



Republic of the Philippines  
**PARTIDO STATE UNIVERSITY**  
**Camarines Sur**

PROGRAM OF STUDY

**BACHELOR OF ENGINEERING TECHNOLOGY in MECHANICAL ENGINEERING TECHNOLOGY major in REFRIGERATION AND AIR-CONDITIONING TECHNOLOGY**

CMO No. 86, s. 2017

BOR Resolution No. 39, s. 2022 and BOR Resolution No. 32, s. 2023

**Effective AY 2023-2024**

**First Year — First Semester**

| COURSE CODE | DESCRIPTIVE TITLE                                 | UNITS | PREREQUISITE |
|-------------|---------------------------------------------------|-------|--------------|
| I-1         | General Chemistry                                 | 1     | None         |
| I-2         | Pre-Calculus                                      | 4     | None         |
| GE2         | Readings in Philippine History                    | 3     | None         |
| GE4         | Mathematics in the Modern World                   | 3     | None         |
| GE7         | Science, Technology and Society                   | 3     | None         |
| PCET1       | Orientation to Bachelor of Engineering Technology | 2     | None         |
| GEE4        | Gender and Society with Peace Studies             | 3     | None         |
| PATHFit1    | Movement Competency Training                      | 2     | None         |
| NSTP1       | CWTS 1 / ROTC 1 / LTS 1                           | 3     | None         |
| Total       |                                                   | 24    |              |

**First Year — Second Semester**

| COURSE CODE | DESCRIPTIVE TITLE                 | UNITS | PREREQUISITE |
|-------------|-----------------------------------|-------|--------------|
| I-3         | General Physics                   | 1     | None         |
| M-1         | Calculus 1                        | 3     | I-2          |
| S-1         | Chemistry for Engineers           | 4     | I-1          |
| GE1         | Understanding the Self            | 3     | None         |
| GE3         | The Contemporary World            | 3     | None         |
| GE9         | Life and Works of Rizal           | 3     | None         |
| GEE2        | Indigenous Peoples' (IP) Studies  | 3     | None         |
| PATHFit2    | Exercise-Based Fitness Activities | 2     | None         |
| NSTP2       | CWTS 2 / ROTC 2 / LTS 2           | 3     | NSTP1        |
| Total       |                                   | 25    |              |

**First Year — Mid-Year Term**

| COURSE CODE | DESCRIPTIVE TITLE                      | UNITS | PREREQUISITE |
|-------------|----------------------------------------|-------|--------------|
| M-2         | Calculus 2                             | 3     | M-1          |
| S-2         | Physics for Engineers (Calculus Based) | 4     | I-3 & M-2    |
| Total       |                                        | 7     |              |

| Second Year — First Semester |                                       |       |                   |
|------------------------------|---------------------------------------|-------|-------------------|
| COURSE CODE                  | DESCRIPTIVE TITLE                     | UNITS | PREREQUISITE      |
| M-3                          | Engineering Data Analysis             | 3     | M-1               |
| E-2                          | Engineering Drawing and Plans         | 1     | None              |
| E-3                          | Computer Fundamentals and Programming | 2     | 2nd Year Standing |
| E-4                          | Statics of Rigid Bodies               | 3     | S-2 & M-2         |
| ACET1                        | Materials Science and Engineering     | 3     | None              |
| PCR1                         | Heat Transfer                         | 3     | None              |
| GE5                          | Purposive Communication               | 3     | None              |
| GE6                          | Art Appreciation                      | 3     | None              |
| PATHFit3                     | Dance                                 | 2     | None              |
| Total                        |                                       | 23    |                   |

| Second Year — Second Semester |                                  |       |                   |
|-------------------------------|----------------------------------|-------|-------------------|
| COURSE CODE                   | DESCRIPTIVE TITLE                | UNITS | PREREQUISITE      |
| A-1                           | Basic Electrical Engineering     | 3     | S-2               |
| E-5                           | Computer Aided Drafting          | 1     | E-2 & E-3         |
| E-6                           | Engineering Economics            | 3     | 2nd Year Standing |
| E-7                           | Dynamics of Rigid Bodies         | 2     | E-4 & E-8         |
| E-8                           | Mechanics of Deformable Bodies   | 4     | E-4 & E-7         |
| ACET2                         | Thermodynamics                   | 3     | S-2               |
| GE8                           | Ethics                           | 3     | None              |
| GEE5                          | People and the Earth's Ecosystem | 3     | None              |
| PATHFit4-B                    | Outdoor and Adventure Activities | 2     | None              |
| Total                         |                                  | 24    |                   |

| Third Year — First Semester |                                                  |       |                   |
|-----------------------------|--------------------------------------------------|-------|-------------------|
| COURSE CODE                 | DESCRIPTIVE TITLE                                | UNITS | PREREQUISITE      |
| ACET3                       | Basic Occupational Safety and Health             | 3     | None              |
| ACET4                       | Basic Electronics                                | 3     | None              |
| PCET2                       | Project Development 1                            | 2     | None              |
| PCET3                       | Direct Current and Alternating Current Machinery | 3     | None              |
| PCET4                       | Fluid Mechanics                                  | 3     | S-2               |
| PCR2                        | Workshop Practice 1                              | 2     | None              |
| E-9                         | Engineering Management                           | 2     | 3rd Year Standing |
| Total                       |                                                  | 18    |                   |

| Third Year — Second Semester |                                            |       |              |
|------------------------------|--------------------------------------------|-------|--------------|
| COURSE CODE                  | DESCRIPTIVE TITLE                          | UNITS | PREREQUISITE |
| PCET5                        | Project Development 2                      | 2     | PCET2        |
| PCET6                        | Metrology                                  | 3     | None         |
| PCET7                        | Quality Control and Inspection System      | 3     | None         |
| PCR3                         | Applied Fluid Mechanics                    | 3     | S-2 & PCR1   |
| PCR4                         | Workshop Practice 2                        | 2     | PCR2         |
| PCR5                         | Refrigeration Fundamentals and Application | 2     | None         |
| E-10                         | Technopreneurship 101                      | 3     | E-9          |
| Total                        |                                            | 18    |              |

| Fourth Year — First Semester |                                                                         |       |              |
|------------------------------|-------------------------------------------------------------------------|-------|--------------|
| COURSE CODE                  | DESCRIPTIVE TITLE                                                       | UNITS | PREREQUISITE |
| E-11                         | Environmental Science and Engineering (for Engineering Technology)      | 3     | None         |
| PCET8                        | Welding Process                                                         | 3     | None         |
| PCET9                        | Mechanical Engineering Laws, Ethics, Code and Standards                 | 2     | None         |
| PCET10                       | Machine Tools and Processes                                             | 4     | None         |
| PCET11                       | Instrumentation and Control System                                      | 3     | None         |
| PCR6                         | Airconditioning Fundamentals and Application                            | 4     | None         |
| PCR7                         | Heating, Ventilation, Airconditioning/Refrigeration Codes and Standards | 2     | None         |
| Total                        |                                                                         | 21    |              |

| Fourth Year — Second Semester |                                 |       |                   |
|-------------------------------|---------------------------------|-------|-------------------|
| COURSE CODE                   | DESCRIPTIVE TITLE               | UNITS | PREREQUISITE      |
| OJT-BET                       | On-the-Job Training (720 hours) | 10    | 4th Year Standing |
| Total                         |                                 | 10    |                   |

**Total units: 170**