

# Ladderized Program of Deck Seafaring to Bachelor of Science in Marine Transportation

# BSMT

## Course Description

The BSMT curricula is aimed to provide the required knowledge, skills and attitudes of Cadets sufficient to carry out the watchkeeping duties as set out in Sec. A-II/1 of the STCW Code 1995. The BSMT course specifically prepares the Cadets for satisfying the minimum requirements for certification as officers-in-charge of Navigational Watch and for Third Mate/Officer licensure examination as defined under Republic Act 8544 known as the "Philippine Merchant Marine Officers Act of 1998."

*Course Duration.* The BSMT course covers three (3) curricular years of academic studies and one (1) year supervised and/or monitored practical training on board ship as defined in CHED Order No. 51 S. 1997 and its supplemental policies which conform with Regulation II/1 of the Standards of Training Certification and Watchkeeping (STCW) Convention as amended.

## Curriculum

### FIRST YEAR

| First Trimester |   |             |            |              | Second Trimester |              |                                      |             |            |              |            |
|-----------------|---|-------------|------------|--------------|------------------|--------------|--------------------------------------|-------------|------------|--------------|------------|
| COURSE CODE     | DESCRIPTION                               | HOURS       |            |              | PREREQ.          | COURSE CODE  | DESCRIPTION                          | HOURS       |            |              | PREREQ.    |
|                 |   | LEC         | LAB        | UNITS        |                  |              |                                      | LEC         | LAB        | UNITS        |            |
| NGEC 9 113      | Math, Science & Technology                | 4.5         | 0          | 3            |                  | NGEC 4 123   | Mathematics in the Modern World      | 4.5         | 0          | 3            |            |
| NGEC 5 113      | Purposive Communication                   | 4.5         | 0          | 3            |                  | NGEC 7 123   | Science, Technology & Society        | 4.5         | 0          | 3            |            |
| SEAM 1 114L3    | Ship, Ship routines and Ship Construction | 4.5         | 4.5        | 4            |                  | NGEC 1 123   | Understanding the Self               | 4.5         | 0          | 3            |            |
| MARENV 113      | Protection of the Marine Environment      | 4.5         | 0          | 3            |                  | NAV 1 124L3  | Navigational Instrument w/ Compasses | 4.5         | 4.5        | 4            |            |
| PE 112          | Hand and Measuring Tools                  |             | 6          | 2            |                  | MACH 2 122L4 | Machining Tools                      |             | 3          | 2            |            |
| SEAM 1 114L3    | Basic Swimming                            | 0           | 3          | 2            |                  | PE 2 122     | Advanced Swimming                    |             | 3          | 2            |            |
| NSTP 113        | National Service Training Program 1       | 4.5         | 0          | (3)          |                  | NSTP 2 123   | National Service Training Program 2  | 4.5         | 0          | (3)          | NSTP 1 113 |
| <b>Total</b>    |   | <b>22.5</b> | <b>7.5</b> | <b>15(3)</b> |                  | <b>Total</b> |                                      | <b>22.5</b> | <b>7.5</b> | <b>15(3)</b> |            |

### Third Trimester

| COURSE CODE    | DESCRIPTION                        | HOURS     |            |           | PREREQ.      |
|----------------|------------------------------------|-----------|------------|-----------|--------------|
|                |                                    | LEC       | LAB        | UNITS     |              |
| NGEC 2 133     | Readings in Philippine History     | 4.5       | 0          | 3         |              |
| RIZAL 133      | The Life & Works of Dr. Jose Rizal | 4.5       | 0          | 3         |              |
| SEAM 2 135     | Trim, Stability and Stress 1       | 7.5       | 0          | 5         | SEAM 1 114L3 |
| DWATCH 1 134L3 | Collision Regulation               | 4.5       | 0          | 3         |              |
| PE 3 132       | Team Sports                        | 0         | 3          | 2         | PE 2 122     |
| <b>Total</b>   |                                    | <b>21</b> | <b>7.5</b> | <b>17</b> |              |

### SECOND YEAR

| First Trimester |  |             |          |           | Second Trimester |              |   |           |           |           |             |
|-----------------|--|-------------|----------|-----------|------------------|--------------|---|-----------|-----------|-----------|-------------|
| COURSE CODE     | DESCRIPTION                                      | HOURS       |          |           | PREREQ.          | COURSE CODE  | DESCRIPTION   | HOURS     |           |           | PREREQ.     |
|                 |  | LEC         | LAB      | UNITS     |                  |              |   | LEC       | LAB       | UNITS     |             |
| NGEC 6 213      | Art Appreciation                                 | 4.5         | 0        | 3         |                  | NGEC 10 223  | Social Sciences & Philosophy                              | 4.5       | 0         | 3         |             |
| NGEC 8 213      | Ethics   | 4.5         | 0        | 3         |                  | FIL 1 223    | Komunikasyon sa Akademikong Filipino                      | 4.5       | 0         | 3         |             |
| NAV 2 215       | Terrestrial & Coastal Navigation 1               | 7.5         | 0        | 5         | NAV 1 124L3      | NAV 3 225L6  | Terrestrial and Coastal Navigation 2                      | 4.5       | 9         | 5         | NAV 2 215   |
| SEAM 3 213L2    | Cargo handling and Stowage (Non Dangerous Goods) | 3           | 3        | 2         | SEAM 1 134L3     | SEAM 4 223L2 | Cargo Handling and Stowage (Dangerous Goods & Inspection) | 3         | 3         | 3         | SEAM1 134L3 |
| ELECT 212L3     | Integrated Navigational Watchkeeping             | 1.5         | 3        | 2         |                  | AS 221       | Aptitude for Service 2 / MMCP 1                           | 1.5       | 0         | 1         | AS 1 211    |
| PE 4 212        | Dual Sports                                      | 0           | 3        | 2         |                  | <b>Total</b> |   | <b>18</b> | <b>12</b> | <b>15</b> |             |
| AS 1 311        | Aptitude for Service 1                           | 1.5         | 0        | 1         | NSTP 123         |              |   |           |           |           |             |
| <b>Total</b>    |  | <b>22.5</b> | <b>9</b> | <b>18</b> |                  |              |   |           |           |           |             |

### Third Trimester

| COURSE CODE  | DESCRIPTION                               | HOURS     |            |           | PREREQ.      |
|--------------|---|-----------|------------|-----------|--------------|
|              |   | LEC       | LAB        | UNITS     |              |
| NGEC 11 233  | Arts & Humanities                         | 4.5       | 0          | 3         |              |
| FIL 2 233    | Pagbasa at Pagsulat Tungo sa Pananaliksik | 4.5       | 0          | 3         | FIL 1 223    |
| Marpower 234 | Basic Marine Engineering                  | 6         | 0          | 4         | SEAM 1 114L3 |
| MET O 1 235  | Meteorology & Oceanography 1              | 7.5       | 0          | 5         |              |
| NAV 4 233L3  | Celestial Navigation                      | 3         | 4.5        | 3         | NAV 3 225L6  |
| AS 3231      | Aptitude for Service 3                    | 1.5       | 0          | 1         | AS 2 221     |
| <b>Total</b> |   | <b>27</b> | <b>4.5</b> | <b>19</b> |              |

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## THIRD YEAR

| First Trimester |   | HOURS       |             |           | PREREQ.        |
|-----------------|---|-------------|-------------|-----------|----------------|
| COURSE CODE     | DESCRIPTION   | LEC         | LAB         | UNITS     |                |
| NGEC 3 313      | The Contemporary World  | 4.5         | 0           | 3         |                |
| ICT 312L3       | Software Applications and Network System used in Seagoing Ships | 1.5         | 4.5         | 2         |                |
| NAV 5 313L3     | Operational Use of RADAR/ARPA                                   | 3           | 4.5         | 3         | Dwatch1 134L3  |
| SEAM 5 313L3    | Ship Handling and Manue-<br>vering                              | 3           | 4.5         | 3         | Dwatch 1 134L3 |
| MET O 2 314     | Meteorology and Oceanog-<br>raphy 2                             | 6           | 0           | 4         | MET O 1 235    |
| AS 4 311        | Aptitude for Service 4  | 1.5         | 0           | 1         | AS 2 231       |
| <b>Total</b>    |   | <b>19.5</b> | <b>13.5</b> | <b>16</b> |                |

| Second Trimester |   | HOURS       |             |           | PREREQ.    |
|------------------|---|-------------|-------------|-----------|------------|
| SUBJECT CODE     | DESCRIPTION                               | LEC         | LAB         | UNITS     |            |
| NAV 6 322L3      | Operational use of ECDIS                  | 1.5         | 4.5         | 2         | NAV5 313L3 |
| MGMT1 323        | Leadership and Teamwork                   | 4.5         | 0           | 3         |            |
| Marcom 325L6     | Maritime Communication<br>(GMDSS for GOC) | 4.5         | 9           | 5         |            |
| SEAM 6 326       | Advanced Trim, Stability and Stress       | 9           | 0           | 6         | SEAM 2 135 |
| <b>Total</b>     |   | <b>19.5</b> | <b>13.5</b> | <b>16</b> |            |

## Third Trimester

| Third Trimester |   | HOURS       |          |           | PREREQ.                                   |
|-----------------|---|-------------|----------|-----------|---|
| COURSE CODE     | DESCRIPTION   | LEC         | LAB      | UNITS     |   |
| NAV 7 333L3     | Voyage Planning                                     | 3           | 4.5      | 3         | NAV6 322L3                                |
| MARLAW 334      | Maritime Law  | 6           | 0        | 4         |   |
| DWATCH 2 333L3  | Deckwatchkeeping w/ Bridge Resource Management      | 3           | 4.5      | 3         | DWATCH 1 134L3<br>NAV6 322L3<br>Mgmt 1323 |
| MGMT 2 332      | Integrated Management System                        | 3           | 0        | 2         |   |
| FL 332          | Technical Elective/Languages                        | 3           | 0        | 2         |   |
| MarRes 333      | Maritime Research (Chapter 1,2,3) – Technical Paper | 4.5         | 0        | 3         |   |
| <b>Total</b>    |   | <b>25.5</b> | <b>9</b> | <b>17</b> |   |

## FOURTH YEAR

| FOURTH YEAR  |   | HOURS    |          |           | PREREQ. |
|--------------|---|----------|----------|-----------|---------|
| COURSE CODE  | DESCRIPTION   | LEC      | LAB      | UNITS     |         |
| SBT          | Shipboard Training<br><br>(12 months or 36 months on board training w/ validation of research including the Final Defense of Technical Paper/Research | -        | -        | 40        |         |
| <b>Total</b> |   | <b>-</b> | <b>-</b> | <b>40</b> |         |