



Defense Analysis, Naval Postgraduate School

The Naval Postgraduate School's Defense Analysis Department educates in critical thinking and advanced analytical techniques related to intelligence, strategy, defense, and military operations. The department awards an 18-month Master's of Science.

NPS

The Defense Analysis Department is part of the Naval Postgraduate School (NPS). NPS is an accredited graduate school that offers masters and doctoral degrees. It has a strong STEM reputation, with ranking departments in Applied Mathematics, Computer Science, Information Sciences, Space Systems, and Operations Research. NPS is home to a wargaming center, modeling and simulation systems, research labs, and field experimentation sites. NPS has a total of 360 teaching faculty and 1,400 in-resident students.

Defense Analysis

The Defense Analysis Department has 20 teaching faculty. The student body numbers approximately 100. It includes students from the Army, Air Force, Navy, and Marines and also students from allies and partners. Officers, senior non-commissioned officers, and warrant officers at the intermediate level attend NPS.

Course of education

The Defense Analysis Department educates students in critical thinking and advanced analytical techniques. Students are first grounded in graduate-level formal analytic methods. They receive courses in statistics and probabilities, mathematical modeling, and research design. They go on to advanced courses in data science, game theory, network analysis, or systems analysis. They also receive courses in deterrence, history, and ethics for a balanced perspective on decision-making and the strategic context.

In addition to the focused coursework, students can choose to proceed along separate curricula (tracks) of:

- Special operations and irregular warfare
- Information strategy and political warfare
- Applied design for innovation

Students also have the opportunity to pursue dual degrees, complete certificates, or take courses in computer science, information science, systems engineering, space systems, and other departments in order to attain technical qualifications.

Each student at NPS writes a thesis or completes a capstone project. Students often study practical questions submitted by their service or command in order to address immediate operational needs and benefit their community. Recent thesis topics include:

- “Automation and Artificial Intelligence for Naval ISR”
- “Strategic Sabotage in Maritime Great Power Competition”
- “Autonomous Small Unmanned Systems for Small Maneuver Elements”
- “Empirical Analysis of Infiltration of A2AD by Low, Slow, and Small Aircraft”
- “Proliferated LEO Satellites to Enable the Kill Chain”

Student and faculty research at NPS is tightly aligned to the needs of their home commands and units. Students interact with their commands and other units in order to ensure their work is addressing current needs. Several faculty/student projects have gone on to be implemented in the field or become programs. Notable examples involve network analysis, remote advise and assist technology, and ISR downlink technology.

Faculty

The Defense Analysis Department faculty is composed of leading scholars with experience in real world operations. Their background is interdisciplinary and includes the fields of operations research, political science, history, information science, sociology, anthropology, ecology, and experimental psychology. Notable initiatives include:

- The CODA Lab, run by Dr Camber Warren, uses open-source data analysis for predictive sensing of adversary influence campaigns and future conflicts.
- The CORE Lab, led by Dr Sean Everton, uses social network analysis to yield key insights when applied to strategic competition and the gray zone.
- Global Ecco, overseen by Dr Doug Borer, conducts courses, exercises, and wargames across international allies and partners.

Defense Analysis was founded in 1992.

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