

VI. DEGREE AND CERTIFICATE PROGRAMS

1. Baccalaureate Degree Programs

BACHELOR OF APPLIED TECHNOLOGY

Major in Industrial Management

The mission for the Bachelor of Applied Technology program at Brazosport College is to educate, train, and develop successful business leaders and managers who are prepared to utilize technology and leadership skills to the competitive advantage of their enterprise. This program builds upon a general education core, technology, and other courses completed in the freshman and sophomore years. The program is designed to add management skills to the technical skills of the trained technician so that he or she may move into supervisory positions. The breadth of the coursework enables students to lead and manage by utilizing a wide variety of business, finance, technology, and people management skills.

For more information, contact the faculty coordinator of the program at 979-230-3615.

Requirements for Admission to the Bachelor of Applied Technology Degree Program

- College level skills in reading, writing, and mathematics as evidenced by approved placement testing or previous college level coursework. College level coursework requires a C or better.
- Grade of C or better on all lower division core technical courses including internship.
- Be within one semester (or 18 semester hours) of completing the lower division coursework noted in the required curriculum for each specialty.
- Completed Brazosport College Application for Admission/Readmission, transcripts, forms, and satisfaction of the general institutional admission requirements.
- Completed Brazosport College Supplemental Application for Admission to the Bachelor of Applied Technology program and approval by the Bachelor of Applied Technology Admissions Committee.

Note 1: Admission to the Bachelor of Applied Technology program is competitive, based on such factors as GPA, completion of the lower division coursework, work history, and scores on the ACT Collegiate Assessment of Academic Proficiency (CAAP), which measures writing, critical thinking, and mathematics skills. It should be noted that not all students who meet the minimum requirements stated above may be admitted into this program. Applications are to be reviewed by the Bachelor of Applied Technology Admissions Committee and recommended to the Dean, Educational Programs and Services for admission to the program.

Note 2: As space permits and with the permission of the program coordinator, qualified students who do not meet the admission requirements noted above, may take up to six upper division courses. Qualified students are those who have attained junior status, have completed any necessary course prerequisites, and have a cumulative GPA of at least 3.0. Junior status is achieved by having earned at least 60 college-level semester credit hours, including ENGL 1301, ENGL 1302, and college level math.

Completion Requirements for the Bachelor of Applied Technology with a Major in Industrial Management Degree

- Satisfactory completion of a minimum 122 semester credit hours of transferable baccalaureate level education credits, of which at least 45 must be completed at Brazosport College.
- Completion of Brazosport College General Education Core Curriculum (45 credit hours).
- Completion of at least 43 credit hours in 3000 level courses or above, of which at least 30 must be completed at Brazosport College. Note: 52 credit hours in 3000 level courses or above are required for the General Technology Specialty.
- Completion of all program of study requirements with a minimum 2.0 grade point average (based on a 4.0 scale) on all coursework attempted and on all courses within the major.
- Spanish proficiency.

**BACHELOR OF APPLIED TECHNOLOGY
INDUSTRIAL MANAGEMENT MAJOR
*Process Operations Management Specialty***

Lower Division Requirements

The program requires 34 credits in process technology technical courses. An additional 45 credits in General Education courses are required to complete the General Education Core Curriculum.

Process Operations Technical Courses (34 hours)

Individual course descriptions can be found in the Course Directory (Section VII) of this catalog.

Course	Title	Credit Hours
CHEM 1405	Introductory Chemistry	4
CTEC 1401	Applied Petrochemical Technology	4
PTAC 2314	Principles of Quality	3
CTEC 1441	Applied Instrumental Analysis I	4
PTAC 2420	Process Technology II – Systems	4
CTEC 2431	Applied Instrumental Analysis II	4
CTEC 2380	Cooperative Education III – Chemical Technology/Technician	3
PTAC 2438 or CHEM 2423	Process Technology III – Operations Organic Chemistry I	4
PTAC 2446 or CHEM 2425	Process Troubleshooting Organic Chemistry II	4

General Education Core Curriculum Components (45 hours)

Individual core course options are listed on page 41 of this catalog.

A. Communications	9
B. Humanities/Fine Arts	6
C. Mathematics	3
D. Natural and Physical Sciences	8
E. Social and Behavioral Sciences	3
F. U.S. History	6
G. Political Science	6
H. Computer Literacy	4

Upper Division Requirements

An additional 43 major credits are required to complete the BAT degree.

Individual course descriptions can be found in the Course Directory (Section VII) of this catalog.

Course	Title	Credit Hours
TMGT 3303	Communications and Conflict Resolution for Technical Managers	3
TMGT 3305	Management and Organizational Behavior	3
TMGT 3307	Operations Management	3
TMGT 3336	Legal Issues for Managers	3
TMGT 3340	Quality Control Technology	3
TMGT 3347	Ethics and Corporate Social Responsibility	3
TMGT 3350	Applied Technical Statistics	3
TMGT 3411	Information Technology in Enterprise Management	4
TMGT 4301	Industrial Cost Estimating and Control	3
TMGT 4304	Risk Management in Industry	3
<i>Choose 2 of the following 3 courses:</i>		6
TMGT 4312	Management of Technological Resources	
TMGT 4341	Purchasing and Supply Management	
TMGT 4347	Production and Logistics Technology	
TMGT 4350	Industrial and Environmental Safety	3
TMGT 4396	Engineering Project Management [CAPSTONE COURSE]	3

In addition to the 122 semester credit hour requirements described above, there is also a Spanish proficiency requirement that can be satisfied by having completed one year of high school Spanish or SPAN 2316 or passing a Spanish proficiency exam.

SUGGESTED PROGRAM OF STUDY
Process Operations Management Specialty

Freshman

First Semester	Semester Hours	Second Semester	Semester Hours
ENGL 1301	3	ENGL 1302	3
CHEM 1405	4	HIST 1302	3
HIST 1301 or HIST 2301	3	PTAC 2420	3
PTAC 2314	4	Social Science Elective ²	3
MATH Elective ¹	3	Natural Science Elective ³	4
		ARTS 1301, DRAM 1310, or MUSI 1306	3

Sophomore

First Semester	Semester Hours	Second Semester	Semester Hours
SPCH 1315 or SPCH 1318	3	GOVT 2302	3
GOVT 2301	3	CTEC 2431	4
CTEC 1441	4	CTEC 2380	3
Natural Science Elective ³	4	BCIS 1405	4
Humanities Elective ⁴	3	CTEC 1401	4

Junior

First Semester	Semester Hours	Second Semester	Semester Hours
PTAC 2438 or CHEM 2423	4	PTAC 2446 or CHEM 2425	4
TMGT 3350	3	TMGT 3307	3
TMGT 3303	3	TMGT 3336	3
TMGT 3305	3	TMGT 3340	3

Senior

First Semester	Semester Hours	Second Semester	Semester Hours
TMGT 3347	3	TMGT 4301	3
TMGT 3411	4	TMGT 4347 or 4312	3
TMGT 4304	3	TMGT 4350	3
TMGT 4341 or 4312	3	TMGT 4396	3

Spanish Requirement: One year of high school Spanish or SPAN 1300 or pass Spanish proficiency exam.

¹ To be chosen from MATH 1314, 1316, 1324, 1325, 1332, 1342, 1350, 1351, 2412, 2413, or 2414.

² To be chosen from PSYC 2301, 2314, 2316, SOCI 1301, 1306, 2301.

³ To be chosen from CHEM 1411, 1412, BIOL 1406, 1407, 2420, PHYS 1401, 1402, 2425, or 2426.
(Students planning to take Organic Chemistry should take CHEM 1411 and 1412.)

⁴ To be chosen from HUMA 1301, PHIL 1301, ENGL 2322, 2323, 2327, 2328, 2331, 2342 or 2343.

BACHELOR OF APPLIED TECHNOLOGY INDUSTRIAL MANAGEMENT MAJOR

Business Management Specialty

Lower Division Requirements

The program requires 34 credits in general business courses. An additional 45 credits in General Education courses are required to complete the General Education Core Curriculum.

Business Management Technical Courses (35 hours)

Individual course descriptions can be found in the Course Directory (Section VII) of this catalog.

Course	Title	Credit Hours
ACCT 2401	Principles of Accounting I	4
ACCT 2402	Principles of Accounting II	4
BUSI 2301	Business Law	3
BMGT 1327	Principles of Management	3
ECON 2301	Principles of Economics I	3
ECON 2302	Principles of Economics II	3
MRKG 1311	Principles of Marketing	3
POFT 2312	Business Correspondence & Communication	3
POFT 1328	Business & Professional Presentations	3
Technical Electives	To be selected from Computer Technology, Office Administration, or General Business courses. All technical electives will be approved on a case-by-case basis by the B.A.T. Faculty Coordinator and can only be accepted if taught by an instructor with an appropriate Master's Degree.	

General Education Core Curriculum Components (45 hours)

Individual core course options are listed on page 41 of this catalog

A. Communications	9
B. Humanities/Fine Arts	6
C. Mathematics	3
D. Natural and Physical Sciences	8
E. Social and Behavioral Sciences	3
F. U.S. History	6
G. Political Science	6
H. Computer Literacy	4

Upper Division Requirements

An additional 43 major credits are required to complete the BAT degree.

Individual course descriptions can be found in the Course Directory (Section VII) of this catalog.

Course	Title	Credit Hours
TMGT 3303	Communications and Conflict Resolution for Technical Managers	3
TMGT 3305	Management and Organizational Behavior	3
TMGT 3307	Operations Management	3
TMGT 3336	Legal Issues for Managers	3
TMGT 3340	Quality Control Technology	3
TMGT 3347	Ethics and Corporate Social Responsibility	3
TMGT 3350	Applied Technical Statistics	3
TMGT 3353	International Business	3
TMGT 3354	Leadership	3
TMGT 3411	Information Technology in Enterprise Management	4
TMGT 4301	Industrial Cost Estimating and Control	3
TMGT 4304	Risk Management in Industry	3
TMGT 4312	Management of Technological Resources	3
TMGT 4396	Engineering Project Management [CAPSTONE COURSE]	3

In addition to the 122 semester credit hour requirements described above, there is also a Spanish proficiency requirement that can be satisfied by having completed one year of high school Spanish or SPAN 2316 or passing a Spanish proficiency exam.

SUGGESTED PROGRAM OF STUDY
Business Management Specialty

Freshman

First Semester	Semester Hours	Second Semester	Semester Hours
ENGL 1301	3	ENGL 1302	3
BMGT 1303	3	HIST 1302	3
HIST 1301 or HIST 2301	3	ACCT 2401	4
BCIS 1405	4	POFT 2312	3
MATH Elective ¹	3	Social Science Elective ²	3
		ARTS 1301, DRAM 1310, or MUSI 1306	3

Sophomore

First Semester	Semester Hours	Second Semester	Semester Hours
SPCH 1315 or SPCH 1318	3	GOVT 2302	3
GOVT 2301	3	ECON 2302	3
ACCT 2402	4	BUSI 2301	3
ECON 2301	3	POFT 1328	3
Natural Science Elective ³	4	Natural Science Elective ³	4

Junior

First Semester	Semester Hours	Second Semester	Semester Hours
Humanities Elective ⁴	3	MRKG 1311	3
TMGT 3350	3	TMGT 3307	3
TMGT 3303	3	TMGT 3336	3
TMGT 3305	3	TMGT 3340	3
Technical Elective	2	Technical Elective	3

Senior

First Semester	Semester Hours	Second Semester	Semester Hours
TMGT 3347	3	TMGT 4301	3
TMGT 3411	4	TMGT 3353	3
TMGT 4304	3	TMGT 3354	3
TMGT 4312	3	TMGT 4396	3

Spanish Requirement: One year of high school Spanish or SPAN 1300 or pass Spanish proficiency exam.

¹ To be chosen from MATH 1314, 1316, 1324, 1325, 1332, 1342, 1350, 1351, 2412, 2413, or 2414.

² To be chosen from PSYC 2301, 2314, 2316, SOCI 1301, 1306, 2301.

³ To be chosen from CHEM 1411, 1412, BIOL 1406, 1407, 2420, PHYS 1401, 1402, 2425, or 2426.

⁴ To be chosen from HUMA 1301, PHIL 1301, ENGL 2322, 2323, 2327, 2328, 2331, 2342, or 2343.

BACHELOR OF APPLIED TECHNOLOGY INDUSTRIAL MANAGEMENT MAJOR

Safety, Health and Environmental Management Specialty

Lower Division Requirements

The program requires 34 credits in safety, health and environmental management courses. An additional 45 credits in General Education courses are required to complete the General Education Core Curriculum.

Safety, Health, and Environmental Management Technical Support Courses (34 hours)

Individual course descriptions can be found in the Course Directory (Section VII) of this catalog.

Course	Title	Credit Hours
OSHT 1405	OSHA Regulations – Construction Industry	4
OSHT 2309	Safety Program Management	3
OSHT 2401	OSHA Regulations – General Industry	4
EPCT 1305	Environmental Regulations Overview	3
EPCT 1311	Introduction to Environmental Science	3
EPCT 1301	Hazardous Waste Operations and Emergency Response (HAZWOPER)	3
EPCT 1441	Principles of Industrial Hygiene	4
EPCT 2441	Industrial Hygiene Applications	4
OSHT 1380 or OSHT 1381	Cooperative Education I – Occupational Safety and Health Technician or Cooperative Education II – Occupational Safety and Health Technician	3
OSHT 1381 or OSHT 2380	Cooperative Education II – Occupational Safety and Health Technician or Cooperative Education III – Occupational Safety and Health Technician	3

General Education Core Curriculum Components (45 hours):

Individual core course options are listed on page 41 of the 2008-09 catalog.

A. Communications	9
B. Humanities/Fine Arts	6
C. Mathematics	3
D. Natural and Physical Sciences	8
E. Social and Behavioral Sciences	3
F. U.S. History	6
G. Political Science	6
H. Computer Literacy	4

Upper Division Requirements

An additional 43 major credits are required to complete the BAT degree.

Individual course descriptions can be found in the Course Directory (Section VII) of this catalog.

Course	Title	Credit Hours
TMGT 3411	Information Technology in Enterprise Management	4
TMGT 3350	Applied Technical Statistics	3
TMGT 3303	Communications and Conflict Resolution for Technical Managers	3
TMGT 3305	Management and Organizational Behavior	3
TMGT 3307	Operations Management	3
TMGT 3336	Legal Issues for Managers	3
TMGT 3340	Quality Control Technology	3
TMGT 3347	Ethics and Corporate Social Responsibility	3
TMGT 3355	Ergonomics and Human Factors	3
TMGT 4301	Industrial Cost Estimating and Control	3
TMGT 4304	Risk Management in Industry	3
TMGT 4312	Management of Technological Resources	3
TMGT 4305	System Safety Engineering	3
TMGT 4396	Engineering Project Management [CAPSTONE COURSE]	3

In addition to the 122 semester credit hour requirements described above, there is also a Spanish proficiency requirement that can be satisfied by having completed one year of high school Spanish or SPAN 2316 or passing a Spanish proficiency exam.

SUGGESTED PROGRAM OF STUDY
Safety, Health and Environmental Management Specialty

Freshman

First Semester	Semester Hours	Second Semester	Semester Hours
ENGL 1301	3	ENGL 1302	3
OSHT 1401	4	EPCT 1301	3
OSHT 2401	4	OSHT 2309	3
EPCT 1311	3	EPCT 1305	3
Math Elective ¹	3	Social Science elective ²	3
		ARTS 1301, DRAM 1310, or MUSI 1306	3

Sophomore

First Semester	Semester Hours	Second Semester	Semester Hours
OSHT 1405	4	EPCT 2431	4
EPCT 1441	4	BCIS 1405	4
SPCH 1315 or SPCH 1318	3	GOVT 2302	3
GOVT 2301	3	OSHT 1381 or 2380	3
Natural Science Elective ³	4	Natural Science Elective ³	4
Humanities Elective ⁴	3		

Junior

First Semester	Semester Hours	Second Semester	Semester Hours
HIST 1301	3	HIST 1302	3
TMGT 3350	3	TMGT 3307	3
TMGT 3303	3	TMGT 3336	3
TMGT 3305	3	TMGT 3340	3

Senior

First Semester	Semester Hours	Second Semester	Semester Hours
TMGT 3347	3	TMGT 4301	3
TMGT 3411	4	TMGT 4312	3
TMGT 4304	3	TMGT 4305	3
TMGT 3355	3	TMGT 4396	3

Spanish Requirement: One year of high school Spanish or SPAN 1300 or pass Spanish proficiency exam.

¹ To be chosen from MATH 1314, 1316, 1324, 1325, 1332, 1342, 1350, 1351, 2412, 2413, or 2414.

² To be chosen from PSYC 2301, 2314, 2316, SOCI 1301, 1306, 2301.

³ To be chosen from CHEM 1411, 1412, BIOL 1406, 1407, 2420, PHYS 1401, 1402, 2425, or 2426.

⁴ To be chosen from HUMA 1301, PHIL 1301, ENGL 2322, 2323, 2327, 2328, 2331, 2342, or 2343.

**BACHELOR OF APPLIED TECHNOLOGY
INDUSTRIAL MANAGEMENT MAJOR**
General Technology Management Specialty

Lower Division Requirements

The program requires completion of an Associate of Arts (AA) or an Associate of Science (AS) Degree Program with a minimum of 62 semester hours, including completion of the General Education Core Curriculum. Beyond the AA or AS requirements, an additional eight semester hours of approved lower division electives are required, along with 52 semester hours of upper division major credits, to complete the 122 semester credit hour baccalaureate degree.

NOTE: Students who are within one semester (up to 18 semester credit hours) of completing their AA or AS degree may apply to the baccalaureate program and begin taking upper-division courses.

Approved Lower Division Electives

(if not already used in satisfying the Associates Degree requirements)

Individual course descriptions can be found in the college catalog.

Course	Title
ACCT 2401	Principles of Accounting I
ACCT 2402	Principles of Accounting II
BUSI 2301	Business Law
ECON 2301	Principles of Economics I
ECON 2302	Principles of Economics II
All CRIJ courses	Criminal Justice Courses

The following courses will be considered for approval as lower division electives on a case-by-case basis, based on a review of whether the course has been structured for baccalaureate transfer.

Course	Title
BMGT 1327	Principles of Management
MRKG 1311	Principles of Marketing
POFT 1328	Business & Professional Presentations
POFT 2312	Business Correspondence & Communication
PTAC 2314	Principles of Quality
IMED 1316	Web Page Design I
ITSC 2321	Integrated Software Applications II
ITSE 1311	Beginning Web Page Programming
ITSW 2337	Advanced Database Design
POFT 1321	Business Math
POFT 1380, 1381, or 2380*	Cooperative Education - Administrative Assistant I, II, or III

Other courses may be considered for approval as lower division electives based on a review by the department head for baccalaureate programs.

* A maximum of six credits of cooperative education will be accepted as elective credits.

Upper Division Requirements

An additional 52 major credits are required to complete the BAT degree.
Individual course descriptions can be found in the college catalog.

Course	Title	Credit Hours
TMGT 3411	Information Technology in Enterprise Management	4
TMGT 3350	Applied Technical Statistics	3
TMGT 3303	Communications and Conflict Resolution for Technical Managers	3
TMGT 3305	Management and Organizational Behavior	3
TMGT 3307	Operations Management	3
TMGT 3336	Legal Issues for Managers	3
TMGT 3340	Quality Control Technology	3
TMGT 3347	Ethics and Corporate Social Responsibility	3
TMGT 3353	International Business	3
TMGT 3354	Leadership	3
TMGT 4301	Industrial Cost Estimating and Control	3
TMGT 4304	Risk Management in Industry	3
TMGT 4312	Management of Technological Resources	3
TMGT 4341	Purchasing and Supply Management	3
TMGT 4347	Production and Logistics Technology	3
TMGT 4350	Industrial and Environmental Safety	3
TMGT 4396	Engineering Project Management [CAPSTONE COURSE]	3

In addition to the 122 semester credit hour requirements described above, there is also a Spanish proficiency requirement that can be satisfied by having completed one year of high school Spanish or SPAN 1300 or passing a Spanish proficiency exam.

SUGGESTED PROGRAM OF STUDY

General Technology Management Specialty

See page 52 of catalog for freshman and sophomore year requirements of the Associate of Arts (AA) and Associate of Science (AS) Degree Programs.

Junior

First Semester	Semester Hours	Second Semester	Semester Hours
Approved Elective	4	TMGT 3307	3
TMGT 3350	3	TMGT 3336	3
TMGT 3303	3	TMGT 3340	3
TMGT 3305	3	TMGT 3353	3
TMGT 3347	3	TMGT 3354	3

Senior

First Semester	Semester Hours	Second Semester	Semester Hours
Approved Elective	4	TMGT 4350	3
TMGT 3411	4	TMGT 4347	3
TMGT 4304	3	TMGT 4301	3
TMGT 4312	3	TMGT 4396	3
TMGT 4341	3		

Spanish Requirement: One year of high school Spanish or SPAN 1300 or pass Spanish proficiency exam.