



How to Configure and Use the Moodle Grade Book

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I. Definitions

Category – a group for grades, e.g. Assignments, Exams, Participation, Research Paper.

Graded item – any activity (assignment, exam, quiz) for which a student will be graded.

Aggregation – the method used to calculate a single grade from a group of grades.

Aggregate only non-empty grades – graded items that have not been assigned a value are not counted in the final grade calculation. This setting is enabled by default.

Aggregation coefficient – the weight given to a grade category or graded item

II. Grade Book Suggestions

The Moodle grade book provides many options to maintain course grades and to provide each student a private view of their progress in your course. The flexibility of the grade book also adds some complexity. The purpose of this tutorial is to provide several simple configurations that cover the most frequently used grading methods.

It is best to configure the grade book before you create assignments, especially if you plan to place assignments into categories.

Before you set up your grade book:

1. Decide on aggregation methods (how grades are calculated/averaged).
2. Create grade categories (assignments, exams, quizzes, research paper, etc.)
 - a. Dividing graded items into categories has at least two advantages: 1) each category can have its own aggregation method, and 2) category sections in the grade book can be collapsed to make entering grades easier.
 - b. Categories can be created at any time, even after graded items are entered. However you will save time and effort if you create your categories before you enter graded items.
3. Decide whether or not to grant extra credit. Adding extra credit is possible in Moodle, but it is difficult to configure. If possible, try to avoid including extra credit in the grade book calculations.

III. Decide on Aggregation Methods

Decide on your grade aggregation methods. Four basic aggregation methods are listed below. Moodle has other aggregation methods, but most of them have little relation to how grades are usually calculated. You may use a different method for each category and for the overall grade.

1. **Mean of grades** - Each graded item is converted to a fraction. The overall grade is a simple average of the fractions converted to a percent value. The result is the sum of all grades divided by the total number of grades. Each item (regardless of points) has the same weight.

Grades: $A1 = 70/100$, $A2 = 20/80$, $A3 = 10/10$, category max 100:

Aggregation: $(0.7 + 0.25 + 1.0)/3 = 0.65 \rightarrow 0.65 * 100 = 65\%$.

2. **Weighted mean** - Each graded item is assigned a weight. This weight is used to determine the importance of each item in the overall mean.

Grades: $A1 = 70/100$, weight 10; $A2 = 20/80$, weight 5; $A3 = 10/10$, weight 3;
category max 100; sum of weights 18:

Aggregation: $(0.7*10 + 0.25*5 + 1.0*3)/18 = 0.625 \rightarrow 0.625 * 100 = 62.5\%$.

Note: for Weighted Mean

- a. The weights may be fractions (.25, .5) or integers (25, 5). However, be consistent in your use of fractions or integers.
 - b. Weights do not have to add up to 100 (although in most cases they will add to 100). Either way the weighted calculation is correct.
3. **Simple weighted mean** - The difference from *Weighted mean* is that weight is calculated as *Maximum grade - Minimum grade* for each item. A 100 point assignment has weight 100; a 10 point assignment has weight 10. In essence this means that the weights are determined by the number of possible points in a graded item. This is similar to “*Sum of grades*” (see below). The difference is that “*Simple weighted mean*” displays percents (when the category max is 100) and “*Sum of grades*” displays points.

Grades: $A1 = 70/100$, $A2 = 20/80$, $A3 = 10/10$, category max 100; total points: 190

Aggregation: $(0.7*100 + 0.25*80 + 1.0*10)/190 = 0.526 * 100 = 52.6\%$

4. **Sum of grades** - Grade is based on total points – each graded item has a number of points that contributes to the total points. A student’s grade is the number of points earned divided by the total points.

This is the only type that does not convert the grades to percentages internally (normalization). The *Maximum grade* of the associated category item is calculated automatically as a sum of maximums from all aggregated items.

Grades: $A1 = 70/100$, $A2 = 20/80$, $A3 = 10/10$: total possible points: 190

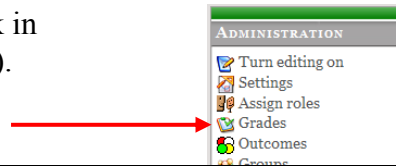
Aggregation: $70 + 20 + 10 = 100/190$

Note: For Sum of Grades

- a. The faculty grade book shows point totals, not percent. The student report shows point totals and percent.
- b. It is not possible to ignore empty grades – an empty grade is counted as zero.

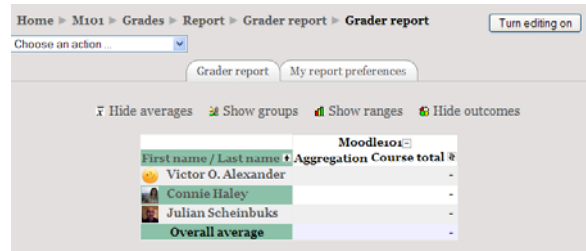
IV. Create Grade Categories

Access the grade book by clicking on the “Grades” link in the Administration block (left side of your course page).



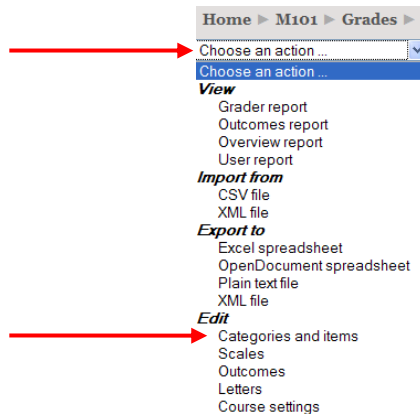
The initial grade book view contains a course total, but no categories and no graded items.

Student names are listed in the left column. You may sort the names by clicking on the “First name” or “Surname” links.



1. Enter the Categories and Items Edit Mode

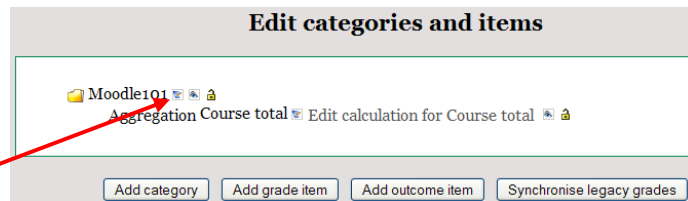
To create categories for your grade book, click in the drop box, “Choose an action” (located in the upper left corner)



Click “Categories and items” in the list.

2. Set the Overall Course Aggregation Method

Before you create subcategories (e.g. assignments, exams), the first step is to set the overall aggregation method. How do you want to aggregate (calculate the combined grade) from all your subcategories? **Click the edit icon beside the course category name.**



The reason you want to set the overall aggregation method before creating subcategories is that the overall aggregation method determines which option fields appear for the subcategories.

The Overall Category Name will remain as the course name unless you change it here.

Select the desired aggregation method from the drop list.

Click the blue ball for helpful information.

Select or deselect other options as desired.

Click “Save changes” when finished.

3. Add Categories

Categories show as folders. In this case there is only one category – the overall course category. The name of this category is usually the course name.

To add subcategories, click the “Add category” button.

Click “Show Advanced” (top right) to show all options.

Enter a category name (e.g. Assignments, Exams).

Select a desired aggregation method.

Select or deselect other desired options.

NOTE: If your overall course aggregation method is Weighted Mean, there will be a place to enter the category weight (see below)

Item weight

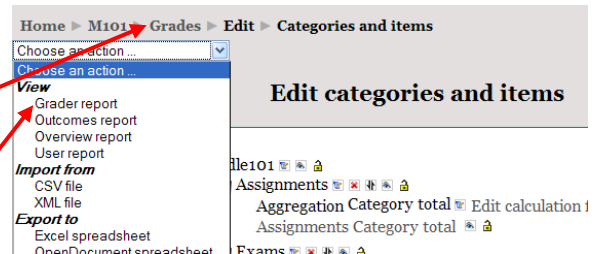
Click “Save changes” when finished.

Continue to add categories. Each category added will be a subcategory under the overall course category. The course shown at the right has three course categories: Assignments, Exams, Research Paper.

4. *Return to the Grade Book*

When you are finished you may return to the grade book in one of two ways:

- click “Grades” in the top “cookie crumb trail”, or
- click the “Choose an action” box and select “Grader report”.



V. **Add Graded Items (assignments, exams, etc.)**

There are two way to add graded items (particular assignments, exams, etc.) to the grade book.

1. (Preferred way) Create an Assignment or other graded activity on the course main page in one of the course topics. This is the recommended method because the assignment appears in the course schedule, the due date is entered in the calendar, and the assignment is automatically added as a graded item in the grade book. Be certain to select a category when you create graded items.
2. Add a graded item from within the grade book. This method will not create a link for students on the course main page, and should be used only for graded items that do not appear on the course main page.
 - a. Go to the grade book
 - b. Click “Choose an action” in the upper left corner of the grade book
 - c. Select “Categories and items”
 - d. Click the “Add grade item” button.
 - e. Fill in the information and click “Save changes”.

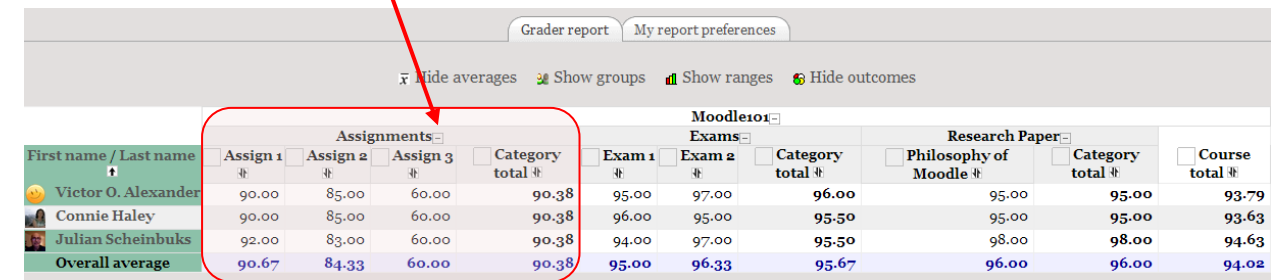
Refer to the assignments handout for additional instructions.

VI. Grade Book Views

The grade book can be viewed in three levels of detail:

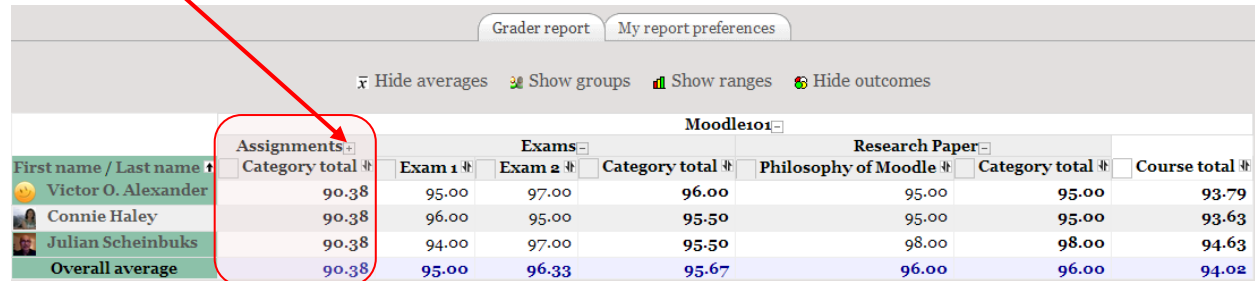
- Full detail – all items in the category and the category total
- Least detail – category total only
- Medium detail – category items only (no category total).

The graphic below shows Assignments in the **full detail** mode. All Assignment items plus the Assignment Category Total are displayed. The grade book display is in full detail mode when a small '-' appears to the right of the title. Toggle through the modes by clicking the small icon to the right of the title.



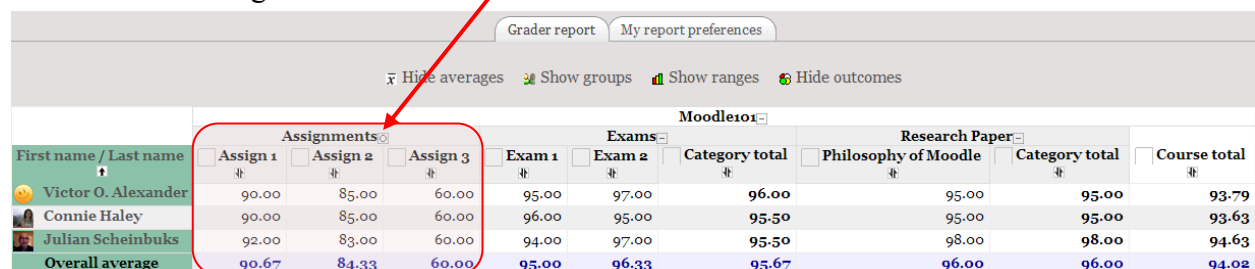
First name / Last name	Assignments -				Exams -			Research Paper -		Course total
	Assign 1	Assign 2	Assign 3	Category total	Exam 1	Exam 2	Category total	Philosophy of Moodle		
Victor O. Alexander	90.00	85.00	60.00	90.38	95.00	97.00	96.00	95.00	95.00	93.79
Connie Haley	90.00	85.00	60.00	90.38	96.00	95.00	95.50	95.00	95.00	93.63
Julian Scheinbuchs	92.00	83.00	60.00	90.38	94.00	97.00	95.50	98.00	98.00	94.63
Overall average	90.67	84.33	60.00	90.38	95.00	96.33	95.67	96.00	96.00	94.02

The graphic below shows Assignments in the **least detail** mode. Only the Assignment Category Total is displayed. The grade book display is in least detail mode when a small '+' appears to the right of the title. Toggle through the modes by clicking the small icon to the right of the title.



First name / Last name	Assignments +				Exams -			Research Paper -		Course total
	Category total	Exam 1	Exam 2	Category total	Philosophy of Moodle	Category total	Category total			
Victor O. Alexander	90.38	95.00	97.00	96.00	95.00	95.00	95.00	93.79		
Connie Haley	90.38	96.00	95.00	95.50	95.00	95.00	95.00	93.63		
Julian Scheinbuchs	90.38	94.00	97.00	95.50	98.00	98.00	98.00	94.63		
Overall average	90.38	95.00	96.33	95.67	96.00	96.00	96.00	94.02		

The graphic below shows Assignments in the **medium detail** mode. Only individual Assignment items are displayed (no Category Total). The grade book display is in medium detail mode when a small 'o' appears to the right of the title. Toggle through the modes by clicking the small icon to the right of the title.



First name / Last name	Assignments o			Exams -			Research Paper -		Course total
	Assign 1	Assign 2	Assign 3	Exam 1	Exam 2	Category total	Philosophy of Moodle	Category total	
Victor O. Alexander	90.00	85.00	60.00	95.00	97.00	96.00	95.00	95.00	93.79
Connie Haley	90.00	85.00	60.00	96.00	95.00	95.50	95.00	95.00	93.63
Julian Scheinbuchs	92.00	83.00	60.00	94.00	97.00	95.50	98.00	98.00	94.63
Overall average	90.67	84.33	60.00	95.00	96.33	95.67	96.00	96.00	94.02

VII. Enter Grades in the Grade Book

1. Introduction:

Moodle provides several ways to enter assignment grades. Each method has its own set of advantages and disadvantages. The different methods evolved as the grade book went through several revisions. Moodle 2.0 (released next year??) will have an improved grade book interface and hopefully grading methods that are more integrated. In Moodle 1.9 there are three basic methods to enter grades.

- **Grade Book Spreadsheet** – grades are entered in the grade book edit mode.
- **Quick Grading** – provides detail about submission date, files, etc. Easy to provide written feedback to each student.
- **Detailed Grading** – provides the most detail about assignments and lets the grader view comments a student may have submitted.

2. Grade Book Spreadsheet:

1. Access the grade book via the "Grades" link in the course Administration panel.
2. Click the Edit toggle button (Turn editing on) to display the spreadsheet editor.
3. You may want to collapse some categories (see Section VI. Grade Book Views) so the column you want is closer to the students' names.
4. Enter grades in the correct column. Tab will take you to the next row.
5. Click "Update" when finished.

Home ► M101 ► Grades ► Report ► Grader report ► Grader report

Choose an action ...

Grader report My report preferences

Show show/hide icons Show locks Show Quick Feedback Show calculations Hide averages Show groups Show ranges Hide outcomes

Moodle101

First name / Last name	Assignments			Exams		Category total	Research Paper		Course total
	Assign 1	Assign 2	Assign 3	Exam 1	Exam 2		Philosophy of Moodle	Category total	
Controls									
Victor O. Alexander	90.00	85.00	60.00	95.00	97.00	96.00	95.00	95.00	93.79
Connie Haley	90.00	85.00	60.00	96.00	95.00	95.50	95.00	95.00	93.63
Julian Scheinbuks	92.00	83.00	60.00	94.00	97.00	95.50	98.00	98.00	94.63
Overall average	90.67	84.33	60.00	95.00	96.33	95.67	96.00	96.00	94.02

Update

Pros (Grade Book Spreadsheet):

- Decimal grades can be entered, e.g. 85.6.
- It is easy to move between assignments and individuals.
- It provides a "big picture" view of the impact of individual grades on course grades.
- It is fast – you may tab between column fields.
- It is easy to override an automatically calculated grade, e.g. a quiz or category total.
- It is the only way to grade items that are not linked from the main course page.

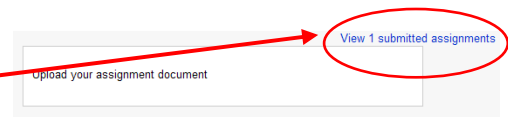
Cons (Grade Book Spreadsheet):

- All grades entered in spreadsheet mode are marked as "overridden" grades and may cause some confusion with other actual "overridden" grades.
- If there are many assignments in a course, linking a student name on the left to an input field on the far right becomes difficult.
- It is difficult to provide meaningful feedback to each student.
- There is no provision to view submitted work for online or uploaded assignments.
- Assignment submission date, large photos and other details are not displayed.

3. Quick Grading:

Quick Grading is a method that makes it easier (than spreadsheet grading) to provide feedback to students and view Notes students may have submitted with their assignments.

1. Click the assignment title on the course main page.
2. Click "View submitted assignments (upper right corner of the page)



3. Note the available options:

- a. You may download all submitted files
- b. You may enable grade email notices to the students.
- c. You may enable "Quick Grading" (**do this!!**).
- d. You may provide written comments to each student.
- e. You may view Notes submitted by each student.

First name / Surname	Grade	Comment	Last modified (Student)	Last modified (Teacher)	Status	Final grade
Jane Tech	No grade				Grade	-
Ron Tech	No grade				Grade	-
Cal Tech	No grade				Grade	-
Ann Tech	No grade		Notes Digital_image_Copyright.doc		Grade	-
Gmail User	No grade		Tuesday, 26 May 2009, 04:24 PM		Grade	-

Pros (Quick Grading):

- It is easy to correlate between the student and the grade being entered.
- It provides convenient method for feedback to each student.
- It displays most submission detail (large photos, dates, link to submitted file).
- Tabbing and typing in grades facilitates quick grade entry.
-
- It works well when grading a stack (physical or virtual) of the same assignment.

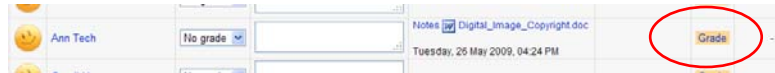
Cons (Quick Grading):

- Forces grades to whole numbers (45, 78); does not accept real numbers (45.5, 78.3).
- Does not allow for easy cut-and-paste from submissions to feedback.

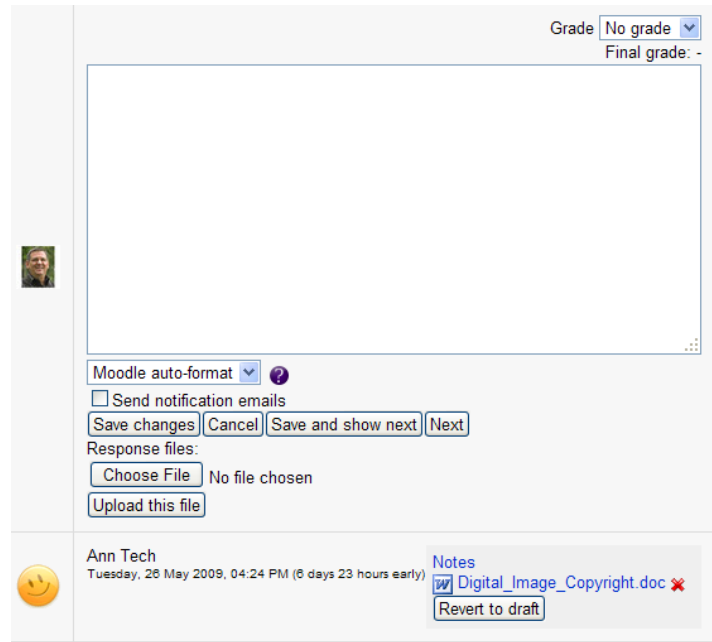
4. Detailed Grading:

Detailed grading provides the most detailed level of assignment grading. It is similar to Quick Grading, but the focus is on an individual student.

1. Click the "Grade" button in the Quick Grading view.



2. Note the various options:
 - a. The grade is entered from the box in the upper right corner.
 - b. Written feedback may be given in the response box.
 - c. A grade email notice may be sent to the student.
 - d. The instructor may attach a file for the student.
 - e. The instructor may view Notes submitted by the student.



Pros (Detailed Grading):

- The focus is on an individual student (less chance of grading errors?).
- The instructor may view comments submitted by each student.
- A file can be attached for the student.
- Written feedback may contain html codes for font color, highlights, font type, bold, etc.

Cons (Detailed Grading):

- Forces grades to be whole numbers (45, 78); does not accept real numbers (45.5, 78.3).
- Can be fairly slow to grade lots of students as there is no quick Tab sequence to provide a grade, feedback, and move to the next student's submission.