

# Integrating SIMTICS into Moodle using an External Learning Tool

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

Please ensure you have at least course admin privileges to the courses in Moodle 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/](http://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 Moodle

Once the integration is set up:

- SSO will be operational - students will only need to log into Moodle 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 Moodle when the student logs out of SIMTICS and returns to Moodle.

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 Moodle, 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/](http://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 Moodle 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 (or equivalent) in Moodle. When a student first accesses SIMTICS via Moodle, 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](mailto:benny@simtutor.com) if you would like to have this set up, or you'd like to know more.

## Step 1: Setting up the External tool for first time use

Adding a new External tool ⓘ

Expand all

General

Activity name \*

Preconfigured tool ⓘ Automatic, based on tool URL + ⓘ x

Select content

Tool URL ⓘ

Shared secret ⓘ Click to enter text ⓘ

Show more...

Privacy

Grade

Common module settings

Restrict access

1. Within a course, add a **New External Tool** (see above)
2. Next to Preconfigured tool, hit the + next to the dropdown.
3. Fill out the form with the information below:

**Tool name:** SIMTICS

**Tool url:**

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

**Tool Description:** Can leave blank

**Consumer Key & Shared Secret:** Paste the consumer key and shared secret key that you have been given for your organization. (These keys were emailed to you. Contact us at [www.simtics.com/contact/](http://www.simtics.com/contact/) if you need these resent)

**Custom Parameters:** Leave these blank here

**Default Launch Container:** We recommend launching SIMTICS in a New Window

External tool configuration

Tool settings

Tool name \* ⓘ

Tool URL \* ⓘ

Tool description ⓘ

Consumer key ⓘ

Shared secret ⓘ Click to enter text ⓘ

Custom parameters ⓘ

Default launch container ⓘ Embed, without blocks ▾

Show more...

Services

<b>Fool name</b> * ?	<input type="text" value="SIMTICS"/>
<b>Fool URL</b> * ?	<input type="text" value="https://lti.simtics.com/api/v1/new"/>
<b>Fool description</b> ?	<input type="text"/>
<b>Consumer key</b> ?	<input type="text" value="XXXXXXXXXXXXXXXXXXXX"/>
<b>Shared secret</b> ?	<input type="text" value="XXXXXXXXXXXXXXXXXXXX"/>
<b>Custom parameters</b> ?	<input type="text"/>
<b>Default launch container</b> ?	<input type="text" value="Launch in new window"/>

It should look similar to the image above.

4. Scroll to the bottom and save.

## Step 2: Using the External tool within the course

Adding a new External tool

General

Activity name

Preconfigured tool  + \* x

Tool URL

Shared secret

Privacy

Grade

Common module settings

Restrict access

Activity completion

1. Now that we have SIMTICS as a preconfigured tool, select it from the dropdown as seen above.
2. Set an activity name according to the SIMTICS module to which you want to link. (This example above shows how to set up a link for the tutorial module with the code TUT. You should use a module and code from the list that SIMTICS Customer Support has sent you - or the SIMTICS Tutorial module (as shown in the previous image), which is a good one to use for testing. The Title should be different for each activity so you can distinguish between them. Each SIMTICS module has a unique name that you can use.
3. Click **show more...** above the word privacy. (see next page for image)
4. We need to add the course code of the module we wish to show for this specific activity. Add the test "course\_code=XXX". Change the XXX for the 3-5 letter SIMTICS module code that you wish to display. The example below will show the tutorial module.
5. Click save and preview the module.

\* ?  Display activity description when launched

Preconfigured tool ? SIMTICS + \* X

Select content

Tool URL ?

Secure tool URL \* ?

Launch container \* ? Default

Consumer key \* ?

Shared secret ? [Click to enter text](#) ✎ 🔍

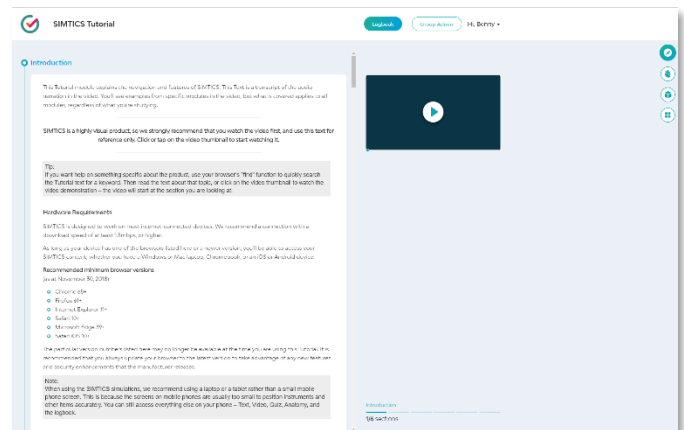
Custom parameters \* ? course\_code=TUT

Icon URL \* ?

Secure icon URL \* ?

Show Less...

6. All done! Now check that the module link is working as intended. Run the newly created link. 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 another SIMTICS module code, you will see that module instead.



If you do not see the module you expect, or if no module launches at all, go back and check that you used the correct module code, or the correct LTI keys have been used.

## Using Optional Custom Parameters in Moodle

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 Moodle. **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

If you would like to use more than one parameter, separate them with a new line, then continue adding your parameters. Here is an example:

```
course_code=TUT
testmode=simulation_with_content
default_view=explore
```

## Managing user accounts after Moodle integration

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

### **IMPORTANT: Students should now use Moodle 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 Moodle. This permanently connects the user's new SIMTICS account to their account on Moodle, which enables single sign-on and score pass-back to Moodle'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 Moodle. If students log in directly at the SIMTICS website, instead of going through Moodle, 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 Moodle 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 Moodle. 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 Moodle.
- The SIMTICS LTI usernames are auto-generated based on your school's id in our system plus user id information that is passed from Moodle. 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 Moodle 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/](http://www.simtics.com/contact/)**