|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Course title** | Electrical and Electronic Measuring Equipment, Basic Electrical Fault Finding | | | | |
| **STCW Code alignment ref.** | **Table A-III/7** Specification of minimum standard of competence for electro-technical rating | |  | | |
| **Function** | Marine Engineering at the support level | | | | |
| **Course code** |  | **Directed learning hours** | | **Lecture** |  |
| **Course version** | V1 | **Tutorial** |  |
| **Level** | 4 | **Blended** | 75 |
| **Credits** | 10 | **Practical** |  |
| **Delivery mode** | Blended | **Workshop** |  |
| **Internet Based Learning Indicator** | 3 | **Work integrated learning hours** | | |  |
| **EFTS value** | .0833 | **Independent learning hours** | | | 25 |
| **Pre-requisites** |  | **Notional learning hours** | | | **100** |
| **Co-requisites** |  | | | | |
| **Attendance requirements** | 80% attendance is recommended for course work; | | | | |

**Aim**

Demonstrate knowledge and skills of safety requirements for working on shipboard electrical systems

**Learning outcomes**

On successful completion of this course the student will be able to:

Outcome 1 **Demonstrate basic knowledge of the implementation of satisfactory safety procedures**

* Demonstrate basic understanding of construction and operational characteristics of shipboard AC and DC systems and equipment

Outcome 2 **Demonstrate the use of appropriate test equipment and accurately interpret results**

* Demonstrate basic understanding of using measuring instruments

Outcome 3 **Demonstrate basic knowledge of procedures for the conduct of repair and maintenance in accordance with manuals and good practice**

* Demonstrate basic understanding for use of machine tools, hand tools and power tools

**Assessment**

|  |  |  |  |
| --- | --- | --- | --- |
| Number | Type | Weighting | Learning Outcomes assessed |
| 1 | Practical assessment in the workshop | C | 1- 2-3 |
| 2 | Written test | C | 1-3 |

**Resources required**

Text books

Hall, Dennis T, 1996 Second Edition, Practical Marine Electrical Knowledge

ISBN 1 85609 1821

Hall, Dennis T, 2014 Third Edition, Practical Marine Electrical Knowledge

ISBN 978 1 85609 623 2

Schaum Theory and Problems of Basic Electricity

ISBN 0 03 025240 8

Videotel training video series

[Practical Marine Electrical Knowledge (1) - Ships Electrical Systems - Safety and Maintenance](mms://W2K8MEDIA.maritime.manukau.ac.nz/Ships%20Electrical%20Systems%20-%20Safety%20and%20Maintenance)

[Practical Marine Electrical Knowledge (2) - Electrical Distribution](mms://W2K8MEDIA.maritime.manukau.ac.nz/Electrical%20Distribution)

Laboratory

Electrical and Electronics laboratory – test instruments