

# CodeLab In Blackboard: Instructor Manual

## OVERVIEW:

CodeLab now offers a tight integration with Blackboard. Once it is set up, students and instructors access and experience CodeLab entirely and only in the Blackboard browser window. In particular, students do not access CodeLab through the standard CodeLab client at all, and instructors have almost no need to do so either.

CodeLab-In-Blackboard observes the "Blackboard way of doing things" as much as possible.

CodeLab-In-Blackboard must be set up separately for each Blackboard course to that uses it.

Once set up, students interact with Blackboard just as they would with any Blackboard assignment. They click on the assignment and they see the CodeLab workbench with its navigation tools, instructions, submission area, and status information.

A CodeLab-In-Blackboard assignment is a sequence of CodeLab exercises selected by the professor. There is a status bar so that the student can see their progress through the assignment and the student, when clicking on the assignment is brought to the first incorrect exercise in the sequence. Students work with the exercises just as they do in the standard, stand-alone CodeLab client— they click submit and the RESULTS tab is created with all the usual feedback from CodeLab.

*Important Note: Students do NOT register directly for CodeLab, they do not need a "section access code" nor do they login to CodeLab-- essentially, they never go to a "turingscraft.com" URL.*

In Blackboard, instructors associate points with assignments. CodeLab updates the Blackboard gradebook and tells Blackboard the percentage of exercises that are correct in a given assignment. This percentage is multiplied by the maximum number of points associated with the assignment, resulting in the points given for the assignment. As the student completes more exercises in an assignment, the assignment score for that student increases. If an assignment is worth 6 points and has 30 CodeLab exercises associated with it, and the student has successfully finished 20 of these exercises, the student's score for the assignment will be 4.

GETTING HELP: We are very eager to support CodeLab-in-Blackboard. If you have any questions or requests, send email to: [info@turingscraft.com](mailto:info@turingscraft.com)

## OVERVIEW CONTINUED: SETUP

To set up a CodeLab-In-Blackboard course, the instructor will need to:

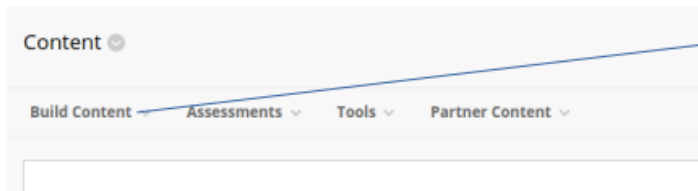
- (1) Make sure that the CodeLab-In-Blackboard third party app is available in their school. This is most typically arranged by a local Blackboard administrator, but in some schools the instructor may take on that role themselves. The way to accomplish this is described in the Codelab-in-Blackboard Admin manual.
- (2) Obtain a CodeLab instructor account from Turing's Craft.

Once the above are satisfied, to set up a CodeLab-In-Blackboard course, the instructor must go through these steps:

- (1) A separate CodeLab section must be created. This section will be uniquely associated with the Canvas course involved. It should have a clear course title, course number, and section number.
- (2) It is wise for the instructor, before doing much on the Blackboard side, to access this new CodeLab section on the CodeLab side and use the Table-Of-Contents editor to create groupings of exercises that will become the assignments in Blackboard. This can be done on the fly during the semester, but it is a good idea to do at least the first one or two assignments at the outset. Basically this means making topics labeled "Assignment 1", "Assignment 2" (or something readily identifiable) and then populating them with CodeLab exercises that should be part of the assignment. These assignment groupings should be flat—just sequences (ordered appropriately) of exercises. Doing this will make setting up assignments in Blackboard much easier.
- (3) The instructor then needs to create their Blackboard course and load it, and associate it with CodeLab. The following notes describe that process:

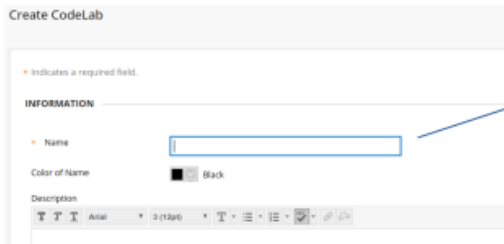
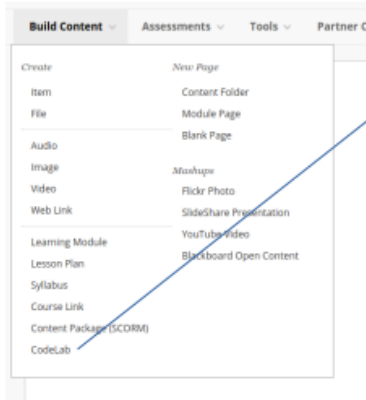
After loading your course:





Click "Build Content"

You Should see "CodeLab"  
As an option. Click on "CodeLab"



Choose a name for this assignment.  
Like: "CodeLab Assignment 1"



Select Yes for "Enable Evaluation"

Enter how many points this  
Assignment will be worth.



Click: Submit

When you first enter the assignment, you will have to authenticate yourself!

This login-authentication only happens the first time you ever access CodeLab via your LMS account.

## CL: Displaying Messages



We've noticed this your first time using CodeLab with this LMS. Please login below to verify your account. If you do not have an account you will need to register before proceeding. You will need to reload the assignment after verifying your account.

### CodeLab Sign In

**Email**

**Password**

 Login

**Email**

**Password**

 Login

Then you need to choose the CodeLab section you wish to associate with this LMS course.

This will only have to be done once, the first time you are in this course trying to set up an assignment.

Subsequent assignment setups won't have this step.



Please select a CodeLab section to associate with your LMS course

> Summer 2020

> Spring 2019

Once you've done all that "first time stuff," you are in the Assignment Creator – and that is where you'll go in the future when you click on a CodeLab-associated LMS assignment.



Assignment Editor

Save ?

Due Date

Solution View Date

Exercises

- Python3 Topics
  - Arithmetic, Variables, Assignment
  - Strings (I)
  - Conditions and Branches
  - I/O
  - Loops
  - Functions
  - Strings (II)
  - Lists
  - Dictionaries
  - Sets
  - Tuples
  - Combos
  - Recursion
  - Classes
  - Files
  - Formatted Output
  - Exceptions

Here you can click on individual exercises and entire topics for inclusion in the Assignment exercise sequence. When you click on the entire topic, all the exercise "leaves" are added in left to right order into the selected exercise sequence.