



Mariners' Polytechnic Colleges Foundation

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PH04/0022

Curriculum Structure for the Five-Year Course leading to the degree of BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING (BSMECH E)

Effective School Year, 2004-2005

FIRST YEAR

First Semester

| | COURSE DESCRIPTION | Lec. | Lab. | Unit |
|-----------------|--|------|------|------|
| _____ Math 0 | | (3) | - | (3) |
| _____ Engl Plus | | (3) | - | (3) |
| _____ Math 1 | College Algebra | 5 | - | 5 |
| _____ Chem 1 | Chemistry 1 | 3 | 3 | 4 |
| _____ Draw 1 | Engineering Drawing 1 | 1 | 3 | 2 |
| _____ Engl 1 | Communication Skills | 3 | - | 3 |
| _____ Fil 1 | Sining ng Pakikipagtalastasan 1 | 3 | - | 3 |
| _____ Soc Sci 1 | Philippine History | 3 | - | 3 |
| _____ PE 1 | Fundamentals of Swimming | 2 | 0 | 2 |
| _____ NSTP | National Service Training Program (NSTP) | (3) | - | (3) |
| | | 20 | 6 | 22 |

Second Semester

| | | | | |
|-----------------|---|-----|---|-----|
| _____ Math 2 | Plane Trigonometry | 3 | - | 3 |
| _____ Math 3 | Analytic Geometry | 3 | - | 3 |
| _____ Chem 2 | Chemistry 2 | 3 | 3 | 4 |
| _____ Draw 2 | Advanced Engineering Drawing w/ CAD (Computer Aided Drawing) | 1 | 3 | 2 |
| _____ Engl 2 | Advance Communication Skills | 3 | - | 3 |
| _____ Fil 2 | Pagbasa at Pagsulat sa Iba't Ibang Disiplina | 3 | - | 3 |
| _____ Soc Sci 2 | Politics and Governance w/ Phil. Constitution | 3 | - | 3 |
| _____ PE 2 | Advance Swimming | 2 | 0 | 2 |
| _____ NSTP | National Service Training Program (NSTP) | (3) | - | (3) |
| | | 21 | 6 | 23 |

SECOND YEAR

First Semester

| | | | | |
|-----------------|---|----|---|----|
| _____ Engl 3 | Business Correspondence/Technical Writing | 3 | - | 3 |
| _____ Math 4 | Differential Calculus | 5 | - | 5 |
| _____ ME 20 | Workshop, Theory and Practice | 1 | 3 | 2 |
| _____ MHS 3 | Mechanics, Heat and Sound | 3 | 3 | 4 |
| _____ Soc Sci 3 | Life and Works of Rizal | 3 | - | 3 |
| _____ Soc Sci 4 | Society and Culture | 3 | - | 3 |
| _____ PE 3 | Self Defense | 2 | 0 | 2 |
| | | 20 | 6 | 22 |

Second Semester

| | | | | |
|---------------|--|----|---|----|
| _____ Comp 1 | Computer Fundamentals & Programming | 3 | 3 | 4 |
| _____ Engl 4 | Public Speaking/Argumentation & Debate | 3 | - | 3 |
| _____ Philo 1 | Philosophy of Man | 3 | - | 3 |
| _____ Math 5 | Integral Calculus | 5 | - | 5 |
| _____ ME 21 | Machine Shop, Theory & Practice | 1 | 3 | 2 |
| _____ PHS | Magnetism, Elect., Light and Optics | 3 | 3 | 4 |
| _____ PE 4 | Defensive Sports | 2 | 0 | 2 |
| | | 20 | 9 | 23 |

THIRD YEAR**First Semester**

| | | | | |
|--------------|----------------------------------|----|---|----|
| _____ BES 30 | Engineering Mechanics (Statics) | 3 | - | 3 |
| _____ BES 31 | Engineering Mechanics (Dynamics) | 3 | - | 3 |
| _____ Comp 2 | Computer Application Engineering | 3 | 3 | 4 |
| _____ Math 6 | Differential Equations | 3 | - | 3 |
| _____ ME 30 | Mechanics Elements 1 | 2 | 3 | 3 |
| _____ ME 31 | Thermodynamics 1 | 4 | - | 4 |
| _____ Engl 5 | Philippine Literature | 3 | - | 3 |
| | | 21 | 6 | 23 |

Second Semester

| | | | | |
|-----------------|---|----|---|----|
| _____ BES 32 | Strength of Materials | 3 | - | 3 |
| _____ BES 33 | Elementary Electrical Engineering | 3 | - | 3 |
| _____ Math 7 | Advanced Engineering Mathematics | 3 | - | 3 |
| _____ ME 32 | Machine Elements 2 | 2 | 3 | 3 |
| _____ ME 33 | Thermodynamics 2 | 3 | - | 3 |
| _____ ME 34 | Materials of Engineering | 2 | 3 | 3 |
| _____ Soc Sci 4 | Basic Economics w/ Tax. & Agrarian Reform | 3 | - | 3 |
| _____ Fil 3 | Balarila | 3 | - | 3 |
| | | 22 | 6 | 24 |

FOURTH YEAR**First Semester**

| | | | | |
|----------------|--|----|----|----|
| _____ BES 40 | Strength of Materials 2 | 3 | - | 3 |
| _____ BES 41 | Fluid Mechanics | 3 | 3 | 4 |
| _____ BES 42 | Engineering Economy | 3 | - | 3 |
| _____ ME 40 | Heat Transfer | 3 | - | 3 |
| _____ ME 41 | ME Laboratory 1 | - | 6 | 2 |
| _____ ME 42 | Internal Combustion Engine | 3 | - | 3 |
| _____ ME 43 | AC/DC Machinery | 2 | 3 | 3 |
| _____ Research | Methods of Research 1/Probability & Statistics | 3 | - | 3 |
| | | 20 | 12 | 24 |

Second Semester

| | | | | |
|-----------------|--|----|----|----|
| _____ BES 43 | Engineering Management | 3 | - | 3 |
| _____ ME 44 | Machine Design 1 | 3 | 3 | 4 |
| _____ ME 45 | Refrigeration Engineering | 3 | - | 3 |
| _____ ME 46 | ME Laboratory 2 | - | 6 | 2 |
| _____ ME 47 | Fluid Machinery | 3 | - | 3 |
| _____ ME 48 | Tool Design | 2 | 3 | 3 |
| _____ ME 49 | Steam Power Engineering | 3 | - | 3 |
| _____ Soc Sci 5 | General Psychology w/ HIV-AIDS Education | 3 | - | 3 |
| | | 20 | 12 | 24 |

SUMMER

OJT 400 ON-THE-JOB TRAINING

FIFTH YEAR**First Semester**

| | | | | |
|--------------|---|----|----|----|
| _____ BES 50 | Industrial Electronics & Controls | 2 | 3 | 3 |
| _____ ME 50 | Machine Design 2 | 3 | 3 | 4 |
| _____ ME 51 | ME Laboratory 3 | - | 6 | 2 |
| _____ ME 52 | Air Conditioning Theory & Design | 3 | - | 3 |
| _____ ME 53 | Industrial Process & Inspection | 2 | 3 | 3 |
| _____ ME 54 | Industrial Plant Design | 2 | 6 | 4 |
| _____ ME 55 | Machinery Foundation & Vibration Analysis | 3 | - | 3 |
| | | 15 | 21 | 22 |

Second Semester

| | | | | |
|-------------|--|----|----|----|
| _____ FS | Feasibility Study | 2 | 3 | 3 |
| _____ ME 56 | Power Plant Design | 3 | 6 | 5 |
| _____ ME 57 | Power Plant Operation | 2 | 3 | 3 |
| _____ ME 58 | Industrial Fuels & Lubricants | 3 | - | 3 |
| _____ ME 59 | Engineering Safety & Loss Control | 3 | - | 3 |
| _____ ME 60 | ME Laws/Ethics | 2 | - | 2 |
| _____ ME 61 | Industrial Environmental Management System | 3 | - | 3 |
| | | 18 | 12 | 22 |