Republic of the Philippines

PRESIDENT RAMON MAGSAYSAY STATE UNIVERSITY





COLLEGE OF ENGINEERING

Bachelor of Science in Mechanical Engineering

Regular Curriculum for AY 2018-2019





| | FIRST | YEAR - Firs | st Semester | | | |
|-------------|---|-------------|-------------|----------|-----------------|---------------|
| Course Code | Descriptive Title | Но | Hour/s | | Duo no curicito | Co mocanicito |
| Course Code | | Lec | Lab | Credit/s | Pre-requisite | Co-requisite |
| ME 101 | Mechanical Engineering Orientation | 1 | 0 | 1 | | |
| Drawing 1 | Engineering Drawing | 0 | 3 | 1 | | |
| GEC7 | Science, Technology and Society | 3 | 0 | 3 | | |
| MTN4 | Calculus I | 3 | 0 | 3 | | |
| GEC1 | Understanding the Self | 3 | 0 | 3 | | |
| GEC4 | Mathematics in the Modern World | 3 | 0 | 3 | | |
| (GEC) | Purposive Communication (English for Engineers) | 3 | 0 | 3 | | |
| PEN1 | Fitness and Recreational Outdoor Activity | 2 | 0 | 2 | | |
| NSTP 1 | National Service Training Program I | 3 | 0 | 3 | | |
| | Sub total | 21 | 3 | 22 | | |

| FIRST YEAR - Second Semester | | | | | | |
|------------------------------|--------------------------------------|--------|-----|----------|----------------|--------------|
| Course Code | Descriptive Title | Hour/s | | Credit/s | Pre-requisite | Co-requisite |
| Course Code | | Lec | Lab | Credit/s | r re-requisite | Co-requisite |
| GEC3 | The Contemporary World | 3 | 0 | 3 | | |
| BES 01 | Computer Aided Drafting | 0 | 3 | 1 | Drawing 1 | |
| Phys 1a | Physics for Engineers | 3 | 3 | 4 | MTN4 | MTN5 |
| MTN5 | Calculus II | 3 | 0 | 3 | MTN4 | |
| GEC2 | Reading in Philippine History | 3 | 0 | 3 | | |
| GEM | Life and Works of Rizal | 3 | 0 | 3 | | |
| Chem 1a | Chemistry for Engineers (lec) | 3 | 0 | 3 | | |
| Chem 1aL | Chemistry for Engineers (lab) | 0 | 3 | 1 | | Chem 1a |
| PEN2 | Philippine Folk Dances | 2 | 0 | 2 | PEN 1 | |
| NSTP 2 | National Service Training Program II | 3 | 0 | 3 | NSTP 1 | |
| | Sub total | 23 | 9 | 26 | | |

| | SECOND YEAR - First Semester | | | | | | | |
|-------------|---|--------|-----|----------|---------------|--------------|--|--|
| Course Code | Descriptive Title | Hour/s | | Credit/s | Duo magnicita | Co mognicito | | |
| Course Code | | Lec | Lab | Credit/s | Pre-requisite | Co-requisite | | |
| FME 211 | Thermodynamics I | 4 | 0 | 4 | Phys 1a, MTN5 | | | |
| ACM 01 | Basic Electrical Engineering | 2 | 3 | 3 | Phys 1a, MTN5 | | | |
| Mech 1 | Statics of Rigid Bodies | 3 | 0 | 3 | Phys 1a, MTN5 | | | |
| MTN6 | Differential Equations | 3 | 0 | 3 | MTN5 | | | |
| ECN 1a | Computer Fundamentals and Programming | 0 | 3 | 1 | | | | |
| EDA 101 | Engineering Data Analysis | 3 | 0 | 3 | MTN5 | | | |
| PEN3 | Individual and Dual Sports | 2 | 0 | 2 | PEN 1 | | | |
| FME 212 | Workshop Theory and Practice | 0 | 3 | 1 | | | | |
| FILN1 | Kontekstwalisadong Komunikasyon sa Filipino | 3 | 0 | 3 | | | | |
| | Sub total | 20 | 9 | 23 | | | | |

| | SECOND YEAR - Second Semester | | | | | | |
|-------------|--|--------|-----|----------|---------------|--------------|--|
| Course Code | Descriptive Title | Hour/s | | Credit/s | Duo magnicita | Co moquigito | |
| Course Code | | Lec | Lab | Credit/s | Pre-requisite | Co-requisite | |
| FME 223 | Advance Mathematics for ME | 3 | 0 | 3 | MTN6 | | |
| BES 03 | Engineering Management | 2 | 0 | 2 | | | |
| FME 221 | Thermodynamics II | 4 | 0 | 4 | FME 211 | | |
| FME 222 | Machine Shop Theory | 0 | 6 | 2 | FME 212 | | |
| ACM 02 | Basic Electronics | 2 | 3 | 3 | ACM 01 | | |
| Mech 2 | Dynamics of Rigid Bodies | 2 | 0 | 2 | Mech 1 | | |
| BES 02 | Engineering Economics | 3 | 0 | 3 | EDA 101 | | |
| PEN4 | Team Sports | 2 | 0 | 2 | PEN 1 | | |
| FILN2 | Sosyedad at Literatura/Panitikang Panlipunan | 3 | 0 | 3 | FILN1 | | |
| | Sub total | 21 | 9 | 24 | | | |

| | THIRD | | st Semester | | | T |
|--|---|--|--|--|---|----------------|
| Course Code | Descriptive Title | | ur/s | Credit/s | Pre-requisite | Co-requisite |
| | - | Lec | Lab | | | 1 |
| Mech 3a | Mechanics of Deformable Bodies | 3 | 0 | 3 | Mech 2 | |
| FILN3 | SineSosyedad/Pelikulang Panlipunan | 3 | 0 | 3 | FILN1 | |
| AC 03 | DC and AC Machinery | 2 | 3 | 3 | ACM 01 | |
| FME 312 | Heat Transfer | 2 | 0 | 2 | FME 221 | |
| FME 311 | Fluid Mechanics | 3 | 0 | 3 | FME 221 | |
| FME 313 | Machine Elements | 2 | 3 | 3 | Mech 2 | |
| FME 314 | Vibration Engineering | 2 | 0 | 2 | MTN6, 3rd Year | |
| CEE 12 | | 2 | 0 | 2 | Standing | |
| GEE 13 | Environmental Science and Engineering | 2 | 0 | 2 | Chem 1a | |
| FME 315 | Computer Applications for ME | 0 | 3 | 1 | BES 01 | |
| EC 1 | Mechanical Engineering Elective I | 2 | 0 | 2 | 3rd Year Standing | |
| | Sub total | 21 | 9 | 24 | | |
| | THIRD Y | | nd Semeste | Credit/s | | |
| Course Code | Descriptive Title | | ur/s | | Pre-requisite | Co-requisite |
| | 1 | Lec | Lab | | | • |
| FME 329 | Methods of Research for M.E. | 3 | 0 | 3 | EDA 101, 3rd Year Standing | |
| FME 322 | Refrigeration Systems | 3 | 0 | 3 | FME 312 | |
| FME 321 | Fluid Machinery | 3 | 0 | 3 | FME 311 | |
| FME 323 | Combustion Engineering | 2 | 0 | 2 | FME 221 | |
| FME 324 | Materials Science & Engineering for ME | 2 | 3 | 3 | Mech 3a, Chem 1a | |
| FME 325 | Mechanical Engineering Lab I | 0 | 3 | 1 | FME 221 | |
| GEE7 | Gender and Society | 3 | 0 | 3 | T IVIL 221 | |
| FME 326 | Control Engineering | 3 | 0 | 3 | ACM 02 | |
| FME 326L | Control Engineering Laboratory | 0 | 3 | 1 | 710111 02 | FME 326 |
| EC 2 | Mechanical Engineering Elective II | 2 | 0 | 2 | EC 1 | 11112 320 |
| EC 2 | Sub total | 21 | 9 | 24 | LC 1 | |
| | | O YEAR - N | | 27 | | |
| | THIK | | ur/s | | | |
| Course Code | Descriptive Title | Lec | Lab | Credit/s | Pre-requis | site |
| OJT-ME | On-the-Job Training (280 hours) | 3 | 280 hrs | 3 | 4th Year Standing, FMI | F 322 FMF 321 |
| OJ I -IVIL | Sub total | 3 | 200 1113 | 3 | Tur Tear Standing, Tivit | 322, 1 112 321 |
| | | | rst Semeste | | | |
| | | | ur/s | | | |
| Course Code | Descriptive Title | Lec | Lab | Credit/s | Pre-requisite | Co-requisite |
| PME 419 | ME Project Study I | 0 | | | | |
| FME 419 FME 412 | · · · · · · | | | | EME 220 | |
| | Airconditioning and Vantilation Systems | | 3 | 1 | FME 329 | |
| DME 413 | Airconditioning and Ventilation Systems | 3 | 0 | 3 | FME 322 | |
| PME 413 | Power Plant Design with Renewable Energy | 3 | 0 3 | 3 4 | FME 322 FME 323 | |
| PME 411 | Power Plant Design with Renewable Energy Machine Design I | 3 3 3 | 0 3 3 | 3 4 4 | FME 322 FME 323 FME 313 | |
| PME 411 FME 415 | Power Plant Design with Renewable Energy Machine Design I Mechanical Engineering Lab II | 3 | 0 3 | 3 4 | FME 322 FME 323 FME 313 FME 321 | |
| PME 411 | Power Plant Design with Renewable Energy Machine Design I | 3 3 3 | 0 3 3 | 3 4 4 | FME 322 FME 323 FME 313 | |
| PME 411 FME 415 | Power Plant Design with Renewable Energy Machine Design I Mechanical Engineering Lab II Manufacturing & Industrial Processes with Plant | 3 3 3 0 | 0 3 3 6 | 3 4 4 2 | FME 322 FME 323 FME 313 FME 321 | |
| PME 411 FME 415 FME 414 GEC8 | Power Plant Design with Renewable Energy Machine Design I Mechanical Engineering Lab II Manufacturing & Industrial Processes with Plant Visits | 3 3 3 0 2 | 0 3 3 6 3 0 | 3 4 4 2 3 3 3 | FME 322 FME 323 FME 313 FME 321 FME 324 | |
| PME 411 FME 415 FME 414 | Power Plant Design with Renewable Energy Machine Design I Mechanical Engineering Lab II Manufacturing & Industrial Processes with Plant Visits Ethics | 3 3 3 0 2 | 0 3 3 6 3 | 3 4 4 2 3 | FME 322 FME 323 FME 313 FME 321 | |
| PME 411 FME 415 FME 414 GEC8 | Power Plant Design with Renewable Energy Machine Design I Mechanical Engineering Lab II Manufacturing & Industrial Processes with Plant Visits Ethics ME Course Audit I with Comprehensive | 3 3 3 0 2 | 0 3 3 6 3 0 | 3 4 4 2 3 3 3 | FME 322 FME 323 FME 313 FME 321 FME 324 | |
| PME 411 FME 415 FME 414 GEC8 | Power Plant Design with Renewable Energy Machine Design I Mechanical Engineering Lab II Manufacturing & Industrial Processes with Plant Visits Ethics ME Course Audit I with Comprehensive Examination | 3 3 3 0 2 3 0 | 0 3 3 6 3 0 6 | 3 4 4 2 3 3 2 22 | FME 322 FME 323 FME 313 FME 321 FME 324 | |
| PME 411 FME 415 FME 414 GEC8 MER 1 | Power Plant Design with Renewable Energy Machine Design I Mechanical Engineering Lab II Manufacturing & Industrial Processes with Plant Visits Ethics ME Course Audit I with Comprehensive Examination Sub total FOURTH | 3 3 0 2 3 0 14 YEAR - Sec | 0 3 3 6 3 0 6 | 3 4 4 2 3 3 2 22 | FME 322 FME 323 FME 313 FME 321 FME 324 4th Year Standing | Co. requisite |
| PME 411 FME 415 FME 414 GEC8 | Power Plant Design with Renewable Energy Machine Design I Mechanical Engineering Lab II Manufacturing & Industrial Processes with Plant Visits Ethics ME Course Audit I with Comprehensive Examination Sub total | 3 3 0 2 3 0 14 YEAR - Sec | 0 3 3 6 3 0 6 24 | 3 4 4 2 3 3 2 22 | FME 322 FME 323 FME 313 FME 321 FME 324 | Co-requisite |
| PME 411 FME 415 FME 414 GEC8 MER 1 Course Code PME 422 | Power Plant Design with Renewable Energy Machine Design I Mechanical Engineering Lab II Manufacturing & Industrial Processes with Plant Visits Ethics ME Course Audit I with Comprehensive Examination Sub total FOURTH Descriptive Title Industrial Plant Engineering | 3 3 0 2 3 0 14 YEAR - Sec Ho | 0 3 3 6 3 0 6 24 ond Semest ur/s Lab | 3 4 4 2 3 3 2 22 | FME 322 FME 323 FME 313 FME 321 FME 324 4th Year Standing Pre-requisite FME 412 | Co-requisite |
| PME 411 FME 415 FME 414 GEC8 MER 1 Course Code PME 422 PME 429 | Power Plant Design with Renewable Energy Machine Design I Mechanical Engineering Lab II Manufacturing & Industrial Processes with Plant Visits Ethics ME Course Audit I with Comprehensive Examination Sub total FOURTH Descriptive Title Industrial Plant Engineering ME Project Study II | 3 3 0 2 3 0 14 YEAR - Sec Ho Lec 3 0 | 0 3 3 6 3 0 6 24 ond Semest ur/s Lab 3 | 3 4 4 2 3 3 2 22 er Credit/s 4 1 | FME 322 FME 323 FME 313 FME 321 FME 324 4th Year Standing Pre-requisite FME 412 PME 419 | Co-requisite |
| PME 411 FME 415 FME 414 GEC8 MER 1 Course Code PME 422 PME 429 PME 421 | Power Plant Design with Renewable Energy Machine Design I Mechanical Engineering Lab II Manufacturing & Industrial Processes with Plant Visits Ethics ME Course Audit I with Comprehensive Examination Sub total FOURTH Descriptive Title Industrial Plant Engineering ME Project Study II Machine Design II | 3 3 0 2 3 0 14 7EAR - Sec Ho Lec 3 | 0 3 3 6 3 0 6 24 ond Semest ur/s Lab 3 3 3 | 3 4 4 2 3 3 2 22 er Credit/s 4 1 3 | FME 322 FME 323 FME 313 FME 321 FME 324 4th Year Standing Pre-requisite FME 412 PME 419 PME 411 | Co-requisite |
| PME 411 FME 415 FME 414 GEC8 MER 1 Course Code PME 422 PME 429 PME 421 PME 425 | Power Plant Design with Renewable Energy Machine Design I Mechanical Engineering Lab II Manufacturing & Industrial Processes with Plant Visits Ethics ME Course Audit I with Comprehensive Examination Sub total FOURTH Descriptive Title Industrial Plant Engineering ME Project Study II Machine Design II Mechanical Engineering Lab III | 3 3 0 2 3 0 14 YEAR - Sec Ho Lec 3 0 2 | 0 3 3 6 3 0 6 24 ond Semest ur/s Lab 3 | 3 4 4 2 3 3 2 22 er Credit/s 4 1 3 2 | FME 322 FME 323 FME 313 FME 321 FME 324 4th Year Standing Pre-requisite FME 412 PME 419 PME 411 FME 415 | Co-requisite |
| PME 411 FME 415 FME 414 GEC8 MER 1 Course Code PME 422 PME 429 PME 421 | Power Plant Design with Renewable Energy Machine Design I Mechanical Engineering Lab II Manufacturing & Industrial Processes with Plant Visits Ethics ME Course Audit I with Comprehensive Examination Sub total FOURTH Descriptive Title Industrial Plant Engineering ME Project Study II Machine Design II Mechanical Engineering Lab III Basic Occupational Safety and Health | 3 3 0 2 3 0 14 YEAR - Sec Ho Lec 3 0 2 0 3 | 0 3 3 6 3 0 6 24 ond Semest ur/s Lab 3 3 3 | 3 4 4 2 3 3 2 22 er Credit/s 4 1 3 2 3 | FME 322 FME 323 FME 313 FME 321 FME 324 4th Year Standing Pre-requisite FME 412 PME 419 PME 411 | Co-requisite |
| PME 411 FME 415 FME 414 GEC8 MER 1 Course Code PME 422 PME 429 PME 421 PME 425 | Power Plant Design with Renewable Energy Machine Design I Mechanical Engineering Lab II Manufacturing & Industrial Processes with Plant Visits Ethics ME Course Audit I with Comprehensive Examination Sub total FOURTH Descriptive Title Industrial Plant Engineering ME Project Study II Machine Design II Mechanical Engineering Lab III Basic Occupational Safety and Health ME Laws, Ethics, Contracts, Codes & Standards | 3 3 0 2 3 0 14 YEAR - Sec Ho Lec 3 0 2 | 0 3 3 6 3 0 6 24 ond Semest ur/s Lab 3 3 6 | 3 4 4 2 3 3 2 22 er Credit/s 4 1 3 2 | FME 322 FME 323 FME 313 FME 321 FME 324 4th Year Standing Pre-requisite FME 412 PME 419 PME 411 FME 415 | Co-requisite |
| PME 411 FME 415 FME 414 GEC8 MER 1 Course Code PME 422 PME 429 PME 421 PME 425 FME 420 | Power Plant Design with Renewable Energy Machine Design I Mechanical Engineering Lab II Manufacturing & Industrial Processes with Plant Visits Ethics ME Course Audit I with Comprehensive Examination Sub total FOURTH Descriptive Title Industrial Plant Engineering ME Project Study II Machine Design II Mechanical Engineering Lab III Basic Occupational Safety and Health ME Laws, Ethics, Contracts, Codes & Standards ME Course Audit II with Comprehensive | 3 3 0 2 3 0 14 YEAR - Sec Ho Lec 3 0 2 0 3 | 0 3 3 6 3 0 6 24 ond Semest ur/s Lab 3 3 6 0 | 3 4 4 2 3 3 2 22 er Credit/s 4 1 3 2 3 | FME 322 FME 323 FME 313 FME 321 FME 324 4th Year Standing Pre-requisite FME 412 PME 419 PME 411 FME 415 4th Year Standing | Co-requisite |
| PME 411 FME 415 FME 414 GEC8 MER 1 Course Code PME 422 PME 429 PME 421 PME 425 FME 420 PME 427 MER 2 | Power Plant Design with Renewable Energy Machine Design I Mechanical Engineering Lab II Manufacturing & Industrial Processes with Plant Visits Ethics ME Course Audit I with Comprehensive Examination Sub total FOURTH Descriptive Title Industrial Plant Engineering ME Project Study II Machine Design II Mechanical Engineering Lab III Basic Occupational Safety and Health ME Laws, Ethics, Contracts, Codes & Standards ME Course Audit II with Comprehensive Examination | 3 3 3 0 2 3 0 14 YEAR - Sec Ho Lec 3 0 2 0 3 2 0 | 0 3 3 6 3 0 6 24 ond Semest ur/s Lab 3 3 6 0 0 6 | 3 4 4 2 3 3 2 22 er Credit/s 4 1 3 2 3 2 2 2 | FME 322 FME 323 FME 313 FME 321 FME 324 4th Year Standing Pre-requisite FME 412 PME 419 PME 411 FME 415 4th Year Standing GEC8 | Co-requisite |
| PME 411 FME 415 FME 414 GEC8 MER 1 Course Code PME 422 PME 429 PME 421 PME 425 FME 420 PME 427 MER 2 GEC6 | Power Plant Design with Renewable Energy Machine Design I Mechanical Engineering Lab II Manufacturing & Industrial Processes with Plant Visits Ethics ME Course Audit I with Comprehensive Examination Sub total FOURTH Descriptive Title Industrial Plant Engineering ME Project Study II Machine Design II Mechanical Engineering Lab III Basic Occupational Safety and Health ME Laws, Ethics, Contracts, Codes & Standards ME Course Audit II with Comprehensive Examination Arts Appreciation | 3 3 3 0 2 3 0 14 YEAR - Sec Ho Lec 3 0 2 0 3 2 0 3 3 | 0 3 3 6 3 0 6 24 ond Semest ur/s Lab 3 3 6 0 0 6 | 3 4 4 2 3 3 2 22 er Credit/s 4 1 3 2 3 2 2 3 3 2 3 3 3 2 3 3 3 3 4 4 4 4 | FME 322 FME 323 FME 313 FME 321 FME 324 4th Year Standing Pre-requisite FME 412 PME 419 PME 411 FME 415 4th Year Standing GEC8 Graduating Standing | Co-requisite |
| PME 411 FME 415 FME 414 GEC8 MER 1 Course Code PME 422 PME 429 PME 421 PME 425 FME 420 PME 427 MER 2 | Power Plant Design with Renewable Energy Machine Design I Mechanical Engineering Lab II Manufacturing & Industrial Processes with Plant Visits Ethics ME Course Audit I with Comprehensive Examination Sub total FOURTH Descriptive Title Industrial Plant Engineering ME Project Study II Machine Design II Mechanical Engineering Lab III Basic Occupational Safety and Health ME Laws, Ethics, Contracts, Codes & Standards ME Course Audit II with Comprehensive Examination | 3 3 3 0 2 3 0 14 YEAR - Sec Ho Lec 3 0 2 0 3 2 0 | 0 3 3 6 3 0 6 24 ond Semest ur/s Lab 3 3 6 0 0 6 | 3 4 4 2 3 3 2 22 er Credit/s 4 1 3 2 3 2 2 2 | FME 322 FME 323 FME 313 FME 321 FME 324 4th Year Standing Pre-requisite FME 412 PME 419 PME 411 FME 415 4th Year Standing GEC8 | Co-requisite |

Total Units = **191**

Prepared by:

MARLON JAMES A. DEDICATORIA, ME, PhD

Dean, College of Engineering

^{*}The nth Year Standing means that the student shall have completed at least 75% of the load requirements of the previous year level *Pre-requisite subjects with a grade of INC must be completed first before taking the succeeding subject