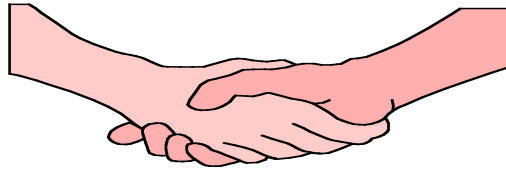
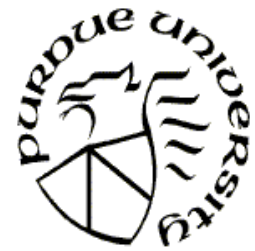


Cooperative Education Program



Purdue University



Department of
Industrial Technology

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Department of Industrial Technology

Vision

To be the nation's premier department preparing graduates to excel in the fields of industrial technology, industrial distribution, and technology education; and provide opportunities for faculty to pursue their creative endeavors to become leaders in their field.

Mission

- To our students we will provide world-class integrated curricula in Industrial Technology, Industrial Distribution, and Technology Education that are relevant to their life and careers, valuable in terms of content and competencies, and connected to the needs of business and industry. We will provide an environment that fosters excellence in learning.
- To our faculty we will provide an environment that nurtures discovery of knowledge for advancement, academic excellence in the classroom, and personal growth. We will embrace the principles of collaboration and teamwork.
- To our constituencies we will be a partner through engagement for mutual growth and meeting the commitment of the mission of a land-grant institution.
- We will recruit and retain diverse students, faculty, and staff who will learn from one another's cultural, academic, and business/industry experiences.

Cooperative Education Program Department of Industrial Technology Purdue University

General Goal of the Program

The goal of the Industrial Technology Cooperative Education Program at Purdue University is to allow the student to participate in a broad spectrum of manufacturing, with the assistance of an industrial enterprise. To achieve this goal, programs devoted to practical industrial situations and disciplines are exposed to the technologist from both an industrial and an academic view. A further academic requirement for the student is to have a general education background in humanities, and in social and behavioral sciences.

Plans of Study

The Department of Industrial Technology offers a Bachelor of Science Degree in Industrial Technology, which is geared to the industrial environment, including the basic operations of manufacturing through the more sophisticated assembly systems.

There is also a program option degree in industrial distribution, which encompasses sales, warehousing, distribution, and inventory control.

Conclusion

Both programs provide manufacturing with a valuable technologist who upon graduation will be qualified to take on duties of veteran employees.

Practical Field Placement

Technologists graduating from the Industrial Technology Cooperative Education Program will be prepared to accept responsibilities in the following categories.

- | | |
|---|--|
| 1. Facilities planner | 10. Distribution manager |
| 2. Industrial engineer | 11. Industrial sales engineer |
| 3. Manufacturing engineer | 12. Logistic analyst |
| 4. Production manager | 13. Purchasing agent |
| 5. Production/process planner | 14. Technical sales account manager |
| 6. Project manager | 15. Warehouse manager |
| 7. Quality assurance engineer | 16. Assistant manager of supply chain/
distribution manager |
| 8. Safety system specialist | 17. Technical manager |
| 9. Statistical process control specialist | |

Overview of the Cooperative Education Program

The Cooperative Education Program (a voluntary program) is a five-year plan of education in which the student alternates periods of attendance at the University with periods of employment in industry. The employment is an essential element in the educational process and is related to the student's field of study.

The purpose of the program is to provide industry with well-educated, motivated people to operate and manage their facilities.

To be eligible for this program, students must demonstrate by their academic performance during the freshman year in residence that they are likely to complete the degree program satisfactorily. A 3.00 graduation index at the completion of the freshman year in the Industrial Technology curriculum is a requirement. It is agreed, however, that the students are not obligated to join the company upon graduation; and the company is not obligated to hire them.

In order to continue in the program, the student is expected to:

1. Maintain a satisfactory academic and disciplinary record while in the University,
2. Have a satisfactory work performance record while employed, and,
3. Abide by all of the employer's rules and regulations.

If the student fails to maintain satisfactory required records with the University and/or the employer, he or she may be dropped from the co-op program.

After each work session, the student is required to submit a typed report of his/her work experience and contributions made during that session. Upon approval of the report, the student will receive credit toward a co-op program certificate.

A student will normally enter the co-op program at the end of the freshman year and then alternate work and study periods for the remainder of his/her academic study. However, other schedules could be planned.

The following are suggested schedules:

Plan	Year 1			Year 2			Year 3			Year 4			Year 5			
	F	S	SS	F	S	SS	F	S	SS	F	S	SS	F	S	S	
A			W		W		W		W		W					S
B				W		W		W		W		W				
C					W		W		W		W		W			
D						W		W		W		W		W		

W = Work as co-op
 F = Fall Semester
 S = Spring Semester
 SS = Summer School

Employer Responsibilities

- Enter the program with a long-term point of view. That is, assuming that the student's work is satisfactory, the employer is asked to follow through with the co-op program for those students selected.
- The work experience should be of an appropriate level and difficulty in order to supplement, enhance, and utilize the co-op student's background and thus further his/her educational development.
- Provide diversified assignments to give the student a variety of experiences.
- Provide work of increasing difficulty and responsibility commensurate with the student's abilities as he/she progresses through the program.
- Submit an outline for all work sessions, which the student will follow for the employer.
- Assure the student is under the supervision of a training director.
- Counsel with and complete a rating form for each student after each period of co-op employment.
- Permit the departmental co-op coordinator to visit the employer and the students periodically to review the student's progress.
- Pay the student a reasonable wage commensurate with his/her ability, experience, and the job he/she is doing.

Industrial Partnerships

There are many important benefits to be gained from participation in the Cooperative Education Program. One important benefit is the opportunity to learn about the real world of manufacturing while earning a good salary. The potential for enhanced maturity and professional competency upon graduation is an assurance that job placement will be at a greater advantage to those in the program.

The following industries have utilized our industrial technologists, both in the Cooperative Education Program and the Internship Program.

Chrysler Kokomo Facility

Dalton Foundry Group

Detroit Diesel

Eaton Corporation

General Electric

Lau Industries

Krebsoge Powered Metal Company

Magnetec Electrical Company

Pfauder-Maug

Silgan Contrainers Manufacturing Corporation

Steelcase Manufacturing Company

Subaru Isuzu Automotive

Tascon

Thrall

Student Involvement

Industrial Technology Cooperative Education students spend their time in industry learning and creating by using their academic knowledge in the industrial setting. These students are “hands on” application oriented individuals, necessary on the factory floor to maintain manufacturing efficiency.

The following are examples of assignments and projects our students were involved with during their recent industrial work session.

- Suggested and implemented process changes to make a process more efficient.
- Established quality control parameters and procedures in an electrical component manufacturing system.
- Secured quotations for various equipment purchases and followed up with installation.
- Established environmental programs for a heavy metal industry.
- Established a preventative maintenance program for a manufacturing system.
- Worked as a maintenance foreman overseeing production equipment.
- Updated ventilation drawings for an environmental consulting firm.
- Set up inspection stations to use the data logging system called Powerway.
- Wrote reference manual and documented all gauges in the manufacturing system.
- Employed as a sales engineer, which included technical support quotations, order, and follow-up.

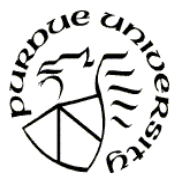
**The Following is a Review
of the Curriculum Discipline
for the Industrial Technology Program**

Purdue University
School of Technology
Industrial Technology Cooperative Education Program

Industrial Technology is an interdisciplinary program designed to prepare a broadly educated generalist for the manufacturing industry. Students may, however, develop areas of concentration of their own design through the choices of electives. These electives should complement the activities performed by the co-op in an industrial manufacturing environment.

Through a strong core curriculum and a variety of electives, industrial technologists gain expertise in the following areas.

- Function, organization, and characteristics of manufacturing and production processes
- Safety management concepts and techniques
- Statistical process control
- Total quality management
- Principles of engineering economy
- Production management techniques
- Material characteristics and testing
- Energy conversion
- Industrial system design and analysis, including facilities planning
- Industrial ergonomics and design of workstations
- Automatic identification and data capture technologies in manufacturing
- Industrial computer systems and their applications, including e-commerce technology
- Automated manufacturing processes



DEPARTMENT OF INDUSTRIAL TECHNOLOGY INDUSTRIAL TECHNOLOGY OPTION

IT 887

Purdue University

Name _____

Bachelor of Science Degree
3 Semester Hours

School of Technology
West Lafayette, Indiana 47907

SS# _____
Date: _____

SEMESTER 1	CR	GR	SCH	SEMESTER 2	CR	GR	SCH
IT 104 Industrial Organization Prereq: None	3	—	—	IT 114 Problem-Solving in Manufacturing Prereq: IT 104	3	—	—
CPT 136 Intro to Computer Tech. Prereq: None	3	—	—	CGT 110 Computer Graphics Comm. Prereq: None	3	—	—
ENGL 101 English Composition I Prereq: None	3	—	—	ENGL 102 English Composition II Prereq: ENGL 101 or upon recommendation of instructor, ENGL 100	3	—	—
MA 151 Algebra and Trigonometry Prereq: None	5	—	—	COM 114 Fundamentals of Speech Comm Prereq: None	3	—	—
PSY 120. Elementary Psychology Prereq: None	3	—	—	MATH/COMPUTING SELECTIVE	3	—	—
CREDIT HOURS	17	—	—	CREDIT HOURS	15	—	—
SEMESTER 3	CR	GR	SCH	SEMESTER 4	CR	GR	SCH
IT 281 Industrial Safety Prereq: IT 104	3	—	—	IT 230 Elements of Distribution Prereq: None	3	—	—
CPT 175 Intro. Structured Programming Prereq: CPT 135 and MA 153	3	—	—	MET 242 Manufacturing and Process II Prereq: MET 141, MA 151 or 154, or MET 162, CPT 135 or MET 163	3	—	—
MET 141 Materials and Processes I Prereq: None	3	—	—	ECON 210 Principles of Economics Prereq: None	3	—	—
AT 263 Fluid Power Systems Prereq: MA 153	3	—	—	PHYS 218 General Physics I Prereq: MA 151 or MA 153, and MA 154	4	—	—
SCIENCE SELECTIVE	3	—	—	FREE ELECTIVE	3	—	—
CREDIT HOURS	15	—	—	CREDIT HOURS	16	—	—

SEMESTER 5	CR	GR	SCH	SEMESTER 6	CR	GR	SCH
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Prereq: MA 151 or equivalent				Prereq: IT 114, or CPT 172 or CPT 175			
CIMT 243 Automated Manufact. I	3	___	___	IT 385 Industrial Ergonomics	3	___	___
Prereq: EET 214 and CPT 175 or CIMT 244 Automated Manufact. II				Prereq: MA 151 and junior in IT or instructor consent			
Prereq: MET 151 or CIMT 300							
Prereq: EET 214 and MET 242							
EET 214 Electricity Fundamentals	3	___	___	MET 241 Polymer Materials and Process	3	___	___
Prereq: MA 151				Prereq: None			
TECHNICAL ELECTIVE	3	___	___	SCIENCE SELECTIVE	3	___	___
COM ELECTIVE (300 level or above)	3	___	___	TECHNICAL ELECTIVE (300 or above)	3	___	___
CREDIT HOURS				CREDIT HOURS			
15 ___				15 ___			
SEMESTER 7				SEMESTER 8			
CR	GR	SCH		CR	GR	SCH	
IT 442 Production Planning	3	___	___	IT 483 Facilities Plan/Materials Handling	3	___	___
Prereq: IT 114, MET 242 or consent of instructor				Prereq: MET 242 and IT 442 or CIMT 246			
IT 450 Production Cost Analysis	3	___	___	TECHNICAL ELECTIVE (300 or above)	3	___	___
Prereq: MA 151 or equivalent, junior or senior							
IT 381 Total Productive Maintenance	3	___	___	FREE ELECTIVE	3	___	___
Prereq: PHYS 218, IT 342 or STAT 301							
COM 315 Speech Comm Tech Info	3	___	___	FREE ELECTIVE	3	___	___
Prereq: COM 114 Or ENGL 420 Business Writing							
Prereq: Completion of first-year composition requirement							
FREE ELECTIVE	3	___	___	FREE ELECTIVE	3	___	___
CREDIT HOURS				CREDIT HOURS			
15 ___				15 ___			

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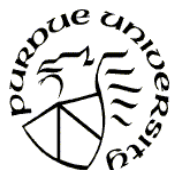
**The Following is a Review
of the Curriculum Discipline
for the Industrial Distribution Program**

Purdue University
School of Technology
Cooperative Education Program
Industrial Technologist: Industrial Distribution

The Industrial Distribution option is designed for students seeking a career in wholesale, retail, or industrial distribution. Students pursuing this option will continue their studies in accounting, technical sales, warehouse management, inventory control, and financial transactions in distribution.

The industrial technologists in the industrial distribution discipline gain expertise in the following areas.

- Function, organization, and characteristics of manufacturing and production processes
- Technical sales management, including marketing through the Internet
- Distributor operations management and practices, including warehousing and materials handling
- Supply chain management, including industrial purchasing systems
- Financial transactions in the distribution industry
- Principles of economics, accounting, and finance
- Automatic identification and data capture technologies in manufacturing
- Industrial computer systems and their applications, including e-commerce technology
- Automated manufacturing processes
- Safety management concepts and techniques
- Statistical process control
- Energy conversion



**DEPARTMENT OF INDUSTRIAL TECHNOLOGY
INDUSTRIAL DISTRIBUTION OPTION**

**DEPARTMENT OF INDUSTRIAL TECHNOLOGY
INDUSTRIAL DISTRIBUTION OPTION**

IT 888
Bachelor of Science Degree
123 Semester Hours

Purdue University
School of Technology
West Lafayette, Indiana

Name _____
SS# _____
Date: _____

SEMESTER 1			SEMESTER 2		
CR	GR	SCH	CR	GR	SCH
IT 104 Industrial Organization	3	___	IT 114 Problem-Solving in Manufacturing	3	___
Prereq: None			Prereq: IT 104		
CPT 136 Intro to Computer Technology	3	___	MET 141 Materials and Processes I	3	___
Prereq: None			Prereq: None		
ENGL 101 English Composition I	3	___	ENGL 102 English Composition II	3	___
Prereq: None			Prereq: ENGL 101		
MA 151 Algebra and Trigonometry	5	___	COM 114 Fundamentals of Speech Com	3	___
Prereq: None			Prereq: None		
PSY 120 Elementary Psychology	3	___	CGT 110 Computer Graphics Comm.	3	___
Prereq: None			Prereq: None		
CREDIT HOURS	17	___	CREDIT HOURS	15	___
SEMESTER 3			SEMESTER 4		
CR	GR	SCH	CR	GR	SCH
IT 230 Elements of Distribution	3	___	IT 281 Industrial Safety	3	___
Prereq: None			Prereq: IT 104		
OLS 252 Human Behavior in Org.	3	___	EET 214 Electricity Fundamentals	3	___
Prereq: None			Prereq: MA 151		
MET 242 Manufacturing Processes II	3	___	ECON 210 Principles of Economics	3	___
Prereq: MET 141, MA 151 or 154, or MET 162, CPT 135 or MET 163			Prereq: none		
PHYS 218 General Physics	4	___	MATH/COMPUTING SELECTIVE	3	___
Prereq: MA 151 or 153, and 154					
SCIENCE SELECTIVE	3	___	SCIENCE SELECTIVE	3	___
CREDIT HOURS	16	___	CREDIT HOURS	15	___

SEMESTER 5				SEMESTER 6			
	CR	GR	SCH		CR	GR	SCH
IT 342 Intro to Statistical Quality	3	___	___	IT 330 Technical Sales in Distribution	3	___	___
Prereq: MA 151 or equivalent				Prereq: IT 230			
MGMT 190B Accounting Principles	3	___	___	IT 332 Warehouse Management	3	___	___
Prereq: none				Prereq: IT 230 or IT 434			
CIMT 243 Automated Manufact. I	3	___	___	IT 345 Auto ID & Data Capture	3	___	___
Prereq: EET 214 and CPT 175				Prereq: IT 114, or CPT 172 or CPT 175			
or CIMT 244 Automated Manufact. II							
Prereq: MET 242							
or CIMT 300							
Prereq: EET 214 and MET 242							
AT 263 Aircraft Fluid Power	3	___	___	IT 381 Total Productive Maintenance	3	___	___
Prereq: MA 153				Prereq: PHYS 218, IT 342 or STAT 301			
MGMT 323 Intro to Market Analysis	3	___	___	ENGL 420 Business Writing	3	___	___
Prereq:				Prereq: Completion of first-year composition			
CREDIT HOURS	15	___		CREDIT HOURS	15	___	
SEMESTER 7				SEMESTER 8			
	CR	GR	SCH		CR	GR	SCH
IT 432 Financial Trans. in Distribution	3	___	___	IT 435 Distribution Management Policy	3	___	___
Prereq: MGMT 190B or MGMT 200 or instructor consent				Prereq: IT 432 and IT 434			
IT 434 Logistics	3	___	___	FREE ELECTIVE (300 level or above)	3	___	___
Prereq: IT 230 or instructor consent							
TECHNICAL ELECTIVE	3	___	___	FREE ELECTIVE	3	___	___
FREE ELECTIVE	3	___	___	FREE ELECTIVE	3	___	___
COMM. ELECTIVE (300 level or above)	3	___	___	FREE ELECTIVE	3	___	___
CREDIT HOURS	15	___		CREDIT HOURS	15	___	

Revised 01/04/01

NOTES: