

CORE SKILL REQUIREMENTS (CSR)  
2025-27 CORE SKILL REQUIREMENTS  
*Electrical/Electronic Systems Engineering (590/)*  
*Subspecialty 5300 Series*  
*Master of Science in Electrical Engineering*  
*Electrical Engineer's Degree*  
*Doctor of Philosophy in Electrical Engineering*

Billet subspecialty coding should be based on the minimum education/training/experience level required for optimum performance. Electrical/Electronic Systems Engineering/53XX 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 listed CSRs are a set of quantifiable skills, traits, and experiences that a subspecialist must possess to perform acceptably in a coded billet for the Electrical/Electronic Systems Engineering/53XX subspecialty code.

a. CSR-1: The officer will possess an engineering background in electrical engineering with a concentration in one or more of the following disciplines: communications engineering, control systems, power & energy systems, signal processing, electronics, computer engineering, radar systems & electronic warfare (EW), network engineering, cyber systems.

b. CSR-2: The officer will have the ability to identify, formulate, and solve engineering and/or technical problems, including competence in research, design, and development in scientific and/or technical engineering fields.

c. CSR-3: The officer will have 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 and operation.

d. CSR-4: The officer will have 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 electronic systems.

e. CSR-5: The officer will have the ability to apply knowledge acquired in academic disciplines specifically to the design and evaluation of electrical or electronic systems.

2. Applicable Officer Designator(s)

111X/112X/114X/115X/116X/117X/118X/119X/13XX/14XX/15XX/18XX

3. Applicable Subspecialty Coded Billet(s)

111X/112X/14XX/181X

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 the definition of suffixes, refer to the NAVPERS 15839I, Vol 1.

Note: 'Proven' requires at least 18 months of experience in a 5300 subspecialty-coded billet.

Enclosure (1)

53XX Subspecialty Code Suffixes Authorized				
Billet	Officer	Suffix	Definition	Notes
	X	C	Proven Doctor of Philosophy	1
X	X	D	Doctor of Philosophy	1
	X	F	Proven master's degree that does not meet all ESRs	2
	X	G	Master's degree that does not meet all ESRs	2
X		H	Master's degree desired, not required	8
	X	L	Certificate at the master's degree level	3
	X	M	Proven post-master's degree graduate education	4
X	X	N	Post-master's degree graduate education	4
X	X	P	Master's degree in an approved Navy subspecialty	5
X	X	Q	Proven master's degree	6
	X	R	Proven significant experience	7
X	X	S	Significant experience obtained through OJT	7

Note 1: D-coded billets are authorized when the billet requires primary duties requiring the CSRs, ESRs, and a Doctorate Degree in Electronic Systems Engineering. D-coded officers are authorized when the student completes the Electronic Systems Engineering Doctoral Degree at NPS or another accredited institution. A D-coded officer can be upgraded to a C-code when they have completed a tour of at least 18 months in a D-coded billet.

Note 2: G-coded officers are authorized when an officer has not completed one or more ESRs and/or a thesis. Utilization and obligations are still required. 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: L-coded officers are authorized when an officer has completed one or more academic certificates offered by the Electronic Systems Engineering program at NPS or comparable programs from another accredited institution and has no subspecialty code in this field.

Note 4: N-coded billets are authorized when the billet requires primary duties requiring the CSRs, ESRs, and an Electrical Engineer's degree. N-coded officers are authorized when they complete Electrical/Electronic Systems Engineering 53XX ESRs, either at NPS or another accredited institution, as well as earn an Electrical Engineer's Degree. An N-coded officer can be upgraded to an M-code when they have completed a tour in an Engineer's degree-coded billet.

Note 5: P-coded billets are authorized when the billet requires primary duties that require the CSRs and ESRs. P-coded officers are authorized when the officer completes the Electronic Systems Engineering master's degree at NPS or a master's degree at an accredited institution of higher learning that satisfies all 53XX ESRs.

5300P – Is given to those at a civilian institution who satisfy all 53XX ESRs.

5301P – Not awarded; ESRs do not exist.

5302P/5303P/5304P/5305P/5306P/5307P/5309P/5310P/5312P/5313P – Is given to those in the standard NPS 590 Electronic Systems Engineering curriculum who satisfy the 53XX ESRs.

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5308P – Is given to those in the NPS 590 curriculum with the Total Ship Systems Engineering specialization.

5311P – Not awarded; ESRs do not exist.

5314P – Is given to those in the NPS 590 curriculum who complete the Cyber Warfare Engineering and Science Track.

Note 6: Q-coded billets are authorized when the billet requires all requirements of the P-code and detailed knowledge of, or experience in, specific engineering systems, processes, design, acquisition, management, or leadership. Q-coded officers are authorized when they complete Electrical/ Electronic Systems Engineering 53XX ESRs, either at NPS or another accredited institution, and have completed at least 18 months in a master's degree-coded billet or higher. The officer must have a P-code prior to a Q-code tour; G-coded officers cannot obtain Q-codes.

Note 7: S-coded billets are authorized when the following conditions are met. The duties require detailed knowledge of, or experience in, specific Electrical Engineering systems, processes, design, acquisition, management, or leadership. Appropriate training in specific systems, processes, design, acquisition, and management is available and accessible to qualified officers prior to assignment of billets. S-coded officers are authorized if the officer has filled one, S, Q, P, or N-coded billet for more than 19 months and has no Subspecialty code in this field. FITREP must justify that he/she has accomplished tasks indicated above (in note 6) for more than 19 continuous months. An S-coded officer can be upgraded to an R-code when they have completed multiple tours that satisfy the above criteria.

Note 8: H-coded billets are authorized when a billet requires expertise in Electrical Engineering, where a master's level of knowledge is desirable but not essential for optimum performance.

5. Major Area Sponsor and Subject Matter Experts

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