Canvas/Econ Lowdown LTI Deployment Guide

This instructional document provides the steps to follow and data that must be exchanged with the Federal Reserve Bank of St. Louis Economic Education department to integrate Econ Lowdown as a Learning Tools Interoperability (LTI) tool provider with a Canvas Learning Management System (LMS) instance. Sometimes this process is referred to as “adding an app” to Canvas.

The process consists of six steps for the school district/organization to follow.

You must have root-level Canvas Administrator role permissions to complete the steps.

1. **Add Econ Lowdown to the school district/organization’s available Developer Keys.**
   Enter the Econ Lowdown Key Name, redirect Uniform Resource Identifiers (URIs), and configuration Uniform Resource Locator (URL) into your system at the root level.

2. **Enable the Econ Lowdown app for all users of a Canvas account.**

3. **Provide details to Econ Lowdown.**
   Enter details about your school district/organization and the resulting Developer Key Client ID and Deployment ID generated in the steps above into the relevant fields in the [Canvas Deployment for Econ Lowdown](#) page and click Submit.

4. **Add an Econ Lowdown resource as an Assignment in a Canvas course.**
   This step “locks” the deployment and ensures the integration went as expected.

5. **Ensure the Econ Lowdown Instructor Tools menu option displays in Canvas.**


Once the above steps are complete, the deployment is successful, and teachers can begin using Econ Lowdown resources in their classrooms via LTI.

Detailed instructions on how to add Econ Lowdown resources to Assignments, see grades, etc. are in a separate document: [How-to Guide – Using Econ Lowdown via LTI Canvas](#).

For questions about a Canvas LTI deployment with Econ Lowdown, please contact econlowdown.lti@stls.frb.org.
Add Econ Lowdown to the District/Organization’s Available Developer Keys

1. Log in to Canvas as an Account Administrator of the main (top level) Canvas Account.
2. Select the Admin section in the main navigation panel to the left. The icon is shaped like a shield with a key on it.
3. Select the correct school district/organization account (e.g. Citywide School District).
4. Select Developer Keys in the Admin navigation menu.
5. Select + Developer Key.
6. Select + LTI Key.
7. Fill in values in the Key Settings form.
   a. Key Name: Econ Lowdown
   b. Redirect URIs (one per line; no commas):
      i. https://www.econlowdown.org/v3/lti/gallery
   c. Method: URL
   d. JSON URL: https://www.econlowdown.org/v3/lti/settings/canvas
   e. Click Save.
8. On the Developer Keys page
   a. Set the State to ON.
   b. Make a note of the value that displays under the Details column for the newly created Developer Key.
   c. This value is generated by Canvas after saving the Econ Lowdown developer key. It is a number that displays in the Details column of the Developer Keys table for the Econ Lowdown key. Do not click on Show Key; that is not a value to provide to Econ Lowdown.
   d. The Client ID will be needed when enabling the Econ Lowdown App for Canvas courses.
Enable the Econ Lowdown App for All Users of a Canvas Account

1. Log in as an Account Admin of the main (top level) Canvas Account.
2. Select the Admin section in the main navigation panel to the left. The icon is shaped like a shield with a key on it.
3. Select the correct school district/organization account (e.g. Citywide School District).
4. Select Settings in the Admin navigation menu.
5. Select the Apps tab.
7. Select + App.
8. In the Add App Modal:
   a. Configuration Type: By Client ID.
   b. Client ID: <Client ID retrieved after setting up the developer key>.
   c. Click Submit.
   d. Click Install.
9. On the External Apps page
   a. Select the Cog icon next to Econ Lowdown.
   b. Select Deployment ID.
   c. Make a note of the Deployment ID displayed within the modal window. You will need to give the Deployment ID to Econ Lowdown as part of the integration process.
   d. Click Close.

The Deployment ID displays on the View App Configurations page after enabling the Econ Lowdown App Configuration for your teachers.
Provide Details to Econ Lowdown

To integrate your school district/organization’s Canvas account with Econ Lowdown, you must enter details about your school district/organization, your contact information, and the following IDs in the Canvas Deployment for Econ Lowdown page and click Submit.

**Developer Key Client ID:**

This value is generated by Canvas after saving the Econ Lowdown developer key. It is a number provided in the Details column of the Developer Keys table for the Econ Lowdown key.

**Deployment ID:**

Found on the View App Configurations page after enabling the Econ Lowdown App Configuration for your teachers.
Add an Econ Lowdown Resource as an Assignment in Canvas

Adding an Econ Lowdown resource as an Assignment in a Canvas Course completes the integration process and lets you know that that integration was successful.

Most Canvas Administrators use a “sandbox” or “test” Course (one that will not be assigned to students, or is a assigned to “test” students) for this Assignment, but it can be any Course in your Canvas instance.

Econ Lowdown resources must be added as Assignments to a Canvas Course.

Open the Course in Canvas to which you want to add an Econ Lowdown resource.

Click on Assignments in the left vertical menu.

Click on the +Assignment button in the upper right section. You are now on the Assignments > Create new page.

Enter the name of the Assignment and any description in the entry box, and enter a point value for the assignment in the Points field.

Note: You must enter a value in the Points field in the Canvas Assignment in order for grades to transfer to Canvas after students take the assessment in the resource.
In the **Submission Type** area, click on the drop-down and select **External Tool**.

The **External Tool Options** area displays.

Click **Find**.

When the **Configure External Tool** window displays, scroll down until you see **Econ Lowdown** in the list, and click on it.
The **Link Resource from External Tool** window displays with a gallery of available Econ Lowdown resources. It may take a few seconds to load.
Click the **Add** button next to the resource you want to add as an Assignment, and then click **Select** in the **Configure External Tool** window.

Finish setting up the Assignment by selecting to whom you’re assigning it, any due dates or Assignment available time window, and then click **Save**, or **Save and Publish** (if you want to publish this Assignment).

The resource you selected now displays inline in your Canvas Assignment; it will display as a link the next time you access your Assignment list, or when a student views the Assignments list.
You can navigate to any section of the resource. Students launching the resource are required to move through it sequentially until they have completed the post-test.

Ensure the Econ Lowdown Instructor Tools Menu Option Displays

The Econ Lowdown Instructor Tools allow teachers to grade resources that contain short-answer questions and to reset tests for resources that allow one test reset.

**Note:** If your school district/organization requires these tools to be hidden by default and enabled by Course only, please contact the Econ Lowdown LTI team; this requires a custom deployment that can be completed via teleconference.

Please email econlowdown.lti@stls.frb.org to schedule this modified deployment.

From the Course in Canvas, click on **Econ Lowdown Instructor Tools** in the left vertical menu.
The **Instructor Tools** page displays.

Neither of the tools will contain short-answer questions to grade or tests to reset until students have completed the applicable resources.

Complete instructions on how to use Econ Lowdown via Canvas and details about the Econ Lowdown Instructor Tools are in the *How-To Guide – Using Econ Lowdown via Canvas* document.
Adjust Web Browser Cookie Settings

In order to track progress and record test grades that are reported back to Canvas, Econ Lowdown uses cookies to help maintain the session for a user. Since the teacher can choose to embed our content directly in a Canvas page, this cookie can be blocked by certain browsers, depending upon their settings.

If the cookie is blocked, the user will see a “Page Not Found” error.

There are several methods available to prevent problems using Econ Lowdown within Canvas. Each browser uses a different approach, as explained below.

Chrome Solution

Explicitly add Econ Lowdown to the cookie white list:

1. Open Chrome Preferences.
2. Under Privacy and security select Cookies and other site data.
3. Under Sites that can always use cookies select Add to include the following domains:
   a. [*]econlowdown.org
   b. fred.stlouisfed.org

Allow the use of third-party cookies:

1. Open Chrome Preferences.
2. Under Privacy and security select Cookies and other site data.
3. Ensure Allow all cookies is selected.

Safari Solution

Allow the use of third-party cookies:

1. Open Safari Preferences.
   a. On iOS this is found in the Settings app.
   b. On macOS this is found in the Safari menu under Preferences.
2. Select Privacy.
3. Ensure Website tracking: Prevent cross-site tracking is not selected.

Firefox Solution

Explicitly add Econ Lowdown to the cookie white list

1. Open Firefox Preferences.
3. In the Cookies and Site Data section, select Manage Data.
4. Use Address of website field and select Allow to add the following domains:
a. https://www.econlowdown.org
b. https://fred.stlouisfed.org

Allow the use of third-party cookies:

1. Open Firefox Preferences.
3. In the Enhanced Tracking Protection section, select Standard protection.