



CURRICULUM

Bachelor of Industrial Technology

WELDING

AND FABRICATION 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 Welding and Fabrication Technology deals with fundamental principles of welding process in metal working industry. It provides knowledge skills and attitudes in various welding processes that can be used in their on-the-job training and on their future careers. It also includes technical knowledge and techniques of joining various types of metal.

Program Objectives

1. Successfully practice as engineering technologists 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 109	Manufacturing Technology	3	
PM 110	Total Quality Management	3	
PM 111	Environmental Technology	3	
PM 112	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 124	Jigs and Fixtures	3	
AST 134	Computer Programming	3	

AST 110	Data Analytics	3	
AST 112	Electrical Principles	3	
	D. Major Specialization Courses		35 units
WFT 111	Benchwork, Plumbing and Pipebending	4	
WFT 121	Shielded Metal Arc Welding (SMAW)	3	
WFT 122	Welding Codes, Symbols and Standards	2	
WFT 211	Gas Welding (OAW)	3	
WFT 212	Machining: Turning and Shaping	4	
WFT 213	Metallurgy and Heat Treatment	2	
WFT 221	Advanced Gas Metal Arc Welding (GMAW)	3	
WFT 222	Basic Gas Tungsten Arc Welding (GTAW)	3	
WFT 311	Flux Cored Arc Welding (FCAW)	3	
WFT 312	Welding Science and Mechanics	2	
WFT 313	Destructive and Non Destructive Testing	2	
WFT 321	Inspection and Quality Control	2	
WFT 322	Advanced Pipefitting and Pattern Development	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

Republic of the Philippines
BATANGAS STATE UNIVERSITY
 Batangas City

COLLEGE OF INDUSTRIAL TECHNOLOGY
 Bachelor of Industrial Technology (BIT)
 Welding and Fabrication 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
WFT 111	Benchwork, Plumbing and Pipebending	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 124	Jigs and Fixtures	3	0	3	3	None
WFT 121	Shielded Metal Arc Welding (SMAW)	1	6	3	7	WFT 111
WFT 122	Welding Codes, Symbols and Standards	2	0	2	2	None
NSTP 121	National Service Training Program 2	3	0	3	3	NSTP111
PE 102	Rhythmic Activities	2	0	2	2	PE101
TOTAL				27	33	

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
WFT 211	Gas Welding (OAW)	1	6	3	7	WFT 121
WFT 212	Machining: Turning and Shaping	1	9	4	10	WFT 111, AST 128
WFT 213	Metallurgy and Heat Treatment	2	0	2	2	AST 102, AST 105
PE 103	Individual and Dual Sports	2	0	2	2	PE102
TOTAL				26	38	

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
WFT 221	Advanced Gas Metal Arc Welding (GMAW)	1	6	3	7	WFT 211
WFT 222	Basic Gas Tungsten Arc Welding (GTAW)	1	6	3	7	WFT 211
PE 104	Team Sports	2	0	2	2	PE103
TOTAL				23	33	

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	WFT 211, 212, 213, 221, 222
PM 105	Materials Technology Management	3	0	3	3	WFT 211, 212, 213, 221, 222
PM 106	Professional Ethics	3	0	3	3	None
WFT 311	Flux Corded Arc Welding (FCAW)	2	3	3	5	WFT 221
WFT 312	Welding Science and Mechanics	2	0	2	2	WFT 211, 212, 213, 221, 222
WFT 313	Destructive and Non Destructive Testing	1	3	2	4	WFT 211, 212, 213, 221, 222
TOTAL				22	26	

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
PM 111	Technopreneurship	3	0	3	3	*Regular Standing
WFT 321	Inspection and Quality Control	2	0	2	2	WFT 313
WFT 322	Advanced Pipefitting and Pattern Development	1	3	2	4	WFT 311, 312, 313
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	WFT 321, 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