)

Sebastian Heese
 Department Head
 Owens Distinguished Professor of Supply Chain Management

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 (https://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 (https://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 (https://catalog.ncsu.edu/undergraduate/gep-category-requirements/world-language-proficiency/) (verify requirement)		
GEP Foundations of American Democracy (https://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-fad/) (verify requirement)		
Mathematical and Natural Sciences		
GEP Natural Sciences (https://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 MA 141 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 (https://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-interdisciplinary-perspectives/)		2
Physical Education		
GEP Health and Exercise Studies (https://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/)		2
Corequisites		
GEP Global Knowledge (https://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		
BUS 470	Operations Modeling and Analysis	3
Select two of the following:		6
BUS 472	Operations Planning and Control Systems	
BUS 474	Logistics Management	
BUS 475	Purchasing and Supply Management	
Select one of the following:		3
ACC 420	Cost Accounting for Effective Management	
BUS 472	Operations Planning and Control Systems	
BUS 474	Logistics Management	
BUS 476	Decision Modeling and Analysis	3
BUS 475	Purchasing and Supply Management	
BUS 479	Supply Chain Management Undergraduate Practicum	
Free Electives		
Free Electives (12 Hr S/U Lmt) ^{2,3}		22
Total Hours		123

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 WL 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 (https://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
GEP Health and Exercise Studies (https://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/)		1
Free Elective		3
	Hours	15

Spring Semester

MA 114 or MA 242	Introduction to Finite Mathematics with Applications or Calculus III	3
COM 110 or COM 112 or COM 211	Public Speaking or Interpersonal Communication or Argumentation and Advocacy	3
ENG 101	Academic Writing and Research (or GEP Natural Sciences (https://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		Hours
ACC 220	Introduction to Managerial Accounting ¹	3
GEP Humanities (https://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/)		3
BUS/ST 350	Economics and Business Statistics ¹	3
GEP Natural Sciences (https://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-natural-sciences/)		3

EC 202	Principles of Macroeconomics	3
GEP Health and Exercise Studies (https://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/)		1

Hours	16
--------------	-----------

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 (https://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 (https://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-interdisciplinary-perspectives/)		2
GEP Humanities (https://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	120
--------------------	------------

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.