

# CADET CYBER & STEM RECOGNITION PROGRAMS

September 2021

## Part 1

### INTRODUCTION

Extrinsic awards are key motivators for the cadet age group. When an educational program is coupled with a meaningful incentive, cadets see a reason to pursue learning goals. Incentive or recognition programs encourage cadets to participate in areas where they might not otherwise get involved. To promote cadet learning in STEM, CAP offers two recognition opportunities: the Cadet Cyber Badge and the Cadet STEM Badge.

#### 1.1 Regulatory Guidance

The Cadet Cyber and STEM Badges are authorized for wear on the CAP cadet uniform, effective 1 October 2018. See CAPM 39-1, *CAP Uniform Manual*. This pamphlet outlines the eligibility rules for cadets participating in this elective program. The program does not serve senior members.

#### 1.2 Process for Requesting & Approving Badge Awards

Cadets complete the requirements on the following pages to become eligible for the Cadet Cyber Badge or Cadet STEM Badge. In the case of the Cadet STEM Badge, the cadet records participation in STEM activities via a log that the unit AEO validates (see 3.4)

When the cadet believes he or she has fulfilled all requirements, a CAPF 2a is completed to request the badge at the appropriate rating. The unit AEO (or cyber officer, if available, in the case of the cyber badge), verifies that the cadet has fulfilled all requirements and endorses the form as the requestor. The badge is awarded upon approval by the unit commander. For each cyber badge level completed, the unit commander shall forward the completed CAPF 2a to Personnel at [Immeforms@capnhq.gov](mailto:Immeforms@capnhq.gov), for entry into the cadet's record in eServices.

#### 1.3 The Badges' Modular Format

Both the Cadet Cyber Badge and Cadet STEM Badge use a modular format. Recipients obtain a single, basic badge, and affix the appropriate star to denote their level of achievement. A blue star indicates the Basic rating, a silver star

indicates the Intermediate rating, and a gold star indicates the Advanced rating. As cadets earn ratings, they may remove the old star and install the new, while keeping the same basic badge.

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Supersedes: CAPP 60-41, *Cadet Cyber& STEM Recognition Programs* dated August 2018.

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## Part 2

# CADET CYBER BADGE

**2.1 Purpose:** Encourage cadet participation in CAP's cyber education programs



Figure 1.

**2.2 Design:** The Cadet Cyber Badge (Figure 1) follows in the tradition of the Air Forces Cyber organizational emblem (Figure 2). It includes a globe to suggest the worldwide reach of the cyber domain. The two gold lightning bolts at the base of the CAP triangle represent computer science and national defense, while the intertwined pair of bolts atop the triangle represents excellence and the future. The badge's black field represents the cyber domain's hidden nature. Read as a single, visual text, the iconography proclaims that cadets are developing their scientific knowledge in a field vital to the national defense, thereby contributing to an excellent future for themselves and their nation.



Figure 2.

### 2.3 Award Criteria

#### BASIC CADET CYBER BADGE

1. Complete Achievement 1 of the CAP Cadet Program, the Curry Achievement.
2. Complete the activities set forth in the *CAP Introduction to Cyber Security Activity Guide*. This involves classroom and hands-on activities comprising approximately 20 contact hours. The modules are designed as a squadron-level project for weekly meetings and one or two weekend days.
3. Participate in the CyberPatriot competition. This involves classroom and hands-on activities of approximately 20 contact hours.
4. Career Dossier. Research and write about a cyber-related occupation (civilian, government, or military). A sample dossier is included in Part 4. Submit the 1-to 2-page dossier to the unit AEO or cyber education officer for review and a brief follow-on discussion.

## 2.4 Award Criteria

### INTERMEDIATE CADET CYBER BADGE

1. Earn the Basic Cadet Cyber Badge.
2. Complete Phase I of the CAP Cadet Program and earn the Wright Brothers Award.
3. Participate in the CyberPatriot competition, serving in a team leadership role. This involves classroom and hands-on activities of approximately 20 contact hours.
4. Successfully complete the Cisco Networking Academy “Intro to Cybersecurity” course and the Cisco Networking Academy “Cybersecurity Essentials” course.
5. Career Dossier. Complete another 1-to 2-page dossier, this time on a different occupation, following the same guidelines as used for the Basic Cadet Cyber Badge.

## 2.5 Award Criteria

### ADVANCED CADET CYBER BADGE

1. Earn the Intermediate Cadet Cyber Badge.
2. Complete Phase II of the CAP Cadet Program and earn the Mitchell Award.
2. Serve a minimum of 30 (cumulative) contact hours as a tutor, assistant coach, or instructor for a CyberPatriot team or during activities associated with a squadron’s completion of the *CAP Introduction to Cyber Security Activity Guide*. Alternatively, complete the CAP National Cyber Academy Cyberspace Operations Familiarization Course or a previously conducted cyber National Cadet Special Activity. Other cyber activities may be substituted; contact [cyber-programs@cap.gov](mailto:cyber-programs@cap.gov) with details of said activity for consideration.
4. Complete a high school (or higher) course in computer science, information assurance, or cyber security. Alternatively, obtain an industry-standard information security certification such as the CompTIA Security +, or (ISC)<sup>2</sup> SSCP - Systems Security Certified Practitioner.
5. Provide at least ten hours’ IT service to CAP or another organization by managing a website, local access network, or unit help desk. Alternatively, design an application, administer Moodle courseware or other learning management system, or complete a project of similar scope and complexity. Documentation of these activities shall be submitted to the cadet’s cyber officer, deputy commander for cadets, or unit commander for validation of the completion of this requirement.

## 2.4 Exceptions to Award Criteria

Due to the rapid changes in the cybersecurity industry and to provide flexibility in the completion of the requirements to each badge, deviations from the above requirements may be submitted to the National Cyber Mission Team at [cyber-programs@cap.gov](mailto:cyber-programs@cap.gov) for consideration.

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## Part 3

# CADET STEM BADGE

**3.1 Purpose:** Encourage cadet participation in CAP's non-cyber, non-rocketry STEM learning programs.

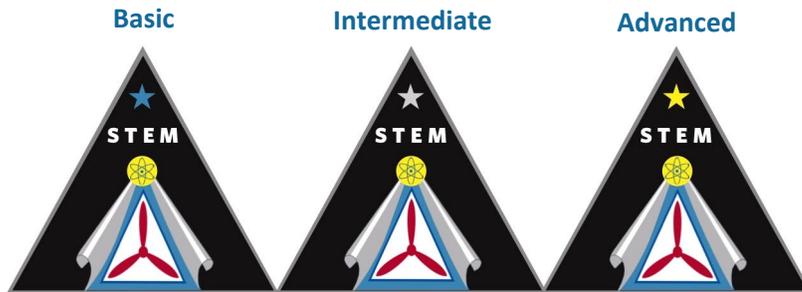


Figure 3.

**3.2 Design:** The Cadet STEM Badge (Figure 3) follows in the tradition of the Air Force Research Laboratory's organizational emblem (Figure 4). It depicts the CAP triangle emblem cutting through the unknown, represented by a black field. The triangle emblem is aimed upward, suggesting progress, toward an atomic icon, representing the physical sciences that are STEM's domain. The atomic icon's blue signifies the Air Force and aerospace themes in the CAP STEM curriculum, while the icon's gold color represents excellence. Read as a single, visual text, the iconography proclaims that cadets are exploring cutting-edge technologies that advance human knowledge, ultimately leading to personal and scientific excellence.



Figure 4.

### 3.3 Eligible Activities

CAP promotes STEM education through several activity programs and the portfolio of opportunities is always growing. Astronomy, robotics, model aircraft, flight simulators, satellites, remote sensors, hydraulics, meteorology, and AEX activities are just some of the thematic areas available to cadets. See [GoCivilAirPatrol.com/AE](https://www.goCivilAirPatrol.com/AE) for more information.

For the purposes of the Cadet STEM Badge, all aerospace activity programs offered by CAP/AE for grades 6-12 are eligible to fulfill the badge's requirements, *except* cyber defense and rocketry activities, as those thematic areas are recognized with the Cadet Cyber Badge and the Model Rocketry Badge, respectively.

### 3.4. Cadet Log

To earn the Cadet STEM Badge, cadets must maintain a log and complete at least 12 hours' participation in eligible STEM activities. The unit AEO validates the cadet's log. For a suggested log in Excel format, see [GoCivilAirPatrol.com/STEMlog](https://www.goCivilAirPatrol.com/STEMlog). Sections 3.5, 3.6, and 3.7 below list further award criteria.

### 3.5 Award Criteria

## BASIC CADET STEM BADGE

1. Complete Achievement 3 of the CAP Cadet Program, the Feik Achievement. This results in the cadet completing two modules in the *Aerospace Dimensions* series.
2. Participate in at least 12 hours of eligible STEM activities (see 3.3 above). The 12 hours' participation may be in a single thematic area or multiple areas. Provide the unit AEO with a log of these accomplishments. For a suggested log in Excel format, see [GoCivilAirPatrol.com/STEMlog](http://GoCivilAirPatrol.com/STEMlog).
3. Career Dossier. Research and write about a STEM-related occupation (civilian, government, or military). A sample dossier is included in Part 4. Submit the 1- to 2-page dossier to the unit AEO for review and a brief follow-on discussion.

### 3.6 Award Criteria

## INTERMEDIATE CADET STEM BADGE

1. Earn the Basic Cadet STEM Badge.
2. Complete Achievement 5 of the CAP Cadet Program, the Lindbergh Achievement. This results in the cadet completing four modules in the *Aerospace Dimensions* series.
3. Participate in 12 hours of eligible STEM activities, beyond what was completed for the previous badge. Alternatively, complete an additional 9 hours of eligible STEM activities as a student and complete 3 hours as a tutor or assistant instructor on STEM activities previously completed. See 3.3 above for eligible STEM activities.
4. Career Dossier. Complete a 1- to 2-page dossier, this time on a different occupation, following the same guidelines as used for the Basic Cadet STEM Badge.

### 3.7 Award Criteria

## ADVANCED CADET STEM BADGE

1. Earn the Intermediate Cadet STEM Badge.
2. Earn the Mitchell Award. This results in the cadet passing a comprehensive exam of *Aerospace Dimensions*.
3. Participate in 12 hours of eligible STEM activities, beyond what was completed for the previous badges. Alternatively, complete an additional 6 hours of eligible STEM activities as a student and complete an additional 6 hours as a tutor or assistant instructor on STEM activities previously completed. See 3.3 above for eligible STEM activities.
4. As a community service, lead a group of non-cadet youth in any STEM-related hands-on activity of 30 minutes' duration or longer.
5. Career Dossier. Complete a 1- to 2-page dossier on yet another occupation, following the same guidelines as used for the Basic Cadet STEM Badge.