



Republic of the Philippines
BATANGAS STATE UNIVERSITY

The National Engineering University

Lipa Campus

A. Tanco Drive, Marawoy, Lipa City, Batangas, Philippines 4217

Tel Nos.: (+63 43) 980-0385; 980-0387; 980-0392 to 94 loc. 3129

E-mail Address: cit.lipa@g.batstate-u.edu.ph | Website Address: <http://www.batstate-u.edu.ph>

Office of the College of Industrial Technology

CURRICULUM
Bachelor of Industrial Technology
COMPUTER TECHNOLOGY

Academic Year 2023-2024

Reference: CMO No. 20 S. 2013, CMO No. 4 S. 2018, CMO No. 39 S. 2021, CMO No. 40 S. 2021 and Based on PACUIT Proposal

Curriculum Description

The Bachelor of Industrial Technology Major in Computer Technology develops and prepares graduates who will be an integral part of the pool of technology experts in the specifically in the field of computer technology. The program is a strong combination of theoretical and practical concepts in electrical and electronics technology, computer technology, mathematics, computer science, management and general education that leads to the Bachelor of Industrial Technology degree. The Bachelor's Degree programs intends to prepare graduates to find employment as computer technologists here and abroad. Students will gain knowledge and skills in digital electronics, computer programming, computer networking and system analysis and design.

Program Objectives

1. Successfully practice as engineering technologists for the welfare of the society.
2. Demonstrate a high degree of professionalism at all times.

Institutional Graduate Attributes

The student should achieve at least 75% for each IGA upon graduation.

- **Knowledge Competence.** Demonstrate a mastery of the fundamental knowledge and skills required for functioning effectively as a professional in the discipline, and an ability to integrate and apply them effectively to practice in the workplace.
- **Creativity and Innovation.** Experiment with new approaches, challenge existing knowledge boundaries and design novel solutions to solve problems.
- **Critical and Systems Thinking.** Identify, define, and deal with complex problems pertinent to the future professional practice or daily life through logical, analytical and critical thinking.
- **Communication.** Communicate effectively (both orally and in writing) with a wide range of audiences, across a range of professional and personal contexts, in English and Pilipino.
- **Lifelong Learning.** Identify own learning needs for professional or personal development; demonstrate an eagerness to take up opportunities for learning new things as well as the ability to learn effectively on their own.
- **Leadership, teamwork, and Interpersonal Skills.** Function effectively both as a leader and as a member of a team; motivate and lead a team to work towards goal; work collaboratively with other team members; as well as connect and interact socially and effectively with diverse culture.



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- **Global Outlook.** Demonstrate an awareness and understanding of global issues and willingness to work, interact effectively and show sensitivity to cultural diversity.
- **Social and National Responsibility.** Demonstrate an awareness of their social and national responsibility; engage in activities that contribute to the betterment of the society; and behave ethically and responsibly in social, professional and work environments.

Program Outcomes

Graduates will have:

- a. An appropriate mastery of the knowledge, techniques, skills and modern tools of technology
- b. An ability to apply current knowledge and adapt to emerging applications of mathematics, science and technology
- c. An ability to conduct, analyze and interpret experiments and apply experimental results to improve processes
- d. An ability to apply creativity in the design of systems, components or processes appropriate to program objectives
- e. An ability to function effectively on teams
- f. An ability to identify, analyze and solve technical problems
- g. An ability to communicate effectively in writing and in oral presentation
- h. A recognition of the need for, and an ability to engage in lifelong learning
- i. An ability to understand professional, ethical and social responsibilities
- j. The knowledge of and respect for diverse backgrounds, contemporary societal and global issues concerning the profession
- k. A commitment to quality, timeliness and continuous improvement

Curriculum Components

Code	Courses	Units	Total
	A. General Education Courses (CMO No. 20, series of 2013)		36 units
	B. Professional and Management Courses		32 units
PM 101	Occupational Health and Safety Management	2	
PM 102	Industrial Operation & Management Practices	3	
PM 103	Production and Operations Management	3	
PM 104	Technology Research I	3	
PM 105	Materials Technology Management	3	
PM 106	Professional Ethics	3	
PM 107	Technology Research II	3	
PM 108	Manufacturing Technology	3	
PM 109	Total Quality Management	3	
PM 110	Environmental Technology	3	
ENGG 405	Technopreneurship	3	
	C. Applied Sciences and Tools Courses		27 units
AST 111	Math for Technology	3	
AST 102	Applied Chemistry	3	
AST 105	Applied Physics	3	



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AST 133	Production Drawing	2	
AST 129	Electronics Measurements	2	
AST 113	Electrical and Electronics Principles	3	
AST 135	Computer Aided Design	2	
AST 114	Digital Electronics	3	
AST 110	Data Analytics	3	
AST 120	Programmable Logic Control	3	
	D. Major Specialization Courses		36 units
CPT 111	Computer Programming I	3	
CPT 112	Computer Architecture	3	
CPT 121	Computer Programming II	3	
CPT 211	CISCO 1	3	
CPT 212	Computer Hardware Application	3	
CPT 221	Operating Systems	3	
CPT 222	CISCO 2	3	
CPT 311	Signal System Analysis	3	
CPT 312	CISCO 3	3	
CPT 313	Multimedia (Visual Graphics & Web Design)	3	
CPT 321	CISCO 4	3	
CPT 322	Plant Safety Network	3	
	E. Mandated Courses		14 units
PATHFit 1	Movement Competency Training	2	
PATHFit 2	Exercise-Based Fitness Activities	2	
PATHFit 3	Menu of Dance, Sports, Martial Arts, Group Exercise, Outdoor & Adventure Activities Menu Offering: Traditional and Recreational Games	2	
PATHFit 4	Menu of Dance, Sports, Martial Arts, Group Exercise, Outdoor & Adventure Activities Menu Offering: Team Sports (Basketball and Volleyball)	2	
NSTP 111	National Service Training Program 1	3	
NSTP 121	National Service Training Program 2	3	
	F. Supervised Industrial Training/OJT		20 units

SUMMARY	
Courses	Number of Units
General Education	36
Applied Sciences and Tool Courses	27
Professional and Management Courses	32
Specialization/Major Courses	36
Supervised Industrial Training/OJT	20
Mandated Courses (PATHFit 1-4 & NSTP)	14
TOTAL	165



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PROGRAM OF STUDY

FIRST YEAR						
First Semester						
COURSE NO.	COURSE TITLE	CREDIT		UNITS	NO. OF HRS.	PRE-REQUISITE
		LEC	LB/SW			
AST 111	Math for Technology	3	0	3	3	None
AST 102	Applied Chemistry	2	3	3	5	None
AST 105	Applied Physics	2	3	3	5	None
AST 133	Production Drawing	1	3	2	4	None
AST 129	Electronics Measurements	1	3	2	4	None
PM 101	Occupational Health and Safety Management	2	0	2	2	None
CPT 111	Computer Programming I	2	3	3	5	None
CPT 112	Computer Architecture	2	3	3	5	None
NSTP 111	National Service Training Program 1	3	0	3	3	None
PATHFit 1	Movement Competency Training	2	0	2	2	None
TOTAL		18	18	26	33	
FIRST YEAR						
Second Semester						
COURSE NO.	COURSE TITLE	CREDIT		UNITS	NO. OF HRS.	PRE-REQUISITE
		LEC	LB/SW			
Ged 101	Understanding the Self	3	0	3	3	None
Ged 102	Mathematics in the Modern World	3	0	3	3	None
Ged 106	Purposive Communication	3	0	3	3	None
Ged 109	Science, Technology and Society	3	0	3	3	None
AST 113	Electrical and Electronics Principles	2	3	3	5	AST 129
AST 135	Computer Aided Design	1	3	2	4	AST 133
CPT 121	Computer Programming II	2	3	3	5	CPT 111
NSTP 121	National Service Training Program 2	3	0	3	3	NSTP111
PATHFit 2	Exercise-Based Fitness Activities	2	0	2	2	PATHFit 1
TOTAL		20	9	25	26	
SECOND YEAR						
First Semester						
COURSE NO.	COURSE TITLE	CREDIT		UNITS	NO. OF HRS.	PRE-REQUISITE
		LEC	LB/SW			
Ged 103	The Life and Works of Rizal	3	0	3	3	None
Ged 104	The Contemporary World	3	0	3	3	None
Fili101	Kontekstwalisadong Komunikasyon sa Filipino	3	0	3	3	None
PM 102	Industrial Operation & Management Practices	3	0	3	3	None
AST 114	Digital Electronics	2	3	3	5	
CPT 211	CISCO I	2	3	3	5	CPT 121
CPT 212	Computer Hardware Application	2	3	3	5	CPT 112
PATHFit 3	Menu of Dance, Sports, Martial Arts, Group Exercise, Outdoor & Adventure Activities Menu Offering: Traditional and Recreational Games	2	0	2	2	PATHFit 1 and 2
TOTAL		20	9	23	29	
SECOND YEAR						
Second Semester						
COURSE NO.	COURSE TITLE	CREDIT		UNITS	NO. OF HRS.	PRE-REQUISITE
		LEC	LB/SW			
Fili 102	Filipino sa iba't ibang Disiplina	3	0	3	3	None
Ged 107	Ethics	3	0	3	3	None
PM 103	Production and Operations Management	3	0	3	3	None



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AST 110	Data Analytics	3	0	3	3	GEd 102, AST 111
AST 120	Programmable Logic Control	2	3	3	5	AST 114
CPT 221	Operating Systems	2	3	3	5	CPT 212, CPT 112
CPT 222	CISCO 2	2	3	3	5	CPT 211
PATHFit 4	Menu of Dance, Sports, Martial Arts, Group Exercise, Outdoor & Adventure Activities Menu Offering: Team Sports (Basketball and Volleyball)	2	0	2	2	PATHFit 1 and PATHFit 2
TOTAL		20	9	23	29	

THIRD YEAR						
First Semester						
COURSE NO.	COURSE TITLE	CREDIT		UNITS	NO. OF HRS.	PRE-REQUISITE
		LEC	LB/SW			
Litr 102	ASEAN Literature	3	0	3	3	None
Ged 105	Readings in Philippine History	3	0	3	3	None
PM 104	Technology Research I	3	0	3	3	CPT 221, CPT 222
PM 105	Materials Technology Management	3	0	3	3	CPT 221, CPT 222
PM 106	Professional Ethics	3	0	3	3	None
CPT 311	Signal System Analysis	2	3	3	5	CPT 221
CPT 312	CISCO 3	2	3	3	5	CPT 222
CPT 313	Multimedia (Visual Graphics & Web Design)	2	3	3	5	CPT 212
TOTAL		21	9	24	30	

THIRD YEAR						
Second Semester						
COURSE NO.	COURSE TITLE	CREDIT		UNITS	NO. OF HRS.	PRE-REQUISITE
		LEC	LB/SW			
Ged 108	Art Appreciation	3	0	3	3	None
PM 107	Technology Research II	3	0	3	3	*Regular Standing
PM 108	Manufacturing Technology	3	0	3	3	*Regular Standing
PM 109	Total Quality Management	3	0	3	3	*Regular Standing
PM 110	Environmental Technology	3	0	3	3	*Regular Standing
ENGG 405	Technopreneurship	3	0	3	3	*Regular Standing
CPT 321	CISCO 4	2	3	3	5	CPT 312
CPT 322	Plant Safety Network	2	3	3	5	CPT 311
TOTAL		22	6	24	28	

FOURTH YEAR						
First Semester						
COURSE NO.	COURSE TITLE	CREDIT		UNITS	NO. OF HRS.	PRE-REQUISITE
		LEC	LB/SW			
OJT 105	Supervised Industrial Training 1 (540hrs)	0	10	10	540	CPT 321, CPT 322
TOTAL				10	540	

FOURTH YEAR						
Second Semester						
COURSE NO.	COURSE TITLE	CREDIT		UNITS	NO. OF HRS.	PRE-REQUISITE
		LEC	LB/SW			
OJT 106	Supervised Industrial Training 2 (540hrs)	0	10	10	540	OJT 105
TOTAL				10	540	

* Regular Standing: No deficiencies on the previous semester.

TOTAL UNITS: 165