# APPLICATION PROCESS

All required forms, instructions, and an example of an application package can be found at www.nps.edu/admissions.

Application packages must include a letter from employer stating their willingness to pay the tuition for the program and supply salary and benefits during your time as a student.

#### **Applications should be sent to:**

Director of Admissions Code 01C3, He-022 Naval Postgraduate School 1 University Circle Monterey, CA 93943

If you have any questions please contact: grad-ed@nps.edu (831) 656-3093/DSN 756-3093



# TUITION

Tuition rates vary depending on a students employer.

- 1. DoD civilian tuition is \$13,940 per year for a full-time, resident student.
- 2. DoD contractor tuition is \$32,000 per year for a full-time, resident student.

## FOR MORE INFORMATION

Please Contact:

#### **Christopher Brophy**

Missile Track Program Manager Research Associate Professor (831) 656-2699 cmbrophy@nps.edu

#### **Anthony Healey**

Distinguished Professor and Chairman Mechanical and Astronautical Engineering (831) 656-3462 healey@nps.edu

www.nps.edu/mae/missiles





## NAVAL POSTGRADUATE SCHOOL

Mechanical & Astronautical Engineering Department 700 Dyer Road RM 338 Phone (831) 656-2586 Fax (831) 656-2238

www.nps.edu



# NAVAL Postgraduate School

TACTICAL AND STRATEGIC
MISSILE TECHNOLOGY
AND DESIGN



"Future long-range fire support systems will have to depend on the use of guided weapons to a much greater extent than do today's systems."

- Naval Studies Board

#### INTRODUCTION

The department of Mechanical and Astronautical Engineering offers a missile systems engineering track within the framework of a Master's Degree in Mechanical Engineering. The program allows students to take courses related to tactical and/or strategic missile systems and can be completed in four to six quarters, depending on academic preparedness of the student. Additional course electives can be taken to enhance specialty areas, along with thesis research related to tactical or strategic systems, or a wide range of other useful military technologies.



# STUDENTS ELIGIBLE

- 1. U.S. Military, all services.
- 2. DoD Civilians from the Army, Navy, Air Force laboratories and program officers, and DoD agencies, such as MDA, DTRA, etc.
- 3. Industry. Employees of Department of Defense prime contractors, such as Raytheon, Lockheed-Martin, and Boeing.
- 4. International Military Officers and Civilians (limited to the tactical missile track only)

#### MISSILE TRACK DESCRIPTION

The missile track course sequence is taken in conjunction with courses required for the standard Master's of Science degree. The courses can be taken over the course of a year and cover the critical technology areas related to tactical and strategic missile analysis, design, fabrication, and operation.

#### The primary courses of the track are:

- Missile Aerodynamics (Winter)
- Missile Guidance and Control (Spring)
- Advanced Missile Propulsion (Summer)
- Tactical Missile Design (Fall)

The final course in this sequence, Tactical Missile Design, is a capstone course that integrates the material into a preliminary design study for a missile system.

#### OTHER COURSES

Additional courses related to tactical and strategic missile design may be taken as electives. Courses available are listed below:

- Weaponeering
- Conventional Weapon Effects
- Physics of Weapon Effects
- Combat Survivability and System Safety Engineering
- Navigation, Missile, and Avionic Systems
- Hypersonics



### NPS FACULTY

The NPS faculty is comprised of accomplished scholars and professionals, predominantly civilian and almost all with doctorates. About 10 percent of the faculty members are senior military officers who, along with students, infuse important operational and combat experience into the education and research programs. Several Federal agencies and defense organizations, such as NASA, NRO, National Security Agency, as well as defense contractors, sponsor academic chair professorships which further strengthen the institution's relevance.

#### RESEARCH FACILITIES

NPS has a wide range of excellent, state-of-the-art research facilities that support rocket and missile propulsion, guidance and control, warhead physics, combat systems, electronic warfare, electro-optics, MEMS sensors, and many other areas that support missile technology. These laboratories are available for thesis research and joint and cooperative projects, between NPS and other service or agency laboratories as well as cooperative research and development agreements (CRADAs) with industry.

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