

CodeLab in D2L

Instructor Manual

CodeLab integrates seamlessly with D2L. For students, CodeLab exercises appear as an assignment in your course (students are not taken to another website). Within D2L, students have access to CodeLab's navigation tools, exercises, feedback, and status information.

For instructors, CodeLab results appear automatically in the gradebook and instructors use D2L tools to assign work.

This manual illustrates one sequence of steps that a D2L instructor would follow in order to create CodeLab assignments.

A CodeLab-in-D2L 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 when the student clicks on the assignment, they are brought to the first non-correct 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 D2L, instructors associate points with assignments. CodeLab updates the D2L gradebook and tells D2L 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, the student's score for the assignment will be 4.

GETTING HELP: We are very eager to support CodeLab-in-D2L. If you have any questions or requests, send email to: info@turingscraft.com

SETUP

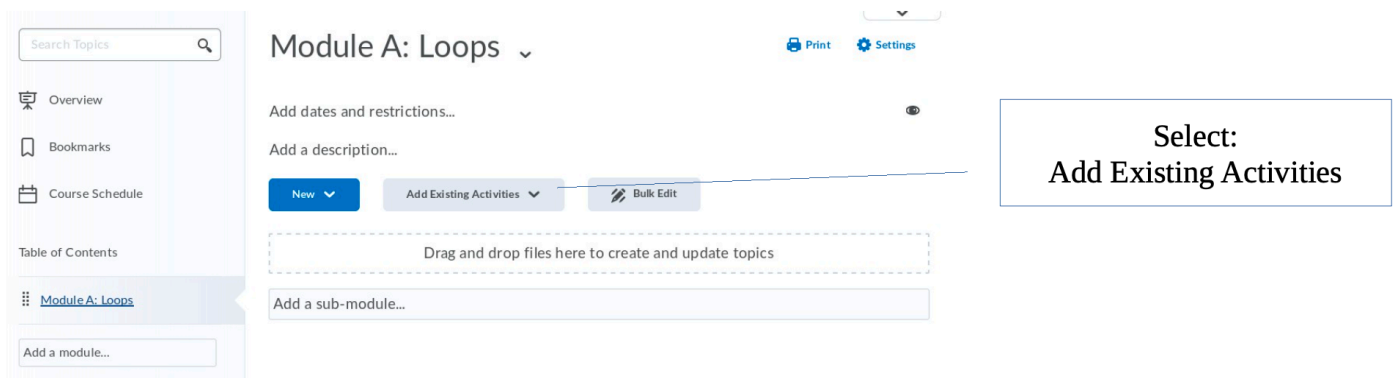
To set up a CodeLab-In-D2L course, the instructor will need to:

- (1) Make sure that the CodeLab-In-D2L third party app is available in his or her school. This is most typically arranged by a local D2L administrator, but in some schools the instructor may take on that role himself or herself. The way to accomplish this is describe in the Codelab-in- D2L Admin manual.
- (2) Obtain a CodeLab instructor account from Turing's Craft.

Once the above are satisfied, to set up a CodeLab-In-D2L 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 D2L 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 D2L. 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 D2L much easier.
- (3) The instructor then needs to create their D2L course and load it, and associate it with CodeLab. The following notes describe that process.

After loading a course and selecting the course content:



The screenshot shows the CodeLab interface for a module titled "Module A: Loops". On the left is a sidebar with navigation options: Overview, Bookmarks, Course Schedule, and Table of Contents. The main area contains a search bar, a "Print" button, and a "Settings" button. Below these are fields for "Add dates and restrictions..." and "Add a description...". A row of buttons includes "New", "Add Existing Activities" (which is highlighted with a blue line and a callout box), and "Bulk Edit". Below the buttons is a dashed box with the text "Drag and drop files here to create and update topics" and a field for "Add a sub-module...".

**Select:
Add Existing Activities**

New ▾ Add Existing Activities ▾ Bulk Edit

ceLTic Quicklink Sample
create and update topics

Add a sub-modu

- Checklist
- Discussions
- Dropbox
- External Learning Tools
- Google Drive
- Jordan Deep Linking Quicklink
- OneDrive
- Quizzes

Click
External Learning Tools

Add Activity ×

← ▾

Search

LTI Link ▲	LTI Advantage Deployment
IMS RI Link	IMS Reference Implementation Deployment

< 1 / 1 > 200 per page ▾

Create New LTI Link

Manage External Learning Tools

Cancel

Click
Create New LTI Link

Add Activity



Create

Title *

CodeLab Assignment 1

LTI URL *

<https://codelab.turingscraft.com/codelab/lti/launch>

Tool *

Legacy LTI Tool

Create and Insert

Create

Cancel

Cancel

Enter the title
of your Assignment

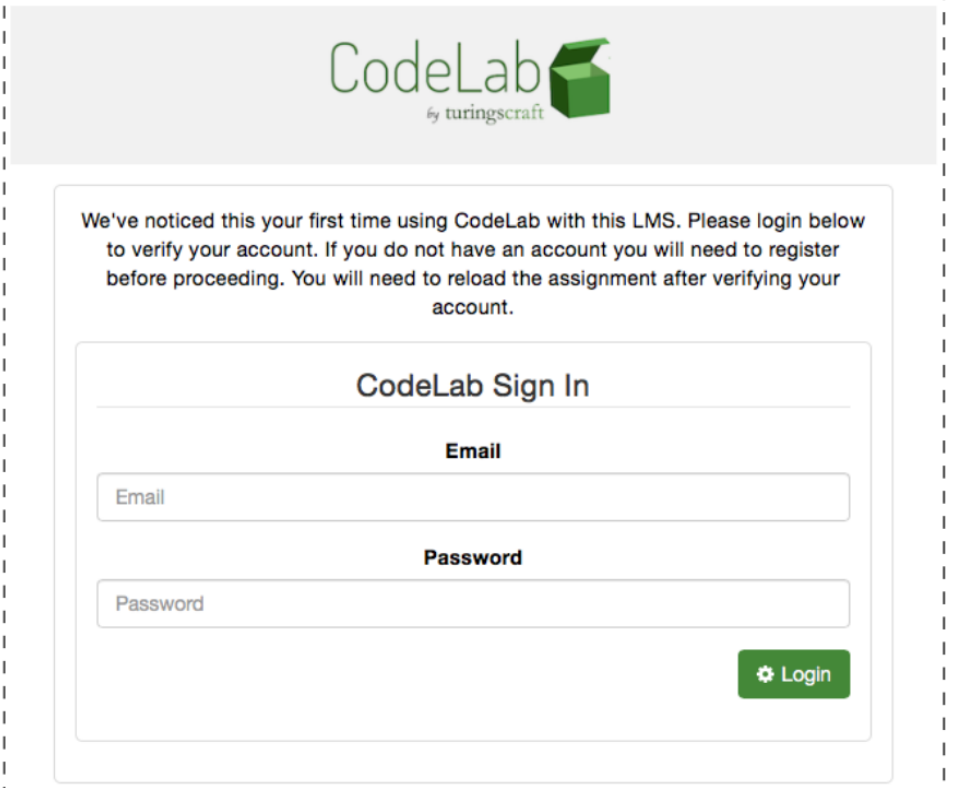
Enter
<https://codelab.turingscraft.com/codelab/lti/launch>

Click
Create and Insert

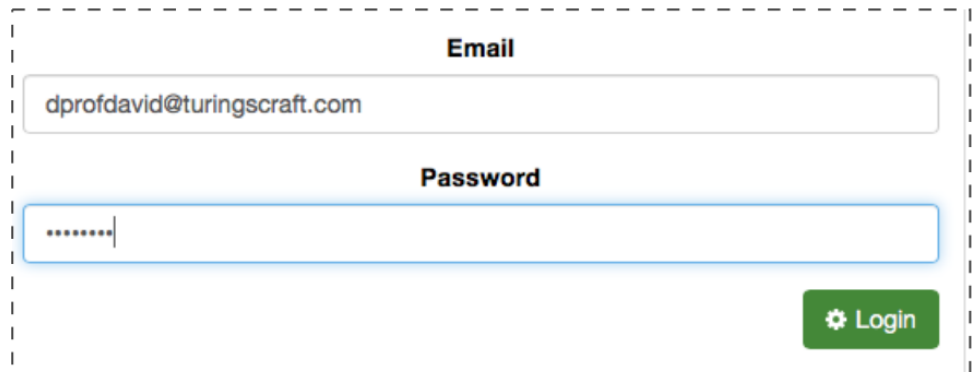
CL: Displaying Messages

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.



The image shows a CodeLab sign-in interface. At the top, there is a header with the CodeLab logo and the text "by turingscraft". Below the header is a message box with the following text: "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." Below the message box is a "CodeLab Sign In" form. The form has two input fields: "Email" and "Password". The "Email" field contains the text "Email". The "Password" field contains the text "Password". To the right of the "Password" field is a green "Login" button with a gear icon.

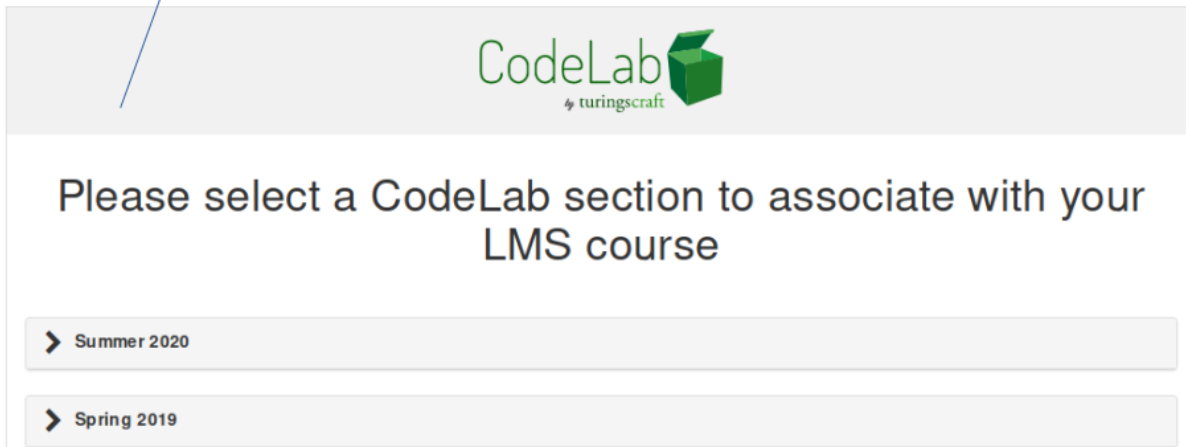


The image shows the same CodeLab sign-in form as above, but with the "Email" field filled with the text "dprofddavid@turingscraft.com" and the "Password" field filled with a series of dots ".....". The "Login" button is still present and highlighted with a blue glow.

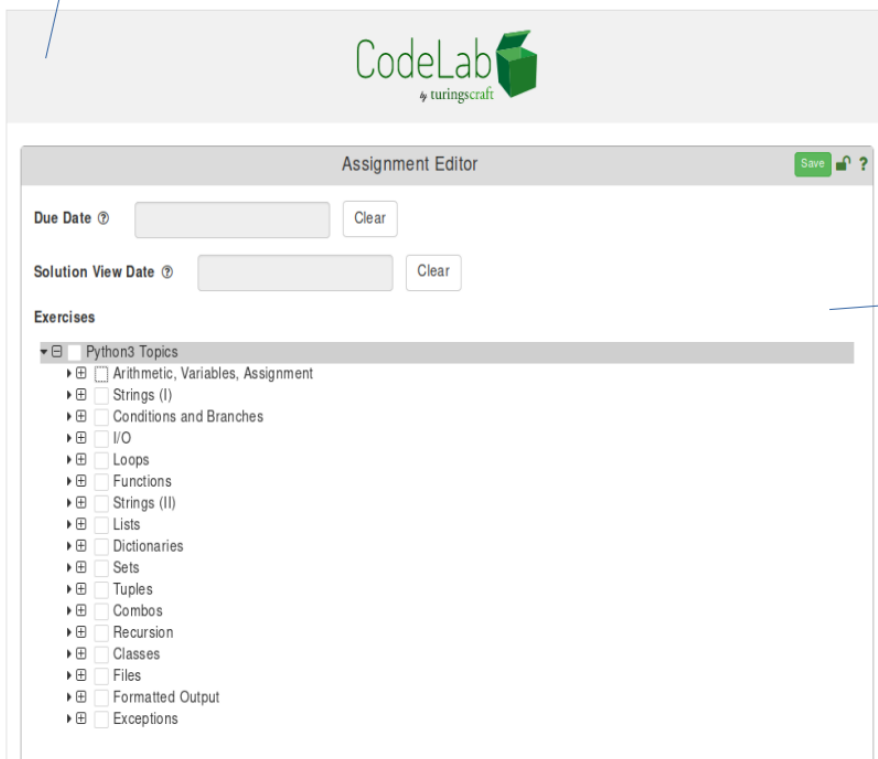
Then you need to choose the CodeLab section you wish to associate with this LMS course.

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.



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.



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.