SUPPLY CHAIN MANAGEMENT
M.S.

Degree: Master of Science
https://www.towson.edu/cbe/departments/business-analytics-technology-management/grad/supplychain/

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The Master of Science degree in Supply Chain Management and the embedded Post-Baccalaureate Certificate in Supply Chain Management (http://catalog.towson.edu/graduate/degree-certificate-programs/business-economics/supply-chain-management-certificate) are designed to develop professionals who can manage, analyze, and control activities across the entire supply chain, from upstream procurement to downstream distribution channels. The types of employers targeted by this program include companies, consulting firms, and government agencies that need to achieve competitive advantage and cost efficiencies by improving their supply chain performance. This program has been designed by benchmarking content and courses against industry credentialing offerings so that graduates of the program can proceed to professional certification based on the knowledge gained in the program.

Students have the opportunity to complete courses in a combination of face-to-face, online, and blended formats.

Graduates with a supply chain management background can pursue careers as purchasing specialists, contract administrators, procurement officers and managers, supply chain management professionals, business analysts, demand managers, and more. In fact, the majority of U.S. jobs fall somewhere in a supply chain, whether it is procurement, logistics and operations, marketing, or sales and service. International students may benefit from the program’s STEM designation, which supports an optional practical training extension.

Accelerated Bachelor’s-Master’s Program

Students may also earn the M.S. in Supply Chain Management through the accelerated bachelor’s to master’s program (BS-MS) (http://catalog.towson.edu/undergraduate/business-economics/business-analytics-technology-management/bs-ms-business-administration-supply-chain-management). This program is designed for Business Administration (BUAD) majors who have a concentration in Project Management and Business Analysis (PMBIA).

Admitted BUAD majors with a PMBA concentration may apply for the accelerated Bachelor’s-Master’s in Supply Chain Management program once 60 total undergraduate credits are earned, or junior standing. Students may then begin taking selected graduate courses once 90 undergraduate credits are earned, or senior standing. Up to nine units of 600- and 700-level courses can be counted toward both the undergraduate and graduate degrees. A bachelor’s degree is awarded after all the bachelor’s degree requirements are met.

Prospective students must complete an application (https://www.towson.edu/cbe/documents/bs_ms_supply_chain_application.pdf) for the BS-MS program. Once accepted into the program, they must then complete a full application for graduate admission in order to continue in the program upon completion of their undergraduate degree. A GPA of 3.0 or higher is needed, and admission to the BS-MS program is both limited and competitive. Students not admitted in the current semester can reapply for admission in future semesters.

Admission Requirements

Applications for admission are accepted, and admission decisions are made, on a rolling basis.

Admission to the Master of Science degree in Supply Chain Management is competitive. The eligibility requirements to be admitted into the program are:

• A bachelor’s degree in a relevant field from a regionally accredited college or university**, and/or three years post-bachelor's experience working in supply chain related areas is recommended. Applicants must have a cumulative GPA of 3.00 (on a scale of 4.00) or equivalent on the most recent 60 units of graduate or undergraduate work. Conditional admission may be granted with a minimum GPA of 2.75.
• For international students, a minimum IELTS score of 6.5 or minimum TOEFL score of 80 for iBT (550 for paper-based testing) is required. See more details for international admissions. (https://www.towson.edu/academics/graduate/admissions/international)
• Applicants must submit a résumé and a one- to two-page statement describing their past relevant experience, their career goals and how they expect this program to support those goals.
• Two reference letters are required, attesting to the applicant’s ability to withstand the rigors of a graduate education.

Those students who have no background in statistics or received their B.S. degree more than five years ago are required to take a course in statistics—EBTM 501—prior to taking classes in the program.

Applicants must submit the online application (https://www.towson.edu/academics/graduate/admissions/apply) plus the required materials.

Non-immigrant International Students

**Program Enrollment: F-1 and J-1 students are required to be enrolled full-time. The majority of their classes must be in-person and on campus. See the list of programs that satisfy these requirements (https://www.towson.edu/academics/graduate/admissions/international/programs-complyingj1-f1-regulations.html), and contact the International Student and Scholars Office (https://www.towson.edu/academics/international/isso) with questions.

Admission Procedures: See additional information regarding Graduate Admission policies (https://www.towson.edu/academics/graduate/admissions/policies.html) and International Graduate Application (https://www.towson.edu/academics/graduate/admissions/international) online.

**See Exceptions to Policy in Graduate Admissions (https://www.towson.edu/academics/graduate/admissions/policies.html).

Degree Requirements

Students must complete a total of at least 30 units:

• 18 units in six core courses taken by all students
• 9 units of elective courses
• 3 units of capstone project
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<tr>
<th>Code</th>
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<th>Units</th>
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<tbody>
<tr>
<td>EBTM 602</td>
<td>INTRODUCTION TO SUPPLY CHAIN MANAGEMENT</td>
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<tr>
<td>EBTM 604</td>
<td>INTRODUCTION TO PROJECT MANAGEMENT</td>
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<tr>
<td>EBTM 610</td>
<td>OPERATIONS MANAGEMENT</td>
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<td>EBTM 620</td>
<td>PROCUREMENT AND SOURCING</td>
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<td>EBTM 710</td>
<td>LOGISTICS AND DISTRIBUTION</td>
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<tr>
<td>EBTM 720</td>
<td>SUPPLY CHAIN ANALYTICS</td>
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**Electives**

Select three of the following: 9 units

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<tr>
<td>COSC 643</td>
<td>INTERNET SUPPLY CHAIN MNG</td>
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<tr>
<td>EBTM 730</td>
<td>BUSINESS PROCESS MANAGEMENT</td>
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<td>SIX-SIGMA QUALITY</td>
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<td>EBTM 790</td>
<td>SPECIAL TOPICS IN SUPPLY CHAIN MANAGEMENT</td>
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<td>EBTM 797</td>
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**Supply Chain Management Project**

The extended project offers a practical, real-world, problem-solving experience for the student. Ideally, students will take on a project from their workplace, an agency of federal, state or local government, or a private business. They will begin work on the project after taking 15 units of course work and may continue working on the project while completing other course work.

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<td>EBTM 881</td>
<td>SUPPLY CHAIN MANAGEMENT CAPSTONE PROJECT</td>
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**Total Units**

30

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1 Students who successfully complete EBTM 602, EBTM 610, EBTM 620, EBTM 710, and EBTM 720 earn a Post-Baccalaureate Certificate in Supply Chain Management as part of their Master of Science degree.

### Learning Objective 1

Compare and contrast methods to manage, analyze and control supply chain activities. (Bloom’s Level 4 – Analyze)

Courses assessed: Intro to Supply Chain (EBTM 602); Logistics and Distribution (EBTM 710).

### Learning Objective 2

Analyze a supply chain setting using critical thinking and problem-solving skills. (Bloom’s Level 4 – Analyze)

Courses assessed: Operations Management (EBTM 610); Procurement and Sourcing (EBTM 620).

### Learning Objective 3

Develop creative alternatives to supply chain problems using appropriate technology. (Bloom’s Level 6 – Creating)

Courses assessed: Intro to Supply Chain (EBTM 602); Supply Chain Analytics (EBTM 720).

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**Learning Objective 4**

Synthesize and integrate concepts and methods to evaluate and recommend supply chain improvements. (Bloom’s Level 6 – Creating)

Courses assessed: Supply Chain Capstone Project (EBTM 881); Exit Survey.

**EBTM 501 APPLIED BUSINESS STATISTICS (3)**

Statistical data analysis for managerial decision making. Includes an examination of summary measures, probability, random variables and their distributions. Presents estimation and hypothesis testing, including z-test, t-test and chi-square test, correlation and linear regression analysis, and their applications to business problems. The use of statistical data analysis is an integral part of this course. Prerequisite: Graduate standing.

**EBTM 602 INTRODUCTION TO SUPPLY CHAIN MANAGEMENT (3)**

Basic concepts and strategies adopted in SCM. Primary focus is to develop a good understanding of strategic, tactical and operational issues of SCM and become familiar with the integration of various SCM entities. Topics include: supply chain strategy and deplaning, supply chain operations, procurement, supply chain risk management, supply chain coordination and integration, global SCM, supply chain revenue management, coordinated product design chain and SC, and supply chain information technologies. Prerequisites: EBTM 501 or successful completion of the Statistics Proficiency Exam; graduate standing.

**EBTM 604 INTRODUCTION TO PROJECT MANAGEMENT (3)**

Introduces students to the behavioral ad technical aspects of managing projects. Challenges of planning, monitoring and controlling complex projects to achieve the desired cost, quality and performance objectives will be discussed. Topics covered will also include cross-functional project teams, project integration, time management, time-cost trade-offs in project completion and resource allocation. Prerequisites: EBTM 501 or successful completion of the Statistics Proficiency Exam; graduate standing.

**EBTM 610 OPERATIONS MANAGEMENT (3)**

Demonstrates the significance of efficient and effective management of operations for competitiveness and success in manufacturing and service organizations. Topics include: Overview of the field, capacity management, facility location, Six-sigma quality, statistical quality control, sales and operations planning, inventory control, lean production. Prerequisites: EBTM 501 or successful completion of the Statistics Proficiency Exam; graduate standing.

**EBTM 620 PROCUREMENT AND SOURCING (3)**

Topics include purchasing decisions and strategy, the legal aspects of purchasing, negotiation product and service quality, lean purchasing, supplier selection and evaluation, supplier relationship management, and special purchasing applications such as health care purchasing, government purchasing, professional service purchasing, transportation service purchasing. Prerequisite: EBTM 501 or successful completion of the Statistics Proficiency exam; graduate standing.

**EBTM 710 LOGISTICS AND DISTRIBUTION (3)**

The study of logistics system and distribution network and related firm strategy in the context of supply chain management. Topics include inventory, logistics network, warehouse management, transportation infrastructure and management, packaging and material handling, outbound logistics, distribution management, reverse logistics, and international logistics. Prerequisite: EBTM 602.
EBTM 720 SUPPLY CHAIN ANALYTICS (3)
Addresses analytics applied in different stages of supply chain and focuses on how technology is used to collect and analyze data to support decision making in the supply chain. Topics include supply chain decision support systems, supply chain optimization technologies, supply chain intelligence, supply chain visibility and collaborative technologies, and other emerging supply chain technologies. Prerequisite: EBTM 602.

EBTM 730 BUSINESS PROCESS MANAGEMENT (3)
Designing and monitoring processes today can involve designing and orchestrating massive systems. Business Process Management (BPM) is a discipline that helps managers and analysts to design, run, administer, and monitor enterprise business processes. Explains BPM concepts, architecture and specifications, introduces the student to process modeling / design tools used to design and optimize business processes as well as performance measuring approaches for evaluating business process performance. Hands-on experience in process modeling using Process modeling and/or workflow software is also provided. Prerequisite: EBTM 720.

EBTM 735 SIX-SIGMA QUALITY (3)
Understanding of the processes involved with the implementation of projects involving quality management and six sigma methodologies. Topics will include quality improvement, quality management, process analysis, process redesign, root cause analysis, and continuous improvement. Software including spreadsheet modeling, project management, and flowcharting will be used to support the course material. Prerequisite: EBTM 610.

EBTM 740 CUSTOMER RELATIONSHIP MANAGEMENT (3)
Theories and applications in customer relationship management which include analyzing customers to identify their needs and wants, satisfying customer needs and wants by developing customer-centric projects and services, building sustainable customer relationships, and ultimately achieving customer retention and loyalty. Provides students with knowledge and skills that are essential for consumer analyses and market strategies. Students will obtain hands-on experience and analytical CRM as well as data mining applications commonly used in business. Prerequisite: EBTM 602.

EBTM 790 SPECIAL TOPICS IN SUPPLY CHAIN MANAGEMENT (3)
Current topics in supply chain management covering contemporary and emerging issues. May be repeated for credit provided a different topic is covered. Prerequisites: Graduate Standing, EBTM 602, and completion of at least 12 units in the program.

EBTM 795 INDEPENDENT STUDY (3)
Independent research in specific areas of the field of the degree being pursued. A total of 3 units for any combination of directed readings or independent research is allowed in the area of study. Prerequisites: graduate standing, completion of all 600 and 700 level core requirements.

EBTM 797 INTERNSHIP IN SUPPLY CHAIN MANAGEMENT (3)
Supervised experience in a field setting which facilitates the application of supply chain knowledge. Prerequisites: consent of instructor, graduate standing, completion of all 600 and 700 level core requirements. Graded S/U.

EBTM 881 SUPPLY CHAIN MANAGEMENT CAPSTONE PROJECT (3)
Capstone course and an independent research or applied project in content areas related to supply chain management. Students work under the supervision of their faculty advisors to address a significant theoretical or applied problem in supply chain management. The completed project should clearly present the problem of the research subject investigated or applied project undertaken, its significance to theory and business practice, the research or project background, a well-defined method, results or findings, and their implications. Prerequisite: EBTM 602.

EBTM 882 SUPPLY CHAIN MANAGEMENT CAPSTONE PROJECT CONTINUUM (1)
Designed for students to continue their independent supply chain project in EBTM 881. Students work under the supervision of their faculty advisors to address a significant theoretical or applied problem in supply chain management. The completed project should clearly present the problem of the research subject investigated or applied project undertaken, its significance to theory and business practice, the research or project background, a well-defined method, results or findings, and their implications. Prerequisites: Graduate standing and major standing; EBTM 881.