



Best Practices

Successful Implementation of Labster in Your Course

Dear Course Instructor,

The following is an outline of valuable experiences from previous customers that advises you in how to make Labster’s simulations part of your course with high student engagement, satisfaction, and learning outcome. Should you have any questions please feel free to reach out to our Customer Success Team at support@labster.com, or dial us at [+45 5031 1163](tel:+4550311163).

CONGRATULATIONS! You have decided to implement an innovative educational tool in your course which will enable your students to explore laboratory techniques in a 3D immersive environment. Student engagement is a common struggle for institutions. Based on our experience, the following points should be considered as best practices for implementing Labster in a course and maximizing student engagement:

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How are the Simulations Used?

Labster creates simulations that provide a realistic lab experience. This allows students to gain experience in a laboratory setting so they can become familiar with procedures and techniques before they enter a physical lab. Three cases of implementing the simulations are shown below:

Standalone

- Gaining experience on inaccessible equipment
- Visualizing concepts with molecular scaled animations
- Preventing safety concerns

Laboratory Preparation

- Practice for laboratory methods and instrumentation
- Sample preparation
- Instrumentation data interpretation and manipulation

Hybrid

- Gain experience in using techniques for different scenarios
- Practice techniques previously presented in a lecture where instrumentation is unavailable

Before Course Start

One of Labster's Implementation Specialist will be assisting you in implementing Labster simulations within your course. Labster supports curriculum mapping and can provide a detailed list of quiz questions available for each simulation in order for the course responsible to access the simulations more accurately and efficiently. You will be provided with templates in order to gather all the required information.

Labster requires the following information before the course start date:

- Expected number of students
- Simulations used in the course
- Schedule for when the simulations are used and if each simulation should only be visible at a fixed time period (e.g. due to grading)
- Teachers/TA's that need access to the simulations

At Course Start

Student communication about Labster is key for high engagement. It is recommended to introduce Labster with clear expectations in three complementary communications methods:

- 1. During the first lecture of the semester. Your Implementation Specialist can provide introductory videos that can be used to showcase Labster.**
- 2. Via an email in order to make sure that all of them have the information. Please review Student Communication document and customize to your course.**
- 3. Via a post on your institution LMS.**

The course responsible should communicate to the students how Labster will be used in the course. This should include 4 main points:

- Overall expectation: training before entering the lab, training on inaccessible equipment, knowledge reinforcement etc.**
- Course set-up: classroom sessions or individual sessions at home**
- Timeline: deadlines assigned to each simulations**
- Benefits: grade percentage, badge, pre-requisite before mandatory activity, essential learning to take written exam etc.**

Overall, when Instructors use these mentioned practices, they have found a significantly higher adoption rate.

Setup as a Mandatory Syllabus Objective

These are several possible setups for implementing Labster simulations in your course. Our suggestions include:

- Associate a grade percentage to the completion of a simulation, typically 5-10 %**
- Associate a Badge to the completion of a simulation**
- Associate bonus points or supplementary points**
- Average students simulation score (e.g. three first attempts for laboratory grade)**
- Students can take the simulations during classroom lecture**
- Students are required to complete the simulations before they are permitted to complete a graded/mandatory activity (e.g. practical laboratory)**
- Clearly communicate that some of the graded exam/quiz/written assignment will be directly based upon the simulation**
- ation content and questions**
- Use simulations as preparation for research project to help establish student score understanding**

Setup as an Open Resource

Some of our universities have been successful when using Labster as an open resource however, many universities find that student engagement can be significantly lower if the simulations have not been assigned as a mandatory part of course. Therefore, we highly recommend implementing Labster's simulations following the above recommendations. If you have questions, please contact your Implementation Specialist for additional suggestions and action plan at support@labster.com.

Doing Classroom Sessions versus Home Sessions

Please also carefully consider whether your students are to take the simulations when in a classroom lecture, or if they should instead be taking the simulations at home or in smaller groups at campus to allow for a more self-paced environment.

In general, sessions at home or on-campus individually or in small groups are encouraged as we often see that students benefit the most by using the simulations in their own time. That is, since it allows them to take the simulations at the pace that suits them the most, while also allowing for more efficient face-to-face time between students and professors when in the classroom.

We recommend to allow students at least 7 days to complete the simulations, as this gives them time should they have any question for the professor or for Labster Support.

Home sessions are therefore in general recommended unless you do not have possibilities for making Labster a mandatory component in your course. In this case, having the students take the simulations in a scheduled classroom lecture can be key for higher student engagement.

After the Course

To make sure your students have had a wonderful experience, we will contact you to arrange a feedback session. During this meeting, we will go through your and your students experience with Labster.

Agenda for the Feedback Session

- **Student Engagement Numbers and Analytics**
- **Instructor and Student Feedback (embedded surveys)**
- **Troubleshooting and error experiences**
- **Lessons Learned and Next Steps**

