



CyberPatriot XI: Cisco Networking Challenge

Training and Competition Information

Welcome to the Cisco Networking Challenge part of the CyberPatriot competition. During this part of the competition, Coaches, Mentors, and Students are given access to Cisco Networking Academy (NetAcad). NetAcad is the Cisco platform that teaches students, as well as Coaches and Mentors, the principles of networking. Additionally, NetAcad is where teams will complete Cisco quizzes and Packet Tracer Exercises for the competition. Students are tested on Modules published on the CyberPatriot website under the *Competition Challenge by Round* section.

PART 1: CISCO NETWORKING ACADEMY (NetAcad)

Cisco Networking Academy Overview

The Cisco Networking Academy (NetAcad), as it relates to CyberPatriot, has three components. Any questions regarding access to these materials should be directed to the CyberPatriot Program Office at cpoc@uscyberpatriot.org, not Cisco or chat rooms on the Networking Academy site.

- **Instructor Course**: This optional course provides an introduction to the Cisco Networking site for instructors and instructions on how to begin teaching teams using the platform.
- **Content Course (Training)**: The actual Cisco curriculum that Coaches and Mentors clone by following the “How to Create Course” instructions in the Instructor Course.
- **Competition Course**: Area where teams go to access the Quizzes and Packet Tracer activities in rounds that contain a Cisco Networking Challenge. This portion of the Cisco Networking Academy has different login credentials than those used for the Instructor and Content Courses.

Accessing the Cisco Networking Academy for the First Time

All teams receive access to the CyberPatriot Cisco Networking Academy. The Instructor and Content Courses (Training) are accessed using a **Coach, Mentor, or Competitor User Name** and the Competition Course is accessed using a **Team User Name** by teams during Competition.

1. Returning Coaches and Mentors

- Can log onto cisco.netacad.com using their **netacad credentials**. If they used the email address associated with their netacad account to register on our website www.uscyberpatriot.org.
 - Can use the Forgot Password and Forgot Screen Name function at cisco.netacad.com.
 - Should check their profile details by clicking their name in the top right of the NetAcad site to make sure that all details are correct.

2. New Coaches and Mentors without a pre-existing Cisco Networking Academy account

- Will receive an email from an “@netacad.com” email address with instructions for registering their **Coach/Mentor User Name** at cisco.netacad.com
 - This email will be sent to the email address registered on www.uscyberpatriot.org
 - Please allow “@netacad.com” through your spam filter.

3. New Coaches and Mentors with a pre-existing Cisco Networking Academy account

- This refers to Coaches who have accessed the Cisco Networking Academy through their school or other organization but have not used the CyberPatriot-specific curriculum before.
- Will not receive an email from a “@netacad.com” email address with instructions for registering a **Coach/Mentor User Name** at cisco.netacad.com. If they used the email address associated with their netacad account to register on our website www.uscyberpatriot.org.
- Can use the Forgot Password and Forgot Screen Name function at cisco.netacad.com

4. Competitors

- Once Coaches gain access to the Content Course (Training), they can create user accounts for their Competitors to access the curriculum.
- **IMPORTANT:** To protect students' personally identifiable information, Cisco does not allow children under the age of 13 to create a profile on their website.

IMPORTANT: Team User Names (Coach's Dashboard)

Team User Names and Passwords on the Coach's Dashboard are NOT for the Coach or Mentor-created netacad account. The team user names are used ONLY to access the Cisco Networking Challenge quiz and Packet Tracer exercise in the actual rounds of competition. The Coach or Mentor's CyberPatriot email address is used for the NetAcad Content (Training) Course.

Instructor Course

The Instructor Course provides information on the following topics:

- Introduction to the Cisco Networking Challenge
- How to use important features in NetSpace
- How to create a content course and enroll students
- Instructions on how to find a Cisco Mentor
- What to expect throughout the Cisco portion of the CyberPatriot competition

Completing this course would assist Coaches on how to navigate

This course should be completed to gain knowledge on how to navigate through the netacad platform. To complete the Instructor Course, follow the instructions below:

1. After logging in, find the Instructor Course called CyberPatriot “Instructor Training 2018 - 2019”.
2. Read through the Instructor Course and complete the quiz at the end of the course.
3. Coaches and Mentors are manually added as a Content Course instructor by a Cisco employee. **This process occurs twice a week.**
4. When creating and using the Content Course, it is recommended that instructors refer to the Instructor Course, as it contains useful information for creating and administering the Content Course.

If you have any questions, please contact the CyberPatriot Program Office at cpoc@uscyberpatriot.org. Please do not contact a Cisco employee or use the chat rooms on the Networking Academy site.

IMPORTANT: Competitors under 13 years of age are NOT permitted to access the Networking Academy for any reason. Parents of minor competitors may be given access, so the competitors can benefit from the training materials without risking privacy.

PART 2: TRAINING

Content Course

After completing the Instructor Training, Coaches and Mentors can access and create a course of the actual Cisco training modules used to prepare teams for the competition.

Content Courses can be accessed and created by logging into cisco.netacad.com with a **Coach/Mentor User Name**. For information about your **Coach/Mentor User Name**, see the “Accessing the Cisco Networking Academy for the First Time” section. Content Courses can be accessed and created following the steps below. The Instructor Course has more detail instructions and should be used as reference during the course creation process.

1. Select “Create a Course” under the “Teach” tab and follow the instructions on the “Getting Your Course Started” page in the Instructor Training.
 - It is recommended that Coaches create a course for each of their teams
 - Mentors may have as many courses as they would like (within reason).
2. Wait a few minutes for your course to load the curriculum.
3. Edit or add items to the course if desired and **Publish** the course.
4. Enroll students into the course according to the instructions on the “Getting Your Course Started” page in the Instructor Training.
5. Begin teaching the course.

The Content Course consists of 19 learning modules covering the topics listed below. Note that these modules were created from chapters of different Networking Academy courses. **As such, there may be a mismatch between the module number and chapter number. CyberPatriot will use the module numbers.** Before each round of competition, CyberPatriot may specify the modules that students should focus on for the challenges in that round.

- Module 1: Introduction to Networking
- Module 2: Network Protocols and Communications (Introduction to Networks, Ch. 3)
- Module 3: IP Addressing (ITN, Ch. 7)
- Module 4: Subnetting IP Networks (ITN, Ch. 8)
- Module 5: Introduction to Switch Networks (Routing and Switching Essentials, Ch. 1)
- Module 6: Basic Switching Concepts and Configuration (RSE, Ch. 2)
- Module 7: VLANs (RSE, Ch. 3)
- Module 8: Routing Concepts (RSE, Ch. 4)
- Module 9: Inter-VLAN Routing (RSE, Ch. 5)
- Module 10: Static Routing (RSE, Ch. 6)

- Module 11: Routing Dynamically (RSE, Ch. 7)
- Module 12: Single-Area OSPF (RSE, Ch. 8)
- Module 13: Access Control Lists (RSE, Ch. 9)
- Module 14: DHCP (RSE, Ch. 10)
- Module 15: Network Address Translation for IPv4 (RSE, Ch. 11)
- Module 16: Securing Network Devices (CCNA Security, Ch. 2)
- Module 17: Authentication, Authorization, and Accounting (CCNA Security, Ch. 3)
- Module 18: Implementing Virtual Private Networks (CCNA Security, Ch. 8)
- Module 19: Implementing Cisco Adaptive Security Appliance (CCNA Security, Ch. 9)

In addition to curriculum, some of these modules include Packet Tracer activities, quizzes, practice activities, and additional resources to help students learn the topics covered.

PART 3: COMPETITION

Competition Course

Teams access the Networking Quizzes and Packet Tracer activities that are in the actual rounds of competition through [cisco.netacad.com](https://www.cisco.netacad.com) using different credentials than those used for the Instructor and Content Courses. Coaches and Mentors are not required (though highly recommended) to access the Instructor or Content Courses before their teams to access the Competition Course.

To access competition challenges, teams will use a **Team User Name and Password**. Each team will have unique credentials. These credentials will be available on the Coaches Dashboard and can be accessed by logging into www.uscyberpatriot.org. **Team User Names and Passwords** will be of the following format:

- **Team User Name** (based on Team Number 11-****): **11****cp**
 - Example: If your Team Number is 11-8984, your Competition Course user name will be 118984cp.
- **Team Password** (based on Unique Identifier): **[Unique Identifier]cp**
 - Example: If your Unique Identifier is 1234-5ABC-45DE, your Competition Course password is 1234-5ABC-45DEcp
 - Note: If your Unique Identifier is all numbers, you need to add an “A” after the “cp” portion of the password.

Team User Names and Passwords will be created prior to the Practice Round, so there is a

possibility that information was transferred incorrectly. If your **Team User Name and Password** do not work at the start of the Practice Round, email cpoc@uscyberpatriot.org. The password reset function on the site will not send an email to your account. Please do not contact a Cisco employee directly if you have issues.

IMPORTANT: Competitors under 13 years of age are NOT permitted to access the Networking Academy for any reason. Parents of minor competitors may be given access, so the competitors can benefit from the website without risking privacy. During the competition the Coach or parents may enter quiz answers as dictated by the under-13 competitors. The competitors may complete the Packet Tracer exercise, but may not upload or download it.