

BATANGAS STATE UNIVERSITY

Pablo Borbon Campus II, Alangilan, Batangas City, Philippines 4200

COLLEGE OF INDUSTRIAL TECHNOLOGY

www.batstate-u.edu.ph Telefax: (043)425-0143 loc 2103



CURRICULUM

Bachelor of Industrial Technology

AUTOMOTIVE

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 Automotive Technology program is designed to prepare students with the basic knowledge and skills necessary for a modern state of the art automotive workers. The increasing sophistication of Automotive Technology now requires workers who can use computerized shop equipment and work with electronic components while maintaining their skills with traditional hand tools. Automotive service technicians as vehicle components and Systems become increasingly sophisticated. Motorcycle Mechanics repair and overhaul motorcycle. Besides, repairing engines, they may work on clutches transmissions, brakes, drivelines, differential cycles, tires, power Steering system, auto electricity and electronics, ignition system and make minor body repairs.

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

| 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 | | 28 units |

| AST 111 | Math for Technology | 3 | |
|----------|--|---|----------|
| AST 102 | Applied Chemistry | 3 | |
| AST 105 | Applied Physics | 3 | |
| AST 133 | Production Drawing | 2 | |
| AST 123 | Sheet Metal/ Plumbing/ Pipe Fitting | 3 | |
| AST 135 | Computer Aided Design | 2 | |
| AST 134 | Computer Programming | 3 | |
| AST 125 | Basic Arc and Gas Welding | 3 | |
| AST 110 | Data Analytics | 3 | |
| AST 108 | Automotive Thermodynamics | 3 | |
| | D. Major Specialization Courses | | 35 units |
| AT 111 | Automotive Handtools, Fasteners and Machine Binders | 2 | |
| AT 112 | Automotive Electrical System Fundamentls | 3 | |
| AT 121 | Automotive Electrical System Servicing, Troubleshooting, Repairing & Maintenance | 2 | |
| AT 122 | Gas Engine Overhauling | 3 | |
| AT 211 | Automobile Underchassis Servicing, Repair and Maintenance | 2 | |
| AT 212 | Automotive Electronics and Computers | 2 | |
| AT 213 | Power Trains | 2 | |
| AT 221 | Engine Performance Test | 2 | |
| AT 222 | Basic Driving | 2 | |
| AT 223 | Automobile Body Repair and Painting | 2 | |
| AT 311 | Diesel Engine Overhauling and Fuel Injection System | 2 | |
| AT 312 | Electronic Fuel Injection and LPG System | 2 | |
| AT 313 | Motorcycle Engine | 2 | |
| AT 321 | Basic Machining | 2 | |
| AT 322 | Applied Hydraulic and Pneumatics | 2 | |
| AT 323 | Basic Car Airconditioning System | 2 | |
| AT 324 | Automotive Shop Service Management | 1 | |
| | 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 | 28 | | | |
| Professional and Management Courses | 32 | | | |
| Specialization/Major Courses | 35 | | | |
| Supervised Industrial Training/OJT | 20 | | | |
| Mandated Courses (PE & NSTP) | 14 | | | |
| TOTAL | 165 | | | |

BATANGAS STATE UNIVERSITY

Batangas City

COLLEGE OF INDUSTRIAL TECHNOLOGY

Bachelor of Industrial Technology (BIT) Automotive Technology Effective A.Y. 2018 - 2019

| | I | FIRST YEA | R | | | | | | | | |
|----------|---|-------------|--------|-------|--------|---------------|--|--------|--|--------|---------------|
| | F | irst Semest | er | | | | | | | | |
| COURSE | COLIDGE TITLE | CREDIT | CREDIT | EDIT | CREDIT | CREDIT | | CREDIT | | NO. OF | DDE DEQUISITE |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITI | | | | | |
| 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 | | | | | |
| ST 123 | Sheet Metal/ Plumbing/ Pipe Fitting | 2 | 3 | 3 | 5 | None | | | | | |
| PM 101 | Occupational Health and Safety Management | 2 | 0 | 2 | 2 | None | | | | | |
| AT 111 | Automotive Handtools, Fasteners and Machine Binders | 1 | 3 | 2 | 4 | None | | | | | |
| T 112 | Automotive Electrical System Fundamentls | 1 | 6 | 3 | 7 | None | | | | | |
| ISTP 111 | National Service Training Program 1 | 3 | 0 | 3 | 3 | None | | | | | |
| E 101 | Physical Fitness, Gymnastics and Aerobics | 2 | 0 | 2 | 2 | None | | | | | |
| | TOTAL | | | 26 | 35 | | | | | | |
| | Ţ | FIRST YEA | R | | | | | | | | |
| | | cond Seme | | | | | | | | | |
| COURSE | COURSE TITLE | CR | EDIT | UNITS | NO. OF | DDE DECITION | | | | | |
| IO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISIT | | | | | |
| ed 101 | Understanding the Self | 3 | 0 | 3 | 3 | None | | | | | |
| ed 102 | Mathematics in the Modern World | 3 | 0 | 3 | 3 | None | | | | | |
| ed 106 | Purposive Communication | 3 | 0 | 3 | 3 | None | | | | | |
| ed 109 | Science Technology and Society | 3 | 0 | 3 | 3 | None | | | | | |
| ST 135 | Computer Aided Design | 1 | 3 | 2 | 4 | AST 133 | | | | | |
| T 121 | Automotive Electrical System Servicing | 1 | 3 | 2 | 4 | AT 112 | | | | | |
| T 122 | Gas Engine Overhauling | 1 | 6 | 3 | 7 | AT 111 | | | | | |
| ISTP 121 | National Service Training Program 2 | 3 | 0 | 3 | 3 | NSTP111 | | | | | |
| E 102 | Rhythmic Activities | 2 | 0 | 2 | 2 | PE101 | | | | | |
| | TOTAL | | | 24 | 27 | | | | | | |
| | QI. | COND YE | A D | | | | | | | | |
| | | irst Semest | | | | | | | | | |
| OURSE | COURSE TITLE | CRI | EDIT | UNITS | NO. OF | DDE DEQUISIT | | | | | |
| О. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISIT | | | | | |
| ed 103 | The Life and Works of Rizal | 3 | 0 | 3 | 3 | None | | | | | |
| ed 104 | The Contemporary World | 3 | 0 | 3 | 3 | None | | | | | |
| ILI 101 | Kontekstwalisadong Komunikasyon sa Filipino | 3 | 0 | 3 | 3 | None | | | | | |
| M 102 | Industrial Operation & Management Practices | 3 | 0 | 3 | 3 | None | | | | | |
| ST 134 | Computer Programming | 2 | 3 | 3 | 5 | None | | | | | |
| ST 125 | Basic Arc and Gas Welding | 2 | 3 | 3 | 5 | AST 123 | | | | | |
| Т 211 | Automobile Underchassis Servicing, Repair and Maintenance | 1 | 3 | 2 | 4 | AT 111 | | | | | |
| T 212 | Automotive Electronics and Computers | 1 | 3 | 2 | 4 | AT 112 | | | | | |
| T 213 | Power Trains | 1 | 3 | 2 | 4 | AT 111 | | | | | |
| E 103 | Individual and Dual Sports | 2 | 0 | 2 | 2 | PE102 | | | | | |
| | TOTAL | | | 26 | 36 | | | | | | |

| | SE | ECOND YEA | AR | | | |
|------------------|--|-----------------------|---------------|---------|----------------|-----------------------|
| | Sec | cond Semes | ster | | | |
| COURSE | COVIDCE TITLE | CRI | EDIT | LINITEG | NO. OF | DDE DEOLUCIEE |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| 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 | AST 111, GEd 102 |
| AST 108 | Automotive Thermodynamics | 3 | 0 | 3 | 3 | AST 105 |
| AT 221 | Engine Performance Test | 1 | 3 | 2 | 4 | AT 122 |
| AT 222 | Basic Driving | 1 | 3 | 2 | 4 | AT 122/AT 211 |
| AT 223 | Automobile Body Repair and Painting | 1 | 3 | 2 | 4 | AT 211 |
| PE 104 | Team Sports | 2 | 0 | 2 | 2 | PE103 |
| TE TO | TOTAL | | 0 | 23 | 29 | 1 1 1 0 3 |
| | IOTAL | | | 23 | 29 | |
| | | THE A | D | | | |
| | | HIRD YEA | | | | |
| | <u> </u> | irst Semest | | 1 | | I |
| COURSE | COURSE TITLE | | EDIT | UNITS | NO. OF | PRE-REQUISITE |
| NO. | | LEC | LB/SW | | HRS. | |
| 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 | AT 221, 222, 223 |
| PM 105 | Materials Technology Management | 3 | 0 | 3 | 3 | AT 221, 222, 223 |
| PM 106 | Professional Ethics | 3 | 0 | 3 | 3 | None |
| AT 311 | Diesel Engine Overhauling and Fuel Injection System | 1 | 3 | 2 | 4 | AT 122 |
| AT 312 | Electronic Injection and LPG System | 1 | 3 | 2 | 4 | AT 112/ AT 121/AT 212 |
| AT 313 | Motorcycle Engine | 1 | 3 | 2 | 4 | AT 222 |
| | TOTAL | | | 21 | 27 | |
| | TOTAL | | | 21 | 21 | |
| | | HIRD YEA | | | | |
| | Sec | cond Semes | | 1 | T | T |
| COURSE NO. | COURSE TITLE | LEC | EDIT LB/SW | UNITS | NO. OF HRS. | PRE-REQUISITE |
| Ged 108 | Art Appreciation | 3 | 0 | 3 | 3 | None |
| PM 107 | Technology Research II | | 0 | 3 | 3 | *Regular Standing |
| PM 107 PM 108 | Manufacturing Technology | 3 3 | | 3 | | *Regular Standing |
| PM 109 | Total Quality Management | | 0 | | 3 | |
| | • | 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 |
| AT 321 | Basic Machining | 1 | 3 | 2 | 4 | AT 122/AT 213/AT 311 |
| AT 322 | Applied Hydraulic and Pneumatics | 1 | 3 | 2 | 4 | AT 211 |
| AT 323 | Basic Car Airconditioning System | 1 | 3 | 2 | 4 | AT 212 |
| AT 324 | Automotive Shop Service Management | 1 | 0 | 1 | 1 | AT 311/AT 312 |
| | TOTAL | | | 25 | 31 | |
| | F1 | Mibrii ve | 4 D | | | |
| | | OURTH YE. irst Semest | | | | |
| COURSE | <u>.</u> | 1 | EDIT | | NO. OF | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| OJT 1 | Supervised Industrial Training 1 (540hrs) | 0 | 10 | 10 | 540 | AT 321, 322, 323, 324 |
| | TOTAL | | | 10 | 540 | |
| | FC | OURTH YE. | AR | | | |
| | Sec | cond Seme | ster | | | |
| COURSE NO. | COURSE TITLE | CRI LEC | EDIT LB/SW | UNITS | NO. OF HRS. | PRE-REQUISITE |
| OJT 2 | (Company) - 1 Industrial Training 2 (5401 mg) | | ł | | | |
| OJI Z | Supervised Industrial Training 2 (540hrs) | 0 | 10 | 10 | 540 | OJT 1 |

 $^{* \}textit{Regular Standing: No deficiencies on the previous semester.}$

TOTAL UNITS: 165 Page 4 of 44



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COLLEGE OF INDUSTRIAL TECHNOLOGY

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CURRICULUM Bachelor of Industrial Technology COMPUTER 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 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.

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

| 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 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 | Multemidia (Visual Graphics & Web Design) | 3 | |
| CPT 321 | CISCO 4 | 3 | |
| CPT 322 | System Analysis and Design | 3 | |
| | 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 | 36 | | | |
| Supervised Industrial Training/OJT | 20 | | | |
| Mandated Courses (PE & NSTP) | 14 | | | |
| TOTAL | 165 | | | |

BATANGAS STATE UNIVERSITY

Batangas City

COLLEGE OF INDUSTRIAL TECHNOLOGY

Bachelor of Industrial Technology (BIT) Computer Technology Effective A.Y. 2018 - 2019

| | F | FIRST YEAL | R | | | |
|---------------|---|-------------|---------------|-------|----------------|------------------|
| | F | irst Semest | er | | | |
| COURSE | COURSE TITLE | CRI | EDIT | UNITS | NO. OF | PRE-REQUISITE |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | TRE-REQUISITE |
| 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 |
| PE 101 | Physical Fitness, Gymnastics and Aerobics | 2 | 0 | 2 | 2 | None |
| | TOTAL | | | 26 | 33 | |
| | | ELDOT VE A | n | | | |
| | | FIRST YEAR | | | | |
| COURSE | | | EDIT | | NO. OF | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| Ged 101 | Understanding the Self | 3 | 0 | 3 | 3 | None |
| Ged 101 | 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 |
| PE 102 | Rhythmic Activities | 2 | 0 | 2 | 2 | PE101 |
| TL 102 | TOTAL | | V | 25 | 26 | 1 L 101 |
| | 101112 | <u>l</u> | <u>l</u> | | | |
| | SE | ECOND YEA | AR | | | |
| | F | irst Semest | er | | | |
| COURSE | COURSE TITLE | CRI | EDIT | UNITS | NO. OF | PRE-REQUISITE |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | FRE-REQUISITE |
| 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 114 | Digital Electronics | 2 | 3 | 3 | 5 | AST 112 |
| CPT 211 | CISCO 1 | 2 | 3 | 3 | 5 | CPT 121 |
| CPT 212 | Computer Hardware Application | 2 | 3 | 3 | 5 | AST 112 |
| PE 103 | Individual and Dual Sports | 2 | 0 | 2 | 2 | PE102 |
| | TOTAL | | | 23 | 29 | |
| | | | | | | |
| | | COND YEA | | | | |
| COMPA | Sec 1 | cond Semes | | | No. cz | |
| COURSE NO. | COURSE TITLE | LEC CRI | EDIT LB/SW | UNITS | NO. OF HRS. | PRE-REQUISITE |
| 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 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 |
| PE 104 | Team Sports | 2 | 0 | 2 | 2 | PE 103 |
| - 2 10 1 | TOTAL | | | 23 | 29 | 12.103 |
| | IOTAL | | | 20 | <i>⊒ j</i> | |

| | T | HIRD YEA | R | | | |
|---------------|---|------------|---------------|--------|----------------|-------------------|
| | Fi | rst Semest | er | _ | | |
| COURSE | COURSE TITLE | | EDIT | UNITS | NO. OF | PRE-REQUISITE |
| NO. | COCKSE TITLE | LEC | LB/SW | CIVIIS | HRS. | THE REQUISITE |
| 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 | 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 | Multemidia (Visual Graphics & Web Design) | 2 | 3 | 3 | 5 | CPT 212 |
| | TOTAL | | | 24 | 30 | |
| | T | HIDD VE A | D | | | |
| | | HIRD YEA | | | | |
| COURSE | | | EDIT | | NO. OF | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| 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 |
| CPT 321 | CISCO 4 | 2 | 3 | 3 | 5 | CPT 312 |
| CPT 322 | Signal System Analysis | 2 | 3 | 3 | 5 | CPT 311 |
| | TOTAL | | | 24 | 28 | |
| | | | | | | |
| | | URTH YE. | | | | |
| | | rst Semest | | I | T | |
| COURSE NO. | COURSE TITLE | LEC | EDIT LB/SW | UNITS | NO. OF HRS. | PRE-REQUISITE |
| OJT 1 | Supervised Industrial Training 1 (540hrs) | 0 | 10 | 10 | 540 | CPT 321, CPT 322 |
| | TOTAL | | | 10 | 540 | , |
| | | | | | | · |
| | | URTH YE. | | | | |
| | Sec | ond Seme | | I | 370 | |
| COURSE NO. | COURSE TITLE | LEC | EDIT LB/SW | UNITS | NO. OF HRS. | PRE-REQUISITE |
| OJT 2 | Supervised Industrial Training 2 (540hrs) | 0 | 10 | 10 | 540 | OJT 1 |
| | TOTAL | | | 10 | 540 | |

^{*} Regular Standing: No deficiencies on the previous semester.



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 CIVIL 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 Civil Technology is a dynamic educational opportunity offering skill-based learning through class instructions, extensive laboratory experience and fieldworks. Concentrations are as follows: carpentry, architectural design technology, construction/project management, surveying and mapping, construction estimate, and soil and construction material testing.

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

| 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 127 | Civil Techology Measurements | 2 | |
| AST 135 | Computer Aided Design | 2 | |
| AST 134 | Computer Programming | 3 | |
| AST 115 | Basic Electrical Wiring | 3 | |
| AST 110 | Data Analytics | 3 | |

| AST 136 | Civil CAD Applications | 3 | |
|----------|---|---|----------|
| | D. Major Specialization Courses | | 36 units |
| CVT 111 | Introduction to Structures | 4 | |
| CVT 112 | National Building Code | 2 | |
| CVT 121 | Introduction to Surveying | 3 | |
| CVT 122 | Strength of Material | 3 | |
| CVT 211 | Construction Surveying | 3 | |
| CVT 212 | Plumbing | 3 | |
| CVT 221 | Mechanics of Soil | 3 | |
| CVT 222 | Building Technology | 4 | |
| CVT 311 | Construction Materials and Testing | 3 | |
| CVT 312 | Architectural Design Technology | 4 | |
| CVT 321 | Construction Estimate & Planning Management | 4 | |
| | 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 Unit | | | | |
| 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 (PE & NSTP) | 14 | | | |
| TOTAL | 165 | | | |

BATANGAS STATE UNIVERSITY

Batangas City

COLLEGE OF INDUSTRIAL TECHNOLOGY

Bachelor of Industrial Technology (BIT) Civil Technology Effective A.Y. 2018 - 2019

| | F | TIRST YEA | R | | | |
|----------|---|-------------|-------|--------|--------|---------------|
| | Fi | irst Semest | er | | | |
| COURSE | COLUDGE TITLE | CR | EDIT | LINUTE | NO. OF | DDE DEOLIGIEE |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| 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 127 | Civil Techology Measurements | 1 | 3 | 2 | 4 | None |
| PM 101 | Occupational Health and Safety Management | 2 | 0 | 2 | 2 | None |
| CVT 111 | Introduction to Structures | 2 | 6 | 4 | 8 | None |
| CVT 112 | National Building Code | 2 | 0 | 2 | 2 | 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 | | | 26 | 33 | |
| | | | | | | |
| | F | TIRST YEA | R | | | |
| | Sec | cond Seme | ster | | | |
| COURSE | COURSE TITLE | CR | EDIT | UNITS | NO. OF | DDE DEQUISITE |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| 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 |
| CVT 121 | Introduction to Surveying | 2 | 3 | 3 | 5 | AST 127 |
| CVT 122 | Strength of Material | 3 | 0 | 3 | 3 | AST 105 |
| NSTP 121 | National Service Training Program 2 | 3 | 0 | 3 | 3 | NSTP111 |
| PE 102 | Rhythmic Activities | 2 | 0 | 2 | 2 | PE101 |
| | TOTAL | | | 25 | 24 | |
| | | | | | | |
| | | COND YE | | | | |
| | Fi | irst Semest | | 1 | | |
| COURSE | COURSE TITLE | | EDIT | UNITS | NO. OF | PRE-REQUISITE |
| NO. | | LEC | LB/SW | OMI | HRS. | THE REQUISITE |
| 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 |
| AST 115 | Basic Electrical Wiring | 2 | 3 | 3 | 5 | AST 105 |
| CVT 211 | Construction Surveying | 2 | 3 | 3 | 5 | CVT 121 |
| CVT 212 | Plumbing | 2 | 3 | 3 | 5 | CVT 111 |
| PE 103 | Individual and Dual Sports | 2 | 0 | 2 | 2 | PE102 |
| | TOTAL | | | 26 | 34 | |

| | SE | COND YE | AR | | | |
|------------|---|-------------|---------------|-------|----------------|---|
| | | ond Seme | | | | |
| COURSE | | | EDIT | | NO. OF | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| 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 136 | Civil CAD Applications | 2 | 3 | 3 | 5 | AST 135 |
| CVT 221 | Mechanics of Soil | 2 | 3 | 3 | 5 | CVT 122 |
| CVT 222 | Building Technology | 2 | 6 | 4 | 8 | CVT 111, CVT 212 |
| PE 104 | Team Sports | 2 | 0 | 2 | 2 | PE 103 |
| | TOTAL | | | 24 | 32 | |
| | Т | HIRD YEA | ıR | | | |
| | | irst Semest | | | | |
| COURSE | | | EDIT | | NO. OF | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| 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 | CVT 111, 112, 121, 122, 211, 212, 221 |
| PM 105 | Materials Technology Management | 3 | 0 | 3 | 3 | CVT 111, 112, 121, 122, 211, 212, 221, 222 |
| PM 106 | Professional Ethics | 3 | 0 | 3 | 3 | None |
| CVT 311 | Construction Materials and Testing | 2 | 3 | 3 | 5 | CVT 221 |
| CVT 312 | Architectural Design Technology | 2 | 6 | 4 | 8 | CVT 222 |
| | TOTAL | | _ | 22 | 28 | 0 / 0 === |
| | | HIDD VE | D | | | |
| | | HIRD YEA | | | | |
| COLUBOR | Sec | ond Seme | | | 110.00 | I |
| NO. | COURSE TITLE | | EDIT LB/SW | UNITS | NO. OF HRS. | PRE-REQUISITE |
| 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 |
| CVT 321 | Construction Estimate & Planning Management | 2 | 6 | 4 | 8 | CVT 311, CVT 312 |
| | TOTAL | | | 22 | 26 | |
| | | | • | | • | |
| | | OURTH YE | | | | |
| | Fi | rst Semest | | I | 1 | ı |
| COURSE NO. | COURSE TITLE | LEC | EDIT LB/SW | UNITS | NO. OF HRS. | PRE-REQUISITE |
| OJT 1 | Supervised Industrial Training 1 (540hrs) | 0 | 10 | 10 | 540 | CVT 321 |
| | TOTAL | | | 10 | 540 | |
| | EC | OURTH YE | AP | | | |
| | | ond Seme | | | | |
| COURSE | Sec | | EDIT | | NO. OF | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| OJT 2 | Supervised Industrial Training 2 (540hrs) | 0 | 10 | 10 | 540 | OJT 1 |
| | TOTAL | | 1 | 10 | 540 | |

 $^{* \} Regular \ Standing: No \ deficiencies \ on \ the \ previous \ semester.$



BATANGAS STATE UNIVERSITY

Pablo Borbon Campus II, Alangilan, Batangas City, Philippines 4200

COLLEGE OF INDUSTRIAL TECHNOLOGY

www.batstate-u.edu.ph Telefax: (043)425-0143 loc 2103



CURRICULUM Bachelor of Industrial Technology DRAFTING TECHNOLOGY

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

Curriculum Description

The program in Bachelor if Industrial Technology Major in Drafting Technology provides knowledge in the construction of different working drawings that help improve the skills in drawing. Knowledge in graphic communication is an important factor of the course. This course includes the basic and advanced technical drawings, floor planning, architectural and structural drawings, architectural modeling and estimating. This course also contains computer-aided design concept and applications.

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

| 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 131 | Introduction to Design | 3 | |
| AST 134 | Computer Programming | 3 | |
| AST 126 | National Building Code | 2 | |
| AST 110 | Data Analytics | 3 | |
| AST 115 | Basic Electrical Wiring | 3 | |

| AST 132 | Commercial Arts | 2 | |
|----------|---|---|----------|
| | D. Major Specialization Courses | | 38 units |
| DT 111 | Technical Drawing I | 4 | |
| DT 121 | Technical Drawing 2 | 4 | |
| DT 122 | CAD 1 | 3 | |
| DT 211 | Architectural Drawing 1 | 4 | |
| DT 213 | CAD 2 | 2 | |
| DT 221 | Architectural Drawing 2 | 4 | |
| DT 222 | CAD 3 | 2 | |
| DT 311 | Structural Drawing | 3 | |
| DT 312 | Construction Estimating & Planning | 3 | |
| DT 313 | Industrial Design 1 | 2 | |
| DT 321 | Machine Drawing | 3 | |
| DT 322 | Architectural Modelling | 2 | |
| DT 323 | Industrial Design 2 | 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 | 38 | | | |
| Supervised Industrial Training/OJT | 20 | | | |
| Mandated Courses (PE & NSTP) | 14 | | | |
| TOTAL | 167 | | | |

BATANGAS STATE UNIVERSITY

Batangas City

COLLEGE OF INDUSTRIAL TECHNOLOGY

Bachelor of Industrial Technology (BIT)
Drafting Technology
Effective A.Y. 2018 - 2019

| PROGRA | M OF STUDY | | | | | |
|--------------------|---|-------------|-------|---------|--------|------------------|
| | | FIRST YEA | | | | |
| | F | irst Semest | er | | | |
| COURSE | COURSE TITLE | CRI | EDIT | UNITS | NO. OF | PRE-REQUISITE |
| NO. | COURSE TITLE | LEC | LB/SW | CITIES | HRS. | THE REQUISITE |
| 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 131 | Introduction to Design | 2 | 3 | 3 | 5 | None |
| PM 101 | Occupational Health and Safety Management | 2 | 0 | 2 | 2 | None |
| DT 111 | Technical Drawing I | 2 | 6 | 4 | 8 | 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 | | | 23 | 28 | |
| | | | | | | |
| | I | FIRST YEA | R | - | | |
| | Sec | cond Seme | ster | | | |
| COURSE | COVIDED TITLE | CRI | EDIT | TINITEG | NO. OF | DDE DEGLIGIES |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| 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 |
| DT 121 | Technical Drawing 2 | 2 | 6 | 4 | 8 | DT 111 |
| DT 122 | CAD I | 2 | 3 | 3 | 5 | DT 111 |
| NSTP 121 | National Service Training Program 2 | 3 | 0 | 3 | 3 | NSTP111 |
| PE 102 | Rhythmic Activities | 2 | 0 | 2 | 2 | PE101 |
| | TOTAL | | - | 24 | 25 | |
| | 101112 | | | | | |
| | SI | ECOND YEA | AR | l | | |
| | | irst Semest | | | | |
| COURSE | | | EDIT | | NO. OF | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| 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 |
| AST 126 | National Building Code | 2 | 0 | 2 | 2 | DT 121 |
| DT 211 | Architectural Drafting 1 | 2 | 6 | 4 | 8 | DT 121 |
| DT 213 | CAD II | 1 | 3 | 2 | 4 | DT 122 |
| PE 103 | Individual and Dual Sports | 2 | 0 | 2 | 2 | PE102 |
| 1 1 103 | TOTAL | | · · | 25 | 33 | 11102 |
| | TOTAL | | | 23 | 33 | |
| - | <u>l</u> | ECOND YEA | AR | | | |
| - | | cond Semes | | | | |
| COURSE | Sec | | EDIT | 1 | NO. OF | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| 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 110 AST 115 | - | 2 | 3 | 3 | 5 | None |
| | Basic Electrical Wiring Commercial Arts | | 3 | 2 | | AST 131 |
| AST 132 | | 1 | | | 4 | |
| DT 221 | Architectural Drafting 2 | 2 | 6 | 4 | 8 | DT 211 |
| DT 222 | CAD III | 1 | 3 | 2 | 4 | DT 213 |
| PE 104 | Team Sports | 2 | 0 | 2 | 2 | PE103 |
| | TOTAL | |] | 25 | 35 | |

| | | HIDD VE | D. | | | |
|---------------|--|---------------------|----------|----------|----------------|------------------------|
| | | HIRD YEA | | | | |
| COURCE | | | | | NO OF | |
| COURSE NO. | COURSE TITLE | CREDIT LEC LB/SW | | UNITS | NO. OF HRS. | PRE-REQUISITE |
| 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 | DT 221, DT 222 |
| PM 105 | Materials Technology Management | 3 | 0 | 3 | 3 | DT 221, DT 222 |
| PM 106 | Professional Ethics | 3 | 0 | 3 | 3 | None None |
| DT 311 | Structural Drawing | 2 | 3 | 3 | 5 | None |
| DT 311 | Construction Estimating & Planning | 3 | 0 | 3 | 3 | DT 221 |
| DT 312 | Industrial Design 1 | 1 | 3 | 2 | 4 | DT 213 |
| D1 313 | TOTAL | 1 | 3 | 23 | 27 | D1 213 |
| | TOTAL | | | 23 | 21 | |
| | <u> </u> | HIRD YEA | .R | <u> </u> | | |
| | | ond Seme | | | | |
| COURSE | | | EDIT | | NO. OF | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| Ged 108 | Art Appreciation | 3 | 0 | 3 | 3 | None |
| PM 107 | Technology Research II | 3 | 0 | 3 | 3 | |
| 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 |
| DT 321 | Machine Drafting & Design | 2 | 3 | 3 | 5 | DT 222 |
| DT 322 | Architectural Modelling | 1 | 3 | 2 | 4 | DT 221, DT 311 |
| DT 323 | Industrial Design 2 | 1 | 3 | 2 | 4 | DT 313 |
| | TOTAL | | | 25 | 31 | |
| | | | | | | |
| | | URTH YE | | | | |
| | Fi | irst Semest | ter | | _ | |
| COURSE | COURSE TITLE | | EDIT | UNITS | NO. OF | PRE-REQUISITE |
| NO. | | LEC | LB/SW | | HRS. | |
| OJT 1 | Supervised Industrial Training 1 (540hrs) | 0 | 10 | 10 | 540 | DT 321, DT 322, DT 323 |
| | TOTAL | | | 10 | 540 | |
| | | | <u> </u> | | | |
| | | URTH YE | | | | |
| COURCE | Sec | ond Seme | | | NO OF | <u> </u> |
| COURSE NO. | COURSE TITLE | | EDIT | UNITS | NO. OF | PRE-REQUISITE |
| OJT 2 | Symposis and Industrial Training 2 (540km) | LEC 0 | LB/SW | 10 | HRS. | OJT 1 |
| OJI Z | Supervised Industrial Training 2 (540hrs) | U | 10 | 10 | 540 | OJI I |
| | TOTAL | | | 10 | 540 | l |

 $^{* \}textit{Regular Standing: No deficiencies on the previous semester.}$



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 ELECTRICAL TECHNOLOGY

Academic Year 2018-2019

Reference: CMO No. 20 S. 2013 and Based on PACUIT Proposal

Curriculum Description

The program in Bachelor of Industrial Technology Major in Electrical Technology will prepare graduates with the skills necessary to enter careers in the design, application, installation, manufacturing, operation and/or maintenance of electrical systems. Graduates of this degree program typically have strengths in the building, testing, operation, and maintenance of existing electrical systems and well prepared for development and implementation of electrical systems.

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

| 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 128 | Electrical Measurements | 2 | |
| AST 135 | Computer Aided Design | 2 | |
| AST 134 | Computer Programming | 3 | |
| AST 110 | Data Analytics | 3 | |
| AST 117 | Industrial Power Electronics | 3 | |

| AST 119 | Instrumentation and Process Control | 3 | |
|----------|--|---|----------|
| | D. Major Specialization Courses | | 36 units |
| ELC 111 | Circuits I (DC Circuits) | 3 | |
| ELC 112 | Signal and Commmunication System | 3 | |
| ELC 121 | Circuits II (AC Circuits) | 3 | |
| ELC 122 | Residential and Commercial Power System and Design | 3 | |
| ELC 211 | Industrial Power System and Design | 3 | |
| ELC 212 | Electrical Machines (AC and DC) | 3 | |
| ELC 221 | Motor Control and Sequencial Control | 3 | |
| ELC 222 | Electric Power Production | 2 | |
| ELC 223 | Estimating and Costing | 2 | |
| ELC 311 | PLC System and Programming | 3 | |
| ELC 312 | Electric Power Transmission and Distribution | 2 | |
| ELC 321 | Automatic Control System | 3 | |
| ELC 322 | Photovoltaic Technologies | 3 | |
| | 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 | 36 | | | |
| Supervised Industrial Training/OJT | 20 | | | |
| Mandated Courses (PE & NSTP) | 14 | | | |
| TOTAL | 165 | | | |

Republic of the Philippines BATANGAS STATE UNIVERSITY

Batangas City

COLLEGE OF INDUSTRIAL TECHNOLOGY

Bachelor of Industrial Technology (BIT) Electrical Technology Effective A.Y. 2018 - 2019

| PROGRA | M OF STUDY | | | | | |
|--------------------|--|-------------|---------------|-------|----------------|------------------|
| | | TRST YEAD | | | | |
| | F: | irst Semest | | | <u> </u> | |
| COURSE | COURSE TITLE | | EDIT | UNITS | NO. OF | PRE-REQUISITE |
| NO. | Mal C. T. 1. 1 | LEC | LB/SW | 2 | HRS. | |
| 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 128 | Electrical Measurements | 1 | 3 | 2 | 4 | None |
| PM 101 | Occupational Health and Safety Management | 2 | 0 | 2 | 2 | None |
| ELC 111 | Circuits I (DC Circuits) | 2 | 3 | 3 | 5 | None |
| ELC 112 | Signal and Commmunication System | 2 | 3 | 3 | 5 | 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 | | | 26 | 33 | |
| | | | | | | |
| | | FIRST YEAD | | | | |
| | Sec | cond Semes | | | 1 | |
| COURSE | COURSE TITLE | | EDIT | UNITS | NO. OF | PRE-REQUISITE |
| NO. | Hadaustanding the C-16 | LEC | LB/SW | 2 | HRS. | |
| Ged 101 Ged 102 | Understanding the Self Mathematics in the Modern World | 3 | 0 | 3 | 3 | None None |
| | | | 0 | | | |
| Ged 106 | Purposive Communication | 3 | 0 | 3 | 3 | None |
| Ged 109 | Science Technology and Society | 3 | 0 | 3 | 3 | None |
| ELC 121 | Circuits II (AC Circuits) Residential and Commercial Power System and | 2 | 3 | 3 | 5 | ELC 111 |
| ELC 122 | Design | 2 | 3 | 3 | 5 | None |
| AST 135 | Computer Aided Design | 1 | 3 | 2 | 4 | AST 133 |
| NSTP 121 | National Service Training Program 2 | 3 | 0 | 3 | 3 | NSTP111 |
| PE 102 | Rhythmic Activities | 2 | 0 | 2 | 2 | PE101 |
| | TOTAL | | | 25 | 26 | |
| | | | | | | |
| | | COND YEA | | | | |
| | <u> </u> | irst Semest | | | 1 | |
| COURSE | COURSE TITLE | | EDIT | UNITS | NO. OF | PRE-REQUISITE |
| NO. | THE VIOLENCE OF THE PROPERTY O | LEC | LB/SW | | HRS. | |
| 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 |
| ELC 211 | Industrial Power System and Design | 2 | 3 | 3 | 5 | ELC 122 |
| ELC 212 | Electrical Machines (AC and DC) | 2 | 3 | 3 | 5 | ELC 121 |
| PE 103 | Individual and Dual Sports | 2 | 0 | 2 | 2 | PE102 |
| | TOTAL | | | 23 | 29 | |
| | | | | | | |
| | | COND YEA | | | | |
| COURCE | Sec 1 | cond Semes | | | NO OF | |
| COURSE NO. | COURSE TITLE | LEC | EDIT LB/SW | UNITS | NO. OF HRS. | PRE-REQUISITE |
| 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 117 | Industrial Power Electronics | 2 | 3 | 3 | 5 | ELC 212 |
| ELC 221 | Motor Control and Sequencial Control | 2 | 3 | 3 | 5 | ELC 212 |
| ELC 222 | Electric Power Production | 2 | 0 | 2 | 2 | ELC 212 |
| ELC 223 | Estimating and Costing | 2 | 0 | 2 | 2 | ELC 211 |
| PE 104 | Team Sports | 2 | 0 | 2 | 2 | PE103 |
| | TOTAL | | | 24 | 28 | |

| | Т | HIRD YEA | R | | | |
|----------|--|-------------|-------|---------|--------|-------------------|
| | Fi | irst Semest | er | | | |
| COURSE | COMPARTMENT | CREDIT | | TIMETO | NO. OF | DDE DEGLIGIEE |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| 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 | ELC 221, 222, 223 |
| PM 105 | Materials Technology Management | 3 | 0 | 3 | 3 | ELC 221, 222, 223 |
| PM 106 | Professional Ethics | 3 | 0 | 3 | 3 | None |
| ELC 311 | PLC System and Programming | 2 | 3 | 3 | 5 | ELC 221 |
| ELC 312 | Electric Power Transmission and Distribution | 2 | 0 | 2 | 2 | ELC 222 |
| AST 119 | Instrumentation and Process Control | 2 | 3 | 3 | 5 | ELC 221 |
| | TOTAL | | | 23 | 27 | |
| | | | | | | |
| | T | HIRD YEA | R | | | |
| | Sec | ond Seme | ster | | | |
| COURSE | COMPARTMENT | CRI | EDIT | HINHERO | NO. OF | DDE DEGUIGIES |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| 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 |
| ELC 321 | Automatic Control System | 2 | 3 | 3 | 5 | ELC 311 |
| ELC 322 | Photovoltaic Technologies | 2 | 3 | 3 | 5 | ELC 222 |
| | TOTAL | | | 24 | 28 | |
| | | | | | | |
| | FO | URTH YE. | AR | | | |
| | Fi | irst Semest | | | | |
| COURSE | COURSE TITLE | | EDIT | UNITS | NO. OF | PRE-REQUISITE |
| NO. | | LEC | LB/SW | | HRS. | |
| OJT 1 | Supervised Industrial Training 1 (540hrs) | 0 | 10 | 10 | 540 | ELC 321, 322 |
| | TOTAL | | | 10 | 540 | |
| | | | | | | |
| | | URTH YE. | | | | |
| | Sec | ond Seme | | | | |
| COURSE | COURSE TITLE | | EDIT | UNITS | NO. OF | PRE-REQUISITE |
| NO. | | LEC | LB/SW | | HRS. | |
| OJT 2 | Supervised Industrial Training 2 (540hrs) | 0 | 10 | 10 | 540 | OJT 1 |
| | TOTAL | | | 10 | 540 | |

 $^{* \} Regular \ Standing: \ No \ deficiencies \ on \ the \ previous \ semester.$



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

ELECTRONICS

TECHNOLOGY

Academic Year 2018-2019

Reference: CMO No. 20 S. 2013 and Based on PACUIT Proposal

Curriculum Description

The Electronics Technology program prepares graduates for employment in a wide variety of industries producing and/or using electrical and electronic equipment. The program provides a thorough understanding of digital electronics, circuit analysis, electronic devices, machine controls, programmable logic controllers and industrial electronics. This course also includes theoretical analysis, software simulation and hands-on applications.

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

| 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 129 | Electronics Measurements | 2 | |
| AST 112 | Electrical Principles | 3 | |
| AST 135 | Computer Aided Design | 2 | |
| AST 134 | Computer Programming | 3 | |
| AST 120 | Programmable Logic Control | 3 | |

| AST 110 | Data Analytics | 3 | |
|----------|---|---|----------|
| | D. Major Specialization Courses | | 36 units |
| ELX 111 | Introduction to Semiconductor Devices | 3 | |
| ELX 121 | Electronic Amplifiers and Integrated Circuits | 3 | |
| ELX 122 | Digital Logic Circuits and Switching | 3 | |
| ELX 211 | Electronics Workshop I | 3 | |
| ELX 212 | Industrial Electronics | 3 | |
| ELX 221 | Analog Communication Systems | 3 | |
| ELX 222 | Microcomputer Systems | 3 | |
| ELX 223 | Automatic Controls | 3 | |
| ELX 224 | Electronics Workshop II | 3 | |
| ELX 311 | Wireless and Satellite Communication Systems | 3 | |
| ELX 312 | Plant Safety Network | 3 | |
| ELX 321 | Totally Integrated Automatic | 3 | |
| | 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 | 36 | | |
| Supervised Industrial Training/OJT | 20 | | |
| Mandated Courses (PE & NSTP) | 14 | | |
| TOTAL | 165 | | |

BATANGAS STATE UNIVERSITY

Batangas City

COLLEGE OF INDUSTRIAL TECHNOLOGY

Bachelor of Industrial Technology (BIT)
Electronics Technology
Effective A.Y. 2018 - 2019

| PROGRA | M OF STUDY | TID OTE TOTAL | <u> </u> | | | |
|--------------------|---|---------------|----------------|-------|----------------|--------------------|
| | | IRST YEAL | | | | |
| COLIDGE | F1 | irst Semest | | | NO OF | |
| COURSE NO. | COURSE TITLE | LEC | EDIT LB/SW | UNITS | NO. OF HRS. | PRE-REQUISITE |
| AST 111 | Math for Technology | 3 | 0 | 3 | 3 | None |
| AST 111 AST 102 | Applied Chemistry | 2 | 3 | 3 | 5 | None |
| AST 102 | 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 |
| AST 112 | Electrical Principles | 2 | 3 | 3 | 5 | None |
| PM 101 | Occupational Health and Safety Management | 2 | 0 | 2 | 2 | None |
| ELX 111 | Introduction to Semiconductor Devices | 2 | 3 | 3 | 5 | 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 | | | 26 | 33 | |
| | 19112 | | | | | |
| | F | IRST YEAI | R | | <u> </u> | |
| | | ond Semes | | | | |
| COURSE | | | EDIT | | NO. OF | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| 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 |
| ELX 121 | Electronic Amplifiers and Integrated Circuits | 2 | 3 | 3 | 5 | ELX 111 |
| ELX 122 | Digital Logic Circuits and Switching | 2 | 3 | 3 | 5 | ELX 111 |
| NSTP 121 | National Service Training Program 2 | 3 | 0 | 3 | 3 | NSTP 111 |
| PE 102 | Rhythmic Activities | 2 | 0 | 2 | 2 | PE 101 |
| | TOTAL | | | 25 | 26 | |
| | | | | | | |
| | SE | COND YEA | AR | | | |
| | Fi | irst Semest | er | | _ | |
| COURSE | COURSE TITLE | | EDIT | UNITS | NO. OF | PRE-REQUISITE |
| NO. | | LEC | LB/SW | | HRS. | |
| 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 |
| AST 120 | Programmable Logic Control | 2 | 3 | 3 | 5 | ELX 122 |
| ELX 211 | Electronics Workshop I | 2 | 3 | 3 | 5 | ELX 121, ELX 122 |
| ELX 212 | Industrial Electronics | 2 | 3 | 3 | 5 | ELX 121 |
| PE 103 | Individual and Dual Sports | 2 | 0 | 2 | 2 | PE 102 |
| | TOTAL | | | 26 | 34 | |
| | | COND TE | <u> </u> | | | |
| | | COND YEA | | | | |
| COUDGE | Sec | cond Semes | | | NO OF | |
| COURSE NO. | COURSE TITLE | | EDIT L R/SW | UNITS | NO. OF HRS. | PRE-REQUISITE |
| FILI 102 | Filining so iba't ibang Disinling | LEC | LB/SW | 2 | | None |
| Ged 107 | Filipino sa iba't ibang Disiplina Ethics | 3 | 0 | 3 | 3 | None 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 110 ELX 221 | Analog Communication Systems | 2 | 3 | 3 | 5 | ELX 212 |
| LLA 441 | | | 3 | 3 | 5 | ELX 212 ELX 212 |
| EI V 222 | Migrocomputer Systems | | | | .) | ELA 212 |
| ELX 222 | Microcomputer Systems | 2 | | | | |
| ELX 223 | Automatic Controls | 2 | 3 | 3 | 5 | ELX 212 |
| ELX 223 ELX 224 | Automatic Controls Electronics Workshop II | 2 2 | 3 3 | 3 | 5 5 | ELX 212 ELX 211 |
| ELX 223 | Automatic Controls | 2 | 3 | 3 | 5 | ELX 212 |

| | | | | | I | |
|---------------|--|--------------------------|---------------|-------|----------------|---------------------------------------|
| | | HIRD YEA | <u>l</u> R | | | |
| | | irst Semest | | | | |
| COURSE | | | EDIT | | NO. OF | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| 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 | ELX 221, ELX 222, ELX 223, ELX 224 |
| PM 105 | Materials Technology Management | 3 | 0 | 3 | 3 | ELX 221, ELX 222, ELX 223, ELX 224 |
| PM 106 | Professional Ethics | 3 | 0 | 3 | 3 | None |
| ELX 311 | Wireless and Satellite Communication Systems | 2 | 3 | 3 | 5 | ELX 221 |
| ELX 312 | Plant Safety Network | 2 | 3 | 3 | 5 | ELX 221 |
| | TOTAL | | | 21 | 25 | |
| | | | | | | |
| | | THIRD YEA | | | | |
| | Sec | cond Semes | | 1 | 1 | T |
| COURSE NO. | COURSE TITLE | LEC CRI | EDIT LB/SW | UNITS | NO. OF HRS. | PRE-REQUISITE |
| 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 |
| ELX 321 | Totally Integrated Automatic | 2 | 3 | 3 | 5 | ELX 311, ELX 312 |
| | TOTAL | | | 21 | 23 | |
| | | | | | | |
| | | OURTH YE | | | | |
| | F | irst Semest | | T | 1 | Т |
| COURSE | COURSE TITLE | | EDIT | UNITS | NO. OF | PRE-REQUISITE |
| NO. | 9 | LEC | LB/SW | 1.0 | HRS. | _ |
| OJT 1 | Supervised Industrial Training 1 (540hrs) | 0 | 10 | 10 | 540 | ELX 321 |
| | TOTAL | | | 10 | 540 | |
| - | E | MDTH VE | L A D | | <u> </u> | <u> </u> |
| | | OURTH YEAR Cond Semes | | | | |
| COURSE | | | EDIT | | NO. OF | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| OJT 2 | Supervised Industrial Training 2 (540hrs) | 0 | 10 | 10 | 540 | OJT 1 |
| | TOTAL | | | 10 | 540 | |

^{*} Regular Standing: No deficiencies on the previous semester.



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COLLEGE OF INDUSTRIAL TECHNOLOGY

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CURRICULUM Bachelor of Industrial Technology FOOD TECHNOLOGY

Academic Year 2018-2019

Reference: CMO No. 20 S. 2013 and Based on PACUIT Proposal

Curriculum Description

The program in Bachelor of Industrial Technology Major in Food Technology deals with the basics of food science and technology including food chemistry, food microbiology, food nutrition and analysis, food processing and preservation, food product development and testing as well as food packaging and storage technology. This program also introduces fundamental concepts related to food quality management to meet the food statandards imposed by the industry and the regulatory agencies of the governemnt. The program also entails to produce future food entrepreneurs since the demand of business food industry is high in the production line.

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

| 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 | | 28 units |
| AST 111 | Math for Technology | 3 | |
| AST 102 | Applied Chemistry | 3 | |
| AST 105 | Applied Physics | 3 | |
| AST 133 | ProduFTion Drawing | 2 | |
| AST 135 | Computer Aided Design | 2 | |
| AST 103 | Basic Organic Chemistry | 3 | |
| AST 134 | Computer Programming | 3 | Page 25 of [4 |

| AST 110 | Data Analytics | 3 | |
|----------|---|---|----------|
| AST 104 | Chemistry Calculation with Organic Chemistry | 3 | |
| AST 101 | Biotechnology | 3 | |
| | D. Major Specialization Courses | | 36 units |
| FT 111 | Introduction to Food Science and Technology | 3 | |
| FT 112 | Basic Foods and Nutrition | 3 | |
| FT 121 | Food Selection and Preparation | 3 | |
| FT 211 | Food Chemistry | 3 | |
| FT 212 | Bakery & Confectionary Products | 3 | |
| FT 221 | Food Process Technology | 3 | |
| FT 222 | Food Nutrition & Analysis | 3 | |
| FT 223 | Food Quality Management and Food Regulations | 3 | |
| FT 311 | Food Microbiology | 3 | |
| FT 312 | Food Product Development and Sensory Evaluation | 3 | |
| FT 321 | Catering and Bar Service Management | 3 | |
| FT 322 | Food Packaging & Storage Technology | 3 | |
| | 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 | 28 | | |
| Professional and Management Courses | 32 | | |
| Specialization/Major Courses | 36 | | |
| Supervised Industrial Training/OJT | 20 | | |
| Mandated Courses (PE & NSTP) | 14 | | |
| TOTAL | 166 | | |

BATANGAS STATE UNIVERSITY

Batangas City

COLLEGE OF INDUSTRIAL TECHNOLOGY

Bachelor of Industrial Technology (BIT) Food Technology Effective A.Y. 2018 - 2019

| | | IRST YEA | | | | |
|---|--|--|--|--|---|--|
| | Fi | rst Semest | | T | T T | |
| COURSE | COURSE TITLE | | EDIT | UNITS | NO. OF | PRE-REQUISITE |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | TRE-REQUISITE |
| 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 |
| PM 101 | Occupational Health and Safety Management | 2 | 0 | 2 | 2 | None |
| FT 111 | Introduction to Food Science and Technology | 3 | 0 | 3 | 3 | None |
| FT 112 | Basic Foods and Nutrition | 3 | 0 | 3 | 3 | 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 | 25 | |
| | | | | 1 | | |
| | F | IRST YEA | R | | | |
| | Sec | ond Semes | ster | | | |
| COURSE | | | EDIT | | NO. OF | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| 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 103 | Basic Organic Chemistry | 2 | 3 | 3 | 5 | AST 102 |
| FT 121 | Food Selection and Preparation | 1 | 6 | 3 | 7 | FT 111, FT 112 |
| NSTP 121 | National Service Training Program 2 | 3 | 0 | 3 | 3 | NSTP111 |
| PE 102 | Rhythmic Activities | 2 | 0 | 2 | 2 | PE101 |
| E 102 | TOTAL | | U | 25 | 28 | 1 L 101 |
| | TOTAL | | | 23 | 20 | |
| | SE | COND YEA | A D | | | |
| | | rst Semest | | | | |
| COURSE | | | EDIT | 1 | NO OF | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | NO. OF HRS. | PRE-REQUISITE |
| Ged 103 | The Life and Works of Rizal | 3 | 0 | 3 | 3 | None |
| Ged 103 Ged 104 | | 3 | | 3 | | |
| | The Contemporary World | | | | | N.T |
| FILI 101 | TZ + 1 + 1' 1 TZ 1 TZ 1' | | 0 | | 3 | None |
| 03 (100 | Kontekstwalisadong Komunikasyon sa Filipino | 3 | 0 | 3 | 3 | None |
| PM 102 | Kontekstwalisadong Komunikasyon sa Filipino Industrial Operation & Management PraFTices | | - | | | |
| | , , | 3 | 0 | 3 | 3 | None |
| AST 104 | Industrial Operation & Management PraFTices | 3 | 0 | 3 | 3 | None None |
| AST 104 AST 134 | Industrial Operation & Management PraFTices General Biology and Introduction to Microbiology | 3 3 3 | 0 0 | 3 3 3 | 3 3 3 | None None None |
| AST 104 AST 134 FT 211 | Industrial Operation & Management PraFTices General Biology and Introduction to Microbiology Computer Programming Food Chemistry | 3 3 3 2 | 0 0 0 3 | 3 3 3 | 3 3 3 5 | None None None |
| AST 104 AST 134 ET 211 ET 212 | Industrial Operation & Management PraFTices General Biology and Introduction to Microbiology Computer Programming Food Chemistry Bakery & Confectionary Products | 3 3 3 2 2 | 0 0 0 3 3 3 | 3 3 3 3 3 | 3 3 3 5 5 | None None None None AST 103 FT 121 |
| AST 104 AST 134 ET 211 ET 212 | Industrial Operation & Management PraFTices General Biology and Introduction to Microbiology Computer Programming Food Chemistry Bakery & Confectionary Products Individual and Dual Sports | 3 3 3 2 2 1 | 0 0 0 3 3 6 | 3 3 3 3 3 | 3 3 3 5 5 8 2 | None None None None AST 103 |
| AST 104 AST 134 FT 211 FT 212 | Industrial Operation & Management PraFTices General Biology and Introduction to Microbiology Computer Programming Food Chemistry Bakery & Confectionary Products | 3 3 3 2 2 1 | 0 0 0 3 3 6 | 3 3 3 3 3 2 | 3 3 3 5 5 8 | None None None None AST 103 FT 121 |
| AST 104 AST 134 FT 211 FT 212 | Industrial Operation & Management PraFTices General Biology and Introduction to Microbiology Computer Programming Food Chemistry Bakery & Confectionary Products Individual and Dual Sports TOTAL | 3 3 3 2 2 1 1 | 0 0 0 3 3 6 0 | 3 3 3 3 3 2 | 3 3 3 5 5 8 2 | None None None None AST 103 FT 121 |
| AST 104 AST 134 ET 211 ET 212 | Industrial Operation & Management PraFTices General Biology and Introduction to Microbiology Computer Programming Food Chemistry Bakery & Confectionary Products Individual and Dual Sports TOTAL | 3 3 3 2 2 1 1 | 0 0 0 3 3 6 0 | 3 3 3 3 3 2 | 3 3 3 5 5 8 2 | None None None None AST 103 FT 121 |
| AST 104 AST 134 FT 211 FT 212 PE 103 | Industrial Operation & Management PraFTices General Biology and Introduction to Microbiology Computer Programming Food Chemistry Bakery & Confectionary Products Individual and Dual Sports TOTAL SE Sec | 3 3 2 2 1 1 1 COND YEA | 0 0 0 3 3 6 0 | 3 3 3 3 3 2 26 | 3 3 3 5 5 5 8 2 35 | None None None None AST 103 FT 121 PE102 |
| AST 104 AST 134 FT 211 FT 212 PE 103 COURSE | Industrial Operation & Management PraFTices General Biology and Introduction to Microbiology Computer Programming Food Chemistry Bakery & Confectionary Products Individual and Dual Sports TOTAL | 3 3 2 2 1 1 1 COND YEA | 0 0 0 3 3 6 0 | 3 3 3 3 3 2 | 3 3 3 5 5 8 2 | None None None None AST 103 FT 121 PE102 |
| AST 104 AST 134 ET 211 ET 212 PE 103 COURSE NO. | Industrial Operation & Management PraFTices General Biology and Introduction to Microbiology Computer Programming Food Chemistry Bakery & Confectionary Products Individual and Dual Sports TOTAL SE Sec COURSE TITLE | 3 3 2 2 1 1 1 COND YEA ond Semes CRI LEC | 0 0 0 3 3 6 0 | 3 3 3 3 3 2 26 UNITS | 3 3 3 5 5 8 2 35 NO. OF HRS. | None None None None AST 103 FT 121 PE102 PRE-REQUISITE |
| AST 104 AST 134 ET 211 ET 212 PE 103 COURSE NO. FILI 102 | Industrial Operation & Management PraFTices General Biology and Introduction to Microbiology Computer Programming Food Chemistry Bakery & Confectionary Products Individual and Dual Sports TOTAL SE Sec COURSE TITLE Filipino sa Iba't Ibang Disiplina | 3 3 3 2 2 1 1 1 COND YEA cond Semes CRI LEC 3 | 0 0 0 3 3 6 0 | 3 3 3 3 3 2 26 UNITS | 3 3 3 5 5 8 2 35 | None None None None AST 103 FT 121 PE102 PRE-REQUISITE None |
| AST 104 AST 134 FT 211 FT 212 PE 103 COURSE NO. FILI 102 Ged 107 | Industrial Operation & Management PraFTices General Biology and Introduction to Microbiology Computer Programming Food Chemistry Bakery & Confectionary Products Individual and Dual Sports TOTAL SE Sec COURSE TITLE Filipino sa Iba't Ibang Disiplina Ethics | 3 3 3 2 2 1 1 1 COND YEA ond Semes CRI LEC 3 3 | 0 0 0 3 3 6 0 0 AR ster EDIT LB/SW 0 | 3 3 3 3 3 2 26 UNITS 3 3 | 3 3 3 5 5 8 2 35 NO. OF HRS. 3 3 | None None None None AST 103 FT 121 PE102 PRE-REQUISITE None None |
| AST 104 AST 134 FT 211 FT 212 PE 103 COURSE NO. FILI 102 Ged 107 PM 103 | Industrial Operation & Management PraFTices General Biology and Introduction to Microbiology Computer Programming Food Chemistry Bakery & Confectionary Products Individual and Dual Sports TOTAL SE Sec COURSE TITLE Filipino sa Iba't Ibang Disiplina Ethics Production and Operations Management | 3 3 3 2 2 1 1 1 COND YEA ond Semes CRI LEC 3 3 3 3 | 0 0 0 3 3 6 0 0 AR ster EDIT LB/SW 0 0 | 3 3 3 3 3 2 26 UNITS 3 3 3 3 | 3 3 3 5 5 8 2 35 NO. OF HRS. 3 3 3 3 | None None None None AST 103 FT 121 PE102 PRE-REQUISITE None None None |
| AST 104 AST 134 ET 211 ET 212 PE 103 COURSE NO. FILLI 102 Ged 107 PM 103 AST 110 | Industrial Operation & Management PraFTices General Biology and Introduction to Microbiology Computer Programming Food Chemistry Bakery & Confectionary Products Individual and Dual Sports TOTAL SE COURSE TITLE Filipino sa Iba't Ibang Disiplina Ethics Production and Operations Management Data Analytics | 3 3 3 2 2 1 1 1 COND YEA ond Semes CRI LEC 3 3 3 3 3 | 0 0 0 3 3 6 0 0 AR Ster EDIT LB/SW 0 0 | 3 3 3 3 3 2 26 UNITS 3 3 3 3 3 3 | 3 3 3 5 5 5 8 2 35 NO. OF HRS. 3 3 3 3 3 3 | None None None None AST 103 FT 121 PE102 PRE-REQUISITE None None None GEd 102, AST 111 |
| AST 104 AST 134 FT 211 FT 212 PE 103 COURSE NO. FILI 102 Ged 107 PM 103 AST 110 FT 221 | Industrial Operation & Management PraFTices General Biology and Introduction to Microbiology Computer Programming Food Chemistry Bakery & Confectionary Products Individual and Dual Sports TOTAL SE COURSE TITLE Filipino sa Iba't Ibang Disiplina Ethics Production and Operations Management Data Analytics Food Process Technology | 3 3 3 2 2 1 1 1 COND YEA ond Semes CRI LEC 3 3 3 3 2 | 0 0 0 3 3 6 0 0 AR Ster EDIT LB/SW 0 0 0 | 3 3 3 3 3 2 26 UNITS 3 3 3 3 3 3 3 3 | 3 3 3 5 5 8 2 35 NO. OF HRS. 3 3 3 3 5 | None None None None AST 103 FT 121 PE102 PRE-REQUISITE None None None GEd 102, AST 111 FT 121, FT 211 |
| AST 104 AST 134 FT 211 FT 212 PE 103 COURSE NO. FILI 102 Ged 107 PM 103 AST 110 FT 221 FT 222 | Industrial Operation & Management PraFTices General Biology and Introduction to Microbiology Computer Programming Food Chemistry Bakery & Confectionary Products Individual and Dual Sports TOTAL SE Sec COURSE TITLE Filipino sa Iba't Ibang Disiplina Ethics Production and Operations Management Data Analytics Food Process Technology Food Nutrition & Analysis | 3 3 3 2 2 1 1 1 COND YEA ond Semes CRI LEC 3 3 3 3 2 2 2 | 0 0 0 3 3 6 0 0 AR Ster EDIT LB/SW 0 0 0 0 | 3 3 3 3 3 2 26 UNITS 3 3 3 3 3 3 3 3 3 3 | 3 3 3 5 5 8 2 35 NO. OF HRS. 3 3 3 3 5 5 | None None None None None AST 103 FT 121 PE102 PRE-REQUISITE None None None TT 121, FT 211 FT 211 |
| PM 102 AST 104 AST 134 FT 211 FT 212 PE 103 COURSE NO. FILI 102 Ged 107 PM 103 AST 110 FT 221 FT 222 FT 223 PE 104 | Industrial Operation & Management PraFTices General Biology and Introduction to Microbiology Computer Programming Food Chemistry Bakery & Confectionary Products Individual and Dual Sports TOTAL SE COURSE TITLE Filipino sa Iba't Ibang Disiplina Ethics Production and Operations Management Data Analytics Food Process Technology | 3 3 3 2 2 1 1 1 COND YEA ond Semes CRI LEC 3 3 3 3 2 | 0 0 0 3 3 6 0 0 AR Ster EDIT LB/SW 0 0 0 | 3 3 3 3 3 2 26 UNITS 3 3 3 3 3 3 3 3 | 3 3 3 5 5 8 2 35 NO. OF HRS. 3 3 3 3 5 | None None None None AST 103 FT 121 PE102 PRE-REQUISITE None None None GEd 102, AST 111 FT 121, FT 211 |

| | T | HIRD YEA | .R | | | |
|----------|--|------------|-------|-------|--------|-----------------------|
| | Fi | rst Semest | ter | | | |
| COURSE | COURSE TITLE | CR | EDIT | UNITS | NO. OF | DDE DEOLUCITE |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| 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 | FT 221,FT 222, FT 223 |
| PM 105 | Materials Technology Management | 3 | 0 | 3 | 3 | FT 221,FT 222, FT 223 |
| PM 106 | Professional Ethics | 3 | 0 | 3 | 3 | None |
| FT 311 | Food Product Development and Sensory Evaluation | 2 | 3 | 3 | 5 | FT 221,FT 222, FT 22 |
| FT 312 | Catering and Bar Service Management | 1 | 6 | 3 | 7 | FT 212, FT 222 |
| AST 101 | Microbial and Foodbiotechnology | 3 | 0 | 3 | 3 | FT 223 |
| | TOTAL | | | 24 | 30 | |
| | | | | | | |
| | T | HIRD YEA | .R | | | |
| | Sec | ond Seme | ster | | | |
| COURSE | COURSE TITLE | CR | EDIT | UNITS | NO. OF | DDE DEQUISITE |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| Ged 108 | Art Appreciation | 3 | 0 | 3 | 3 | None |
| PM 107 | Technology Research II | 3 | 0 | 3 | 3 | PM 104 |
| 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 | PM 104 |
| FT 321 | Food Packaging and Storage Technology | 2 | 3 | 3 | 5 | FT 311 |
| FT 322 | Food Quality Management and Food Regulations | 2 | 3 | 3 | 5 | FT 311, FT 312 |
| | TOTAL | | | 24 | 28 | |
| | | | - | | - | |
| | FO | URTH YE | AR | | | |
| | Fi | rst Semest | ter | | | |
| COURSE | COURSE TITLE | CR | EDIT | UNITS | NO. OF | DDE DEOLUCITE |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| OJT 1 | Supervised Industrial Training 1 (540hrs) | 0 | 10 | 10 | 540 | FT 321, FT 322 |
| | TOTAL | | | 10 | 540 | |
| | | | | | | |
| | FO | URTH YE | AR | | | |
| | Sec | ond Seme | ster | | | |
| COURSE | COURSE TITLE | | EDIT | UNITS | NO. OF | PRE-REQUISITE |
| NO. | COURSE TITLE | LEC | LB/SW | UMIS | HRS. | |
| | Companying of Industrial Training 2 (540hms) | 0 | 10 | 10 | 540 | OJT 1 |
| OJT 2 | Supervised Industrial Training 2 (540hrs) | | 10 | | | |



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

INSTRUMENTATION

AND CONTROL TECHNOLOGY

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

Curriculum Description

The program in Bachelor of Industrial Technology Major in Instrumentation and Control Technology will prepare graduates with the technical and managerial skills necessary to enter careers in design, manufacturing, marketing, operations and maintenance in the field of measurement, control, robotics and automation technology. The program, as a result of extensive laboratory experience in components/device operation, calibration and interconnection, have strengths in thier knowledge of operations, maintence and manufacturing. Gradutes are qualified to undertake the design and specification of control systems and for the subsequent management of their installation and operation.

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

| 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 | | 28 units |
| AST 111 | Math for Technology | 3 | |
| AST 102 | Applied Chemistry | 3 | |
| AST 105 | Applied Physics | 3 | |
| AST 133 | Production Drawing | 2 | |
| AST 113 | Electrical and Electronic Principle | 3 | |
| AST 133 | Computer Aided Design | 2 | |
| AST 132 | Computer Programming | 3 | |

| AST 121 | Hydraulics and Pneumatics Systems | 3 | |
|----------|--|---|----------|
| AST 110 | Data Analytics | 3 | |
| AST 116 | Electrical Motors and Control | 3 | |
| | D. Major Specialization Courses | | 36 units |
| ICT 111 | Process Variable Measurement I | 3 | |
| ICT 121 | Process Variable Measurement II | 3 | |
| ICT 211 | Instrumentation System Diagram and Process Equipment | 3 | |
| ICT 212 | Digital Electronics and Microprocessor | 3 | |
| ICT 221 | Electropneumatics and Electrohydraulics Systems | 3 | |
| ICT 222 | Workshop Technology | 3 | |
| ICT 223 | Analytical Instrumentation | 3 | |
| ICT 311 | Industrial Process Control | 3 | |
| ICT 312 | Plant Safety Network | 3 | |
| ICT 313 | Instrumentation PLC I | 3 | |
| ICT 321 | Instrumentation PLC II | 3 | |
| ICT 322 | Process Control Applications | 3 | |
| | 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 | 28 | | | |
| Professional and Management Courses | 32 | | | |
| Specialization/Major Courses | 36 | | | |
| Supervised Industrial Training/OJT | 20 | | | |
| Mandated Courses (PE & NSTP) | 14 | | | |
| TOTAL | 166 | | | |

Republic of the Philippines BATANGAS STATE UNIVERSITY Batangas City

COLLEGE OF INDUSTRIAL TECHNOLOGY

Bachelor of Industrial Technology (BIT) Instrumentation and Control Technology Effective A.Y. 2018 - 2019

| | FIRST YEAR | | | | | | | |
|----------------|---|-----|-------|-------|--------|---------------|--|--|
| First Semester | | | | | | | | |
| COURSE | COURSE TITLE | CR | EDIT | UNITS | NO. OF | PRE-REQUISITE | | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | TRE-REQUISITE | | |
| 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 | | |
| PM 101 | Occupational Health and Safety Management | 2 | 0 | 2 | 2 | None | | |
| ICT 111 | Process Variable Measurement I | 2 | 3 | 3 | 5 | 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 | | | 21 | 24 | | | |

| | FIRST YEAR | | | | | | | | |
|----------|-------------------------------------|-----|-------|-------|--------|---------------|--|--|--|
| | Second Semester | | | | | | | | |
| COURSE | COURSE TITLE | CR | EDIT | UNITS | NO. OF | PRE-REQUISITE | | | |
| NO. | COURSE TITLE | LEC | LB/SW | UNIIS | HRS. | TRE-REQUISITE | | | |
| 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 Electronic Principle | 2 | 3 | 3 | 5 | AST 105 | | | |
| AST 135 | Computer Aided Design | 1 | 3 | 2 | 4 | AST 133 | | | |
| ICT 121 | Process Variable Measurement II | 2 | 3 | 3 | 5 | ICT 111 | | | |
| NSTP 121 | National Service Training Program 2 | 3 | 0 | 3 | 3 | NSTP111 | | | |
| PE 102 | Rhythmic Activities | 2 | 0 | 2 | 2 | PE101 | | | |
| | TOTAI | _ | | 25 | 26 | | | | |

| | SECOND YEAR | | | | | | | | |
|----------|--|-----|-------|-------|--------|---------------|--|--|--|
| | First Semester | | | | | | | | |
| COURSE | COURSE TITLE | CRI | EDIT | UNITS | NO. OF | DDE DEQUISITE | | | |
| NO. | COURSE TITLE | LEC | LB/SW | UNIIS | HRS. | PRE-REQUISITE | | | |
| 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 132 | Computer Programming | 2 | 3 | 3 | 5 | None | | | |
| AST 121 | Hydraulics and Pneumatics Systems | 2 | 3 | 3 | 5 | AST 105 | | | |
| ICT 211 | Instrumentation System Diagram and Process Equipment | 1 | 6 | 3 | 7 | ICT 121 | | | |
| ICT 212 | Digital Electronics and Microprocessor | 2 | 3 | 3 | 5 | AST 113 | | | |
| PE 103 | Individual and Dual Sports | 2 | 0 | 2 | 2 | PE102 | | | |
| TOTAL 26 | | | | | | | | | |

| | SECOND YEAR Second Semester | | | | | | | | |
|----------|---|-----|-------|-------|--------|------------------|--|--|--|
| | | | | | | | | | |
| COURSE | COURSE TITLE | CRI | EDIT | UNITS | NO. OF | PRE-REQUISITE | | | |
| NO. | COURSE IIILE | LEC | LB/SW | UNIIS | HRS. | PRE-REQUISITE | | | |
| 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 | | | | |
| AST 110 | Data Analytics | 3 | 0 | 3 | 3 | Ged 102, AST 111 | | | |
| AST 116 | Electrical Motors and Control | 2 | 3 | 3 | 5 | ICT 212 | | | |
| ICT 221 | Electropneumatics and Electrohydraulics Systems | 2 | 3 | 3 | 5 | ICT 212 | | | |
| ICT 222 | Workshop Technology | 2 | 3 | 3 | 5 | ICT 212 | | | |
| ICT 223 | Analytical Instrumentation | 2 | 3 | 3 | 5 | AST 102, ICT 211 | | | |
| PE 104 | Team Sports | 2 | 0 | 2 | 2 | PE103 | | | |
| | TOTAL | | | 26 | 34 | | | | |

| | THIRD YEAR | | | | | | | | | |
|----------|---------------------------------|-----|-------|-------|--------|---------------------------|--|--|--|--|
| | First Semester | | | | | | | | | |
| COURSE | COURSE TITLE | CRI | EDIT | UNITS | NO. OF | PRE-REQUISITE | | | | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | FRE-REQUISITE | | | | |
| 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 | ICT 221, ICT 222, ICT 223 | | | | |
| PM 105 | Materials Technology Management | 3 | 0 | 3 | 3 | ICT 221, ICT 222, ICT 223 | | | | |
| PM 106 | Professional Ethics | 3 | 0 | 3 | 3 | GEd 107 | | | | |
| ICT 311 | Industrial Process Control | 2 | 3 | 3 | 5 | ICT 221, ICT 222, ICT 223 | | | | |
| ICT 312 | Plant Safety Network | 2 | 3 | 3 | 5 | ICT 221, ICT 222, ICT 223 | | | | |
| ICT 313 | Instrumentation PLC I | 2 | 3 | 3 | 5 | ICT 221, ICT 222, ICT 223 | | | | |
| | TOTAL | | | 24 | 30 | | | | | |

| | THIRD YEAR | | | | | | | | |
|---------|------------------------------|-----|-------|-------|--------|-------------------|--|--|--|
| | Second Semester | | | | | | | | |
| COURSE | COURSE TITLE | CR | EDIT | UNITS | NO. OF | PRE-REQUISITE | | | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | FRE-REQUISITE | | | |
| 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 | | | |
| ICT 321 | Instrumentation PLC II | 2 | 3 | 3 | 5 | ICT 313 | | | |
| ICT 322 | Process Control Applications | 2 | 3 | 3 | 5 | ICT 311 | | | |
| | TOTAL | | | 24 | 28 | | | | |

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

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

 $^{{\}it *Regular Standing: No deficiencies on the previous semester.}$



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

| 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 | | | |

Republic of the Philippines BATANGAS STATE UNIVERSITY

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 | COURSE TITLE | CR | EDIT | UNITS | NO. OF | DDE DEQUISITE | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE | |
| 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 | | | | | |
|----------|-------------------------------------|-----------|-------|-------|--------|----------------|
| | Sec | cond Seme | ster | | | |
| COURSE | COURSE TITLE | CR | EDIT | UNITS | NO. OF | PRE-REQUISITE |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| 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 | COURSE TITLE | CREDIT | | CREDIT | | CREDIT | | UNITS | NO. OF | DDE DEOLUCITE |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE | | | | |
| 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 | COURSE TITLE | CRI | EDIT | UNITS | NO. OF | PRE-REQUISITE | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE | |
| 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 | COURSE TITLE | CRI | EDIT | UNITS | NO. OF | PRE-REQUISITE | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE | |
| 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 | L | | 21 | 27 | | |

| | THIRD YEAR | | | | | |
|---------|--------------------------------|--------------|-------|-------|--------|------------------------|
| | | Second Semes | ster | | | |
| COURSE | COURSE TITLE | CRI | EDIT | UNITS | NO. OF | PRE-REQUISITE |
| NO. | COURSE TITLE | LEC | LB/SW | OMIS | HRS. | TRE-REQUISITE |
| 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 | COURSE TITLE | CRI | CREDIT | | NO. OF | PRE-REQUISITE |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| OJT 1 | Supervised Industrial Training 1 (540hrs) | 0 | 10 | 10 | 540 | MT 321, 3T 322 |
| | TOTAL | | | 10 | 540 | |

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

 $^{* \}textit{Regular Standing: No deficiencies on the previous semester.}$



BATANGAS STATE UNIVERSITY

Pablo Borbon Campus II, Alangilan, Batangas City, Philippines 4200

COLLEGE OF INDUSTRIAL TECHNOLOGY

www.batstate-u.edu.ph Telefax: (043)425-0143 loc 2103



CURRICULUM Bachelor of Industrial Technology MECHATRONICS 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 Mechatronics Technology is a field of technology that includes a combination of mechanical, electronics, automation and computer technology. Mechatronics aim is a design process that unifies these technology fields. Students in mechatronics technology degree program will gain the technical know-how to install, repair and maintain various types of electromechanical equipment and industrial machines and be equipped to work with electromechanical and automated equipment to create industrial and commercial products. On-the-job training and project development study are generally required.

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

| 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 | | 28 units |
| AST 111 | Math for Technology | 3 | |
| AST 102 | Applied Chemistry | 3 | |
| AST 105 | Applied Physics | 3 | |
| AST 133 | Production Drawing | 2 | |
| AST 106 | Mechanics and Strength of Materials | 3 | |
| AST 135 | Computer Aided Design | 2 | |
| AST 107 | Thermodynamics | 3 | |
| AST 134 | Computer Programming | 3 | |

| AST 110 | Data Analytics | 3 | |
|----------|--|---|----------|
| AST 118 | Communication System | 3 | |
| | D. Major Specialization Courses | | 36 units |
| MXT 111 | Mechatronics Technology Workshop I (Benchwork, Pipe Fitting and Bending) | 3 | |
| MXT 122 | Electrical and Electronic Principles | 3 | |
| MXT 211 | Electric Motors and Controllers | 3 | |
| MXT 212 | Digital Electronics and Microprocessor Control | 3 | |
| MXT 213 | Fluid Power and Control | 3 | |
| MXT 221 | Electropneumatics and Electrohydraulics | 3 | |
| MXT 222 | Prorammable Logic Control | 3 | |
| MXT 223 | Mechatronics Technology Workshop II (Lathe Machining and Shaping) | 3 | |
| MXT 311 | Machine Elements | 3 | |
| MXT 312 | Automatic Control System | 3 | |
| MXT 313 | Mechatronics Technology Workshop III (CNC) | 3 | |
| MXT 321 | Application of Industrial Robots for Advanced Manufacturing | 3 | |
| | 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 | 28 | | | |
| Professional and Management Courses | 32 | | | |
| Specialization/Major Courses | 36 | | | |
| Supervised Industrial Training/OJT | 20 | | | |
| Mandated Courses (PE & NSTP) | 14 | | | |
| TOTAL | 166 | | | |

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COLLEGE OF INDUSTRIAL TECHNOLOGY

Bachelor of Industrial Technology (BIT)
Mechatronics Technology
Effective A.Y. 2018-2019

| | M OF STUDY | FIRST YEAR | R | | | |
|---|--|--|--|---|---|---|
| | | irst Semest | | | | |
| COURSE | r | | EDIT | | NO. OF | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| 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 |
| PM 101 | Occupational Health and Safety Management | 2 | 0 | 2 | 2 | None |
| MXT 111 | Mechatronics Technology Workshop I (Benchwork, Pipe Fitting and Bending) | 1 | 6 | 3 | 7 | None |
| MXT 122 | Electrical and Electronic Principles | 2 | 3 | 3 | 5 | None |
| NSTP 1 | National Service Training Program 1 | 3 | 0 | 3 | 3 | None |
| PE 101 | Physical Fitness, Gymnastics and Aerobics | 2 | 0 | 2 | 2 | None |
| I L 101 | TOTAL | 2 | U | 24 | 31 | None |
| | TOTAL | | | 24 | 31 | |
| | | FIRST YEAI | | | | |
| | Se | cond Semes | | | | |
| COURSE NO. | COURSE TITLE | LEC | EDIT LB/SW | UNITS | NO. OF HRS. | PRE-REQUISITE |
| 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 106 | Mechanics and Strength of Materials | 2 | 3 | 3 | 5 | AST 105 |
| AST 135 | Computer Aided Design | 1 | 3 | 2 | 4 | AST 133 |
| AST 107 | Thermodynamics | 3 | 0 | 3 | 3 | AST 105 |
| | National Service Training Program 2 | 3 | 0 | 3 | 3 | NSTP1 |
| NSTP 2 | | | | | | |
| | Rhythmic Activities | 2 | 0 | 2 | 2 | PE101 |
| NSTP 2 PE 102 | Rhythmic Activities TOTAL | 2 ECOND YEA | - | 2 25 | 2 24 | PE101 |
| | Rhythmic Activities TOTAL SI F | ECOND YEA | AR | 25 | | |
| PE 102 COURSE NO. | Rhythmic Activities TOTAL SI F COURSE TITLE | ECOND YEA irst Semest CRE LEC | AR er | | 24 | PE101 PRE-REQUISITE |
| PE 102 COURSE | Rhythmic Activities TOTAL SI F COURSE TITLE The Life and Works of Rizal | ECOND YEA | AR er EDIT | UNITS 3 | NO. OF HRS. | |
| COURSE NO. Ged 103 | Rhythmic Activities TOTAL SI F COURSE TITLE The Life and Works of Rizal The Contemporary World | ECOND YEA irst Semest CRE LEC | AR er EDIT LB/SW | 25 UNITS | NO. OF HRS. | PRE-REQUISITE |
| COURSE NO. Ged 103 Ged 104 FILI 101 | Rhythmic Activities TOTAL SI F COURSE TITLE The Life and Works of Rizal The Contemporary World Kontekstwalisadong Komunikasyon sa Filipino | CCOND YEA | AR er EDIT LB/SW 0 | 25 UNITS 3 3 3 3 | NO. OF HRS. 3 3 3 | PRE-REQUISITE None |
| COURSE NO. Ged 103 Ged 104 FILI 101 PM 102 | Rhythmic Activities TOTAL SI F COURSE TITLE The Life and Works of Rizal The Contemporary World Kontekstwalisadong Komunikasyon sa Filipino Industrial Operation & Management Practices | CCOND YEA | AR er EDIT LB/SW 0 0 | 25 UNITS 3 3 3 3 3 | NO. OF HRS. 3 3 3 3 | PRE-REQUISITE None None |
| COURSE NO. Ged 103 Ged 104 FILI 101 PM 102 AST 134 | Rhythmic Activities TOTAL SI F COURSE TITLE The Life and Works of Rizal The Contemporary World Kontekstwalisadong Komunikasyon sa Filipino Industrial Operation & Management Practices Computer Programming | CCOND YEA | AR er EDIT LB/SW 0 0 0 0 3 | 25 UNITS 3 3 3 3 3 3 | NO. OF HRS. 3 3 3 5 | PRE-REQUISITE None None None None None None |
| COURSE NO. Ged 103 Ged 104 FILI 101 PM 102 AST 134 MXT 211 | Rhythmic Activities TOTAL SI F COURSE TITLE The Life and Works of Rizal The Contemporary World Kontekstwalisadong Komunikasyon sa Filipino Industrial Operation & Management Practices Computer Programming Electric Motors and Controllers | CCOND YEA irst Semeste CRE LEC 3 3 3 2 2 | AR er EDIT LB/SW 0 0 0 0 0 0 3 3 3 | 25 UNITS 3 3 3 3 3 3 3 | NO. OF HRS. 3 3 3 5 5 5 | PRE-REQUISITE None None None None None None MXT 123 |
| COURSE NO. Ged 103 Ged 104 FILI 101 PM 102 AST 134 MXT 211 MXT 212 | Rhythmic Activities TOTAL SIF COURSE TITLE The Life and Works of Rizal The Contemporary World Kontekstwalisadong Komunikasyon sa Filipino Industrial Operation & Management Practices Computer Programming Electric Motors and Controllers Digital Electronics and Microprocessor Control | CCOND YEA | AR er EDIT LB/SW 0 0 0 0 0 3 3 3 3 3 3 | 25 UNITS 3 3 3 3 3 3 3 3 3 | NO. OF HRS. 3 3 3 5 5 5 | PRE-REQUISITE None None None None None MXT 123 MXT 122 |
| COURSE NO. Ged 103 Ged 104 FILI 101 PM 102 AST 134 MXT 211 MXT 212 MXT 213 | Rhythmic Activities TOTAL SI F COURSE TITLE The Life and Works of Rizal The Contemporary World Kontekstwalisadong Komunikasyon sa Filipino Industrial Operation & Management Practices Computer Programming Electric Motors and Controllers Digital Electronics and Microprocessor Control Fluid Power and Control | CCOND YEA | AR er EDIT LB/SW 0 0 0 0 3 3 3 3 3 | 25 UNITS 3 3 3 3 3 3 3 3 3 3 | 24 NO. OF HRS. 3 3 3 5 5 5 5 | PRE-REQUISITE None None None None MXT 123 MXT 122 AST 107 |
| COURSE NO. Ged 103 Ged 104 FILI 101 PM 102 AST 134 MXT 211 MXT 212 MXT 213 | Rhythmic Activities TOTAL SI F COURSE TITLE The Life and Works of Rizal The Contemporary World Kontekstwalisadong Komunikasyon sa Filipino Industrial Operation & Management Practices Computer Programming Electric Motors and Controllers Digital Electronics and Microprocessor Control Fluid Power and Control Individual and Dual Sports | CCOND YEA | AR er EDIT LB/SW 0 0 0 0 0 3 3 3 3 3 3 | 25 UNITS 3 3 3 3 3 3 3 2 | 24 NO. OF HRS. 3 3 3 5 5 5 2 | PRE-REQUISITE None None None None None MXT 123 MXT 122 |
| COURSE NO. Ged 103 Ged 104 FILI 101 PM 102 AST 134 MXT 211 MXT 212 MXT 213 | Rhythmic Activities TOTAL SI F COURSE TITLE The Life and Works of Rizal The Contemporary World Kontekstwalisadong Komunikasyon sa Filipino Industrial Operation & Management Practices Computer Programming Electric Motors and Controllers Digital Electronics and Microprocessor Control Fluid Power and Control | CCOND YEA | AR er EDIT LB/SW 0 0 0 0 3 3 3 3 3 | 25 UNITS 3 3 3 3 3 3 3 3 3 3 | 24 NO. OF HRS. 3 3 3 5 5 5 5 | PRE-REQUISITE None None None None MXT 123 MXT 122 AST 107 |
| COURSE NO. Ged 103 Ged 104 FILI 101 PM 102 AST 134 MXT 211 MXT 212 MXT 213 | Rhythmic Activities TOTAL SI F COURSE TITLE The Life and Works of Rizal The Contemporary World Kontekstwalisadong Komunikasyon sa Filipino Industrial Operation & Management Practices Computer Programming Electric Motors and Controllers Digital Electronics and Microprocessor Control Fluid Power and Control Individual and Dual Sports TOTAL | CCOND YEA irst Semeste CRE LEC 3 3 3 2 2 2 2 | AR er EDIT LB/SW 0 0 0 0 0 0 3 3 3 3 3 0 0 | 25 UNITS 3 3 3 3 3 3 3 2 | 24 NO. OF HRS. 3 3 3 5 5 5 2 | PRE-REQUISITE None None None None MXT 123 MXT 122 AST 107 |
| PE 102 COURSE NO. | Rhythmic Activities TOTAL SIF COURSE TITLE The Life and Works of Rizal The Contemporary World Kontekstwalisadong Komunikasyon sa Filipino Industrial Operation & Management Practices Computer Programming Electric Motors and Controllers Digital Electronics and Microprocessor Control Fluid Power and Control Individual and Dual Sports TOTAL | CCOND YEA irst Semeste CRE LEC 3 3 3 2 2 2 2 2 2 | AR er EDIT LB/SW 0 0 0 0 0 0 3 3 3 3 0 0 | 25 UNITS 3 3 3 3 3 3 3 2 | 24 NO. OF HRS. 3 3 3 5 5 5 2 | PRE-REQUISITE None None None None MXT 123 MXT 122 AST 107 |
| COURSE NO. Ged 103 Ged 104 FILI 101 PM 102 AST 134 MXT 211 MXT 212 MXT 213 | Rhythmic Activities TOTAL SI F COURSE TITLE The Life and Works of Rizal The Contemporary World Kontekstwalisadong Komunikasyon sa Filipino Industrial Operation & Management Practices Computer Programming Electric Motors and Controllers Digital Electronics and Microprocessor Control Fluid Power and Control Individual and Dual Sports TOTAL SI Se | CCOND YEA | AR er EDIT LB/SW 0 0 0 0 0 0 3 3 3 3 0 0 | 25 UNITS 3 3 3 3 3 3 2 26 | 24 NO. OF HRS. 3 3 3 5 5 5 2 | PRE-REQUISITE None None None None None MXT 123 MXT 122 AST 107 PE102 |
| COURSE NO. Ged 103 Ged 104 FILI 101 PM 102 AST 134 MXT 211 MXT 212 MXT 213 PE 103 COURSE NO. | Rhythmic Activities TOTAL SI F COURSE TITLE The Life and Works of Rizal The Contemporary World Kontekstwalisadong Komunikasyon sa Filipino Industrial Operation & Management Practices Computer Programming Electric Motors and Controllers Digital Electronics and Microprocessor Control Fluid Power and Control Individual and Dual Sports TOTAL SI Sec. COURSE TITLE | CCOND YEA irst Semest CRE LEC 3 3 3 2 2 2 2 2 2 CCOND YEA cond Semest | AR EDIT LB/SW 0 0 0 0 3 3 3 0 AR Ster EDIT LB/SW | 25 UNITS 3 3 3 3 3 3 2 26 UNITS | NO. OF HRS. 3 3 3 5 5 5 2 34 NO. OF HRS. | PRE-REQUISITE None None None None MXT 123 MXT 122 AST 107 PE102 PRE-REQUISITE |
| COURSE NO. Ged 103 Ged 104 FILI 101 PM 102 AST 134 MXT 211 MXT 212 MXT 213 PE 103 COURSE NO. FILI 102 | Rhythmic Activities TOTAL SIFF COURSE TITLE The Life and Works of Rizal The Contemporary World Kontekstwalisadong Komunikasyon sa Filipino Industrial Operation & Management Practices Computer Programming Electric Motors and Controllers Digital Electronics and Microprocessor Control Fluid Power and Control Individual and Dual Sports TOTAL SI Se COURSE TITLE Filipino sa iba't ibang Disiplina | CCOND YEA | AR er EDIT LB/SW 0 0 0 0 3 3 3 3 0 AR eter EDIT LB/SW 0 | 25 UNITS 3 3 3 3 3 3 2 26 UNITS 3 | 24 NO. OF HRS. 3 3 3 5 5 5 2 34 NO. OF HRS. 3 | PRE-REQUISITE None None None None None MXT 123 MXT 122 AST 107 PE102 PRE-REQUISITE None |
| COURSE NO. Ged 103 Ged 104 FILI 101 PM 102 AST 134 MXT 211 MXT 212 MXT 213 PE 103 COURSE NO. FILI 102 Ged 107 | Rhythmic Activities TOTAL SIF COURSE TITLE The Life and Works of Rizal The Contemporary World Kontekstwalisadong Komunikasyon sa Filipino Industrial Operation & Management Practices Computer Programming Electric Motors and Controllers Digital Electronics and Microprocessor Control Fluid Power and Control Individual and Dual Sports TOTAL SI Se COURSE TITLE Filipino sa iba't ibang Disiplina Ethics | ECOND YEA irst Semeste | AR er EDIT LB/SW 0 0 0 0 3 3 3 0 AR eter EDIT LB/SW 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | UNITS 3 3 3 3 3 3 2 26 UNITS 3 3 3 | NO. OF HRS. 3 3 3 5 5 5 2 34 NO. OF HRS. 3 3 3 | PRE-REQUISITE None None None None MXT 123 MXT 122 AST 107 PE102 PRE-REQUISITE None None |
| COURSE NO. Ged 103 Ged 104 FILI 101 PM 102 AST 134 MXT 211 MXT 212 MXT 213 PE 103 COURSE NO. FILI 102 Ged 107 PM 103 | Rhythmic Activities TOTAL SI F COURSE TITLE The Life and Works of Rizal The Contemporary World Kontekstwalisadong Komunikasyon sa Filipino Industrial Operation & Management Practices Computer Programming Electric Motors and Controllers Digital Electronics and Microprocessor Control Fluid Power and Control Individual and Dual Sports TOTAL SI Se COURSE TITLE Filipino sa iba't ibang Disiplina Ethics Production and Operations Management | ECOND YEA irst Semeste | AR er EDIT LB/SW 0 0 0 0 3 3 3 3 0 AR eter EDIT LB/SW 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | UNITS 3 3 3 3 3 3 2 26 UNITS 3 3 3 3 3 3 3 2 4 4 4 4 4 4 4 4 4 4 4 | NO. OF HRS. 3 3 3 5 5 5 5 2 34 NO. OF HRS. 3 3 3 3 3 3 3 3 | PRE-REQUISITE None None None None MXT 123 MXT 122 AST 107 PE102 PRE-REQUISITE None None None |
| COURSE NO. Ged 103 Ged 104 FILI 101 PM 102 AST 134 MXT 211 MXT 212 MXT 213 PE 103 COURSE NO. FILI 102 Ged 107 PM 103 AST 110 | Rhythmic Activities TOTAL SI F COURSE TITLE The Life and Works of Rizal The Contemporary World Kontekstwalisadong Komunikasyon sa Filipino Industrial Operation & Management Practices Computer Programming Electric Motors and Controllers Digital Electronics and Microprocessor Control Fluid Power and Control Individual and Dual Sports TOTAL SI Se COURSE TITLE Filipino sa iba't ibang Disiplina Ethics Production and Operations Management Data Analytics | ECOND YEA irst Semest CRE LEC 3 3 3 2 2 2 2 2 2 COND YEA cond Semest LEC 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 | AR er EDIT LB/SW 0 0 0 0 3 3 3 0 AR eter EDIT LB/SW 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | UNITS 3 3 3 3 3 3 2 26 UNITS 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 | NO. OF HRS. 3 3 3 5 5 5 5 2 34 NO. OF HRS. 3 3 3 3 3 3 3 3 3 | PRE-REQUISITE None None None None MXT 123 MXT 122 AST 107 PE102 PRE-REQUISITE None None None All Math Subjects |
| COURSE NO. Ged 103 Ged 104 FILI 101 PM 102 AST 134 MXT 211 MXT 212 MXT 213 PE 103 COURSE NO. FILI 102 Ged 107 PM 103 AST 110 MXT 221 | Rhythmic Activities TOTAL SI F COURSE TITLE The Life and Works of Rizal The Contemporary World Kontekstwalisadong Komunikasyon sa Filipino Industrial Operation & Management Practices Computer Programming Electric Motors and Controllers Digital Electronics and Microprocessor Control Fluid Power and Control Individual and Dual Sports TOTAL SI Se COURSE TITLE Filipino sa iba't ibang Disiplina Ethics Production and Operations Management Data Analytics Electropneumatics and Electrohydraulics | CCOND YEA irst Semest CRE LEC 3 3 3 2 2 2 2 2 2 2 CCOND YEA cond Semest LEC 3 3 3 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | AR CDIT LB/SW 0 0 0 0 3 3 3 3 0 AR CEDIT LB/SW 0 0 0 3 3 3 3 0 0 | UNITS 3 3 3 3 3 3 2 26 UNITS 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 | NO. OF HRS. 3 3 3 5 5 5 2 34 NO. OF HRS. 3 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | PRE-REQUISITE None None None None MXT 123 MXT 122 AST 107 PE102 PRE-REQUISITE None None None All Math Subjects MXT 212, MXT 213 |
| COURSE NO. Ged 103 Ged 104 FILI 101 PM 102 AST 134 MXT 211 MXT 212 MXT 213 PE 103 COURSE NO. FILI 102 Ged 107 PM 103 AST 110 MXT 221 | Rhythmic Activities TOTAL SI F COURSE TITLE The Life and Works of Rizal The Contemporary World Kontekstwalisadong Komunikasyon sa Filipino Industrial Operation & Management Practices Computer Programming Electric Motors and Controllers Digital Electronics and Microprocessor Control Fluid Power and Control Individual and Dual Sports TOTAL SI Sec COURSE TITLE Filipino sa iba't ibang Disiplina Ethics Production and Operations Management Data Analytics Electropneumatics and Electrohydraulics Prorammable Logic Control | ECOND YEA irst Semest CRE LEC 3 3 3 2 2 2 2 2 2 COND YEA cond Semest LEC 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 | AR er EDIT LB/SW 0 0 0 0 3 3 3 0 AR eter EDIT LB/SW 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | UNITS 3 3 3 3 3 3 2 26 UNITS 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 | NO. OF HRS. 3 3 3 5 5 5 5 2 34 NO. OF HRS. 3 3 3 3 3 3 3 3 3 | PRE-REQUISITE None None None None MXT 123 MXT 122 AST 107 PE102 PRE-REQUISITE None None None All Math Subjects MXT 212, MXT 213 |
| COURSE NO. Ged 103 Ged 104 FILI 101 PM 102 AST 134 MXT 211 MXT 212 MXT 213 PE 103 COURSE NO. FILI 102 Ged 107 PM 103 AST 110 MXT 221 MXT 222 | Rhythmic Activities TOTAL SI F COURSE TITLE The Life and Works of Rizal The Contemporary World Kontekstwalisadong Komunikasyon sa Filipino Industrial Operation & Management Practices Computer Programming Electric Motors and Controllers Digital Electronics and Microprocessor Control Fluid Power and Control Individual and Dual Sports TOTAL SI Se COURSE TITLE Filipino sa iba't ibang Disiplina Ethics Production and Operations Management Data Analytics Electropneumatics and Electrohydraulics | CCOND YEA irst Semest CRE LEC 3 3 3 2 2 2 2 2 2 2 CCOND YEA cond Semest LEC 3 3 3 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | AR CDIT LB/SW 0 0 0 0 3 3 3 3 0 AR CEDIT LB/SW 0 0 0 3 3 3 3 0 0 | UNITS 3 3 3 3 3 3 2 26 UNITS 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 | NO. OF HRS. 3 3 3 5 5 5 2 34 NO. OF HRS. 3 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | PRE-REQUISITE None None None None MXT 123 MXT 122 AST 107 PE102 PRE-REQUISITE None None None |
| COURSE NO. Ged 103 Ged 104 FILI 101 PM 102 AST 134 MXT 211 MXT 212 MXT 213 PE 103 COURSE | Rhythmic Activities TOTAL SI F COURSE TITLE The Life and Works of Rizal The Contemporary World Kontekstwalisadong Komunikasyon sa Filipino Industrial Operation & Management Practices Computer Programming Electric Motors and Controllers Digital Electronics and Microprocessor Control Fluid Power and Control Individual and Dual Sports TOTAL SI Se COURSE TITLE Filipino sa iba't ibang Disiplina Ethics Production and Operations Management Data Analytics Electropneumatics and Electrohydraulics Prorammable Logic Control Mechatronics Technology Workshop II | ECOND YEA irst Semest CRE LEC 3 3 3 2 2 2 2 2 2 2 COND YEA cond Semes CRE LEC 3 3 3 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | AR er EDIT LB/SW 0 0 0 0 3 3 3 0 AR eter EDIT LB/SW 0 0 0 3 3 3 3 0 | UNITS 3 3 3 3 3 3 2 26 UNITS 3 3 3 3 3 3 3 3 3 3 3 3 3 3 | NO. OF HRS. 3 3 3 5 5 5 2 34 NO. OF HRS. 3 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | PRE-REQUISITE None None None None MXT 123 MXT 122 AST 107 PE102 PRE-REQUISITE None None All Math Subjects MXT 212, MXT 213 MXT 212, MXT 213 |

| | Т | HIRD YEA | R | | | |
|------------|---|------------|---------------|-------|----------------|--------------------|
| | Fi | rst Semest | er | | | |
| COURSE | GOVERN THE T | CRI | EDIT | | NO. OF | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| 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 | All Major Subjects |
| PM 105 | Materials Technology Management | 3 | 0 | 3 | 3 | All Major Subjects |
| PM 106 | Professional Ethics | 3 | 0 | 3 | 3 | None |
| MXT 311 | Machine Elements | 2 | 3 | 3 | 5 | MXT 223 |
| MXT 312 | Automatic Control System | 2 | 3 | 3 | 5 | MXT 222 |
| MXT 313 | Mechatronics Technology Workshop III (CNC) | 1 | 6 | 3 | 7 | MXT 223 |
| WIXT 515 | | 1 | 0 | | , | WIXT 223 |
| | TOTAL | | | 24 | 32 | |
| | Т | HIRD YEA | R | | | |
| | | ond Semes | | | | |
| COURSE | 500 | | EDIT | | NO. OF | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE |
| 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 |
| AST 118 | Communication System | 2 | 3 | 3 | 5 | None |
| A31 110 | Application of Industrial Robots for Advanced | | | | | |
| MXT 321 | Manufacturing | 2 | 3 | 3 | 5 | All Major Sujbject |
| | TOTAL | | | 24 | 28 | |
| | | | | | | |
| | | URTH YEA | | | | |
| | Fi | rst Semest | | | | |
| COURSE | COURSE TITLE | | EDIT | UNITS | NO. OF | PRE-REQUISITE |
| NO. | | LEC | LB/SW | | HRS. | |
| OJT 1 | Supervised Industrial Training 1 (540hrs) | 0 | 10 | 10 | 540 | MT 321, 3T 322 |
| | TOTAL | | | 10 | 540 | |
| | FO | IIDTH VE | 4 D | | | |
| | | URTH YEA | | | | |
| COLIDOS | Sec I | ond Semes | | | NO 07 | |
| COURSE NO. | COURSE TITLE | LEC | EDIT LB/SW | UNITS | NO. OF HRS. | PRE-REQUISITE |
| OJT 2 | Supervised Industrial Training 2 (540hrs) | 0 | 10 | 10 | 540 | OJT 1 |
| | TOTAL | - | | 10 | 540 | · |

^{*} Regular Standing: No deficiencies on the previous semester.



BATANGAS STATE UNIVERSITY

Pablo Borbon Campus II, Alangilan, Batangas City, Philippines 4200

COLLEGE OF INDUSTRIAL TECHNOLOGY

www.batstate-u.edu.ph Telefax: (043)300-4404 loc 103



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

| 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 Corded 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 | | | | | |

BATANGAS STATE UNIVERSITY

Batangas City

COLLEGE OF INDUSTRIAL TECHNOLOGY

Bachelor of Industrial Technology (BIT)
Welding and Fabrication Technology
Effective A.Y. 2018-2019

| | FIRST YEAR | | | | | | | | | |
|----------|---|-----|-------|--------|--------|---------------|--|--|--|--|
| | First Semester | | | | | | | | | |
| COURSE | | CR | EDIT | LINUTE | NO. OF | | | | | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE | | | | |
| 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 | | CR | EDIT | LINHERG | NO. OF | BDE BEOLUCIEE | | | | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE | | | | |
| 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 | COURSE TITLE | CR | EDIT | LIMITO | NO. OF | DDE DEOLUCITE | | | | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE | | | | |
| 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 | COURSE TITLE | CR | EDIT | UNITS | NO. OF | DDE DEOLUCITE | | | | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE | | | | |
| 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 | COURSE THE E | CR | EDIT | UNITS | NO. OF | DDE DEOLUCITE | | | | | |
| NO. | COURSE TITLE | LEC | LB/SW | UNIIS | HRS. | PRE-REQUISITE | | | | | |
| 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 | COURSE TITLE | CRI | EDIT | LINUTE | NO. OF | DDE DEOLUCITE | | | | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE | | | | |
| 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 | COURSE TITLE | CRE | EDIT | UNITS | NO. OF | DDE DEQUISITE | | | |
| NO. | COURSE TITLE | LEC | LB/SW | UNITS | HRS. | PRE-REQUISITE | | | |
| OJT 1 | OJT 1 Supervised Industrial Training 1 (540hrs) 0 10 10 540 WFT 321, 322 | | | | | | | | |
| | TOTAL 10 540 | | | | | | | | |

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

^{*} Regular Standing: No deficiencies on the previous semester.