

**SURFACE WARFARE OFFICER PROSPECTIVE ENGINEERING OFFICER LPD-17
SYLLABUS**

SURFACE WARFARE OFFICERS SCHOOL COMMAND

446 CUSHING RD., NEWPORT, RI 02841

COURSE DATA

Course Title:

Surface Warfare Officer Prospective Engineering Officer LPD-17

Course Overview:

This course is designed to prepare officers to successfully perform as Chief Engineers (CHENG's) onboard LPD-17's. LPD-17 CHENG's are 2nd tour Department Head tours and although they have previously attended PEO Diesel COI they have not received training on the LPD-17 engineering plant. This course will focus on the differences that exist between the Engineering Control System, Auxiliary Systems, Generators, and multiple other facets of a LPD-17 Engineering Plant. Training consists of five weeks of LPD-17 Main Propulsion, Auxiliaries, and Electrical Systems and includes the use of computer based trainer in the execution of engineering evolutions and casualty control procedures. The sixth and final week is Hot Plant and Material Self-Assessment training accomplished onboard a LPD-17. Students are required to complete multiple written tests, level of knowledge oral boards, homework and successfully complete a practical factors assessment by Afloat Training Group, including performance of drills and evolutions on the computer based trainer in order to graduate from the course of instruction.

OUTLINE OF INSTRUCTION SUMMARY

| Lesson Number | Title | Class Periods | Lab Periods | PA Periods | Total Periods |
|-------------------------|---|------------------|----------------|---------------|------------------|
| Unit 3: PROPULSION UNIT | | | | | |
| 3.1 | Console Trainers, Propulsion | 0.0 | 1.0 | 0.0 | 1.0 |
| 3.2 | Propulsion Control Systems | 1.0 | 0.0 | 0.0 | 1.0 |
| 3.3 | Basic Diesel Engine | 1.0 | 0.0 | 0.0 | 1.0 |
| 3.4 | Diesel Engine Construction | 1.0 | 0.0 | 0.0 | 1.0 |
| 3.5 | Combustion Air | 1.0 | 0.0 | 0.0 | 1.0 |
| 3.6 | Console Trainers, Propulsion | 0.0 | 1.0 | 0.0 | 1.0 |
| 3.7 | Fuel Oil (F/O) Systems | 2.0 | 0.0 | 0.0 | 2.0 |
| 3.8 | Lube Oil (L/O) Systems | 1.0 | 0.0 | 0.0 | 1.0 |
| 3.9 | Cooling Water Systems | 1.0 | 0.0 | 0.0 | 1.0 |
| 3.10 | Diesel Engine Starting Systems | 1.0 | 0.0 | 0.0 | 1.0 |
| 3.11 | Jacket Water Chemistry | 1.0 | 0.0 | 0.0 | 1.0 |
| 3.12 | Console Trainers, Propulsion | 0.0 | 4.0 | 0.0 | 4.0 |
| 3.13 | Main Propulsion Diesel Engine (MPDE) Maintenance / Troubleshooting | 1.0 | 0.0 | 0.0 | 1.0 |
| 3.14 | Platform Specific Main Propulsion Diesel Engine (MPDE) | 1.0 | 0.0 | 0.0 | 1.0 |
| 3.15 | Console Trainers, Propulsion | 0.0 | 4.0 | 0.0 | 4.0 |
| 3.16 | Propulsion Shafting | 1.0 | 0.0 | 0.0 | 1.0 |
| 3.17 | Main Reduction Gear (MRG), Light Load Propulsion Motor (LLPM), Clutch, and Gearbox | 1.0 | 0.0 | 0.0 | 1.0 |
| 3.18 | Controllable Pitch Propeller (CPP) | 1.0 | 0.0 | 0.0 | 1.0 |
| 3.19 | Console Trainers, Propulsion | 0.0 | 2.0 | 0.0 | 2.0 |
| 3.20 | Oil Purifiers | 1.0 | 0.0 | 0.0 | 1.0 |

Unit 4: ELECTRICAL UNIT

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|-----|---------------------------------------|-----|-----|-----|-----|
| 4.1 | Console Trainers, Electrical | 0.0 | 1.0 | 0.0 | 1.0 |
| 4.2 | Electrical Plant Operations | 1.0 | 0.0 | 0.0 | 1.0 |
| 4.3 | Basic Shipboard Electrical Equipment | 1.0 | 0.0 | 0.0 | 1.0 |
| 4.4 | 60 Hertz (HZ) Electrical Distribution | 1.0 | 0.0 | 0.0 | 1.0 |
| 4.5 | Governors and Voltage Regulators | 1.0 | 0.0 | 0.0 | 1.0 |

OUTLINE OF INSTRUCTION SUMMARY

| Lesson Number | Title | Class Periods | Lab Periods | PA Periods | Total Periods |
|----------------------|---|----------------------|--------------------|-------------------|----------------------|
| 4.6 | Console Trainers, Electrical | 0.0 | 4.0 | 0.0 | 4.0 |
| 4.7 | 60 Hertz (HZ) Electrical Distribution | 1.0 | 0.0 | 0.0 | 1.0 |
| 4.8 | 400 Hertz (HZ) Distribution | 1.0 | 0.0 | 0.0 | 1.0 |
| 4.9 | Gyrocompass Familiarization | 1.0 | 0.0 | 0.0 | 1.0 |
| 4.10 | Landing Platform Dock-17 (LPD-17) Diesel Generators | 1.0 | 0.0 | 0.0 | 1.0 |
| 4.11 | Console Trainers, Electrical | 0.0 | 3.0 | 0.0 | 3.0 |
| 4.12 | Master Charlie Fire Electrical Distribution (MCFED) Lab | 0.0 | 1.0 | 0.0 | 1.0 |
| 4.13 | Switchboard, Trainer | 0.0 | 1.0 | 0.0 | 1.0 |
| 4.14 | Electrical Maintenance Seminar | 2.0 | 0.0 | 0.0 | 2.0 |

Unit 5: AUXILIARY UNIT

| | | | | | |
|------|---|-----|------|-----|------|
| 5.1 | Console Trainers, Auxiliary | 0.0 | 2.0 | 0.0 | 2.0 |
| 5.2 | Damage Control (DC) Systems | 1.0 | 0.0 | 0.0 | 1.0 |
| 5.3 | Pier / Hotel Services | 1.0 | 0.0 | 0.0 | 1.0 |
| 5.4 | Compressed Air Systems | 1.0 | 0.0 | 0.0 | 1.0 |
| 5.5 | Air Conditioning and Refrigeration (AC&R) | 1.0 | 0.0 | 0.0 | 1.0 |
| 5.6 | Console Trainers, Auxiliary | 0.0 | 1.0 | 0.0 | 1.0 |
| 5.7 | Oily Water Separator / Drainage | 1.0 | 0.0 | 0.0 | 1.0 |
| 5.8 | Firemain and Drainage | 1.0 | 0.0 | 0.0 | 1.0 |
| 5.9 | Marine Sanitation Device (MSD) / Collection Holding and Transfer (CHT) System | 1.0 | 0.0 | 0.0 | 1.0 |
| 5.10 | Small Boat Maintenance and Operation | 1.0 | 0.0 | 0.0 | 1.0 |
| 5.11 | Potable Water | 1.0 | 0.0 | 0.0 | 1.0 |
| 5.12 | Deck Machinery | 1.0 | 0.0 | 0.0 | 1.0 |
| 5.13 | Console Trainers, Auxiliary | 0.0 | 5.0 | 0.0 | 5.0 |
| 5.14 | Platform Specific Landing Platform Dock-17 (LPD-17) Steering Systems | 1.0 | 0.0 | 0.0 | 1.0 |
| 5.15 | Aviation Support | 1.0 | 0.0 | 0.0 | 1.0 |
| 5.16 | Ballast System | 1.0 | 0.0 | 0.0 | 1.0 |
| 5.17 | Console Trainers, Auxiliary | 0.0 | 16.0 | 0.0 | 16.0 |
| 5.18 | Plant Operations Unit A | 1.0 | 0.0 | 0.0 | 1.0 |
| 5.19 | Plant Operations Unit B | 1.0 | 0.0 | 0.0 | 1.0 |
| 5.20 | Plant Operations Unit C | 1.0 | 0.0 | 0.0 | 1.0 |
| 5.21 | Propulsion Casualty Control | 1.0 | 0.0 | 0.0 | 1.0 |

OUTLINE OF INSTRUCTION SUMMARY

| Lesson Number | Title | Class Periods | Lab Periods | PA Periods | Total Periods |
|------------------|-----------------------------|------------------|----------------|---------------|------------------|
| 5.22 | Electrical Casualty Control | 1.0 | 0.0 | 0.0 | 1.0 |

Unit 6: COMPREHENSIVE

| | | | | | |
|-----|---|-----|------|-----|------|
| 6.1 | Engineering Plant Management | 1.0 | 0.0 | 0.0 | 1.0 |
| 6.2 | Main Reduction Gear (MRG) Inspection | 1.0 | 0.0 | 0.0 | 1.0 |
| 6.3 | Diesel Readiness System | 1.0 | 0.0 | 0.0 | 1.0 |
| 6.4 | Console Trainers; Propulsion, Electrical, Auxiliary | 0.0 | 30.0 | 0.0 | 30.0 |

Unit 7: ENGINEERING ASSESSMENT ATLANTIC (EAA) / ENGINEERING ASSESSMENT PACIFIC (EAP) ASSESSMENT

| | | | | | |
|-----|---|-----|-----|------|------|
| 7.1 | Engineering Assessment Atlantic (EAA) / Engineering Assessment Pacific (EAP) Assessment | 0.0 | 0.0 | 31.0 | 31.0 |
|-----|---|-----|-----|------|------|

Unit 8: SHIPRIDE

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|-----|----------|-----|------|-----|------|
| 8.1 | Shipride | 0.0 | 40.0 | 0.0 | 40.0 |
|-----|----------|-----|------|-----|------|