Systems Engineering
Distance Learning Programs

NAVAL POSTGRADUATE SCHOOL

Master's Degrees

DISTANCE LEARNING

311 Systems Engineering (MSSE or MSES)

The Systems Engineering DL curriculum is designed for Navy System Commands and DoD organizations involved in a wide range of systems engineering and integration challenges. These commands can partner with NPS to educate and train engineers with tools and technologies relevant to their work, resulting in employees with greater knowledge and expertise to enable them to better meet the needs of their customers. DoD organizations or sponsors provide the students, and the Department of Systems Engineering provides the instruction, course materials, and hands-on experience. Courses are delivered at the students' local sites using a combination of on-site instruction and web-enhanced online courses. The program can begin any academic quarter, depending on student demand.

LEARN MORE AT
https://online.nps.edu/w/311-systems-engineering

312 Aviation Systems Engineering (MSSE or MSES)

The objective of this program is to provide graduates of the U.S. Naval Test Pilot School (USNTPS), or equivalent, the opportunity to obtain a Master of Science in Systems Engineering or Master of Science in Engineering Systems with an Aviation Systems specialization leading to a 5804P subspecialty code. The program is delivered by distance learning and builds upon the TPS academic and flight test instruction, with the student's TPS final flight test project and report (DTII) serving in lieu of a thesis, and will provide the advanced systems engineering knowledge, tools and skills necessary for the graduate to be successful as a class desk systems engineer in a Naval Aviation Systems Command (NAVAIR) mission billet.

LEARN MORE AT
https://online.nps.edu/w/312-aviation-systems-engineering

721 Joint Executive Systems Engineering Management-Product Development (MSSEM or MSPD)

The Naval Postgraduate School (NPS), as a partner in the Massachusetts Institute of Technology's (MIT) "Educational Consortium for Product Development Leadership in the 21st Century" (PD21), is delivering a joint executive systems engineering and management degree by distance learning. The program's focus is on joint services, joint engineering-management, and joint government-industry. The program is designed to produce a cadre of change agents skilled in engineering and management to bring about dramatic improvements in the way American corporations and the defense industry develop and build new products and systems.

LEARN MORE AT
https://online.nps.edu/w/721-systems-engineering-management-product-developmentengineering-management-product-development

722 Systems Engineering Management-Systems and Program Management (MSSEM)

This is an interdisciplinary program combining systems engineering with program management knowledge and skills. It is intended to broaden the technical capabilities of the acquisition workforce who may have non-technical backgrounds, so they are able to successfully manage and lead programs/projects in support of the Defense Acquisition System. Students in this program learn the systems engineering process from establishing system requirements through test and evaluation. Simultaneously students learn how to manage, schedule, and budget programs as well as work with DoD suppliers through contracts to meet program obligations.

LEARN MORE AT
https://online.nps.edu/w/722-systems-engineering-management-systems-and-program-management

Doctorate Degree

DISTANCE LEARNING

582 PhD in Systems Engineering

The Department of Systems Engineering offers a Doctor of Philosophy (Ph.D.) degree in Systems Engineering (DL). Students take graduate level courses in systems engineering (as needed to pass the oral and written qualifying examinations), advanced graduate courses in systems engineering and an application domain, and perform research that leads to a dissertation involving some aspect of systems engineering. Research topics may be selected from a broad variety of studies of the systems engineering process, applications of systems engineering to solving complex problems, systems level modeling and simulation, and systems suitability assessment.

LEARN MORE AT https://online.nps.edu/w/582-systems-engineering-phd

Certificates

DISTANCE LEARNING

282 Systems Engineering (SE)

This certificate is designed to provide graduate level foundation courses in systems engineering to anyone interested in deepening their understanding of how DoD designs, develops and produces large complex systems. Students learn a disciplined approach to finding the right solution to the right problem: on-time, on-budget, supportable, and with minimal risk.

LEARN MORE AT

https://online.nps.edu/w/282-systems-engineering-fundamentals-certificate

133 Model-Based Systems Engineering (MBSE) Design and Development

This certificate enables students to apply systems engineering in defense acquisition and system lifecycle support. MBSE is an increasingly important domain in systems engineering, especially with the introduction of digital engineering initiatives. It requires the skills necessary to create, analyze and execute models and to formally apply them throughout system development from requirements to validation.

LEARN MORE AT

https://online.nps.edu/w/133-model-based-systems-engineering-mbse-design-and-development-certificate

171 Systems Integrated Development

This certificate enables students to apply systems engineering and management in defense acquisition and system lifecycle support. Integrated product development team members work with systems engineers in both technical and management competency areas requiring skills in effective teamwork and communications, statistical operational analysis, lifecycle cost management and human systems integration.

LEARN MORE AT

https://online.nps.edu/w/171-systems-integrated-development-certificate

131 Capability and Mission Engineering

This certificate enables students to apply systems engineering in defense acquisition and system lifecycle support. Practicing systems engineers require technical and management competence with digital and model-based engineering, statistical operational analysis, requirements and capability engineering, lifecycle cost management, and verification and validation.

LEARN MORE AT

https://online.nps.edu/w/131-capability-and-mission-engineering-certificate

135 Advanced Systems Suitability

This certificate enables students to apply systems engineering in defense acquisition and system lifecycle support. It offers more detailed courses focused on specific suitability areas providing additional expertise useful in system design through integration and manufacturing, development and production efforts.

LEARN MORE AT

https://online.nps.edu/w/135-advanced-systems-suitability-certificate

174 Systems Engineering and Integration of Naval Weapons Systems

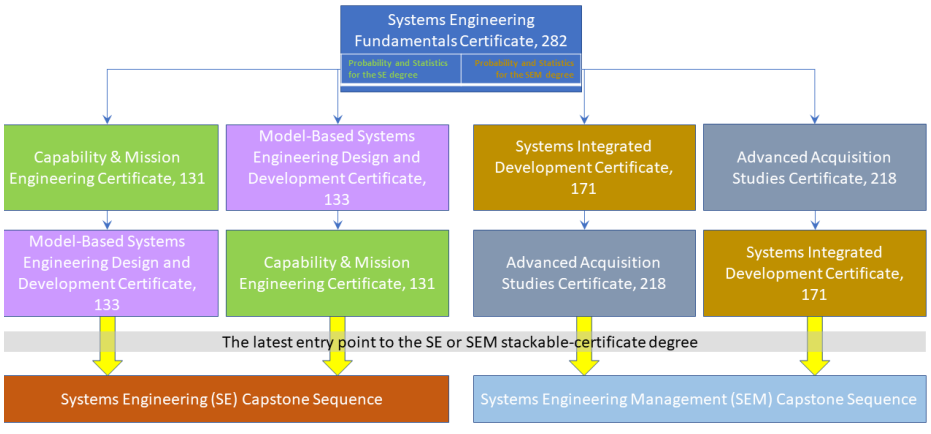
This certificate introduces the student to critical weapons concepts that are necessary for enlightened examination of both technology development and military planning. The overall emphasis is on what elements contribute to a combat system, their basic principles of operation, their performance limitations, trade-offs, and their interfaces with the rest of the combat system.

LEARN MORE AT

https://online.nps.edu/w/174-systems-engineering-and-integration-of-naval-weapons-systems-certificate

Stackable Certificates

Systems Engineering department also offers a slow-start "Stackable Certificate" option for the SE and SEM degrees, where students start by taking one course per quarter as opposed to two courses per quarter. Certificates are offered as a four-course sequence commencing with SE Fundamentals as the basis for all follow-on certificates on a degree pathway. Certificates can also be taken without pursuing a degree.



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