THE REQUIREMENTS

WHO CAN ENROLL IN THIS PROGRAM?

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

WHAT ARE THE ENTRANCE REQUIREMENTS?

- Acceptance by the ECE Department
- Recent graduates with a degree in a related field of science or engineering with appropriate on-the-job experience
- Background in basic circuits, Fourier transforms and undergraduate electromagnetics
- Command or company endorsement
- It may be possible to provide transition education for those students not qualified for direct entry.

RC-135 Rivet Joint reconnaissance aircraft

EA-18G next-generation electronic attack aircraft

CONTACT INFORMATION

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For more information on the ECE department, go to:
www.nps.edu/ece

For more information on other NPS DL programs, go to:
www.nps.edu/dl

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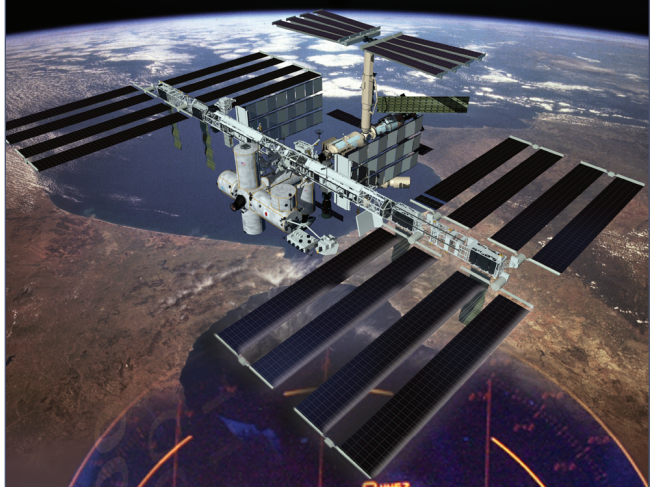
DEPARTMENT OF
ELECTRICAL and COMPUTER ENGINEERING



ELECTRONIC WARFARE

MASTER OF ENGINEERING

A DISTRIBUTED LEARNING PROGRAM
For EW ENGINEERS

NAVAL POSTGRADUATE SCHOOL

THE PROGRAM

The Certificate and Master of Engineering (Electrical Engineering) degree program is a 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.

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 and satisfy requirements for the MEng (EE) degree.

CAPSTONE PROJECT (OPTIONAL)

A two quarter capstone project provides an opportunity for students to work within a group to complete an assigned EW project and then deliver an oral presentation and written report. The intent is to develop effective oral and written communication skills. The capstone project is optional and included in the curriculum only if desired by the customer.

Crew members aboard the USS George Washington

THE CURRICULUM

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

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 PROJECT (OPTIONAL)

EC4900: Topics for Individual Study in Electrical Engineering (0-8)

EC0820: Project Course I (0-8)

EC0830: Project Course II (0-8)

** Program can be tailored to customer requirements, but minimum length is approximately 9 quarters for students enrolling in 1 course per quarter.*

www.nps.edu/ece

THE OUTCOMES

ELECTRONIC WARFARE ENGINEER CERTIFICATE

Upon completion, students will have the cognitive skills and abilities required to:

- Analyze, design and evaluate electronic warfare systems and apply these skills in a military systems environment.
- Analyze and design EW antenna systems and model and evaluate the media and environments through which EW signals propagate.

JOURNEYMAN EW ENGINEER CERTIFICATE

Upon completion, students will have the skills and abilities required to analyze, design and evaluate:

- Electro-optical EW systems and components.
- Radar systems and understand the capabilities and limitations of their microwave devices and components.

SENIOR EW ENGINEER CERTIFICATE

Upon completion, students will have the cognitive skills and abilities to:

- Analyze and evaluate target cross-section and implement techniques for cross-section reduction.
- Design, analyze and evaluate radars and signal processing for airborne platforms.
- Design, analyze and evaluate LPI emitters and the advanced electronic warfare systems and processing techniques used against them.

B-2 Spirit: Artist rendition