CodeHS

Overview

This guide is designed to provide a process to integrate the Python NCyTE Cybersecurity Concept Lessons into the AP Computer Science Principles in Python course. Although the integrated course is not a College Board endorsed course, it does cover all the AP CSP standards and the mapping is the same mapping used to create the AP CSP Cybersecurity JavaScript course, which is an endorsed course.

Process

The process of integrating the concept lessons with the AP CSP Python course uses the CodeHS Assignments feature to add and delete modules, lessons, and activities. You can find more information on this process here.

At a high level, this guide will walk you through the process in three steps: adding all the concept lessons into the course; adding new modules and lesson structure; and moving content into the correct position.

Step 1: Integrating the Two Course

To start out, you will want to create a new course from the course page. You can get to the course page by selecting Courses from the menu on the left side of the teacher dashboard. Once selected, you will see an option to create the new course.

As you create the new course, select 'Use a CodeHS Template' as your starting point and choose the AP Computer Science Principles in Python course.

Once created you will see the course in your course list. At this point, the course is only a copy of the AP CSP Python course, so you now need to add the Cybersecurity content.

To do this, select the View Assignment button on the right inline with the new course (shown below):

Once in the assignments, scroll towards the bottom and expand the Search For Content. Click on the Course Catalog option under the CodeHS Content towards the bottom.

In the course catalog, find the NCyTE Cybersecurity Concept Lessons in Python and click the Assign button. In the assignment menu, select the AP CSP course you just created and click assign. This will add it to the course. You can then go to this course and you should see all the modules from both the AP CSP Python course and the NCyTE Concept Lessons.
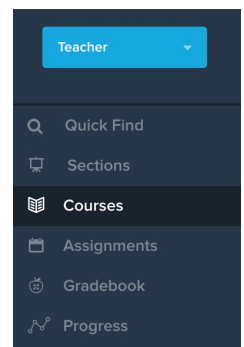
Step 2: Adding Modules

In order to align the content from the Concept lessons, you will be moving activities into existing lessons, as well as creating new modules and lessons. You will start with creating the new modules and lessons, and then finally move activities to the correct location.

Adding Modules

The integrated course adds 4 modules to the existing course. To add these modules you will click on the ⊕ Add button and select Module.

Create the following 4 modules:
Encryption
Cybersecurity
Practice PT: Cyberethics
Extra Content

Once created, you will find the modules at the bottom of the other modules. Clicking on the 3 dot menu on the right of each module, you will see an option to move the modules up. Move each module to the following locations:
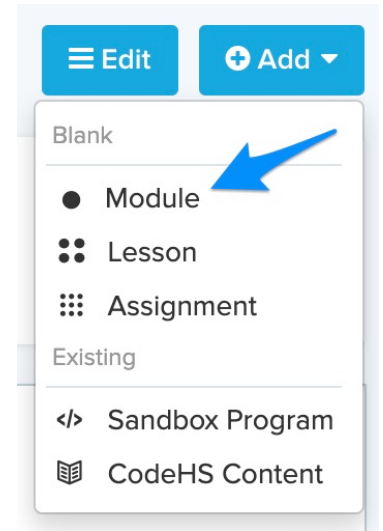
Encryption - After Module 9 - Digital Information
Cybersecurity - After Module 11 - The Internet
Practice PT: Cyber Ethics - After the Cybersecurity module above
Extra Content: This can stay at the bottom

After adding these modules, also add a lesson called **Extra Content** in the *Extra Content* module.

Step 3: Integrating Lesson

The final part of the process is to move lessons and activities into the correct place. To move activities to a new lesson, you will click the 3 dot menu for the lesson and select Move To Lesson. Once in the new lesson, you can move it up or down.

The same is true to move a lesson to a new module. Select the three dot menus option to Move To Module. You can then move the lessons in the module.
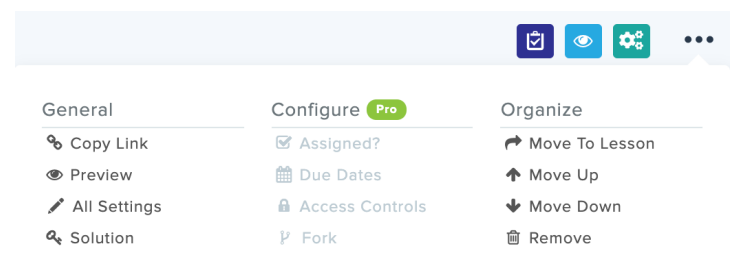
Note: If you do not see the concept lessons or new modules in the list to move to, refresh your page.

With that said, here are the moves you need to make. Pay close attention to whether the lesson/activity is coming from the NCyTE Concept lessons or the AP CSP lessons:

1. Move all activities from Unit 6: NCyTE Concepts lesson 6.2 to lesson 6.1 and arrange them in the following order:
   - 6.2.1 Password Protection
   - 6.1.3 Password Checker
   - 6.1.4 How are passwords saved?
   - 6.1.5 Reflect: How are passwords saved?
   - 6.2.2 Create a password
   - 6.2.3 Ethics Moment: Impact of Code
   - 6.2.4 Reflection: Impact of Code

2. Move the remaining two lessons from 6.1 to AP CSP Lesson 4.4 If Statements and place them in order after 4.4.7 Teenager:
   - 6.1.1 Input Validation and Conditionals
   - 6.1.2 Conditional Pseudocode Activity

3. Move two lessons from AP CSP Lesson 4.4 If Statements to the Extra Content Module:
   - 4.4.8 Meal Planner
   - 4.4.9 AP Practice: If/Else Statements

4. Now you are going to complete the integration of the NCyTE Unit 6. Move NCyTE lesson 6.1 to AP CSP Module 4: Python Control Structures and place it after lesson 4.4 If Statements. Then delete module NCyTE Unit 6, which should now be empty other than the empty lesson.

5. Next you are going to integrate NCyTE Unit 7 Iterative Processes. Move each activity to the following location, then delete the module:
   - 7.1.1 Iterations - Move to the end of AP CSP lesson 4.7 General For Loops
   - 7.1.2 Iterative Pseudocode Activity - Part 1 - Move to the end of AP CSP lesson 4.7 General For Loops
   - 7.1.3 Iterative Pseudocode Activity - Part 2 - Move to the end of AP CSP lesson 4.10 While Loops
   - 7.1.4 Verify the Password Length - Move to AP CSP lesson 4.10 While Loops just above lesson 7.1.3 you just moved
   - 7.1.5 Making a Stronger Password - Move to AP CSP lesson 4.11 Loop and a Half just before the Looper Badge
   - 7.1.6 Passwords with Letters and Numbers - Move to AP CSP lesson 4.11 Loop and a Half just before the Looper Badge
   - 7.1.7 Ethics Moment: Sampling Music - Move to the end of AP CSP lesson 4.8 For Loop Practice
   - 7.1.8 Reflection: Sampling Music - Move to the end of AP CSP lesson 4.8 For Loop Practice

6. You can now move AP CSP 4.10.6 AP Practice: Iteration to Extra Content

7. To integrate NCyTE Module 4: Data Structures into AP CSP Module 7: Basic Data Structures do the following:
   - Move NCyTE Lessons 4.1.1 and 4.1.2 to the end of AP CSP lesson 7.2 Lists

Move NCyTE Lessons 4.2.1 and 4.2.2 to the end of AP CSP lesson 7.3 For Loops and Lists

Move NCyTE Lesson 4.3 (the entire lesson) to AP CSP Module 7: Basic Data Structures and place it after lesson 7.4 List Methods.

You can now delete NCyTE Module 4.

8. You can now move AP CSP 7.2.10 AP Practice: Lists to Extra Content

9. From the AP CSP content, move the following two lessons to Extra Content

    8.10 Cybersecurity

    9.1 Practice PT: Steganography

10. From NCyTE Module 11 Steganography, move the three complete lessons as follows, then delete the empty module:

    11.1 Introduction to Steganography to AP CSP Module 8 just before 8.11 Digital Information Quiz

    11.2 Ethics of Steganography to AP CSP Module 8 just before 8.11 Digital Information Quiz

    11.3 Steganography Exploration to AP CSP Module 9 Practice PT: Steganography (it will be the only module)

11. Next, you are going to combine all the lessons from three NCyTE modules into the new Encryption module you created. Move the following lessons in this order, and delete the empty NCyTE modules after you remove the lesson:

    1.1 Caesar Ciphers

    1.2 Decrypting and Breaking Caesar Ciphers

    13.1 Vigenere Cipher

    12.1 Symmetric and Public Key Encryption

12. Next, you will create the content for the new Cybersecurity module that you created. Add the following lessons from the NCyTE modules in order and delete empty NCyTE modules after you remove the lessons:

    2.1 Introduction to Cybersecurity

    2.2 CIA Triad

    5.1 Identity Crisis

    5.2 Let Me In

    8.1 Introduction to Networking

    8.2 OSI Model Activity

    8.3 Network Attacks

    10.1 Basic Cybersecurity Risk Concepts

    10.2 Cybersecurity Risk Model - Assessing Risk

    10.3 Cybersecurity Risk Model - Vulnerabilities

    10.4 Cybersecurity Risk Model - Security Controls

13. Stepping back to AP CSP Lesson 11.9, move the following activities to the NCyTE lessons

    AP CSP 11.9.1 Cybersecurity to NCyTE 2.1 Introduction to Cybersecurity after 2.1.1 Warm up

AP CSP 11.9.2 Cybersecurity Quiz to NCyTE 2.1 Introduction to Cybersecurity after 11.9.1 above.

AP CSP 11.9.10 Rogue Access Points to the end of NCyTE 8.1 Introduction to Networking

14. Move the remainder of AP CSP Lesson 11.9 Cybersecurity to Extra Content

15. Move NCyTE Lesson 3.1 Cyberethics to the Practice PT: Cyberethics module you created, then delete the NCyTE module.

16. Finally, move the following two lessons from the NCyTE Personal Data Vulnerability module:

9.1 Unintentional Data Sharing to AP CSP Data just before the Data Quiz

9.2 Metadata and Data Collection to AP CSP Data just before the Data Quiz