

Integrating SIMTICS into D2L Brightspace using an External Learning Tool

This guide will help you set up your D2L environment so your students can access SIMTICS with SSO and have scores passed back to your gradebook.

Please ensure you have at least admin privileges to the courses in D2L before proceeding with the steps in this guide.

You will also need the following, which the SIMTICS Support Team will provide:

- the unique Consumer Key and Consumer Secret codes for your school
- the list of modules and module codes that your school is purchasing access for; if multiple programs are using SIMTICS, you will need the relevant list for each program; be careful to keep these separate.

If you don't have these yet, please contact us at www.simtics.com/contact/

This guide will take you through the following steps:

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Note: The term “module” in this document refers to a SIMTICS module (eLearning unit), which contains text, video, anatomy, simulations and quiz for learning a skill or procedure. Be aware that some special modules have only simulations and quizzes and a few have only simulations.

Introduction

SIMTICS uses Learning Tool Interoperability (LTI) for integration with D2L

Once the integration is set up:

- SSO will be operational - students will only need to log into D2L and will not have to log in a second time to the SIMTICS server.
- A score will be passed back to the gradebook from each student session in SIMTICS. By default, the *best score* for a completed *Test Mode* simulation (if any) will be sent to D2L when the student logs out of SIMTICS and returns to D2L.

Optional parameters (see "Using Custom Parameters" in this document along with our separate guide) allow you to capture a Quiz score instead of a Simulation score or the best score *of all time* instead of the best score for the current session.

To link SIMTICS to D2L, you need a unique SIMTICS consumer key and consumer secret to identify your system to the SIMTICS server. **If you haven't already been given these keys, please contact us at www.simtics.com/contact/**

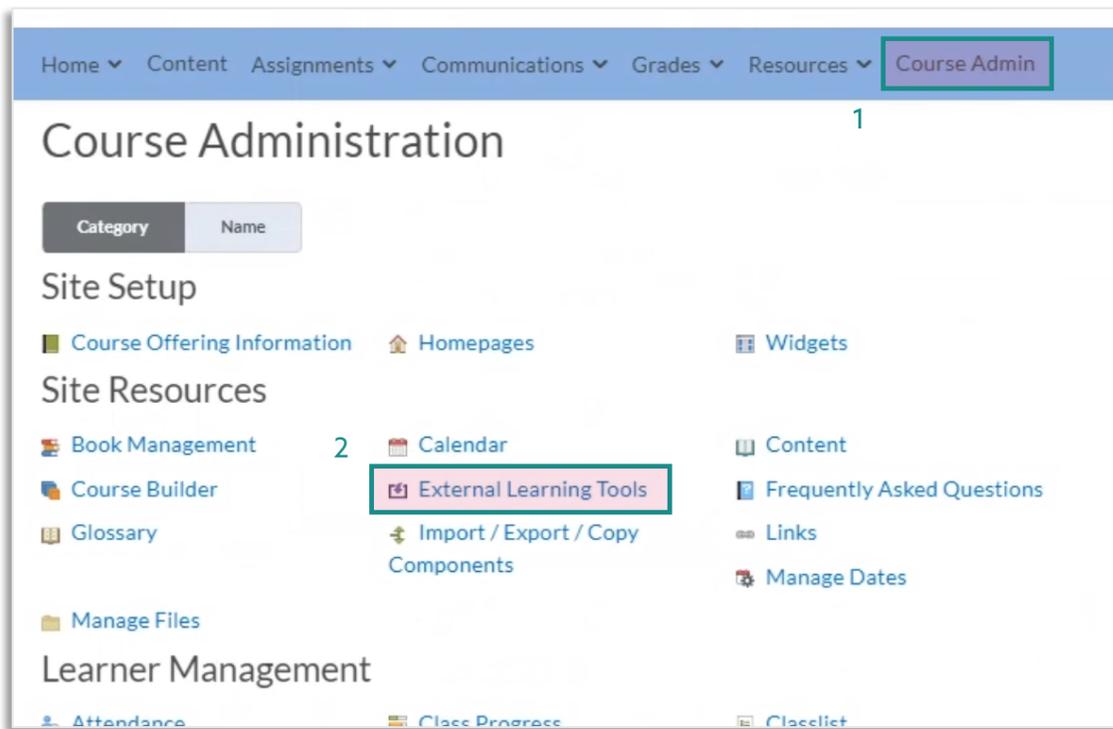
The launch link for latest SIMTICS HTML5 version is <https://lti.simtics.com/api/v1/new>

If you would like students who access SIMTICS via D2L to automatically be placed into groups for the SIMTICS reporting system (group.simtics.com), we can turn on a feature that automatically does that based off your course name and SIS ID in D2L. When a student first accesses SIMTICS via D2L, they will be sorted into that course specific group.

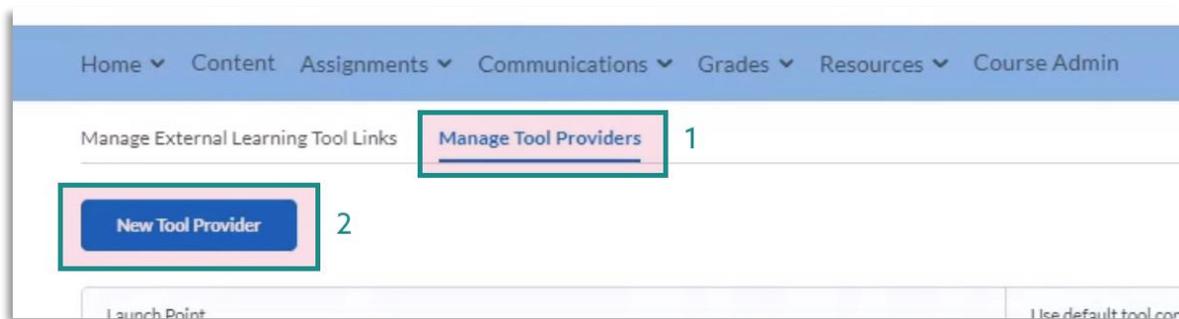
This is something we need to turn on individually for each school/domain, so please email our integration specialist benny@simtutor.com if you would like to have this set up, or you'd like to know more.

Step 1: Setting up SIMTICS as Global External Learning Tool

1. Log in to D2L and navigate to Course Administration -> External Learning Tools



2. Navigate to Manage Tool Providers->New Tool Provider



3. Fill out the Tool Provider Settings as follows:

Launch point:

<https://lti.simtics.com/api/v1/new>

Version:

Leave as default

OAuth Signature Method:

HMAC-SHA1

Secret:

Paste the consumer Secret code here

Key:

Paste the consumer Key code here

*These keys were emailed to you.
Contact support@simtics.com if you need these resent.*

Please check that you are putting the correct code in each field. The Secret is first on the D2L form and the Key is second. Also, please ensure there are no spaces or extra characters when you paste the keys into the fields.

The Name and Description can be whatever you would like. (Or leave them blank.)

Custom Parameters:

Ignore these.

Tool Provider Settings

Launch Point *

Version

OAuth Signature Method

Secret

Reset secret

Tool consumer information

Use custom tool consumer information instead of default

Key

Name

Description

Custom Parameters

No items found.

Security Settings:
Check all.

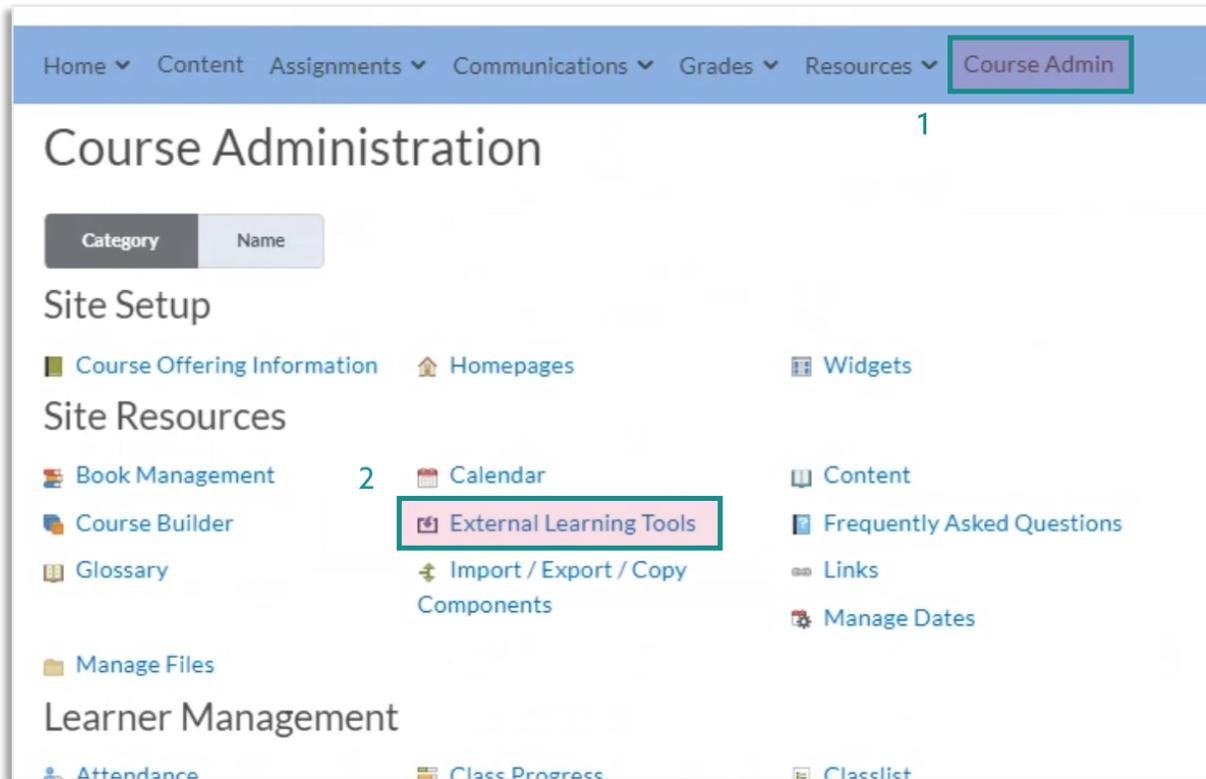
Security Settings

- Send tool consumer information to tool provider
- Send context information to tool provider
- Send course information to tool provider
- Send LTI user ID and LTI role list to tool provider
- Send user name to tool provider
- Send user email to tool provider
- Send system username to tool provider
- Send system Org Defined ID to tool provider
- Send system role to tool provider
- Send link title to tool provider
- Send link description to tool provider

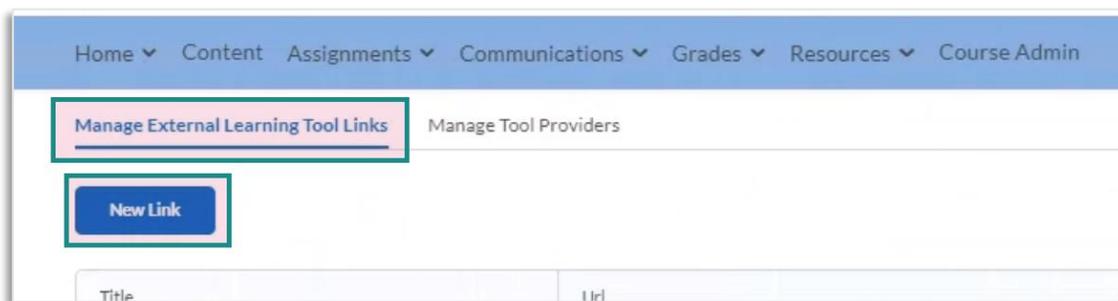
4. Save and Close

Step 2: Creating External Learning Tool Links for each SIMTICS module

1. Navigate to the Course Administration -> External Learning Tools section

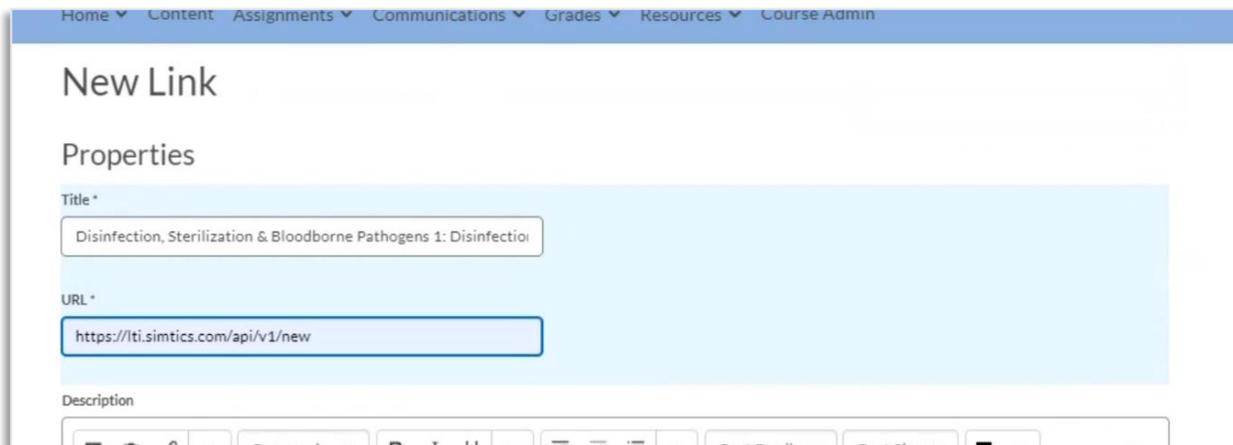


2. Under Manage External Tool Links, create a "New Link":



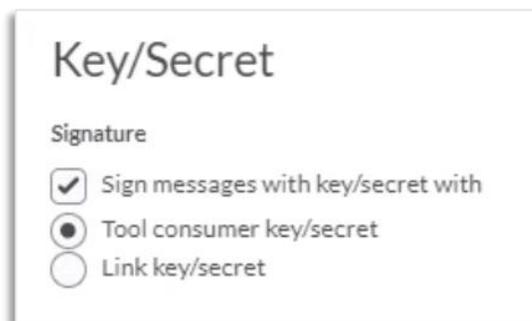
3. Set a Title for this link according to the SIMTICS module you wish to link to. (This example below shows how to set up a link for a dental disinfection and sterilization module, which has the module code DADS1. You should use a module and code from the list that SIMTICS Support has sent you - or the SIMTICS Tutorial module (code "TUT") is a good one to use for testing.)

The Title should be different for each link so you can distinguish between them.



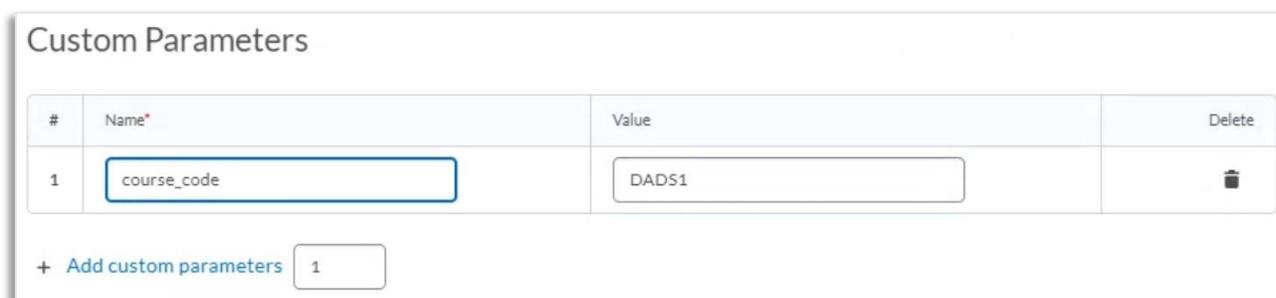
Each SIMTICS module has a unique name that you can use. In the second field, paste the same URL that you set up in the external tool setup in the previous section: <https://lti.simtics.com/api/v1/new>

4. Ensure the "Tool consumer key/secret" radio button is selected. This will use your keys from the Global External Learning Tool you set up earlier. (No need to add the keys again here.)



5. Now add a single Custom Parameter in line 1. It may prompt you to reload the page.

- Under the "Name" column, input the lowercase text "course_code" - this is one of the available parameters in the SIMTICS LTI interface.
- The Value is the unique code of the SIMTICS module you wish this new link to launch. Refer to the spreadsheet with the codes for the modules your school has purchased access for.



Custom Parameters

#	Name*	Value	Delete
1	<input type="text" value="course_code"/>	<input type="text" value="DADS1"/>	

+ Add custom parameters

For this example, we used the code "DADS1", but just replace this with the UPPERCASE code for one of the SIMTICS modules that your school is purchasing access for. The SIMTICS Tutorial module, "TUT" is always a good one to use if you are testing.

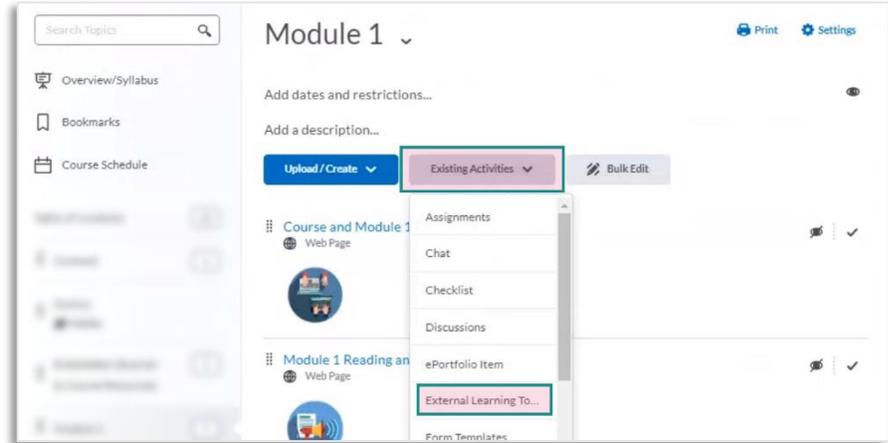
6. Select the "Use tool provider security settings". Again, this will use the security settings you set up for the Global External Learning Tool before.
7. Save and Close

Security Settings

Use tool provider security settings
 Use link security settings

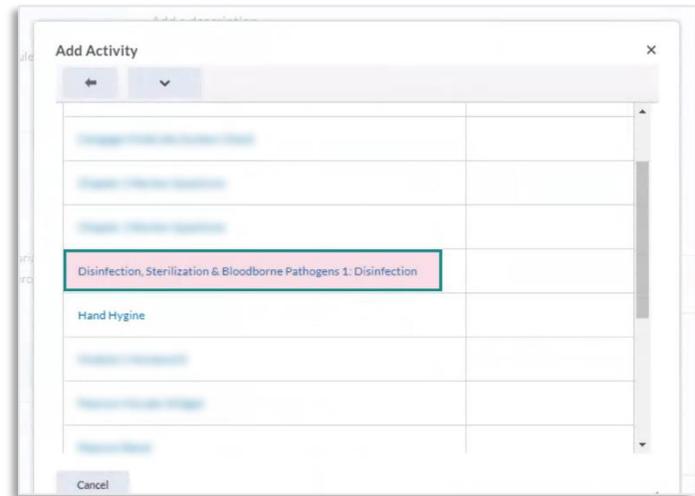
Step 3: Create a course with a SIMTICS module included

1. In a new course/module within D2L Brightspace, add an existing activity, and select External Learning Tool

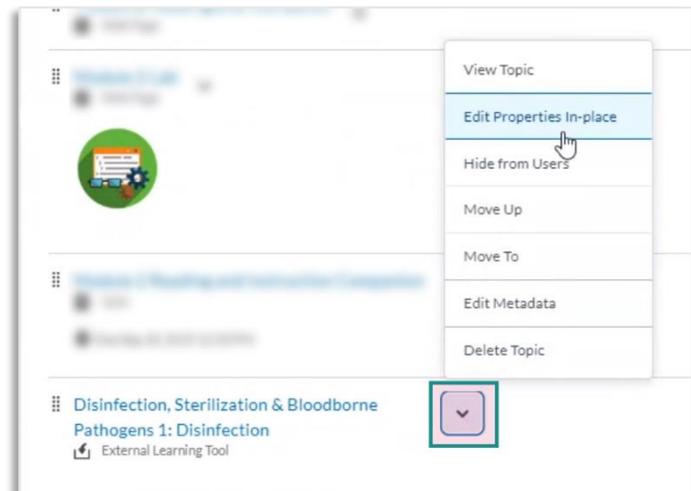


2. Select the link you created in the previous step.

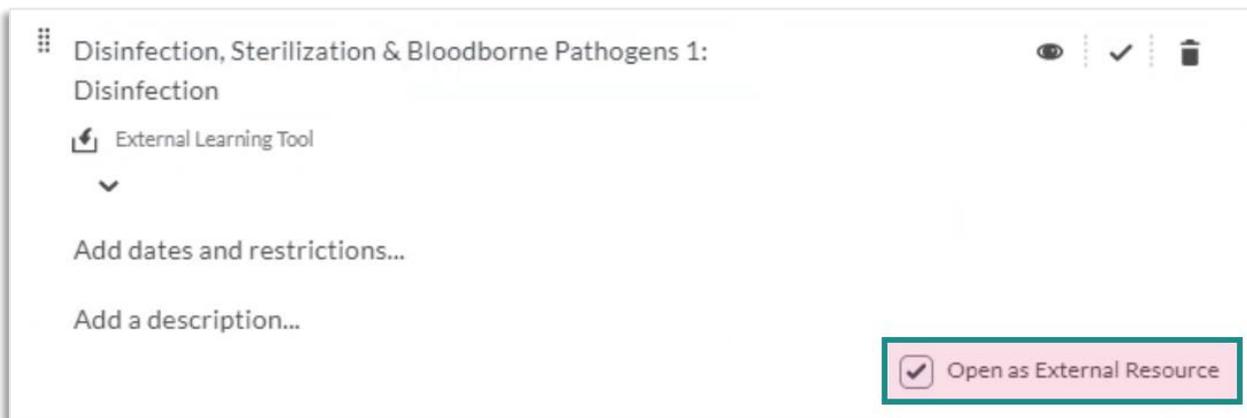
You will need to create a new link for every module. For example, you can see how there are two SIMTICS modules displaying here, as two separate links were created.



3. Once created, click the down-arrow next to the new external learning tool object you created. Then, select Edit Properties In-Place.

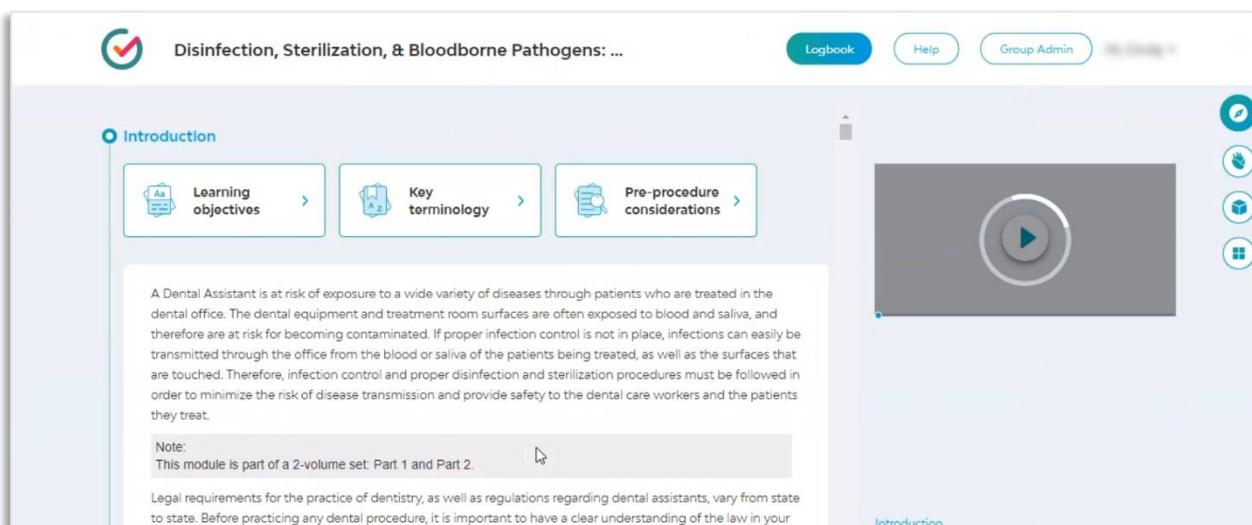


4. Lastly, check the box "Open as External Resource":



This will launch SIMTICS in a new window, allowing for a full-screen user experience. Please note that some users may have errors when using SIMTICS within the same window as D2L Brightspace, depending on the device they use, so it is always recommended to use this option.

5. All done! Now check that the module link is working as intended. You should see something similar to the screenshot below – however the module you see will be directly related to the course code you used in the custom parameters for this step so, for example, if you used module code "TUT" you will see the SIMTICS Tutorial.



If you don't see the module you expect, or if no module launches at all, go back and check that you used the correct module code.

Using Optional Custom Parameters in D2L

Optional custom parameters allow you to control elements or behavior of the SIMTICS module, such as what scores are passed back, what the student can see, and more.

Below is a list of custom parameters that can be used within D2L. **Please check out the separate guide, "Customizing the SIMTICS Setup in your LMS", which covers what each of these parameters do in more detail.**

- quiz=true
- learnmode=true
- practicemode=true
- sendmaxscore=true
- testmode=simulation
- testmode=simulation_with_content
- testmode=quiz
- scenario=n (values can be 1, 2 or 3)
- default_view=xxx (values can be anatomy/simulation/quiz)
- quizmode=xxx (Values can be: owl, flash)
- allow_repeat=true
- group=xxx

Note: As shown above, all parameters within D2L MUST be prefixed with "custom_" for them to take effect.

If you would like to use more than one parameter, add additional fields to the custom parameter table

Name	Value
course_code	TUT
testmode	simulation_with_content
default_view	explore

Managing user accounts after D2L integration

Once integration is complete, students and instructors will have access to SIMTICS through the links you have set up in D2L

IMPORTANT: Students should now use D2L as their sole method of access to SIMTICS as:

- A new SIMTICS account is set up when a user clicks on their first SIMTICS link in D2L. This permanently connects the user's new SIMTICS account to their account on D2L, which enables single sign-on and score pass-back to D2L's gradebook. We refer to this as a SIMTICS LTI account.
- This LTI account is different from (and is not linked to) any *existing* instructor or student accounts that were previously provided by SIMTICS (eg. for a pilot). So if any of your users already had a SIMTICS account, they now have two SIMTICS accounts – direct and LTI.
- Students should now only access SIMTICS from D2L. If students log in directly at the SIMTICS website, instead of going through D2L, scores cannot automatically transfer to the gradebook.
- If you have the automatic reporting system feature enabled (see the end of the introduction section of this document), instructors can use the same D2L links to access the reporting system.
- If you do not have the automatic reporting system feature, instructors can use either account, however to access the GAR System they will need to log in separately at <https://group.simtics.com> with a valid username provided by SIMTICS.

Quick Tips

- If a student exits a Simulation before their score is displayed on their screen, the score won't be calculated/logged and can't be transferred to D2L. They need to always check that their score displays before they move on to another component or exit SIMTICS entirely. It can sometimes take up to 10 minutes for the score to be updated in D2L.
- The SIMTICS LTI usernames are auto-generated based on your school's id in our system plus user id information that is passed from D2L. With SSO, end users don't need to know these auto-generated usernames, however faculty / administrators will see them if they use the SIMTICS GAR system.
- If you have introduced this D2L integration partway through a school year and you need to retain student logbook data from previously existing accounts, you can request for the students' original and LTI accounts to be merged. The older merged data will not be transferred to the gradebook, however, and will only be viewable from the GAR System.

If you encounter any problems with these steps, or have any questions, please contact us using the chat bot on our [website](#) or the contact form at www.simtics.com/contact/