

2017-2019 Educational Skill Requirements  
Curriculum 372

1. Curriculum Number: 372.
2. Curriculum taught at: Naval Postgraduate School (NPS).
3. Curriculum Length in months: 18, 21, or 27 Months.
4. APC Required: 233 for NPS (334 Waiverable).
5. The officer must understand the fundamental concepts and be familiar with the basic functional areas of Meteorology Operational Sciences within the Department of the Navy and Department of Defense including the below. Education Skill Requirements for Meteorology will comply with the World Meteorological Organization Basic Instruction Package for Meteorologists. Detailed explanation for the Educational Skill Requirements (ESR) criteria below may be found in Chapter 2 of WMO-1083.
  - a. ESR-1: Mathematics: The officer will understand the mathematical principles and techniques necessary to complete graduate level course work and research related to meteorology.
  - b. ESR-2: Physical Meteorology: The officer will master the meteorological principles and techniques necessary to understand and forecast synoptic and mesoscale weather phenomena, including unique characteristics of various regions such as tropical, polar and coastal areas.
  - c. ESR-3: Sensing: The officer must be able to observe, assimilate, analyze, and predict tactical, synoptic and coastal meteorological conditions using direct and remote sensing observation techniques. This understanding should include the basic principles of design and operation of autonomous unmanned vehicles, as well as operator manned, fixed remote and satellite systems.
  - d. ESR-4: Dynamics: The officer will have a sound understanding of polar, mid-latitude, tropical, and coastal meteorological dynamics, from turbulence to climate scales. The officer will be able to articulate the impact of these region's conditions on military operations and systems.
  - f. ESR-5: Climatology: The officer will understand the principles that effect global circulation and long-term environmental trends.
  - g. ESR-6: Prediction: The officer will have a thorough understanding of numerical prediction systems as it applies to the physics and dynamics of the atmosphere. This understanding should include a broad understanding of the modeling systems to include strengths, weaknesses, and vulnerabilities; the state of current models and techniques; and appropriate applications of deterministic and stochastic techniques.

h. ESR-7: Problem Solving and Warfare Application: The officer will develop critical thinking skills and conduct independent analyses to solve environmentally challenging problems in the field of meteorology as it applies to Naval/Joint operations, using modern scientific research techniques, field experience, tools, and equipment. This will include understanding of the theory and design principles of tactical decision aids used in fleet operations.

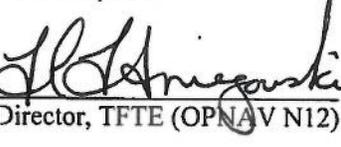
6. Major Area Sponsor and Subject Matter Experts

a. Major Area Sponsor: VADM Jan E. Tighe, Deputy Chief of Naval Operations for Information Warfare (OPNAV N2N6)

b. Subject Matter Expert: RDML Timothy Gallaudet, Director, Oceanography, Navigation, and Maritime Domain Awareness (OPNAV N2N6E)

APPROVED:  13 Apr 17  
Major Area Sponsor [DATE]

APPROVED:  28 April 2017  
President, NPS [DATE]

APPROVED:  27 May 17  
for Director, TFTE (OPNAV N12) [DATE]