



Southeastern Louisiana University

**Department of  
Industrial Technology**

**DEFINITION OF INDUSTRIAL TECHNOLOGY**

Industrial Technology is a profession, which requires such education and experience as is necessary to understand and apply technological and managerial sciences to industry.

**TYPICAL ELEMENTS**

The Industrial Technology program is a management-oriented technical curriculum built upon a balanced program of studies drawn from a variety of disciplines related to manufacturing technology. Included are a sound knowledge and understanding of materials and production processes; principles of distribution and concepts of industrial management and human relations; experiences in communication skills, humanities, and social sciences; and a proficiency level in the physical sciences, mathematics, design, and technical skills to permit the graduate to resolve technical-managerial, and manufacturing production problems.

**THE INDUSTRIAL TECHNOLOGY GRADUATE**

The Industrial Technology Graduate is a professional industrial technologist with a broad technical and managerial background. Typically included in this background are a functional knowledge and understanding of materials and production processes; industrial management and human relations; communication skills, the physical sciences, mathematics, and current technical skills to enable the graduate to effectively meet technical, managerial, and industrial requirements.

**MANUFACTURING TECHNOLOGY CONCENTRATIONS**

Students must elect to study one of the manufacturing technology concentrations. Upon satisfactory completion of the Industrial Technology core curriculum and the specialty area, the student will be awarded a Bachelor of Science degree. The Industrial Technology program at Southeastern Louisiana University is accredited by the National Association of Industrial Technology (NAIT).

*Supervision (15 Semester Hours)*

- IT 402 – Industrial Supervision
- IT 407 – Statistical Quality Assurance
- IT 408 – Production Planning and Control
- IT 442 – Computer-Aided Manufacturing
- IT 444 – Industrial Robotics

*Automated Systems (15 Semester Hours)*

- IT 215 – Computer-Aided Drafting
- IT 331 – Microcomputer Hardware
- IT 407 – Statistical Quality Assurance
- IT 442 – Computer-Aided Manufacturing
- IT 444 – Industrial Robotics

*Drafting/Design (15 Semester Hours)*

- IT 215 – Computer-Aided Drafting
- IT 311 – Industrial Design

*9 hours to be selected from the following:*

- DDT 113 – Architectural Drafting
- DDT 114 – Technical Illustration
- DDT 211 – Piping Drafting
- DDT 212 – Machine Drafting and Design
- DDT 215 – Light Commercial Building Drafting
- DDT 218 – Special Topics in Drafting
- IT 216 – Advanced Computer-Aided Drafting and Design

*Industrial Internship (15 Semester Hours)*

- IT 391 – Industrial Internship (12 semester hours required)
- IT Elective

## **INDUSTRIAL INTERNSHIP**

Students majoring in Industrial Technology may elect to participate in the Industrial Internship Program. This program is a cooperative venture between Southeastern Louisiana University and a variety of industries. It combines the student's academic and technical preparation at the University with actual on-the-job experiences in modern industrial enterprises. The program is designed to provide study on-campus and training off-campus as formal education and theory are blended with practice. In addition to regular classroom and laboratory experiences, the student gains valuable experiences in the world of work in a professional environment.

The Industrial Internship Program serves three primary functions: (1) provide students with an opportunity to observe and participate in industry by applying the principles learned in university courses; (2) provide students deeper insight into the courses they will take after each work experience period; and (3) establish evidence of the students' employability. The student, the employer, and the University departmental faculty work as a team in making the work experiences attain optimal learning value to prepare the students for taking their place as productive members in the industrial world.

To earn three (3) semester hours of credit, a student must be employed by an approved employer for a minimum of twenty (20) hours per week during a fall or spring semester or for a minimum of forty (40) hours per week during a summer session. For six (6) semester hours of credit, a student must be employed by an approved employer for a minimum of forty (40) hours per week during a fall or spring semester. A maximum of twelve (12) semester hours of credit may be earned in Industrial Internship.

To be eligible for the Industrial Internship Program the student must meet the following minimum criteria:

1. Have earned a minimum of thirty (30) semester hours of credit toward a degree in Industrial Technology.
  2. Have a 2.5 minimum adjusted GPA (cumulative and major).
  3. Make application (I.T. Form #107) to the Department Head of Industrial Technology.
  4. Have application approved by the Industrial Technology Internship Committee.
- A limited number of Industrial Internship positions are available each semester.

## **MAJOR**

A minimum of 33 hours of required I.T. courses, 18 hours of I.T. Specialty Courses, and an additional 3 hours of I.T. electives are required for a Bachelor of Science degree in Industrial Technology for a total of 54 hours of Industrial Technology.

## HONORS DIPLOMA IN THE DISCIPLINE

The department also offers an upper-division honors curriculum allowing its students to earn an honors diploma in the major at graduation. For information about requirements and honors courses in this department, please contact the Department Head.

### MINORS

In order to minor in Industrial Technology, the student must complete twenty-one (21) semester hours from the following:

IT 111 – Engineering Drafting .....	3 semester hours
IT 112 – Descriptive Geometry .....	3 semester hours
IT 233 – Introduction to Basic Electricity and Electronics .....	3 semester hours
IT 242 – Materials and Processes .....	3 semester hours
IT 264 – Industrial Fluid Power .....	3 semester hours
IT 302 – Loss Prevention or	
IT 311 – Industrial Design .....	3 semester hours
IT 402 – Industrial Supervision or	
IT 408 – Production Planning and Control .....	3 semester hours

### CURRICULUM IN INDUSTRIAL TECHNOLOGY

#### LEADING TO THE DEGREE OF BACHELOR OF SCIENCE (ACCREDITED BY NAIT)

FIRST YEAR		SECOND SEMESTER	
FIRST SEMESTER	S.H.		S.H.
†Industrial Technology 111 .....	3	†Industrial Technology 112 .....	3
Mathematics 161 .....	3	Mathematics 162 .....	3
English 101 .....	3	English 102 .....	3
Biological Science .....	4	Chemistry 101 .....	3
Sociology 101 or Psychology 101 .....	3	Chemistry Laboratory 103 .....	1
Orientation 101 .....	0-1	Computer Science 161 .....	3
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	16-17		16
SECOND YEAR		SECOND SEMESTER	
†Industrial Technology 242 .....	3	†Industrial Technology 233 .....	3
†Industrial Technology 264 .....	3	†Industrial Technology 256 .....	3
Mathematics 165 or 241 .....	3	Communication 211 .....	3
English 230, 231 or 232 .....	3	Computer Science <sup>1</sup> .....	3
Physics 191 .....	3	Natural Science <sup>2</sup> .....	4
Physics Lab 193 .....	1		
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	16		16
THIRD YEAR		THIRD SEMESTER	
†Industrial Technology 236 .....	3	†Manufacturing Technology Concentration.....	3
†Industrial Technology 302 or Occupational Safety & Health 115 .....	3	†Industrial Technology 322 .....	3
†Industrial Technology 351 .....	3	†Manufacturing Technology Concentration .....	3
†Manufacturing Technology Concentration .....	3	Accounting 200 .....	3
Economics 201 .....	3	History 101, 102, 201 or 202 .....	3
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	15		15
FOURTH YEAR		FOURTH SEMESTER	
†Industrial Technology 306 .....	3	†Industrial Technology 304 .....	3
†Technical Elective <sup>3</sup> .....	3	†Manufacturing Technology Concentration .....	3
English 322 .....	3	†Manufacturing Technology Concentration .....	3
Arts <sup>4</sup> .....	3	†Technical Elective <sup>3</sup> .....	3
Management 351 .....	3		
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	15		12
Total semester hours required		121-122	

Orientation 101 is not required of transfer or readmitted Southeastern students with 30 hours or more.

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<sup>1</sup>Select any 200 level Computer Science course.

<sup>2</sup>Select Chemistry 102/104 or Physics 192/194.

<sup>3</sup>Technical electives should be selected by students in consultation with their advisors. Three hours must be selected from Industrial Technology and an additional 3 hours from Computer Science, Design Drafter Technology, Industrial Technology, Management, Mathematics, Occupational Safety and Health, or Physical Science. No 100-level course will be accepted without approval of the Department Head.

<sup>4</sup>Select one course in Art, Dance, Music or Theatre.

†A "C" (2.0 minimum adjusted) must be earned in all major courses and technical electives.

## ASSOCIATE DEGREE PROGRAM IN INDUSTRIAL TECHNOLOGY

The Associate of Applied Science Degree program in the Department of Industrial Technology is designed to enable graduates to enter various fields of industry after completing two years of study. Graduates may also elect to continue their education in the four-year degree Manufacturing Technology Specialties. Graduates of the two-year curriculum will be awarded the degree of Associate of Applied Science.

### CURRICULUM IN INDUSTRIAL TECHNOLOGY LEADING TO THE DEGREE OF ASSOCIATE OF APPLIED SCIENCE

FIRST YEAR		SECOND SEMESTER	
FIRST SEMESTER	S.H.		S.H.
English 101 .....	3	English 102 .....	3
Mathematics 161 .....	3	Mathematics 162 .....	3
†Industrial Technology 111 .....	3	Computer Science 110 or 161 <sup>1</sup> .....	3
†Occupational Safety & Health 115 .....		†Concentration .....	3
or Industrial Technology 302 .....	3	†Concentration .....	3
†Concentration .....	3	†Technical Elective <sup>2</sup> .....	3
Orientation 101 .....	0-1		
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	15-16		18
SECOND YEAR			
Physics 191 .....	3	Chemistry 101 .....	3
Physics Laboratory 193 .....	1	Chemistry Lab 103 .....	1
Communication 211 or 215 .....	3	†Industrial Technology 291 or 292 .....	3
Psychology 101 or Sociology 101 <sup>3</sup> .....	3	†Technical Elective <sup>2</sup> .....	3
†Concentration .....	3	†Technical Elective <sup>2</sup> .....	3
†Technical Elective <sup>2</sup> .....	3	†Concentration .....	3
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	16		16
Total semester hours required		65-66	

Orientation 101 is not required of transfer or readmitted Southeastern students with 30 hours or more.

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<sup>1</sup>Computer Science 161 is required in the four-year Industrial Technology degree program.

<sup>2</sup>Technical electives must be selected by students in consultation with their advisors.

<sup>3</sup>Social/Behavioral Sciences course must be selected by students in consultation with their advisors.

†A grade of "C" must be earned in all major courses; a cumulative GPA of 2.0 is required to graduate.

### CONCENTRATION IN CONSTRUCTION TECHNOLOGY

Construction Technology 101 .....	3 hours
Construction Technology 111 .....	3 hours
Construction Technology 121 .....	3 hours
Construction Technology 201 .....	3 hours
Construction Technology 271 .....	3 hours
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Total	15 hours

**CONCENTRATION IN DESIGN DRAFTER TECHNOLOGY**

Industrial Technology 112 .....	3 hours
Design Drafter Technology 211 .....	3 hours
Industrial Technology 215 .....	3 hours
Industrial Technology 216 .....	3 hours
Industrial Technology 113 or 114 .....	3 hours
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Total	15 hours

**CONCENTRATION IN SUPERVISION**

Industrial Technology 112 .....	3 hours
Industrial Technology 233 .....	3 hours
Industrial Technology 242 .....	3 hours
Industrial Technology 256 .....	3 hours
Industrial Technology 264 .....	3 hours
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Total	15 hours

**CONCENTRATION IN OCCUPATIONAL SAFETY AND HEALTH**

Occupational Safety and Health 120 .....	3 hours
Occupational Safety and Health 121 .....	3 hours
Occupational Safety and Health 122 .....	3 hours
Occupational Safety and Health 123 .....	3 hours
Occupational Safety and Health 221 .....	3 hours
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Total	15 hours