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, if applicable.**

6. **Adjust web browser cookie settings, if needed.**

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

The Econ Lowdown Instructor Tools menu option is hidden from students by default. Some school districts/organizations have a policy that also requires them to hide LTI tools from instructors who do not use that specific tool in the Course vertical menu options. Hiding the Econ Lowdown Instructor Tools menu option by default will require teachers who wish to use Econ Lowdown to update the Settings for each Canvas Course that contains Econ Lowdown resources, so the tools are available to the teacher. Carefully consider which option is best for your school district/organization.

**Modify an Existing Deployment to Hide Instructor Tools by Default.** Follow these steps if you initially deployed with the Econ Lowdown Instructor Tools menu option displaying, but you now wish to hide the option by default.
Display the Econ Lowdown Instructor Tools for a Course. If you opt to hide the Econ Lowdown Instructor Tools menu option by default, these instructions allow teachers to display the option for Courses containing Econ Lowdown resources, so they can use the tools. Econ Lowdown Instructor Tools are always hidden from students.

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*.

Please contact us at econlowdown.lti@stls.frb.org with any questions about LTI deployments with Econ Lowdown.

Add Econ Lowdown to the District/Organization’s Available Developer Keys

If you would like to hide the Econ Lowdown Instructor Tools menu option by default, replace Step 7.d. below with 7.d.i. during your deployment.

If you have already deployed LTI with Econ Lowdown with the tools displaying in the menu, but you wish to hide the tool option from students, do not deploy a second time; please click here for instructions on how to make the necessary changes.

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
      i. **To hide the Econ Lowdown Instructor Tools menu option by default,** instead of the above, **JSON URL**: [https://www.econlowdown.org/v3/lti/settings/canvas-disabled](https://www.econlowdown.org/v3/lti/settings/canvas-disabled)
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.

![Developer Keys](image)

---

**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.
6. Select **View App Configurations**.
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:

This value is 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 from teachers by default (they are always hidden from students) and to be enabled by Course only for teachers, and your deployment included hiding them by default, the Econ Lowdown Instructor Tools menu option will not display, so you can skip this section.

If the Econ Lowdown Instructor Tools option is hidden by default, click here for instructions on how to change Course Settings to display the menu option for teacher use.
If you have already completed the deployment with the tool menu option displaying by default, and you wish to hide it in the Course menu by default, click here for instructions.

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 nor 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**.
2. Select **Privacy & Security**.
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**.
2. Select **Privacy & Security**.
3. In the **Enhanced Tracking Protection** section, select **Standard** protection.

Modify an Existing Deployment to Hide Instructor Tools by Default

1. Open a browser tab to the following url:  
2. Copy the contents of the browser tab.
3. In a different tab, log in to Canvas as an Account Administrator of the main (top level) Canvas Account.
4. Select the **Admin** section in the main navigation panel to the left. The icon is shaped like a shield with a key on it.
5. Select the correct school district/organization account (e.g. Citywide School District).
6. Select **Developer Keys** in the Admin navigation menu.
7. Select the **Edit Pencil** under **Actions** for the **Econ Lowdown** developer key.
8. Change **Method** to **Paste JSON**.
9. Click anywhere inside the **LTI 1.3 Configuration** text box.
10. Select all the text by typing **Ctrl+A (Cmd+A on MacOS)**
11. Paste the contents copied in step 2, which replaces the text in the **LTI 1.3 Configuration** text box.
12. Double check that the correct contents are displayed by looking for “**default**: “disabled” within the “**placement**: “course_navigation” section of the **LTI 1.3 Configuration** text box
13. Select **Save** to update the deployment.
Display the Econ Lowdown Instructor Tools for a Course

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.

If your deployment (or modified deployment) included hiding the Econ Lowdown Instructor Tools by default, teachers must opt to display the tool option in each applicable Course’s vertical menu.

From your Dashboard, click on the Course in Canvas to which you want to add the Econ Lowdown Instructor Tools menu option.

After the Course opens, in the left vertical menu, click on Settings.
Click on the **Navigation** tab.

Select **Econ Lowdown Instructor Tools** from the Drag items here to hide them from students section and drop it in the appropriate place in the upper section, which is the course navigation menu section.

Click **Save**.

**Econ Lowdown Instructor Tools** is now visible to teachers in the left vertical menu of the Course; it will not be visible to students.

Learning Tools Interoperability™ (LTI™) is a trademark of the IMS Global Learning Consortium, Inc. (www.imsglobal.org).