

# INDUSTRIAL DISTRIBUTION - BS

Bachelor of Science in Industrial Distribution prepares graduates for sales engineering, technical sales, supply chain management, operations management, sales management and other managerial positions.

Students are prepared for employment in industry segments that include: aerospace; automation solutions; building materials; chemical and petrochemical; electrical; electronics; information systems and technology; healthcare; fluid power; general line; heating, ventilation and air conditioning; management consulting; mechanical power; metals; oil and gas; plastics; pipe, valve, and fitting; plumbing; safety equipment; semiconductor; specialty tools; and welding. The day-to-day challenges faced by the industrial distributor or the manufacturer's representative require the person to be a professional with many capabilities. To fulfill this demand, the curriculum provides study in business, communications, finance, information technology, applied technology, general management, engineering, ethics, and human relations. This knowledge is applicable to the graduate in relationships with executives, managers, engineers, scientists, and business analysts while taking leadership roles in their manufacturing, distribution, analysis, service, production planning and maintenance or construction operations. The industrial distribution graduate assists these preceding entities by direct application of operations, business, and product knowledge. Essentially the industrial distribution graduate becomes a consultative resource to businesses - a challenging and rewarding career that can lead to the possibility of becoming a business leader in multiple segments. Graduates receive the Bachelor of Science degree in Industrial Distribution.

## Mission and Vision Statement

The mission and vision of the Industrial Distribution Program at Texas A&M University is to:

- Prepare graduates for sales engineering, sales management, supply chain operations and logistics management mid-management positions with wholesale distributors, who purchase, warehouse, sell, distribute and service a wide variety of products, and with manufacturers who sell through distributors.
- Conduct applied research and develop new best practices in industrial distribution, logistics, and supply chain management that mutually benefits the university and its industrial, governmental, and academic collaborators.
- Provide service and leadership in the promotion and advancement of the department, the university and the industrial distribution profession.
- Maintain a nationally recognized program through excellence in hands-on education, applied research, and service.

## Program Educational Objectives

Bachelor of Science in Industrial Distribution program has as its program educational objectives to produce graduates who:

- Demonstrate the technical and managerial skills to have successful careers in designing, integrating and implementation of technical sales, operations and customer services management systems in industrial distribution and supply chain management related industries.

- Exhibit a commitment to professional ethics in their professional career.
- Demonstrate increasing levels of leadership and responsibility during their careers.
- Display a desire for life-long learning and sustainable productivity in a dynamic work environment.

## Program Requirements

The freshman year is identical for degrees in aerospace engineering, architectural engineering, civil engineering, computer engineering, computer science, electrical engineering, electronic systems engineering technology, environmental engineering, industrial distribution, industrial engineering, interdisciplinary engineering, manufacturing and mechanical engineering technology, mechanical engineering, multidisciplinary engineering technology, nuclear engineering, ocean engineering, and petroleum engineering (Note: not all programs listed are offered in Qatar). The freshman year is slightly different for chemical engineering, biomedical engineering and materials science and engineering degrees in that students take CHEM 119 or CHEM 107/CHEM 117 and CHEM 120.

Students pursuing degrees in biological and agricultural engineering should refer to the specific curriculum for this major. It is recognized that many students will change the sequence and number of courses taken in any semester. Deviations from the prescribed course sequence, however, should be made with care to ensure that prerequisites for all courses are met.

### First Year

Fall		Semester Credit Hours
CHEM 107	General Chemistry for Engineering Students <sup>1,4</sup>	3
CHEM 117	General Chemistry for Engineering Students Laboratory <sup>1,4</sup>	1
ENGL 103 or ENGL 104	Introduction to Rhetoric and Composition <sup>1</sup> or Composition and Rhetoric	3
ENGR 102	Engineering Lab I - Computation <sup>1</sup>	2
MATH 151	Engineering Mathematics I <sup>1,2</sup>	4
University Core Curriculum ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/</a> ) <sup>3</sup>		3
<b>Semester Credit Hours</b>		<b>16</b>
Spring		
ENGR 216/ PHYS 216	Experimental Physics and Engineering Lab II - Mechanics <sup>1</sup>	2
MATH 152	Engineering Mathematics II <sup>1</sup>	4
PHYS 206	Newtonian Mechanics for Engineering and Science <sup>1</sup>	3
University Core Curriculum ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/</a> ) <sup>3</sup>		3
Select one of the following:		3-4
CHEM 120	Fundamentals of Chemistry II <sup>1,4</sup>	

University Core Curriculum (<http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/>)<sup>3,5</sup>

**Semester Credit Hours** 15-16

**Total Semester Credit Hours** 31-32

<sup>1</sup> A grade of C or better is required.

<sup>2</sup> Entering students will be given a math placement exam. Test results will be used in selecting the appropriate starting course which may be at a higher or lower level.

<sup>3</sup> Of the 21 hours shown as University Core Curriculum electives, 3 must be from creative arts (see AREN curriculum for more information), 3 from social and behavioral sciences (see IDIS curriculum for more information), 3 from language, philosophy and culture (see CVEN, EVEN and PETE curriculum for more information), 6 from American history and 6 from government/political science. The required 3 hours of international and cultural diversity and 3 hours of cultural discourse may be met by courses satisfying the creative arts, social and behavioral sciences, language, philosophy and culture, and American history requirements if they are also on the approved list of international and cultural diversity (<http://catalog.tamu.edu/undergraduate/general-information/degree-information/international-cultural-diversity-requirements/>) courses and cultural discourse (<http://catalog.tamu.edu/undergraduate/general-information/degree-information/cultural-discourse-requirements/>) courses.

<sup>4</sup> BMEN, CHEN and MSEN require 8 hours of fundamentals of chemistry which are satisfied with CHEM 119 or CHEM 107/CHEM 117 and CHEM 120; Students with an interest in BMEN, CHEN and MSEN can take CHEM 120 second semester freshman year. CHEM 120 will substitute for CHEM 107/CHEM 117.

<sup>5</sup> For BS-PETE, allocate 3 hours to core communications course (ENGL 210, COMM 203, COMM 205, or COMM 243) and/or 3 hours to UCC elective. For BS-MEEN, allocate 3 hours to core communications course (ENGL 203, ENGL 210, or COMM 205) and/or 3 hours to UCC elective.

## Second Year

Fall		Semester Credit Hours
ENGR 217/ PHYS 217	Experimental Physics and Engineering Lab III - Electricity and Magnetism <sup>1</sup>	2
IDIS 240	Introduction to Industrial Distribution <sup>1</sup>	3
ISTM 209	Business Information Systems Concepts <sup>1</sup>	3
PHYS 207	Electricity and Magnetism for Engineering and Science <sup>1</sup>	3
STAT 201 or STAT 303	Elementary Statistical Inference <sup>1</sup> or Statistical Methods	3
<b>Semester Credit Hours</b>		<b>14</b>
Spring		
ACCT 209	Survey of Accounting Principles <sup>1</sup>	3
ECON 202	Principles of Economics <sup>1,6</sup>	3
MGMT 209	Principles of Business Regulations and Law <sup>1</sup>	3
MMET 201	Manufacturing and Materials <sup>1</sup>	4

University Core Curriculum (<http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/>)<sup>3,6</sup>

**Semester Credit Hours** 16

## Third Year

### Fall

ENGL 210	Technical and Professional Writing <sup>1</sup>	3
IDIS 330	Sales Engineering <sup>1</sup>	4
IDIS 340	Manufacturer Distributor Relations <sup>1</sup>	3
IDIS 343	Distribution Logistics <sup>1</sup>	3
University Core Curriculum ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/</a> ) <sup>3,6</sup>		3

**Semester Credit Hours** 16

### Spring

ENTC 399	High Impact Experience <sup>7</sup>	0
ESET 300	Industrial Electricity <sup>1</sup>	4
IDIS 344	Distributor Information and Control Systems <sup>1</sup>	4
IDIS 364	Distributor Financial Management <sup>1</sup>	3
MMET 301	Mechanical Power Transmission <sup>1</sup>	3
Technical elective <sup>1,8</sup>		3

**Semester Credit Hours** 17

## Fourth Year

### Fall

ESET 400	Industrial Automation <sup>1</sup>	4
IDIS 424	Purchasing Applications in Distribution <sup>1</sup>	3
IDIS 433	Industrial Sales Force Development <sup>1</sup>	3
IDIS 443	Distribution Project and Process Management <sup>1</sup>	3
MMET 401	Fluid Power Transmission <sup>1</sup>	3

**Semester Credit Hours** 16

### Spring

IDIS 434	The Quality Process in Distribution <sup>1</sup>	3
IDIS 444	Distribution Project and Process Management II <sup>1</sup>	3
IDIS 450	Analytics for Distribution Operation <sup>1</sup>	4
University Core Curriculum ( <a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/</a> ) <sup>3,6</sup>		3
Directed elective <sup>8</sup>		3

**Semester Credit Hours** 16

**Total Semester Credit Hours** 95

<sup>6</sup> Students in Industrial Distribution satisfy the 3 hour social and behavioral sciences by taking ECON 202 as a required course.

<sup>7</sup> All students are required to complete a high-impact experience in order to graduate. The list of possible high-impact experiences is available in the ETID advising office.

<sup>8</sup> See a departmental advisor for a list of acceptable directed electives and technical electives.

The curriculum lists the minimum number of classes required for graduation. Additional courses may be taken.

**Total Program Hours 126**