## **TECHNICAL UNIVERSITY OF VARNA**



| Ratified by:               |
|----------------------------|
| Rector                     |
| /Prof. Rosen Vasilev, DSc/ |

## CURRICULUM

Professional orientation: TRANSPORT, NAVIGATION AND AVIATION

Educational and qualification degree: MASTER Programme: ELECTRICAL EQUIPMENT OF SHIPS

Professional qualification: ENGINEER ON SHIP'S ELECTRICAL EQUIPMENT

Form of study: FULL - TIME

Term of study: 1,5 YEARS / 3 SEMESTERS

For holders of educational and qualificational degree "Bachelor" in speciality "Electrical Equipment of Ships" of professional orientation 5.5

"Transport, Navigation and Aviation"

|              |  |       | Forn                         | ns of<br>smer  |          | Weekly auditor |                      |                | ditori     | um lo                | oad        | ρĸ                | ents          |              |
|--------------|--|-------|------------------------------|----------------|----------|----------------|----------------------|----------------|------------|----------------------|------------|-------------------|---------------|--------------|
| <u></u>      |  |       | -                            | ಕ              |          |                | S                    | emina          | ırs        | ises                 |            | o p               | of students   | dits         |
| Subject Name |  | Exams | Inter-semester<br>Evaluation | Course project | Accepted | Lectures       | Seminar<br>Exercises | Course project | Assignment | Laboratory Exercises | Total load | Unsupervised load | Whole load of | ECTS credits |
| 1            | 2  | 3     | 4                            | 5              | 6        | 7              | 8                    | 9              | 10         | 11                   | 12         | 13                | 14            | 15           |
| 1            | Specialized Course in Theoretical Electrical Engineering           | *     |                              |                |          | 30             | 15                   |                |            | 15                   | 60         | 105               | 165           | 6            |
| 2            | Control and Diagnosis of Ships Electrical and Electronic Equipment | *     |                              |                |          | 30             |                      |                |            | 30                   | 60         | 90                | 150           | 5            |
| 3            | Transient Processes in Ships Electrical Equipment                  | *     |                              |                |          | 30             |                      |                |            | 30                   | 60         | 105               | 165           | 6            |
| 4            | CAD Systems in Electrical Power Supply and Electrical Equipment    | *     |                              |                |          | 30             |                      |                |            | 30                   | 60         | 90                | 150           | 5            |
|              | International Maritime Law   |       | *                            |                |          | 30             | 30                   |                |            |                      | 60         | 90                | 150           | 5            |
| 6            | 6 English on Management Level - part 1                             |       | *                            |                |          |                | 45                   |                |            |                      | 45         | 45                | 90            | 3            |
|              | Total for the 1 semester:  | 4     | 2                            | 0              | 0        | 150            | 90                   | 0              | 0          | 105                  | 345        | 525               | 870           | 30           |
| 7            | Electrical Equipment of Specialized Floating Objects               | *     |                              |                |          | 30             | 15                   |                |            | 15                   | 60         | 135               | 195           | 7            |
| 8            | Complex Systems for Control of Ships                               | *     |                              |                |          | 30             |                      |                |            | 30                   | 60         | 135               | 195           | 7            |
| _            | Modeling of Marine Electrical Systems                              | *     |                              |                |          | 30             |                      |                |            | 30                   | 60         | 135               | 195           | 7            |
| 10           | Organization of Safety and Crisis Management                       | *     |                              |                |          | 15             | 15                   |                |            |                      | 30         | 105               | 135           | 5            |
| 11           | English on Management Level - part 2                               |       | *                            |                |          |                | 60                   |                |            |                      | 60         | 60                | 120           | 4            |
|              | Total for the 2 semesters:   |       | 1                            | 0              | 0        | 105            | 90                   | 0              | 0          | 75                   | 270        | 570               | 840           | 30           |
| 12           | 12 Pre-graduation Practice   |       |                              |                | *        |                |                      |                |            |                      | 0          | 120               | 120           | 4            |
|              | Total for the 3 semesters:   |       | 0                            | 0              | 1        | 0              | 0                    | 0              | 0          | 0                    | 0          | 120               | 120           | 4            |
|              |  |       |                              |                |          |                |                      |                |            |                      |            |                   |               |              |
|              | Totals for the whole course of education                           | 8     | 3                            | 0              | 1        | 255            | 180                  | 0              | 0          | 180                  | 615        | 1215              | 1830          | 64           |

|              |                      |                 | Forms of assessment         |  |          | Weekly auditorium load |                      |                  |            |                      | load       | students     |               |          |
|--------------|----------------------|-----------------|-----------------------------|--|----------|------------------------|----------------------|------------------|------------|----------------------|------------|--------------|---------------|----------|
| <u>_</u>     | 5                    |                 | er.                         | ct   |          |                        | Se                   | emina            | rs         | sises                |            | ol pe        |               | credits  |
| Subject Name |                      | Exams           | Inter-semeste<br>Evaluation | Course project   | Accepted | Lectures               | Seminar<br>Exercises | Course project   | Assignment | Laboratory Exercises | Total load | Unsupervised | Whole load of | ECTS cre |
| 1            | 2                    | 3               | 4                           | 5  | 6        | 7                      | 8                    | 9                | 10         | 11                   | 12         | 13           | 14            | 15       |
|              | Facultative Subjects |                 |                             |  |          |                        |                      |                  |            |                      |            |              |               |          |
|              |                      |                 |                             |  |          |                        |                      |                  |            |                      |            |              |               |          |
|              |                      |                 |                             |  |          |                        |                      |                  |            |                      |            |              |               |          |
|              |                      |                 |                             |  |          |                        |                      |                  |            |                      |            |              |               |          |
|              |                      | , in the second |                             | , and the second |          |                        |                      | , and the second |            |                      |            |              |               |          |

| Types of graduation           | Semester | Unsupervised load | ECTS credits |
|-------------------------------|----------|-------------------|--------------|
| Preparation of Diploma Thesis | 2        | 450               | 15           |
| Defense of Diploma Thesis     | 3        | 450               | 15           |

| Approved b | v the A | cademic | <b>Board</b> | of T | U-Varna: |
|------------|---------|---------|--------------|------|----------|
|            |         |         |              |      |          |

Protocol № 29 / 26.03.2018 г. Modified with Protocols:

Valid from 2018/2019 academic year

The weekly plan of the lessons is fixed according to the Academic Board "Structure of the Learning Process" adopted for the current academic year.

| Head of Department:           | Dean of Faculty:  |
|-------------------------------|---|
| /Assoc. Prof. V. Gyurov, PhD/ | /Assoc. Prof. M. Yordanova, PhD/                                  |
|                               |   |
|                               |   |
|                               |   |
|                               | Executive Director of Executive Agency "Maritime Administration": |
|                               | <i>/</i> /  |