

# Applied Mathematics Degree Programs



NAVAL  
POSTGRADUATE  
SCHOOL

## Master of Science in Applied Mathematics:

The Department of Applied Mathematics offers the degree Master of Science in Applied Mathematics. Students initially complete or validate introductory courses in Calculus, Ordinary Differential Equations, Linear Algebra, and Discrete Mathematics. Subsequently, they complete at least 32 quarter-hours of graduate-level course work. The program culminates in students conducting independent research and writing a master's degree thesis.



The department offers degree specializations in:

- Secure Communications
- Network Science
- Scientific Computation
- Applied Analysis

### Complete Your JPME/AOC Requirements

Students can also take electives and earn Graduate Certificate in a host of academic subjects or complete JPME / the Advanced Operations Course for basic branch officers through the Naval War College satellite campus at NPS. Exceptional students may apply for the NPS dual degree program, which allows them to complete two distinct master's degrees simultaneously while at NPS.

## Doctor of Philosophy in Applied Mathematics:

The Department of Applied Mathematics offers the degree Doctor of Philosophy in Applied Mathematics. Areas of specialization will be determined by the department on a case by case basis. Requirements for the degree include course work followed by an examination in both major and minor fields of study, and research culminating in an approved dissertation. Entrance into the program ordinarily requires a master's degree, although exceptionally well-prepared students with a bachelor's degree in mathematics may be admitted.

## Instruction

NPS has a world-class faculty that is well-versed in working on defense related problems. There are no teaching assistants at NPS. All classes are taught by experienced faculty who are highly accomplished in their respective academic fields. The Applied Math department includes leading experts in Numerical Modeling, Control Theory, Cryptography, Network Science, and Game Theory.

The applied math department understands that incoming officers may have been out of the classroom for an extended period of time. The master's degree program in Applied Mathematics at NPS is designed to initially acquaint students with important undergraduate math topics and lay a solid foundation upon which their graduate studies can be built.

## Research

The Naval Postgraduate School is one of only a handful of universities in the county that has a Sensitive Compartmented Information Facility (SCIF). This gives students the opportunity to carry out SECRET and TS/SCI level classified research. The university is also home to a super computer, allowing students to gain valuable experience in High Performance Computing.

As a hub for DoD research, NPS is ideally situated on the West Coast in close proximity to Silicon Valley. The US Army's Training and Doctrine Command (TRADOC) Analysis Center Monterey is located on the NPS campus, and several students have in the past collaborated with their staff and conducted thesis research on a problem of mutual interest.



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## MILITARY FACULTY PREPARATION

The NPS Applied Math department has a long legacy of preparing military officers for teaching assignments. Throughout its history, over 80 NPS graduates have gone on to successfully serve as math faculty at the United States Military Academy, the United States Naval Academy, the United States Coast Guard Academy, and the Naval Postgraduate School. At the end of their program of study, students destined for teaching assignments participate in a teaching practicum. Here they are given the opportunity to hone their teaching skills by co-teaching calculus courses under the supervision and mentorship of an experienced member of the math faculty.



## Quality of Life

An assignment to NPS brings with it an outstanding quality of life. The university is located on the scenic Monterey bay, two hours south of San Francisco and only a few hour's drive from destinations such as Napa Valley, Yosemite, and Lake Tahoe. Opportunities for outdoor activities such as golfing, hiking, sailing, surfing, scuba-diving, and cycling abound. The NPS campus was previously home to the luxury Del Monte hotel. The hotel grounds and several historic buildings have been preserved, making it a truly unique military installation. Student housing is available in close proximity to campus, and given the great year-round weather, many students forego driving in favor of the five-minute walk or bike commute. Good local area K-12 schools are also available for those with school-age children.

Students at NPS study and learn in a relaxed and stimulating academic environment. Uniforms are typically worn only once a week. The student body consist of officers from all of the military services, select DoD civilians, and foreign officers from a large number of allied nations.

### INSTITUTION



### DEPARTMENT



### APPLY



## CONTACT

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