

**Reference No**

048/329

**Duration**

44 weeks

**Location**

HMS SULTAN

**IELTS**

6.5

**Frequency**One course  
per year

# SYSTEMS ENGINEERING & MANAGEMENT COURSE (AE) GRADUATE (SEMC(AE))

**INTRODUCTION**

The Air Engineering Systems Engineering and Management Course (SEMC(AE)) for Graduate Officers is designed to prepare junior officers of the Air Engineering specialisation for their first complement appointment in the Fleet Air Arm.

On completion of the course, students will be given a maximum 16-week period within which to gain the award of Certificate of Competency (CofC). The syllabus is laid down in the AP100T-0100, and success at this board qualifies the officer to become a Squadron AAEO/DAEO.

**AIM OF COURSE**

The aim of the course is to train and educate junior Air Engineer Officers to:

- ◆ Administer an Air Engineering Department, ensuring that all maintenance and support tasks are met effectively
- ◆ Direct the maintenance and support of all engineering equipment and systems in his/her charge
- ◆ Organise, train and manage the officers, senior and junior ratings of their department who are in their charge

**OUTLINE SYLLABUS**

The course has 4 phases (Phase 1 - 3 at DCAE(Gosport)), which are detailed below:

**Phase 1**

Foundation academics and aircraft systems/Academic and generic aircraft systems training. This is predominantly classroom based using STG Instructors. The phase also incorporates a 5 day teambuilding exercise away from DCAE(Gosport) - it is attended by staff members and the SEMC(AE)(SUY) to encourage interaction with the SUY cadre at an early stage of the course.

**Phase 2 - Airworthiness Management**

Aircraft Support Management (ASM) module. This covers elements such as logistic support, DE&S roles and structure, QA and Fleet Air Arm Organisation. It is delivered using a variety of methods including staff delivered lessons, visiting lecturers and a range of visits to air stations, Fleet, DE&S etc. A specialised workshop module is also undertaken, covering subjects such as expedient repair, sheet metal work, GRP and composite repair, wiring and fibre optics.

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**Phase 3 - Squadron Management**

Students are expected to apply their training in a variety of increasingly complex scenarios. It includes 4 weeks at 760 Squadron and culminates in the Air Engineering Qualifying Board (AEQB).

**Phase 4 - Certificate of Competency (C of C) Training**

Students will be given a maximum of 16 weeks to gain their C of C at an air station.

Students will be continually assessed by the course manager and staff throughout the course. Specific assessments are as follows:

- ◆ Exams and Assignments - predominantly during Phase 1
- ◆ Technical Presentation Board (TPB) - the delivery of a presentation to fellow course members and Staff; with a thorough Q&A period on completion. This is conducted during Phase 2
- ◆ 760 Squadron practical assessments including CHAOS and a PCM Exercise.
- ◆ Finally, the students will be assessed at an Air Engineering Qualifying Board. This board is presided over by either OC or XO RNAESS and is the final stage of the course prior to undertaking CoC training

**TRAINING OBJECTIVES**

The objectives of the SEMC(AE) are specifically aimed at meeting the requirements of the junior AEO Operational Performance Statement (OPS), and are detailed fully in the supporting documentation for the course. Whilst under training, junior AEOs are provided with an environment conducive with developing the following essential professional skills:

- ◆ A sound knowledge of the engineering principles, practices and techniques that are required by an AEO
- ◆ The ability to apply theoretical knowledge to systems engineering
- ◆ The administrative and managerial skills required by a DAEO

**ENTRY STANDARDS**

- ◆ Degree or equivalent in mechanical, electrical or aeronautical engineering
- ◆ To be computer literate in Microsoft Word and Excel, or equivalent systems

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**EXAMINATIONS/ QUALIFICATIONS GAINED**

- ♦ Written examinations, course work, and laboratory reports
- ♦ Technical presentation board
- ♦ Oral examination, practical assessments and AEQB
- ♦ C of C phase written examinations and oral board at end of OJT
- ♦ Successful students awarded Certificate of Competency

**REMARKS**

Proof of educational qualifications will be required on joining. In order to take this course, students must be medically fit and able to pass the Royal Navy Fitness Test.