

Subj: REPORT OF CURRICULUM REVIEW OF APPLIED MATHEMATICS  
(CURRICULUM 380)

**CURRENT CORE SKILL REQUIREMENTS**  
**APPLIED MATHEMATICS**  
**4100P**  
**380**

Billet subspecialty coding is to be based on the minimum education/training/experience level required for optimum performance. Applied Mathematics/4100P 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: United States Naval Academy  
Mathematics Department

2. Applicable Officer Designators

- a. 1000 - 1000 / 1001 - 1019 / 1020 - 1020 / 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

3. Applicable Billet Designators

- a. 4100P
- b. 4100D

4. Significant Experience Criteria

- a. The billet entails performance of routine supervised tasks such as elementary mathematical computations in areas of applied mathematics, computer programming, engineering, or physical science.

- b. The billet entails any of the following:

- (1) A working member of a Navy in-house team that performs routine applied mathematical analyses under supervision.

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- (2) Performance of routine computer programming or computations, in applied mathematics under supervision.
- (3) Assisting in experimental work in area of physical science.

5. Masters Degree Education Criteria

a. The billet requires independent Masters-level studies in applied mathematics, evaluation of such studies for their scientific soundness and applicability to naval technology, or instruction in disciplines requiring such knowledge.

b. The billet requires Masters-level facility in several branches of applied mathematics.

c. The billet incumbent satisfies any of the following:

(1) Can teach lower level, Navy-oriented courses in applied mathematics.

(2) Has Masters-level facility in area of physical science that is highly dependent upon applied mathematics.

(3) Is able to understand and interpret a broad range of research results involving applied mathematics at the Masters level and relate this work to current and future requirements in Naval technology.

6. Doctorate Criteria

a. The Permanent Military Professor (PMP) program was established to provide long-term, senior military instructors with doctorates who will: teach, pursue an active program of scholarly activity, maintain links with Navy commands germane to their discipline, and oversee efforts to recruit, mentor, and outpace rotating Navy officers. In order to qualify, an officer without a doctorate must: be an O-5 or O-5 (select); have strong, recent operational experience, preferably as a warfare qualified officer in the unrestricted line; have an appropriate Masters degree; have adequate time-in-service remaining to complete the Ph.D. degree and serve five or more years in an instructor billet. Selection guarantees up to three years of funded education at the Naval Postgraduate School in order to earn the doctorate degree.

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b. Upon completing the degree program, PMP officers may apply for either the 4100D subspecialty code and then be assigned to an instructor billet, serving on active duty up to statutory retirement or until release from active duty.

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