Republic of the Philippines
BATANGAS STATE UNIVERSITY
Pablo Borbon Campus II, Alangilan, Batangas City, Philippines 4200
COLLEGE OF INDUSTRIAL TECHNOLOGY
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CURRICULUM

Bachelor of Industrial Technology **MECHANICAL TECHNOLOGY**

Academic Year 2018-2019
Reference: CMO No. 20 S. 2013 and Based on PACUIT Proposal

Curriculum Description

The Bachelor of Industrial Technology Major in Mechanical Technology provides the knowledge, skills and attitudes in the various machining process that can be applied on their on-the-job training and on their future careers. It encompasses measurements, metallurgy and heat treatment, welding drive components, repair and maintenance, pipelifting, lubrication and principle of tool and die. Likewise, pneumatics and hydraulics, CNC, inspection and quality control are also vital elements of the curriculum.

Program Objectives

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

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	
PM 111	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	
AST 133	Production Drawing	2	
AST 130	Mechanical Measurements	2	
AST 135	Computer Aided Design	2	
AST 122	Drive Components	3	
AST 134	Computer Programming	3	

AST 110	Data Analytics	3	
AST 112	Electrical Principles	3	
	D. Major Specialization Courses		**35 units**
MT 111	Benchworking, Plumbing and Pipe Bending	4	
MT 121	Machining, Turning and Shaping	4	
MT 211	Machining: Milling and Grinding	4	
MT 212	Mettalurgy and Heat Treatment	2	
MT 213	Pnuematics	2	
MT 221	Basic Arc and Gas Welding	3	
MT 222	Advanced Pipefitting and Pattern Development	2	
MT 223	Basic CNC (Lathe)	2	
MT 224	Hydraulics	2	
MT 311	Repair, Maintenance and Lubrication	2	
MT 312	Principle of Tool and Die	2	
MT 313	Basic CNC (Milling)	2	
MT 321	Advanced CNC	2	
MT 322	Inspection and Quality Control	2	
	E. Mandated Courses		**14 units**
PE 101	Physical Fitness, Gymnastics and Aerobics	2	
PE 102	Rhythmic Activities	2	
PE 103	Individual and Dual Sports	2	
PE 104	Team Sports	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	35
Supervised Industrial Training/OJT	20
Mandated Courses (PE & NSTP)	14
TOTAL	**164**

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Batangas City

COLLEGE OF INDUSTRIAL TECHNOLOGY
Bachelor of Industrial Technology (BIT)
Mechanical Technology
Effective A.Y. 2018-2019

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 130	Mechanical Measurements	1	3	2	4	None
PM 101	Occupational Health and Safety Management	2	0	2	2	None
MT 111	Benchworking, Plumbing and Pipe Bending	1	9	4	10	None
NSTP 111	National Service Training Program 1	3	0	3	3	None
PE 101	Physical Fitness, Gymnastics and Aerobics	2	0	2	2	None
	TOTAL			**24**	**38**	

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 135	Computer Aided Design	1	3	2	4	AST 133
AST 122	Drive Components	3	0	3	3	None
MT 121	Machining, Turning and Shaping	1	9	4	10	AST 130/MT 111
NSTP 121	National Service Training Program 2	3	0	3	3	NSTP111
PE 102	Rhythmic Activities	2	0	2	2	PE101
	TOTAL			**26**	**32**	

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
FILI 101	Kontekstwalisadong Komunikasyon sa Filipino	3	0	3	3	None
PM 102	Industrial Operation & Management Practices	3	0	3	3	None
AST 134	Computer Programming	2	3	3	5	None
MT 211	Machining: Milling and Grinding	1	9	4	10	MT 121
MT 212	Mettalurgy and Heat Treatment	2	0	2	2	AST 102/AST 105
MT 213	Pnuematics	1	3	2	4	AST 105
PE 103	Individual and Dual Sports	2	0	2	2	PE102
	TOTAL			**25**	**35**	

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
AST 110	Data Analytics	3	0	3	3	Ged 102, AST 111
AST 112	Electrical Principles	2	3	3	5	AST 105
MT 221	Basic Arc and Gas Welding	1	6	3	7	MT 212
MT 222	Advanced Pipefitting and Pattern Development	1	3	2	4	MT 111
MT 223	Basic CNC (Lathe)	1	3	2	4	MT 121
MT 224	Hydraulics	1	3	2	4	MT 213
PE 104	Team Sports	2	0	2	2	PE103
	TOTAL			**26**	**38**	

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 Philippines History	3	0	3	3	None
PM 104	Technology Research I	3	0	3	3	MT 222, MT 223, MT 224
PM 105	Materials Technology Management	3	0	3	3	MT 222, MT 223, MT 224
PM 106	Professional Ethics	3	0	3	3	None
MT 311	Repair, Maintenance and Lubrication	1	3	2	4	MT 211
MT 312	Principle of Tool and Die	1	3	2	4	AST 133
MT 313	Basic CNC (Milling)	1	3	2	4	MT 223/MT 211
	TOTAL			**21**	**27**	

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	MT 311, MT 313, MT 314
PM 108	Manufacturing Technology	**3**	**0**	**3**	**3**	MT 311, MT 313, MT 314
PM 109	Total Quality Management	**3**	**0**	**3**	**3**	MT 311, MT 313, MT 314
PM 110	Environmental Technology	3	0	3	3	MT 311, MT 313, MT 314
PM 111	Technopreneurship	3	0	3	3	MT 311, MT 313, MT 314
MT 321	Advanced CNC	1	3	2	4	MT 314
MT 322	Inspection and Quality Control	2	0	2	2	MT 311, MT 313, MT 314
	TOTAL			**22**	**24**	

FOURTH YEAR						
First Semester						
COURSE NO.	**COURSE TITLE**	**CREDIT**		**UNITS**	**NO. OF HRS.**	**PRE-REQUISITE**
		LEC	**LB/SW**			
OJT 1	Supervised Industrial Training 1 (540hrs)	0	10	10	540	MT 321, 3T 322
	TOTAL			**10**	**540**	

FOURTH YEAR						
Second Semester						
COURSE NO.	**COURSE TITLE**	**CREDIT**		**UNITS**	**NO. OF HRS.**	**PRE-REQUISITE**
		LEC	**LB/SW**			
OJT 2	Supervised Industrial Training 2 (540hrs)	0	10	10	540	OJT 1
	TOTAL			**10**	**540**	

** Regular Standing: No deficiencies on the previous semester.*

TOTAL UNITS: 164