Business Administration (BS): Operations/Supply Chain Management

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

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/)

Business Management
Poole College of Management
2300 Nelson Hall
Raleigh, NC 27695
Phone: (919) 515-5565
https://poole.ncsu.edu/business-management/

Sebastian Heese
Interim Department Head
Owens Distinguished Professorship of Supply Chain Management

Plan Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Hours</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 200</td>
<td>3</td>
<td>Introduction to Psychology</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARE 201</td>
<td>3</td>
<td>Introduction to Agricultural &amp; Resource Economics</td>
</tr>
<tr>
<td>ARE 201A</td>
<td></td>
<td>Introduction to Agricultural &amp; Resource Economics</td>
</tr>
<tr>
<td>EC 201</td>
<td>3</td>
<td>Principles of Microeconomics</td>
</tr>
<tr>
<td>EC 202</td>
<td>3</td>
<td>Principles of Macroeconomics</td>
</tr>
<tr>
<td>ENG 331</td>
<td>3</td>
<td>Communication for Engineering and Technology</td>
</tr>
<tr>
<td>ENG 332</td>
<td>3</td>
<td>Communication for Business and Management</td>
</tr>
<tr>
<td>ENG 333</td>
<td>3</td>
<td>Communication for Science and Research</td>
</tr>
<tr>
<td>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>)</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>GEP Additional Breadth (<a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/</a>) (Humanities/Social Sciences/Visual and Performing Arts)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Select one of the following: (verify requirement)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIE 306</td>
<td></td>
<td>Managing Ethics in Organizations</td>
</tr>
<tr>
<td>PHI 214</td>
<td></td>
<td>Issues in Business Ethics</td>
</tr>
<tr>
<td>PHI 221</td>
<td></td>
<td>Contemporary Moral Issues</td>
</tr>
<tr>
<td>PHI 313</td>
<td></td>
<td>Ethical Problems in the Law</td>
</tr>
<tr>
<td>PHI 375</td>
<td>3</td>
<td>Ethics</td>
</tr>
</tbody>
</table>

Mathematical and Natural Sciences

<table>
<thead>
<tr>
<th>Code</th>
<th>Hours</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>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>)</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MA 121</td>
<td>3</td>
<td>Elements of Calculus</td>
</tr>
<tr>
<td>MA 131</td>
<td></td>
<td>Calculus for Life and Management Sciences A</td>
</tr>
<tr>
<td>MA 141</td>
<td></td>
<td>Calculus I</td>
</tr>
<tr>
<td>MA 114</td>
<td>3</td>
<td>Introduction to Finite Mathematics with Applications</td>
</tr>
<tr>
<td>or MA 242</td>
<td></td>
<td>Calculus III</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUS 350</td>
<td>3</td>
<td>Economics and Business Statistics</td>
</tr>
<tr>
<td>ST 350</td>
<td></td>
<td>Economics and Business Statistics</td>
</tr>
<tr>
<td>ST 312</td>
<td></td>
<td>Introduction to Statistics II</td>
</tr>
<tr>
<td>ST 370</td>
<td></td>
<td>Probability and Statistics for Engineers</td>
</tr>
<tr>
<td>ST 372</td>
<td></td>
<td>Introduction to Statistical Inference and Regression</td>
</tr>
<tr>
<td>BUS 351</td>
<td>3</td>
<td>Predictive Analytics for Business</td>
</tr>
<tr>
<td>ST 307</td>
<td>1</td>
<td>Introduction to Statistical Programming- SAS</td>
</tr>
</tbody>
</table>

Interdisciplinary Perspectives

<table>
<thead>
<tr>
<th>Code</th>
<th>Hours</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>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>)</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Physical Education

<table>
<thead>
<tr>
<th>Code</th>
<th>Hours</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>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>)</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Corequisites

<table>
<thead>
<tr>
<th>Code</th>
<th>Hours</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEP U.S. Diversity (<a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-us-diversity/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-us-diversity/</a>) (verify requirement)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>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)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Hours</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acad Writing Research (p. 2)</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Foreign Language 201 (p. 2)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COM 110</td>
<td>Public Speaking</td>
<td></td>
</tr>
<tr>
<td>COM 112</td>
<td>Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td>COM 211</td>
<td>Argumentation and Advocacy</td>
<td></td>
</tr>
</tbody>
</table>
M 100  Personal and Professional Identity Development  1
MIE 201  Introduction to Business Processes  3
ACC 210  Concepts of Financial Reporting  3
ACC 220  Introduction to Managerial Accounting  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

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 473  Supply Chain Strategy
   BUS 474  Logistics Management
   BUS 475  Purchasing and Supply Management
   BUS 479  Supply Chain Management Undergraduate Practicum

Free Electives
Free Electives (12 Hr S/U Lmt)  2  19
Total Hours  120

1  C- or better
2  Students should consult their academic advisors to determine which courses fill this requirement.

Acad Writing Research

Acad Writing Research
Code  Title  Hours
ENG 101  Academic Writing and Research  4
FLE 101  Academic Writing and Research  4

Transfer Sequence
ENG 202  Disciplinary Perspectives in Writing  3
ENG 1GEP 100 Level English Composition  3

Foreign Language 201

Foreign Language 201
Code  Title  Hours
FLA 201  Intermediate Arabic I  3
FLC 201  Intermediate Chinese I  3
FLF 201  Intermediate French I  3
FLF 212  French: Language, Culture, and Technology  3
FLG 201  Intermediate German I  3
FLG 212  German Language, Culture, Science, and Technology  3
FLI 201  Intermediate Italian I  3
FLJ 201  Intermediate Japanese I  3
FLN 201  Intermediate Hindi-Urdu I  3
FLP 201  Intermediate Portuguese I  3
FLR 201  Intermediate Russian I  3
FLS 201  Intermediate Spanish I  3
FLS 212  Spanish: Language, Technology, Culture  3
GRK 201  Intermediate Greek I  3
LAT 201  Intermediate Latin I  3
PER 201  Intermediate Persian I  3

Semester Sequence
This is a sample.

Course  Title  Hours
First Year
Fall Semester  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)  4
Select one of the following:  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
FLx 201  3
GEP Health and Exercise Studies (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/)  1

Spring Semester
MA 114  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/)  1
ENG 101  Academic Writing and Research (or GEP Natural Sciences (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-natural-sciences/) with Lab)  4
EC 201  Principles of Microeconomics  3
or ARE 201  or Introduction to Agricultural & Resource Economics
ACC 210  Concepts of Financial Reporting  3

Second Year
Fall Semester  ACC 220  Introduction to Managerial Accounting  3
Select one of the following:  
- 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/)  
- BUS/ST 350   Economics and Business Statistics  
- GEP Natural Sciences (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-natural-sciences/)  
- EC 202       Principles of Macroeconomics  
- GEP Health and Exercise Studies (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/)  

Spring Semester  
Select three of the following:  
- 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  
- GEP Additional Breadth (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/)  
- ST 307       Introduction to Statistical Programming-SAS  

Third Year  
Fall Semester  
Select two of the following:  
- 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  
- ENG 331      Communication for Engineering and Technology  
- ENG 332      Communication for Business and Management  
- ENG 333      Communication for Science and Research  

Spring Semester  
Select two of the following:  
- BUS 320      Financial Management  
- BUS 340      Information Systems Management  
- BUS 360      Marketing Methods  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 370</td>
<td>Operations and Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>MIE 305</td>
<td>Legal and Regulatory Environment</td>
<td>3</td>
</tr>
<tr>
<td>MIE 310</td>
<td>Introduction to Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>MIE 330</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>Concentration course</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Free Electives</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

Fourth Year  
Fall Semester  
Select two Concentration courses  
- GEP Interdisciplinary Perspectives (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-interdisciplinary-perspectives/)  
- GEP Humanities (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/)  

Spring Semester  
- MIE 480      Business Policy and Strategy  
- Concentration course  

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIE 480</td>
<td>Business Policy and Strategy</td>
<td>3</td>
</tr>
<tr>
<td>Concentration course</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Free Electives</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

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.