

**FY2019-2021 CORE SKILL REQUIREMENTS (CSRs)**  
**Naval Mechanical Engineering**  
**Subspecialty Code 560X**  
**Curricula 570**

Billet subspecialty coding is to be based on the minimum education/training/experience level required for optimum performance. Naval Mechanical Engineering/5600P subspecialty coding is justified when, in addition to the general criteria stated in NAVPERS 15839 series (Manual of Navy Officer Manpower and Personnel Classification) Part B, the following specific criteria are satisfied:

1. Description of CSR Competencies. The Engineering and Technology (Naval Mechanical) subspecialty code (560X) will provide a command with an officer possessing an engineering background in Naval Mechanical Engineering with a concentration in one or more of the traditional Mechanical Engineering disciplines; i.e., thermodynamics/heat transfer, fluid mechanics and hydrodynamics, structural mechanics, control systems/dynamics, and materials science. Specific capabilities/requirements generally include:

a. **CSR-1:** The ability to identify, formulate, and solve engineering and/or technical problems, including competence in research, design, development, procurement, operation and or maintenance in scientific and/or technical engineering fields. This would include the ability to prepare technical and/or operational briefings, project plans, and reports.

b. **CSR-2:** The ability to understand the impact of engineering and/or technical solutions in a global context, and interact with personnel from industry, laboratories, academic institutions and/or other services regarding system design, maintenance, and operation.

c. **CSR-3:** The ability to use techniques, skills, and modern engineering tools for engineering practice, including the ability to analyze and interpret data, and develop policy and procedures through the entire spectrum of operation for platform systems.

d. **CSR-4:** The ability to apply knowledge acquired in academic disciplines specifically to the design, procurement and maintenance of ships, boats and craft.

2. Applicable Officer Designator(s)

- a. 1000 - 1000 / 1001 - 1019 / 1021 - 1049 / 1050 - 1050/ 1051 - 1099
- b. 1100 - 1109 / 1110 - 1119 / 1120 - 1129 / 1130 - 1139 / 1140 - 1159 / 1160 - 1169 / 1170 - 1179 / 1180 - 1189 / 1190 - 1199
- c. 1200 - 1209 / 1200 - 1299 / 1300 - 1399 / 1400 - 1499 / 1510 - 1519 / 1800 - 1809 / 1810 - 1829

3. Applicable Billet Designator

- a. 5600P (Masters Level)

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b. 5600N (Engineers Level)

c. 5600D (Doctorate Level)

4. Educational and Significant Experience Criteria. Coded billets are authorized when the functions of the billet include the CSR competencies listed above (in paragraph 1). For additional clarification regarding definition of suffixes, refer to the NAVPERS 15839I, Vol 1.

a. Subspecialty Code Suffixes Authorized.

560X Subspecialty Code Suffixes Authorized				
Billet	Officer	Suffix	Definition	Notes
	X	C	Proven Doctor of Philosophy	1a
X	X	D	Doctor of Philosophy	1
	X	F	Proven Master's Degree that does not meet all ESRs	2a
	X	G	Master's Degree that does not meet all ESRs	2
X		H	Master's Degree desired, not required	3
	X	I	Immediate Graduate Education Program (IGEP)	4
		L	Certificate degree at the Master's level	
	X	M	Proven Post Master's Degree graduate education	5a
X	X	N	Post Master's Degree graduate education	5
X	X	P	Master's Degree in approved Navy subspecialty	6
X	X	Q	Proven Master's Degree	6a
X	X	R	Proven Significant Experience	7a
X	X	S	Significant Experience obtained through OJT	7

**Note 1:** D-coded billets are authorized when the billet's primary duties require the ESRs, CSRs, and a Doctorate Degree in Naval Mechanical Engineering. D-coded officers are authorized when they complete the Naval Mechanical Engineering Doctorate Degree at NPS or another accredited institution.

**Note 1a:** A D-coded officer can be upgraded to a C-code when they have completed a tour in a doctorate degree coded billet.

**Note 2:** G-coded officers are authorized when an officer has completed a master's degree, but has not satisfied one or more ESR and/or a thesis.

**Note 2a:** A G-coded officer can be upgraded to an F-code when they have completed a tour in a master's degree coded billet (or higher).

**Note 3:** H-coded billets are authorized when a billet requires expertise in Naval Mechanical Engineering where a master's level of knowledge is desirable but not essential for optimum performance.

Enclosure (2)

**Note 4:** I-coded officers are authorized when an officer completes a Master's degree awarded through the Intermediate Graduate Education Program (IGEP) at an approved institution, and they do not fully meet P-code requirements. Officer will maintain I code even after tour in an S, R, P, Q, H coded billet.

**Note 5:** N-coded officers are authorized when they complete all Naval Mechanical Engineering 560X ESRs at either NPS or another accredited institution and also earn a Mechanical Engineer's Degree.

**Note 5a:** An N-coded officer can be upgraded to an M-code when they have completed a tour in a Naval Mechanical Engineer's coded billet (or higher).

**Note 6:** P-coded billets are authorized when the billet's primary duties require the ESRs and CSRs. P-coded officers are authorized when the officer completes a master's degree program at an accredited institution of higher learning that satisfies all 560X ESRs.

5600P – Is given to those at a civilian institution that satisfy all 560X ESRs.

5601P – Is given to those in the standard NPS 570 Naval Mechanical Engineering curriculum.

5602P – Is given to those in the NPS 570 curriculum with the Total Ship Systems Engineering (TSSE) specialization.

5603P – Is given to those in the NPS 563 Curriculum for Naval Mechanical Engineering with Energy specialization.

**Note 6a:** Q-coded billets are authorized when the billet requires all the requirements of the P-code and previous experience in specific engineering systems, processes, design, acquisition, management or leadership. Q-coded officers are authorized when they have a P-code and then complete at least 18-months in a master's degree coded billet (or higher). G-coded officers cannot obtain Q-codes. They will be authorized F-codes (see note 2).

**Note 7:** S-coded billets are authorized when the duties require detailed knowledge of, or experience in, specific Naval Mechanical Engineering systems, processes, design, acquisition, management or leadership; AND appropriate training in these areas is available and accessible to qualified officers prior to assignment in these billets. S-coded officers are authorized when the officer has filled an S, R, Q, P, N, or H-coded billet for more than 18 months AND have no Subspecialty code in this field. Their FITREP must justify that he/she has accomplished tasks indicated above for more than 18 continuous months.

**Note 7a:** R-coded billets are authorized when, in addition to the requirement for S-coded billets, the billets must be filled by officers having familiarity or experience in the specific duties through service in a previous 5600-coded billet. An S-coded officer can be upgraded to an R-code when they have completed more than one tour in a 5600-coded billet.

5. Sponsor and Subject Matter Experts:

570 Sponsor: [REDACTED] Chief Engineer, Naval Sea Systems Command  
(NAVSEA 05)

Subject Matter Expert: [REDACTED]

APPROVED: [REDACTED] 11 Apr 2015  
Curriculum Sponsor (570) [DATE]

APPROVED: [REDACTED] 8 May 2015  
Director, OPNAV N12 [DATE]