

Department of **Marine Engineering**
Double Degree of Marine Engineering
FACULTY OF MARINE TECHNOLOGY
INSTITUT TEKNOLOGI SEPULUH NOPEMBER (ITS)

| Smt | Code | Courses | Credits |
|-----|--------|---|---------|
| 1 | IG1101 | Islam Education* | 2 |
| 1 | IG1102 | Protestant Education* | 2 |
| 1 | IG1103 | Catholic Education* | 2 |
| 1 | IG1104 | Hindu Education* | 2 |
| 1 | IG1105 | Buddha Education* | 2 |
| 1 | IG1108 | English | 3 |
| 1 | ME1201 | Mathematics I | 3 |
| 1 | ME1202 | Physics I | 3 |
| 1 | ME1302 | Engineering Mechanics | 3 |
| 1 | ME1352 | Introduction to Naval Architecture | 3 |
| 1 | MT1201 | Introduction to Ocean Engineering | 2 |
| 2 | IG1106 | Concept of Nationalism | 3 |
| 2 | ME1204 | Mathematics II | 3 |
| 2 | ME1305 | Ship Electronics | 3 |
| 2 | ME1306 | Thermodynamics | 3 |
| 2 | ME1308 | Material Science and Metal Processing | 3 |
| 2 | ME1351 | Engineering Drawing & CAD | 2 |
| 3 | ME1206 | Numerical Analysis and Computer Programming | 2 |
| 3 | ME1303 | Fluid Mechanics | 3 |
| 3 | ME1309 | Power Transmission Systems | 2 |
| 3 | ME1311 | Heat Transfer | 3 |
| 3 | ME1353 | Ship Construction & Strength | 3 |

| Smt | Code | Courses | Credits |
|-----|--------|--|---------|
| 3 | ME1354 | Maritime English I | 2 |
| 3 | ME1355 | Measurement & Control Technology | 3 |
| 4 | IG1107 | Concept of Scientific Technology and Communication | 3 |
| 4 | ME1312 | Ship Propulsion and Resistance | 4 |
| 4 | ME1326 | Design III: Public, Fire and Safety Plan | 2 |
| 4 | ME1356 | Fluid Machinery | 3 |
| 4 | ME1357 | Maritime English II | 2 |
| 4 | ME1601 | HVAC (Heating, Ventilation, Air Conditioning) | 4 |
| 5 | ME1358 | Electrical Engines & Power Electronics | 4 |
| 5 | ME1359 | Operating Media & Dangerous Materials | 3 |
| 5 | ME1360 | Marine Safety & Environmental Technology | 2 |
| 5 | ME1602 | Deck Machinery & Cargo Handling Systems | 3 |
| 5 | ME1603 | Ship Machinery Plants / Engine Room Layout | 4 |
| 5 | ME1604 | Combustion Engines | 3 |
| 6 | ME1361 | Automation Technology | 3 |
| 6 | ME1362 | Marine Safety & Environmental Management | 2 |
| 6 | ME1363 | Machinery Basic Design | 3 |
| 6 | ME1605 | Ship Diesel Engines & Plants | 3 |

| Smt | Code | Courses | Credits |
|-----|--------|--|---------|
| 6 | ME1606 | Ship Electrical Installations | 3 |
| 6 | ME1607 | Ship Maintenance | 5 |
| 7 | ME1364 | Marine Surveying | 3 |
| 7 | ME1365 | Technical Ship Operation | 3 |
| 7 | ME1366 | Complex Ship Operation | 3 |
| 7 | ME1608 | Machinery Dynamics | 3 |
| 7 | ME1609 | Ship Automation | 3 |
| 8 | IG1109 | Technopreneurship | 3 |
| 8 | ME1334 | Practical Work | 2 |
| 8 | ME1367 | Maritime Economics | 2 |
| 8 | ME1401 | Ship Performance & Energy Efficiency** | 2 |
| 8 | ME1402 | Condition Monitoring & Condition Based Maintenance** | 2 |
| 8 | ME1403 | Damage Analysis & Trouble Shooting** | 2 |
| 8 | ME1404 | Maritime Law** | 2 |
| 8 | ME1405 | LNG Technology** | 2 |
| 8 | ME1406 | Risk Management** | 2 |
| 8 | ME1407 | Flag states` relations with Industry and Class** | 2 |
| 8 | ME1408 | Future and Change in International Legislation** | 2 |
| 8 | ME1409 | ILO Convention** | 2 |
| 8 | ME1502 | Bachelor Thesis & Colloquium | 6 |

* Select one of those with stars

** Elective courses