5800P Core Skills Requirements (2015-2017)

Billet subspecialty coding is to be based on the minimum education/training/experience level required for optimum performance. Systems Engineering/5800P 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. Subspecialty Coding Restriction

a. Billets assigned to: DPJ SUP/PMS377XB LHA AST APM/SYS INT MGR, MGR DPJ FE/APM FOR DESIGN/BUILD, MGR DPJ FE/NSWJ1 - PROJECT ENGINEER, DPJ BUS ADMIN/LCS POST DELIVERY MGR, DPJ BUS ADMIN/LCS POST DELIVERY MGR, MGR DPJ FE/MISSION SYS INTEGRATION OFF, PGM MGR WEPSYS/IWS10.0 CVN SYS INTEG PM, DPJ T&E COOR/SYSTEMS INTEGRATOR-MDA FLD,

2. Applicable Officer Designators

a. 1000 - 1000 / 1050 - 1050 /

b. 1110 - 1119 / 1120 - 1129 / 1130 - 1139 / 1140 - 1159 / 1160 - 1169 / 1170 - 1179 / 1180 - 1189 / 1190 - 1199

c. 1300 - 1399 / 1400 - 1499 / 1500-1599

3. Applicable Billet Designator

a. 5800P (Masters Level)

b. 5800D (Doctorate Level)

4. In order to achieve the goals for the SE masters programs, the outcomes are to produce graduates who:

a. Demonstrate the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context. This includes the ability to apply knowledge of mathematics, science and engineering to identify, formulate, and solve operational, technical, and engineering problems in systems engineering and related disciplines using the techniques, skills, and modern engineering tools necessary for engineering practice, including modeling and simulation. These problems may include issues of research, design, development, procurement, operation, maintenance or disposal of systems and processes for military applications.
b. Demonstrate an ability to design a system, component, or process to meet desired needs incorporating appropriate

engineering standards within multiple realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and lifecycle sustainability. Demonstrate proficiency in the application of systems engineering methods and processes, including systems thinking, stakeholder needs analysis, concept of operations, requirements definition and analysis, functional analysis and allocation, human systems integration, design, architecture, lifecycle support, lifecycle cost, systems assessment, trade-off, selection, and test and evaluation.

c. Demonstrate proficiency in core skills of systems analysis, to include an ability to design and conduct experiments, as well as to analyze and interpret data and to perform deterministic and stochastic modeling of systems, optimization, decision analysis, risk analysis, economic modeling, and lifecycle supportability analysis. This includes familiarity with combat simulations and combat modeling.

d. Demonstrate an ability to function on multidisciplinary teams working as a team member or leader in an authentic systems engineering project through both individual and team level contributions. Demonstrate proficiency in interpersonal skills and communications. Demonstrate competence in the planning and management of authentic systems engineering projects.

e. Demonstrate an ability to communicate effectively through written and oral presentation of technical material.

f. Demonstrate an understanding of professional and ethical responsibility.

g. Demonstrate a recognition of, the need for, and an ability to engage in, life-long learning and a knowledge of contemporary issues.

5. Significant Experience Criteria

a. Systems Engineering – 5800 S-coded billets are authorized when two of the following conditions are met:

(1) The duties required detailed knowledge of, or experience in specific Systems Engineering systems, processes, design, acquisition, management or leadership.

(2) Appropriate training on specific systems, processes, design, acquisition, and management is available and accessible to qualified officers prior to assignment of billets.

b. Systems Engineering – 5800 S-coded officers are authorized when:

(1) The officer has filled one B, H, S, R, P, Q coded billet for more than 18 months and has no Subspecialty Code in this field.

(2) FITREP justifies that s/he has accomplished the tasks indicated above for more than 18 continuous months.

c. Systems Engineering – 5800 R-coded billets are authorized when, in addition to the requirement for S-coded billets, the billet must be filled by officers having filled a previous 5800-coded billet. A requirement for familiarity or experience in the specific duties, as though service in a previous billet, should characterize these billets.

6. Baccalaureate Criteria

a. Systems Engineering – 5800 E-coded billet and officer codes are not authorized.

7. Elective Level Criteria

a. Systems Engineering – 5800 H-coded billets are authorized for:

(1) Billets requiring expertise in Systems Engineering where a masters level of knowledge is desirable but not essential for optimum performance.

8. Functional Education Criteria

a. Systems Engineering – 5800 G-coded officers are authorized when:

(1) An officer has not completed all required ESR's (not completed a Thesis at NPS).

(2) An officer attends a civilian institution and completes two thirds or greater of the ESRs as determined by the Subject Matter Expert.

b. Systems Engineering – 5800 F-coded officers are justified when:

(1) An officer has an G code and completes a tour in a masters degree billet or higher.

9. Masters Criteria for Systems Engineering

a. Systems Engineering – 5800 P-coded billets are authorized when the billet requires all of the following:

(1) Primary duties requiring the CSRs and ESRs.

b. Systems Engineering – 5800 P-coded officers are authorized when:

(1) The officer completes Systems Engineering master's degree at NPS. The officer will receive the F Subspecialty Code

if a thesis is not completed. Utilization and obligations are still required.

(2) The officer completes a master's degree at an accredited institution of higher learning that satisfies all 5800 ESRs.

(3) 5801 P – Is given to those with a Total Ship Systems Track specialization

(4) 5802 P – Is given to those with a Combat Systems Track specialization

(5) 803 P – Is given to those who with a System of Systems Track specialization

(6) 5804 P – Is given to those who Aviation Systems track specialization.

c. Systems Engineering - 5800 Q-coded billets are authorized when the billet requires:

(1) All requirements of the P code and detailed knowledge of, or experience in, specific engineering systems, processes, design, acquisition, management or leadership.

d. Systems Engineering – 5800 Q-coded officers are authorized when:

(1) They complete Systems Engineering 5800 ESRs, either at NPS or another accredited institution, and have done at least 18 months in a master's degree coded billet or higher.

(2) Must have a P-code prior to a Q-coded tour.

(3) G coded officers cannot obtain Q codes. They will be authorized F codes.

e. Systems Engineering – 5800 L-coded officers are authorized when:

(1) They complete the SE certificate.

10. Doctorate Criteria

a. Systems Engineering - 5800 D-coded billets are authorized when the billet requires:

(1) Primary duties requiring the CSRs, ESRs and a Doctorate Degree in Systems Engineering.

b. Systems Engineering – 5800 D-coded officers are authorized when:

(1) They complete Systems Engineering Doctorate Degree at NPS or another accredited institution.

11. Community Managers have agreed to allow billets to be coded for Systems Engineering – 5800 officers to be educated for this Curriculum.

Designator
111X
112X
131X/132X
14XX
151X

12. Sponsor and Subject Matter Expert

Sponsor: VADM Benedict, Director, Strategic Systems Programs

Subject Matter Expert: CAPT Jim Melvin

Approved:

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VADM Terry J. Benedict, Date
Director, Strategic Systems Program

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Director, TFMTER, (OPNAV N12) Date