



# Lambda Learn (Moodle)

## Gradebook Basics

# WELCOME TO THE LAMBDA LEARN GRADEBOOK BASICS!

In this article you will learn:

- How to configure the online gradebook in a simple fashion
- How to manually add graded items to the gradebook

This article was purposely kept simple. When learning to use any technology, a new user can easily feel overwhelmed. A Lambda Learn (Moodle) LMS comes loaded with advanced functionality, but instructors must first feel confident using the basic features. After establishing a knowledge base, instructors can easily search to find information about a specific change to implement.

## INTRODUCTION

Setting up the online gradebook from the start can prevent avoidable problems from occurring while the course is underway.

As you work with the Lambda Learn (Moodle) gradebook keep in mind these commonly used terms:

- **Grader report**—This is generally referred to as the gradebook. The first tab shows all the students enrolled in your course, all the graded items, and the grades.
- **Grade items**—A grade item is each gradable course activity, such as a quiz or an assignment. You can modify the settings of each item to determine how it is graded.
- **Grades**—Grades are scores earned by students on an activity or graded item. You can modify grade settings to change how grades are displayed to users, including locking and hiding functions.
- **Grade categories**—A grade category groups grade items together. You can set the aggregation and the way graded items display.

## PLANNING TO USE THE GRADEBOOK

Before you open the gradebook in Lambda Learn (Moodle), plan what you're going to do. Focus on key strategies for success when working with the Lambda Learn (Moodle) gradebook, including:

- **Organization**—Organize the graded items in your course to make it easier to manage graded activities and calculate final grades for your students. This means creating grade categories in your gradebook. For example, if you place all quizzes in a category called "Quiz," you can do what you want to the total quiz score without affecting grades for other activities. You cannot do that without using categories.
- **Grade calculation**—In Lambda Learn (Moodle), "aggregation" refers to grade calculation. There are many ways to assign and aggregate grades. Some grades setting are determined

at the activity level, some at the category level, and some at the course level. You also can decide whether to give extra credit, to grade using peer evaluation, and to use letter grades or scales, either for a particular category or for the course total.

- **Appearance**—You can set up your course to let students see their grades as they complete activities, or you can decide to hide grades until a certain point. You can also set up grade reports the way you want to see them.

The following outlines a process to implement these strategies for success:

- **Before the course starts:**
  1. Outline a grading plan of your course activities and point values or scales based on your syllabus
  2. Execute the grading plan in the Lambda Learn (Moodle) gradebook:
    - a. Choose course aggregation
    - b. Create categories and assign aggregation methods for individual categories
    - c. Create course activities
    - d. Create manual grade items
- **During the course:**
  - Assign grades
  - Review grades
  - Confirm or adjust grades
  - Show/hide view of grades
- **At the end of course:**
  - Review grades
  - Confirm or adjust grades
  - Report final grades
  - Backup and archive a copy of your course grades and keep the file in a safe place
  - Unenroll students, so that you can start fresh for the next class

## CREATING A GRADING PLAN

Use your syllabus to outline a grading plan of your course activities and point values or scales. Create an outline similar to the following example, which provides the information you need to define settings in Lambda Learn (Moodle).

### Grading Plan

Activity	Points	Category
Friday Quizzes	75	Quizzes
Mid-term Exam	50	Exams
Construction Project	75	Projects
Barn Design Workshop	35	Projects

Electrical Plan	15	Projects
Research Project	50	Projects
Forum	75	Participation
Attendance	75	Participation
Final Exam	100	Exams
<b>TOTAL</b>	<b>550</b>	<b>90-100% = A 80-89% = B 70-79% = C 60-69% = D 0-59% = F</b>

## CHOOSING AN AGGREGATION METHOD

The term “aggregation method” refers to how Lambda Learn (Moodle) calculates student grades. Each category in your Lambda Learn (Moodle) gradebook has an aggregation method setting. Best practices include choosing only one or two aggregation methods and sticking with them throughout your course. Set up a grading system that aligns with your syllabus and overall goals for the course.

This article describes Lambda Learn (Moodle)’s three most commonly used aggregation methods—*Simple Weighted Mean of Grades*, *Weighted Mean of Grades*, and *Natural Aggregation*.

### Simple Weighted Mean of Grades

- **Why use Simple Weighted Mean of Grades?**—Use this choice when you want grades to have weighted input to the category total based on the amount of points the activity is worth. This works best for the instructor who sets all activities to be worth different point values, but wants an “average” for the category or course total. The Simple Weighted Mean of Grades aggregation method automatically gives grades with a higher maximum total a higher weight.
- **How to use Simple Weighted Mean of Grades**—Use this method when the graded items worth the most points are the most important to the overall grade. If you want control over the weighting of each activity or graded item, consider using the Weighted Mean of Grades aggregation instead.
- **How grades are calculated**—For each activity, the points earned are divided by the points possible, and then multiplied by the activity’s maximum grade minus the minimum grade. The totals for the activities are added together and divided by the total number of points possible at that given time.

If the minimum points possible is zero, the result will be the same as Natural aggregation. However, the Natural aggregation method has limitations that will make Simple Weighted Mean the better choice in most cases.

- **Example of Simple Weighted Mean of Grades**—

This example uses three activities.

- Activity A is worth 0-10 points
- Activity B is worth 0-100 points
- Activity C is worth 0-50 points

Using the Simple Weighted Mean of Grades, the grade a student earns on Activity B will carry the most weight because it has the highest maximum points possible.

For a specific student who earns these grades for the three activities:

- Activity A—10 points earned out of 10 possible
- Activity B—90 points earned out of 100 possible
- Activity C—44 points earned out of 50 possible

This student's grade will be calculated as:

$$[(10/10 \times 10) + (90/100 \times 100) + (44/50 \times 50)] / 160 = \mathbf{90\%}$$



## NOTE

Do not change the course and category totals in the Lambda Learn (Moodle) gradebook. Leave them at 100.00.

### Weighted Mean of Grades

- **Why use Weighted Mean of Grades?**—Use this method when creating multiple categories or activities that need to have different weights in relation to the total grade. This method allows you to customize the weight given to each category and/or activity, regardless of the point value given to the activity.
- **How to use Weighted Mean of Grades**—If you want your course to have categories with specific weights, set your **main course aggregation** to Weighted Mean of Grades. The categories within your gradebook will have a weight box where you type in the weight for each category. Make sure your weights are distributed appropriately, and equal up to 100% total. Weighted Mean of Grades can be used for both overall course aggregation and individual categories. Keep the course total and each category total as 100.00.

- **How grades are calculated**—For each activity, the points earned are divided by the points possible, and then multiplied by the desired weight of the activity, expressed as a percentage. The resulting values for each activity are added together to find the final grade.
- **Example of Weighted Mean of Grades**—  
This example uses four categories with multiple assignments within each category. In this example, the instructor would like class assignments to carry the most weight, so assigns the following weights to each category.
  - Category 1 Assignments = 50%
  - Category 2 Attendance = 10%
  - Category 3 Unit Exams = 30%
  - Category 4 Semester Exam = 10%

If the student receives the following overall grades within each category, his or her grade will be calculated as:

- Category 1 Assignments = 100%
- Category 2 Attendance = 100%
- Category 3 Unit Exams = 50%
- Category 4 Semester Exam = 50%

$$(100/100 \times 50\%) + (100/100 \times 10\%) + (50/100 \times 30\%) + (50/100 \times 10\%) = 80\%$$

Since the assignment category carried the most weight, the student still has a passing grade even though the student did not perform well on the unit exams and the semester test.

If all the grade items within a category are of equal weight, you can use Simple Weighted Mean of Grades within each category with the overall course aggregation as Weighted Mean of Grades. **It is not recommended to use more than two aggregations.** Keep the gradebook simple.

The following outlines an example of a gradebook:

**Course Aggregation: Weighted Mean of Grades**

**Category 1: Simple Weighted Mean of Grades Weight: 50 %**

Category total: 100.00

- Grade item 1: 100 points
- Grade item 2: 50 points
- Grade item 3: 25 points
- Grade item 4: 10 points

**Category 2: Simple Weighted Mean of Grades Weight: 20%**

Category total: 100.00

- Grade item 1: 20 points
- Grade item 2: 50 points
- Grade item 3: 25 points

**Category 3: Simple Weighted Mean of Grades Weight: 30%**

Category total: 100.00

- Grade item 1: 100 points
- Grade item 2: 50 points
- Grade item 3: 25 points
- Grade item 4: 10 points

Notice the weights entered equal 100%.



## NOTE

Since the main course aggregation is Weighted Means of Grades, if a student does not perform well on an activity with the greatest weight, the resulting final grade will be lower than a course with the main aggregation set as Simple Weighted Mean of Grades.

## Natural Aggregation

- **Why use Natural aggregation?**—Teachers who give an arbitrary number of points to all assignments and want a simple total of points as the final grade should use this method.
- **How to use Natural aggregation**—There is no extra step required for this aggregation method, but there are some limitations. Some gradebook functionalities do not work when you use the Natural aggregation method:

Scales will not be used in calculating totals. You can use them in your course, but they will not be included properly in calculating a course or category total.

The “Aggregate only non-empty grades” feature will not work. This means if Activities A and B are completed, but Activity C is still underway and does not have a grade, the calculation that shows will be erroneously low.

- **How grades are calculated**—Natural aggregation adds together all point values earned and then divides by the total possible points. The total is shown as a point value, or can be adjusted to display as a percentage.
- **Example of Natural aggregation**—

Again using the same three activities:

- Activity A is worth 0-100 points
- Activity B is worth 0-50 points
- Activity C is worth 0-50 points

And the same student who earns these grades for the three activities:

- Activity A—95 points earned out of 100 possible
- Activity B—50 points earned out of 50 possible
- Activity C—45 points earned out of 50 possible

This student’s grade will be calculated as:

$$(95 + 50 + 45) / 200 = 95\%$$

## OPENING THE GRADEBOOK AND SELECTING MAIN COURSE AGGREGATION

Now that you have a plan, use the following steps to access the gradebook in Lambda Learn (Moodle) and set your main course aggregation:

Step	Action	Notes
1.	From the course page, click on the <b>Course Management</b> button in the upper left. Under the User Links heading, click <b>Grades overview</b> .	This will open the <b>Grader report</b> . By default, the display shows the <b>View</b> tab. Other displays and functionality are available by clicking other tabs and settings on the page.
2.	To set your main course aggregation, click on the <b>Setup</b> tab.	The <b>Gradebook setup</b> page will display.
3.	In the <b>Actions</b> column next to your course name, click the <b>Edit</b> dropdown menu, and then click <b>Edit settings</b> .	Click edit settings. Next to your course name, select the desired course aggregation from the dropdown menu.



		<p>On the <b>Gradebook setup</b> page, leave the <b>Course total</b> at 100.00. If you choose <b>Weighted Means</b>, you will add weights once you create your grade items or categories.</p>
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## CREATING CATEGORIES IN THE GRADEBOOK

Categories can be used to organize the gradebook in many different ways and for many different purposes. In some instances, categories are required for configuring the gradebook for specific uses. Common ways to divide the gradebook into categories include:

- **Activity type**—This is almost always the categorization type used with a weighted gradebook. It allows you to group all like activity types together in one category with one aggregation method. For example, you could create a quiz category for all of your quizzes.
- **Time**—You may want to group your class activities together according to the term in which they occur. For example, you could create two categories named Semester 1 and Semester 2.
- **Grade status**—This method groups activities by those that have been graded and those that are not yet graded. This division helps students see an accurate grade at any given time, although it is not the only way to achieve this.

When starting out with the gradebook in a course, the only category will be the course category, which is considered the parent category of any new categories you create. You could potentially add sub-categories, where you would need to assign one of your new categories as a parent. However, this is only recommended for those who are experienced with the gradebook and how it functions.

### Considerations

When it comes to aggregations and using the gradebook, consider the following:

- Start simple and slowly add in new functionality as you learn.
- Choose an aggregation that you understand. If you don't understand it (and can't explain it), then your students won't either.
- If you want to use extra credit, choose the aggregation methods that work best with it (Simple Weighted Mean of Grades and Natural aggregation).
- When you want to try something new, research online using resources such as Lambda Learn (Moodle) Docs or YouTube.

To add a category to the gradebook, use the following steps:

Step	Action	Notes
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1.	<p>From the course page, click on the <b>Course Management</b> button. Under User Links, click <b>Grades overview</b>.</p>	<p>This will open the <b>Grader report</b>. By default, the display shows the <b>View</b> tab.</p> <p>Other displays and functionality are available by clicking other tabs and settings on the page.</p>
2.	<p>Click on the <b>Setup</b> tab. At the bottom of the page, click the <b>Add category</b> button.</p> <p>The page includes two sections—<b>Grade category</b> and <b>Category total</b>. Click the <b>Show more</b> link, which reveals additional settings.</p>	<p>This will open a page with settings to add a new category to the gradebook. This page allows you to add a category using primarily default settings, or to customize the settings in more detail.</p>
3.	<p><b>Section:</b> Grade category</p> <p><b>Field:</b> Category name</p> <p>Enter a name for your category.</p>	<p>Give the category the name you want it to display, such as “Quizzes,” “Semester 1,” “Unit 1,” etc.</p>
4.	<p><b>Section:</b> Grade category</p> <p><b>Field:</b> Aggregation</p> <p>Select the desired aggregation method for this category total.</p>	<p>This field determines how grades in a category are combined to calculate the total for the category.</p> <p>If you intend to have weights for the categories, select <b>Weighted Mean</b>.</p> <p>If you want an average of the grade items in the category, select <b>Simple Weighted Mean</b>.</p>
5.	<p><b>Section:</b> Grade category</p> <p><b>Field:</b> Exclude empty grades.</p> <p>Check the box to enable this functionality.</p>	<p>If this setting is enabled, Lambda Learn (Moodle) will not use grades that don’t have a value yet when calculating the category aggregation. (Natural aggregation is not an option.)</p> <p>If not enabled, Lambda Learn (Moodle) will count the empty value as a minimal grade, for example 0 for an assignment graded between 0 and 100.</p>

6.	<p><b>Section:</b> Grade category</p> <p><b>Field:</b> Include outcomes in aggregation Check the box to enable this functionality. (Please note this is atypical.)</p>	<p>Outcomes are an alternate method of grading in Lambda Learn (Moodle) that use specific descriptions of knowledge or skills a student has demonstrated at the completion of an activity or course.</p> <p>If you are using outcomes in your course, you may want to include them in your aggregation. If you choose to enable this setting, be aware that it may have an unintended, or undesired, effect on the category or course total.</p>
7.	<p><b>Section:</b> Grade category</p> <p><b>Field:</b> Drop the lowest Type in the number of the lowest grades to be dropped.</p>	<p>This setting enables a specified number of the lowest grades to be excluded from the aggregation. For example, if the category includes multiple assignments, you can decide that all grades should be included in the calculation (select 0, the default selection), or you may want to drop the lowest grade, the lowest two grades, or more.</p>
8.	<p><b>Section:</b> Category total</p> <p><b>Field:</b> Grade type Select the desired grade type for this category from the dropdown list.</p> <p>(Choosing <b>Scale</b> in the <b>Grade type</b> dropdown menu enables the <b>Scale</b> dropdown menu below, which includes five choices.)</p>	<p>There are four options:</p> <ul style="list-style-type: none"> <li>● <b>None</b>—No grading</li> <li>● <b>Value</b>—A numerical value with a maximum and minimum (typically used)</li> <li>● <b>Scale</b>—An item in a list. If you choose scale, you will then be able to choose the scale you want aligned to this category.</li> <li>● <b>Text</b>—Feedback only</li> </ul> <p>Only <b>Value</b> and <b>Scale</b> grade types may be aggregated. Certain fields in this section will be deactivated or activated, depending on the selection for the <b>Grade type</b> option. Remember, this selection is the grade type for the category. The grade type for any activity-based grade items within the category is set on the activity settings page.</p>

9.	<p><b>Section:</b> Category total</p> <p><b>Field:</b> Maximum grade Enter a value for the maximum grade value for this category.</p>	<p>Changes are not recommended. This setting determines the maximum grade when using the value grade type. The default setting is 100 and, in most situations, there is no real reason to change.</p>
10.	<p><b>Section:</b> Category total</p> <p><b>Field:</b> Minimum grade Enter a value for the minimum grade value for this category.</p>	<p>Changes are not recommended. This setting determines the minimum grade when using the value grade type.</p>
11.	<p><b>Section:</b> Category Total</p> <p><b>Field:</b> Grade to pass Enter a value that must be achieved for a passing grade in this category.</p>	<p>This setting determines the minimum grade required to pass. The value is used in activity and course completion and in the gradebook, where pass grades are highlighted in green and fail grades in red.</p>
12.	<p><b>Section:</b> Category total</p> <p><b>Field:</b> Grade display type Select the desired display type for this category from the dropdown list.</p>	<p>This setting determines how grades are displayed in the grader and user reports. There are multiple options available.</p> <ul style="list-style-type: none"> <li>● <b>Real</b> grades are numerical</li> <li>● <b>Percentages</b> show percentage</li> <li>● <b>Letter grades</b> use letters or words to represent a range</li> </ul>
13.	<p><b>Section:</b> Category total</p> <p><b>Field:</b> Overall decimal points Select the desired display of decimal points for this category from the dropdown list.</p>	<p>This setting determines the number of decimal points to display for each grade. It has no effect on grade calculations, which are made with an accuracy of five decimal places.</p>
14.	<p><b>Section:</b> Category total</p> <p><b>Field:</b> Hidden, Hidden until Check the box to enable this functionality. You may also enter a date when the category total will be displayed.</p>	<p>If Hidden is checked, grades are hidden from students.</p> <p>A “Hidden until” date may be set, if desired, to release grades after grading is completed. You must check the Enable box associated</p>

		with the date fields to activate the date fields.
15.	<p><b>Section:</b> Category total</p> <p><b>Field:</b> Lock after</p> <p>Check the box to enable this functionality. You may also enter a date when the category total can be unlocked.</p>	If <b>Locked</b> is checked, grades will no longer automatically update based on the related activity. Locking prevents the ability to change grades, and it disables quick grading and quick feedback in the <b>Grader report</b> .
16.	<p><b>Section:</b> Category total</p> <p><b>Field:</b> Weight</p>	This determines the relative value of multiple grade items in a category or course.
17.	Click the <b>Save changes</b> button at the bottom of the page.	The <b>Setup</b> tab of the <b>Grader report</b> displays with the new category.
<i>Repeat steps 1 through 16 above to create additional categories.</i>		

## CREATING MANUALLY GRADED ITEMS

Graded activities that are not automatically added to the Gradebook can be added manually. Common manual grade items could include attendance, projects not using the assignment activity, or a written final exam. To manually grade items, use the following steps:

Step	Action	Notes
1.	From the course page, click on the <b>Course Management</b> button. Under the User Links heading, click <b>Grades overview</b> .	This will open the <b>Grader report</b> . By default, the display displays the <b>View</b> tab. Other displays and functionality are available via tabs and settings on the page.
2.	On the <b>Grader report</b> page, click the <b>Setup</b> tab.	This will display the <b>Gradebook setup</b> page.

3.	At the bottom of the page, click the <b>Add grade item</b> button.	This will open a page with settings to add an item to the gradebook.
4.	In the <b>Item name</b> field, type in the name for the grade item.	For example, type "Attendance."
5.	Select the desired <b>Grade type</b> from the dropdown field.	For a manually added grade item, there are 4 grade types available: <ul style="list-style-type: none"> <li>• <b>Value</b>—The grade is a numerical value with a minimum and maximum, such as 0-100.</li> <li>• <b>Scale</b>—The grade is an item from a list, as selected in the Scale field on this page.</li> <li>• <b>Text</b>—Feedback is provided, but no grade is given.</li> </ul> <p>Lambda Learn (Moodle) will include value and scale grade types in the grade aggregation.</p>
6.	If you choose the <b>Scale</b> field, select the desired scale list.	This field will only be active if <b>Scale</b> was selected for the <b>Grade type</b> . There are five options: <ul style="list-style-type: none"> <li>• Use no scale</li> <li>• Separate and Connected ways of knowing</li> <li>• Deficiente/Regular/Excelente</li> <li>• Default competence scale</li> <li>• Unsatisfactory, Satisfactory</li> </ul> <p>Access the setting for the various scale types by clicking the <b>Scales</b> tab.</p>
7.	For the Maximum grade field, enter the maximum number of points that can be given for this graded item.	This field will only be active if Value was selected for the Grade type.
8.	For the Minimum grade field, enter the minimum number of points that can be given for this graded item.	This field will only be active if Value was selected for the Grade type.

9.	Click the Hidden checkbox if you want the grade for this item to be hidden from the student.	The default is to allow students to view all grades. You may also add a Hidden until date if you would like to release grades only after grading is completed. The date fields are accessed by clicking the Show more link at the end of the list of settings.
10.	If you want to prevent automatic updating by the related activity, click the Locked checkbox.	
11.	If you want to prevent the weight from being automatically adjusted, click the Weight adjusted box.	Checking this box allows you to type a number in the Weight field. This figure determines the relative value of multiple grade items in a category or course.
12.	Click Save changes.	The new item is saved. The display returns to Gradebook setup page, where the new item has been added to the table of graded items.

In this example, the course grade consists of only eight grade items. Each item has been assigned a particular weight.

Gradebook Category	Weight
Projects	40
Participation	20
Exams	40

## SUMMARY AND RESOURCES

This article described a basic use of the Lambda Learn (Moodle) gradebook. The gradebook has many other options to help you track and award student achievement. As you become familiar

with using the gradebook, you should explore those options that align with the way you prefer to manage your courses.