



## The Requirements

### Who can enroll in this program?

- Government civilians, uniformed officers and DoD contractor employees with a technical background may apply.

### The entrance requirements?

- Recent BSEE degree graduates with a 3.0 GPA or better.
- Recent graduates with a degree in a related field of science or engineering and appropriate on-the-job experience.
- It may be possible to provide transition education for those students not qualified for direct entry.

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Master of Engineering  
(Electrical Engineering)

# ELECTRONIC WARFARE



A Distributed Learning Program  
For EW Engineers

Department of Electrical and Computer Engineering



Naval Postgraduate School

## The Program



This Certificate and Master of Engineering (Electrical Engineering) degree program is a new Distributed Learning program designed specifically for Electronic Warfare (EW) Engineers.

The program will improve the technical and analytical skills of EW engineers and the payoff is immediate. Students can apply the course work directly to their current jobs.

The MEng(EE) program has two major components: a three tiered certificate program and a capstone project.

### CERTIFICATES

Students will complete three sets of courses, each leading to a certificate. Certificates are earned in order and include:

- EW Engineer
- Journeyman EW Engineer
- Senior EW Engineer.

Courses taken to earn the three certificates may be applied toward the MEng(EE) degree.

### CAPSTONE PROJECT

The capstone project lasts for two quarters and provides an opportunity for students to work within a group to complete an assigned project in the area of EW. Completion of the project meets the requirements for this MEng(EE) degree program.

## The Curriculum



The curriculum\* provides a solid theoretical foundation focused on electronic warfare including electronic attack, electronic protection, electronic support and networked operations.

### **Electronic Warfare Engineer Certificate**

EC3600: Antennas and Propagation (3-2)  
EC3630: Radiowave Propagation (3-2)  
EC3700: Joint Network Enabled Electronic Warfare I (3-2)

### **Journeyman EW Engineer Certificate**

EC3210: Introduction to Electro-Optical Engineering (4-1)  
EC3610: Microwave Engineering (3-2)  
EC4610: Radar Systems (3-2)

### **Senior EW Engineer Certificate**

EC4630: Radar Cross Section Prediction and Reduction (3-2)  
EC4640: Airborne Radar Systems (3-2)  
EC4680: Joint Network Enabled Electronic Warfare II (3-2)

### **Capstone Requirement for Degree**

EC4900: Topics for Individual Study in Electrical Engineering (V-V)  
EC0820: Project Course I (0-8)  
EC0830: Project Course II (0-8)

*\* Program can be tailored to customer requirements but minimum length is approximately 3 years.*

## The Benefits



Students who complete these requirements will be exposed to:

- Current electro-optical and infrared (EO/IR) military systems
- Design and analysis of practical antenna types
- Circuits and devices used in microwave radar, communication and electronic warfare systems
- Sensors associated with weapons systems used by Army, Air Force, Navy, and Marines and joint coalition forces
- Engineering aspects of stealth
- State-of-the-Art digital signal processing techniques in radar and EW
- Platform-centric and network-centric radar electronic attack and protection capabilities