

6: GRADEBOOK BASICS

WELCOME TO THE MOODLE GRADEBOOK BASICS TUTORIAL!

In this tutorial, you will learn:

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

If you have not used one of CareerTech’s “How to Moodle” tutorials before, view the [instructions](#) for using it as a self-paced tutorial or as a resource for classroom instruction.

Before reading this tutorial, you should have a Moodle course or practice site and be familiar with:

- Setting up a course in Moodle
- Adding quizzes and activities to your course

NOTE: This tutorial was purposely kept simple. When learning to use any technology, a new user can easily feel overwhelmed. A Moodle LMS comes loaded with advanced functionality, but uncertain 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.

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INTRODUCTION

Setting up the Gradebook from the start can eliminate problems from occurring while the course is underway.

As you work with the 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**—This is what a student scores 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 even open the Gradebook in Moodle, plan what you're going to do. Focus on key strategies for success when working with the 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 tell Moodle that all your quizzes belong 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 Moodle, *aggregation* refers to grade calculation. There are lots of ways to assign and aggregate grades. Some of it is determined at the activity level, some at the category level, and some at the course level. You also can decide if you're going to give extra credit, grade using peer evaluation, and use letter grades or scales, either for a particular category or for the course total.
- **Appearance**—You can set your course up 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 your reports just the way you want to see them.

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

- ✓ Before the course starts:
 1. Using your syllabus, outline a grading plan of your course activities and point values or scales
 2. Execute the grading plan in the Moodle Gradebook:
 - a) Choose course aggregation
 - b) Create categories
 - 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
 - Allow/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

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 gives you the information you will need to define settings in 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
TOTAL	550	90-100% = A 80-89% = B 70-79% = C 60-69% = D 0-59% = F

CHOOSING AN AGGREGATION METHOD

The term “aggregation method” refers to how Moodle calculates student grades. Each Category in your 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 tutorial describes Moodle’s three most commonly used aggregation methods—Simple Weighted Mean of Grades, Weighted Mean of Grades, and Natural.

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 more points are 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 0, the result will be the same as Natural. However, the Natural 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 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 4 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 his unit exams and his 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: 100pts
- Grade item 2: 50pts
- Grade item 3: 25pts
- Grade item 4: 10pts

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

Category total: 100.00

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

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

Category total: 100.00

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

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

- **Why use Natural?**—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**—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 therefore does not have a grade, the calculation that shows will be erroneously low.
- **How grades are calculated**—Natural 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**—

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:

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

OPENING THE MOODLE GRADEBOOK AND SELECTING MAIN COURSE AGGREGATION

Now that you have a plan, use the following steps to access the Gradebook in Moodle and set your main course aggregation:

Step	Action	Notes
1.	<p>From the course page, go to the Administration block. Under Course Administration, click Grades.</p> <p>In the Boost theme, click on the course editing gear icon and select Gradebook Setup.</p>	<p>This will open the Grader Report. By default, the display shows the View Grader Report display. Other displays and functionality are available via tabs and settings on the page.</p> <p>If using the Boost theme, it will display the Gradebook Setup by default.</p>
2.	To set your main course aggregation, click on the Setup tab.	Click edit settings. Next to your course name, select the desired course aggregation from the dropdown menu. Leave the course total as 100.00. If you choose weighted means, you will add weights once you create your grade items or categories.

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 in certain ways.

Some 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 and put all your quizzes into it.
- **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, though 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 more.
- 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).
- When you want to try something new, research online using resources such as Moodle Docs, Moodlerooms Clickables, or YouTube.

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

Step	Action	Notes
1.	From the course page, go to the Administration block. Under Course Administration, click Grades . In the Boost theme, click the course editing gear icon and click Gradebook Setup .	This will open the Grader Report. By default, the display shows the View Grader Report display. Other displays and functionality are available via tabs and settings on the page.
2.	Click on the Setup tab. At the bottom of the page, click Add Category .	This will open a page with settings to add a category to the Gradebook. There are two sections— Grade Category and Category Total . Each section displays a “Show More” link. This allows you to add a category using primarily default settings, or to customize the settings in more detail by displaying all available settings with the Show More links. This table steps through all fields displayed when Show More is clicked.
3.	<i>Section: Grade Category</i> <i>Field: Category Name</i> Enter a name for your category.	Give the category the name you want it to display, such as “Quizzes,” “Semester 1,” “Unit 1,” etc.
4.	<i>Section: Grade Category</i> <i>Field: Aggregation</i> Select the desired aggregation method for this category total.	This field determines how grades in a category are combined to calculate the total for the category. If you intend to have weights for the categories, select Weighted Means. If you want an average of the grade items in the category, select Simple Weighted Means.

Step	Action	Notes
5.	<p><i>Section: Grade Category</i> <i>Field: Exclude empty grades.</i></p> <p>Mark the box to enable this functionality.</p>	<p>If this setting is enabled, Moodle will not use grades that don't have a value yet when calculating the category aggregation. (Natural is not an option.)</p> <p>If not enabled, Moodle will count the empty value as a minimal grade, for example 0 for an assignment graded between 0 and 100.</p>
6.	<p><i>Section: Grade Category</i> <i>Field: Include Outcomes in Aggregation</i></p> <p>Mark the box to enable this functionality.</p> <p>NOTE: This is atypical.</p>	<p>Outcomes are an alternate method of grading in 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><i>Section: Grade Category</i> <i>Field: Aggregate Including Subcategories</i></p> <p>Mark the box to enable this functionality.</p>	<p>Subcategories can be used to affect the overall grade, or only for organizational purposes. If you are using subcategories, and you want them to be included in the computed final grade for the course, you need to enable this setting.</p>
8.	<p><i>Section: Grade Category</i> <i>Field: Drop the Lowest</i></p> <p>Select the desired option from the dropdown list.</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>
9.	<p><i>Section: Category Total</i> <i>Field: Category Total Name</i></p> <p>Enter a name for this category total.</p>	<p>This field is not required.</p> <p>If you enter any text here (e.g., "Assignment total"), it will replace the default text "Category total" in the Grader Report display.</p>
10.	<p><i>Section: Category Total</i> <i>Field: Item info</i></p> <p>Enter a description of the category.</p>	<p>This is only viewable by instructors while in editing mode. Also, no one else in the course will be able to see it.</p>

Step	Action	Notes
11.	<p><i>Section: Category Total</i> <i>Field: ID number</i></p> <p>Enter an ID number if desired.</p>	<p>The ID number is used for import and export options, as well as if you choose to use the calculation tool (which is outside the scope of this tutorial).</p>
12.	<p><i>Section: Category Total</i> <i>Field: Grade type</i></p> <p>Select the desired grade type for this category from the dropdown list.</p>	<p>There are 4 grade types available:</p> <ul style="list-style-type: none"> • None—No grading • Value—A numerical value with a maximum and minimum (typically used) • Scale—An item in a list. If you choose scale, you will then be able to choose the scale you want aligned to this category. • Text—Feedback only <p>Only value and scale grade types may be aggregated. Certain fields in this section will be deactivated or activated, depending on the selection for Grade Type.</p> <p>Note that 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>
13.	<p><i>Section: Category Total</i> <i>Field: Maximum Grade</i></p> <p>Enter a value for the maximum grade value for this category.</p> <p>NOTE: Changes are not recommended.</p>	<p>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>
14.	<p><i>Section: Category Total</i> <i>Field: Minimum Grade</i></p> <p>Enter a value for the minimum grade value for this category.</p> <p>NOTE: Changes are not recommended.</p>	<p>This setting determines the minimum grade when using the value grade type.</p>
15.	<p><i>Section: Category Total</i> <i>Field: Grade to Pass</i></p> <p>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>

Step	Action	Notes
16.	<p><i>Section: Category Total</i> <i>Field: Grade Display Type</i></p> <p>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"> • Real grades are numerical • Percentages show percentage • Letter grades use letters or words to represent a range
17.	<p><i>Section: Category Total</i> <i>Field: Overall Decimal Points</i></p> <p>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 5 decimal places.</p>
18.	<p><i>Section: Category Total</i> <i>Field: Hidden, Hidden Until</i></p> <p>Mark 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 click the Enable box associated with the date fields to activate the date fields.</p>
19.	<p><i>Section: Category Total</i> <i>Field: Locked, Lock After</i></p> <p>Mark the box to enable this functionality. You may also enter a date when the category total can be unlocked.</p>	<p>If Locked 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 Grader Report.</p>
20.	<p>Click the Save Changes button at the bottom of the page.</p>	<p>The Setup tab of the Grader Report displays with the new category.</p>

Repeat steps 1-19 above for additional categories.

CREATING COURSE ACTIVITIES

Because you have already created categories in the Gradebook, you will be able to assign the proper grade category to each activity during set up. When you add graded activities (such as quizzes, assignments, lesson activities, etc.) to your course, they are automatically tied to your Moodle Gradebook.

The set up for each activity is different. Some activities are designed to allow grading, and some use ratings as a potential grading method. Other activities do not have a built-in grading system, but can be graded if desired by adding a manual grade item in the Gradebook.

CREATING MANUALLY GRADED ITEMS

VIDEO DEMONSTRATION:

Watch this 4-minute video to see a demonstration of configuring the Moodle Gradebook and adding an item.

<http://youtu.be/Gs5T78AxWc>

NOTE: Video demonstrations were not created by Oklahoma CareerTech, and they may use a different version of Moodle. However, the steps are the same as the ones you will use.

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, go to the Administration block. Under Course Administration, click Grades . In the Boost theme, click the course editing gear icon and click Gradebook Setup .	This will open the Grader Report. By default, the display shows the View Grader Report display. Other displays and functionality are available via tabs and settings on the page.
2.	On the Grader Report display, click the Setup tab.	This will open the Gradebook Setup display.

Step	Action	Notes
3.	At the bottom of the page, click Add Grade Item .	This will open a page with settings to add an item to the Gradebook.
4.	In the Item Name field, enter the item name.	For example, "Attendance."
5.	Select the desired Grade Type from the dropdown field.	<p>For a manually added grade item, there are 4 grade types available:</p> <ul style="list-style-type: none"> • None—No grading used for this item • Value—The grade is a numerical value with a minimum and maximum, such as 0-100. • Scale—The grade is an item from a list, as selected in the Scale field on this page. • Text—Feedback is provided but no grade is given. <p>Moodle will include value and scale grade types in the grade aggregation.</p>
6.	If you choose the Scale field, select the desired scale list.	<p>This field will only be active if "Scale" was selected for the Grade Type. There are two options available:</p> <ul style="list-style-type: none"> • Separate and Connected Ways of Knowing • Deficiente/Regular/Excelente <p>Additional scales can be added via the Scales tab, if desired.</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.

Step	Action	Notes
9.	For the Hidden checkbox, click to check if you want the grade for this item to be hidden from the student.	<p>Checking this box will hide the grade for this item from students. The default behavior is to allow students to view all grades.</p> <p>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 Grade Item settings.</p>
10.	For the Locked checkbox, click to check if you want to prevent automatic updating.	
11.	Click Save Changes .	The new item is saved. The display returns to Gradebook Setup , where the new item is added to the table of graded items.

ASSIGNING WEIGHTS FOR ITEMS IN WEIGHTED AGGREGATION METHODS

After you have populated the Gradebook with categories or grade items, you can assign the desired weight for each.

In the **Setup** tab in the Gradebook, any item that belongs to a category using a weighted aggregation method will show a field available under a column called **Weight**. Enter the weights from your grading plan for each of these activities or categories in the Gradebook. See the example below.

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

Gradebook Category	Weight
Projects	40
Participation	20
Exams	40

NOTE: Weights should total 100 percent.

SUMMARY AND RESOURCES

This tutorial presented an overview on how to:

- Configure the Gradebook in a simple fashion
- Add graded items manually to the Gradebook

This tutorial described a basic use of the 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.

This series includes other guides for using the Moodle Gradebook and grading activities. For more information, see:

- *Using the Gradebook*
- *Advanced Gradebook Options*
- *Moodle Activity Grading*

HOW TO USE THIS TUTORIAL:

This tutorial can be used as a self-paced lesson or as a lesson plan in a classroom setting.

- ***As a self-paced lesson.***

If this is a completely new skill for you, work through the tutorial from beginning to end. However, if you have some prior experience with the topic, use the menu hyperlinks on page one to jump to a topic that you want to learn.

Most topics include hyperlinks to video demonstrations. While the videos are useful, you don't have to watch them. All the information that you need is listed in the tutorial text and step instructions.

Follow the steps in the example to practice the skill. This will help to correct any misunderstandings or mistakes before you use the skill in your classroom.

- ***As a lesson-plan for a classroom.***

When teaching this skill in a classroom, use the tutorial for:

- ✓ **Motivation**—Use the tutorial introduction as a springboard for a deeper exploration of how instructors might use this functionality in their classrooms. Encourage discussion and contributions from your students.
- ✓ **Demonstration**—Once your learners understand the purpose and pedagogical value of the functionality, demonstrate the steps of the relevant tasks as listed in the tutorial, using your computer and an overhead projector.
- ✓ **Practice**—Use the tutorial example as a basis for student practice. Assist as necessary.
- ✓ **Reference**—Encourage learners to use the tutorial post-session as a reference when using the functionality.

Return to the tutorial [main menu](#).

We would appreciate feedback on this tutorial! Please send comments or suggestions to:

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