



Uploading Moodle grades to SIMS using Astra

Background

The Astra service (managed by UNSW IT) has launched UNSW wide in 2019 T2 to replace the Eccles software, and is used to upload results from a variety of sources (such as Moodle) into UNSW's student information management system (SIMS).

As part of this launch, Astra now scans and imports grades for selected graded activities and grade items in UNSW Moodle award courses. Examples of what can be synchronised include but are not limited to:

- Moodle or Turnitin Assignment grades
- Grades for a single Quiz
- A Grade Category that aggregates grades for multiple Quizzes
- Smartsparrow lessons
- Face to face presentation grades manually uploaded into the Moodle Gradebook by CSV.

This page provides configuration steps to setup Moodle for Astra synchronisation, however for additional support for the Astra service itself (provided by UNSW IT), we recommend the Astra [**support resources here**](#).

Overview - Synchronising grades from Moodle to Astra

The Moodle Instructor is in complete control over which grades are sent (if any) from their Moodle award course to Astra, once a day. The summary process to do this is:

1. Identify the Astra ID's for any Astra items will be synchronising with Moodle.
 - Your faculty/school Astra administrator can help with this.
2. Setup the Moodle course start and end dates to encompass the period of time where grades should synchronise
3. Identify which Moodle activities and/or grade items will be synchronising with Astra.
 - Moodle activities - It is recommended that each significant Moodle assessment is directly synchronised with Astra.
 - Moodle grade items - It is recommended that where there is a large number of minor assessments, that these are aggregated in their own Moodle grade item/category, and the aggregate is synchronised with

Astra.

4. Double-check in Astra that grades have been synchronised overnight successfully.

It is extremely important that the "maximum value" for a grade item in Moodle matches with its corresponding "maximum value" in Astra. For more information on this, please see Astra / Moodle Assessments and Max Grades section below.

How to set the Course Start and End dates for Astra synchronisation

These instructions allow a Moodle Instructor to configure their course start and end dates, which controls when Moodle will begin sending, and will stop sending, grades to Astra. You **must** enable and set the **Course end date** for synchronisation to work correctly.

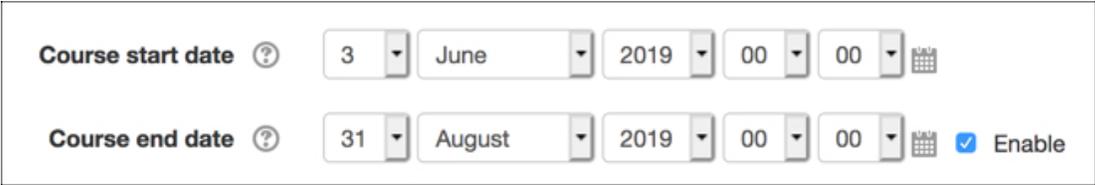
Note, the course start/end dates also affect:

- When courses will move from "In Progress" to "Past" on the Moodle homepage.
- Courses which use the "weekly topic" format, which uses the start date to determine week number.

By default course end date are disabled and not set.

To set the course start/end dates:

1. On the course home page, in the **Settings** block, under the **Course Administration** heading, click **Edit Settings**
2. Under the **General** heading,
 1. Set the **Course start date** to the date/time you wish grades to start synchronising.
 2. **Enable** and Set the **Course end date** to the date/time you wish grades to stop synchronising.



The screenshot shows two date selection fields. The first field is labeled "Course start date" and is set to 3 June 2019 00:00. The second field is labeled "Course end date" and is set to 31 August 2019 00:00. To the right of the second field, there is a checked checkbox labeled "Enable".

3. At the bottom of the page, click **Save and display**.

TELT Admin's can help standardise the course end date across their courses by setting this in their faculty/school template, prior to course creation.

How to setup a Moodle Activity to synchronise grades to Astra

These instructions allow a Moodle Instructor to configure a pre-existing Moodle activity, such as a Quiz or Assignment, to synchronise with Astra.

1. On the course home page, click **Turn editing on** at the top right. 
2. On the course home page, in the appropriate section, click the **Edit** dropdown and select **Edit settings** for a pre-existing activity.
3. On the activity page, scroll down if needed and click to expand **Common module settings**.
4. In the ID number field, enter the desired **ID**.
 - *Note 1: To enable Astra synchronisation, Moodle ID's should match the corresponding Astra ID exactly.*
 - *Note 2: Moodle ID's are case-sensitive, letters, numbers and hyphens are supported, and ID's must be unique within the course.*

▼ Common module settings

Availability

Show on course page ▼

ID number

ASSGN

5. Scroll down and click **Save and return to course**.

How to setup a Moodle Grade Item/Category to synchronise grades to Astra

These instructions allow a Moodle Instructor to configure a pre-existing Grade Item/Category in the Moodle Gradebook, such as a grade column that aggregates multiple assessments, to synchronise with Astra.

This covers scenarios where a instructor has uploaded grades from a offline face to face presentation into the Moodle Gradebook, or when a instructor has aggregated multiple quizzes into a single category.

1. On the course home page, in the **Settings** block, under the **Course Administration** heading, click **Gradebook Setup**.
2. On the **Setup** tab, under the **Gradebook setup** sub-tab, next to the Grade Item, click the **Edit** button followed

by **Edit Settings**.

 Aggregation - Quizzes 1 to 5	-	Edit 
  Week 1 Quiz	10.00	Edit
  Week 2 Quiz	10.00	Edit
  Week 3 Quiz	10.00	Edit
  Week 4 Quiz	10.00	Edit
  Week 5 Quiz	10.00	Edit
 Aggregation - Quizzes 1 to 5 Simple weighted mean of grades.	100.00	Edit

3. Click to expand **Category Total**, and in the ID number field, enter the desired **ID**.
 - *Note 1: To enable Astra synchronisation, Moodle ID's should match the corresponding Astra ID exactly.*
 - *Note 2: Moodle ID's are case-sensitive, letters, numbers and hyphens are supported, and ID's must be unique within the course.*

Category total

ID number 

Scale 

Maximum grade 

Minimum grade 

4. Scroll down and click **Save Changes**.

Astra / Moodle Assessments and Maximum Grades

Assessment items in Astra, as well as in Moodle, have associated maximum grades. It is **very important** that the maximum grades on both sides match. If the maximum grade does not match between the two systems, then the grades will not be correctly synchronised.

This section focuses on adjusting Moodle assessments to match Astra. It is possible to update Astra instead, which in some cases will make more sense. We recommend speaking to your local Astra administrator for help doing this.

These scenarios explore the concepts further, and should help you explore solutions for your own grading methods.

Scenario 1 - Basic Matching

In this scenario, a course's assessment structure in Astra and in Moodle consists of three online exams, with each exam in Moodle being configured to pass their grades to Astra.

In this instance, the assessment structure is quite simple. There has been no categories or weighting used, the maximum grades in Moodle/Astra match.

  Start-Term Exam (25%)	25.00
  Mid-Term Exam (25%)	25.00
  Final Exam (50%)	50.00
\bar{x} Course total Simple weighted mean of grades.	100.00

A correct setup would therefore match in this way:

System:	Astra	Moodle
Assessment Name:	Start-Term Exam	Start-Term Exam
Astra Name / Moodle ID:	EXAM1	EXAM1
Max Grade:	25	25
System:	Astra	Moodle
Assessment Name:	Mid-Term Exam	Mid-Term Exam
Astra Name / Moodle ID:	EXAM2	EXAM2
Max Grade:	25	25
System:	Astra	Moodle
Assessment Name:	Final Exam	Final Exam
Astra Name / Moodle ID:	EXAM3	EXAM3

Max Grade:	50	50
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In this scenario, for exam 1, students can achieve a score out of 50 in Moodle, for example 40/50. This score will then be synchronised with Astra, where they will achieve 40/50, which is a **correct result**.

Scenario 2 - Advanced - Using Categories to Rescale the Max

In this scenario, the course's assessment structure in Astra and in Moodle still consists of three online exams, but in this instance the academic wishes to display grades to students out of a maximum of 100, and also wishes to synchronise each assessment separately to Astra.

For this purpose, the quiz's maximum grade is set to 100 which means it will be displayed to students as intended. However it now means that the maximum grade does not match Astra.

To correct this, the instructor then encapsulates each quiz in it's own category, and sets the maximum grade for the category to the original figure. For example (as per the screenshot below), the instructor places a quiz with a maximum grade of 100 into a category folder with a maximum grade of 25.

The instructor then chooses to synchronise the category grade (out of 25) with Astra instead of the quiz grade (out of 100).

Exam 1 Category	-		
Start-Term Exam	100.00		
Exam 1 Category total Simple weighted mean of grades.	25.00		
Exam 2 Category	-		
Mid-Term Exam	100.00		
Exam 2 Category total Simple weighted mean of grades.	25.00		
Exam 3 Category	-		
Final Exam	100.00		
Exam 3 Category total Simple weighted mean of grades.	50.00		
Course total Simple weighted mean of grades.	100.00		

A correct setup would therefore match in this way:

System:	Astra	Moodle	Moodle
Assessment Name:	Start-Term Exam	Start-Term Exam	Exam 1 Category
Astra Name / Moodle ID:	EXAM1		EXAM1
Max Grade:	25	100	25

System:	Astra	Moodle	Moodle
Assessment Name:	Mid-Term Exam	Mid-Term Exam	Exam 2 Category
Astra Name / Moodle ID:	EXAM2		EXAM2
Max Grade:	25	100	25
System:	Astra	Moodle	Moodle
Assessment Name:	Final Exam	Final-Term Exam	Exam 3 Category
Astra Name / Moodle ID:	EXAM3		EXAM3
Max Grade:	50	100	50

In this scenario, students can achieve a score out of 100 in Moodle, for example 80/100. If the direct quiz score was synchronised with Astra, it would result in a **80/25, which is incorrect.**

However, the Exam 1 Category converts the score to out of 25, for example 20/25. If this score was synchronised with Astra, it would result in a **20/25, a correct result.**

Scenario 3 - Advanced - Using Categories to Aggregate Grades with Simple Weighting - Display True Grade method

In this scenario, the course's assessment structure in Astra consists of a single Quizzes assessment item, but in Moodle consists of four separate Quiz assessments. The first three quizzes are worth 20% each, with the final quiz being worth 40% of the course mark.

To accomplish this the instructor has added the four quizzes to a category in Moodle called "Quizzes", which aggregates the grades of each quiz into one grade with a Max Grade of 100. They then add the Astra ID to the category, to ensure this single aggregate result is synchronised with the single Quizzes assessment item in Astra.

To ensure the quizzes are valued correctly in the final aggregate, the instructor keeps the aggregation method as "simple weighted mean of grades", but then adjusts the individual quiz max grades as required. The value of the final quiz is set to be double the previous quizzes.

Quizzes		-
Quiz 1	20.00	The max value for each individual quiz is set as required.
Quiz 2	20.00	
Quiz 3	20.00	
Final Quiz	40.00	The quizzes aggregate is being synchronised with Astra with a Max Value of 100.
Quizzes total	100.00	
Simple weighted mean of grades.		

System:	Astra	Moodle
Assessment Name:	Quizzes	Quizzes
Astra Name / Moodle ID:	QUIZS	QUIZS
Max Grade:	100	100

Scenario 4 - Advanced - Using Categories to Aggregate Grades with Manual Weighting) - Display out of 100% method

In this scenario, the course's assessment structure in Astra consists of a single Quizzes assessment item, but in Moodle consists of four separate Quiz assessments. The first three quizzes are worth 20% each, with the final quiz being worth 40% of the course mark.

However unlike the previous scenario, the instructor wishes to display the quiz scores out of 100% for their students.

To accomplish this the instructor has added the four quizzes to a category in Moodle called "Quizzes", which re-scales and aggregates the grades of each quiz into one grade with a Max Grade of 100. They then add the Astra ID to the category, to ensure this single aggregate result is synchronised with the single Quizzes assessment item in Astra.

To ensure the quizzes are valued correctly in the final aggregate, the instructor sets the aggregation method for the Quizzes category to "weighted mean of grades", and then manually weights each quiz as required. In this instance the instructor sets the weighting of the final quiz to be worth double the previous quizzes.

Quizzes		-
Quiz 1	<input type="text" value="1.0"/>	100.00
Quiz 2	<input type="text" value="1.0"/>	100.00
Quiz 3	<input type="text" value="1.0"/>	100.00
Final Quiz	<input type="text" value="2.0"/>	100.00
Quizzes total		100.00
Weighted mean of grades.		

The final is weighted to be 40% of the aggregate mark.

The quizzes aggregate is being synchronised with Astra with a Max Value of 100.

System:	Astra	Moodle
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Assessment Name:	Quizzes	Quizzes
Astra Name / Moodle ID:	QUIZS	QUIZS
Max Grade:	100	100

Course Roll-over and Astra ID's

TELT Administrators across UNSW perform a course roll-over prior to each term that imports course content/structure from a previous term's course (such as 2018T1) into the upcoming terms course (such as 2019T1). One advantage of this is that it also brings across Grade Item / Activity ID's along with it.

If the original course was configured for Astra and no changes have occurred since, and assuming the course start/end dates have been updated by the TELT Admin, no further Moodle configuration for Astra will be required.

If the assessment structure has changed since the course last ran, then Astra will no longer match the Moodle setup, and some changes may be needed.

Turnitin submission boxes are not brought over via course roll-over, and thus must be setup manually each time.

Frequently Asked Questions

A number of frequently asked questions for this service are discussed below.

Who supports the Astra service?

The Astra service is supported by [UNSW IT Service Centre](#).

What is happening with Eccles?

The Eccles service is not being decommissioned with the launch of Astra, and instead will remain available for the near future.

We recommend staff move to Astra as soon as it is feasible to do so. Future communications will be sent by UNSW IT.

How often does Moodle - Astra synchronise?

The Astra service queries Moodle assessments every day, once a day, overnight.

Note, this is within your Course Start and End dates.

Where can I find Astra specific support resources?

UNSW IT provide Astra [support resources here](#).

What should I use for my Moodle ID's?

Astra records a 'Astra name' for graded assessments, and this is what needs to be inputted into the Moodle ID field. Moodle ID's are case-sensitive, and support numbers, letters and hyphens.

Make sure you use the Astra name exactly as defined, including upper case.

If un-sure, your faculty/school Astra administrators can supply these names.

Do I need to setup my Moodle assessments for Astra ahead of start of term?

No, you can set up your Moodle assessments to send grades to Astra at any time throughout term, but we highly recommend that you make sure that results are flowing reliably *before* the end of term. During the short assessment period you won't have time to sort out transfer issues.

What if I already use Moodle ID's for calculations / custom reporting?

The Moodle ID field supports multiple use cases such as gradebook calculations, custom reporting and synchronisation of grades with Astra. These can all work simultaenously if your ID's are consistent throughout.

If you are updating your ID's to match Astra, you will need to re-visit your formula's and update their ID's accordingly.

My assessments have a maximum value in Astra, and a maximum value in Moodle. Should they match?

Definitely, it is extremely important that the "maximum value" for a grade item in Moodle matches with its corresponding "maximum value" in Astra.

For example, if a student can achieve a maximum value of 100 for a specific grade item in Moodle, then the Astra item also needs to setup to accept that grade.

Do I have to send all my assessment grades to Astra?

The grade items (aka assessments) in Moodle does not have to match what is in Astra, though the Astra team recommends that major/significant assessments should have their own entries, while multiple minor assessments can be aggregated.

For example, the course may have three summative assessments with an associated grade, and seven formative assessments with their grade (if any) weighted to zero. In this case it is likely that only the three summative assessments will need to be configured for Astra.

Another example is when individual graded assessments are not being synchronised with Astra, but are instead being aggregated in a summary grade column. In this instance it is more likely that just the summary grade column is being synchronised with Astra.

Can I re-use grade item ID's within my course?

No, grade item ID's will need to be unique within a course. A warning message will appear if you try to use a ID twice.

Can I re-use grade item ID's across courses?

Yes, you can re-use grade item ID's can be used across multiple courses.

For example, if you perform a course roll-over and bring 2019T1 grade item ID's into a 2020T1 grade item, they will both work correctly with Astra.

What happens if the incorrect grades are synchronised with Astra?

Any incorrect grades uploaded to Astra will be over-written with the correct grades overnight.

A student did not submit an assignment. Should I enter a 0 grade in Moodle or leave it blank/empty?

The grade should be left blank/empty. This will indicate to Astra (and the central records) that the task was not completed. If all assessments have not been completed, the blank grade will communicate to Astra that an Absent Fail (AF) should be applied. If some assessments have grades but others are left blank, Astra will treat the blank ones as 0 in the calculated total.

Should I use Exclude empty grades and how does it impact Astra?

Exclude empty grades can be used with a Grade category or course total. When it is checked (the default), the calculated total will only count those assessments that have grades. In other words, Moodle will show a running total. By unchecking this setting, any assessments that are blank will be treated as 0 grades.

Astra does not take the total from Moodle but rather works it out from the individual assessments and their weightings. For a course total, Exclude empty grades will only be relevant to Moodle, not Astra. However, if you have to Exclude empty grades for a category linked to a single assessment in Astra, and within that category are blank assessment items for some students, incorrect results will be sent to Astra. It is therefore advisable that you don't have Exclude empty grades for this situation to prevent a possible error.

My results were transferred but they have been rounded in Astra. How come?

Moodle maintains wide precision but Astra specifies how much precision to retain for each item and which way to round to this resolution. If results are being rounded when you don't want them to, you should adjust the precision in Astra's Structure page. The next transfer will respect the changed precision and update results accordingly.

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<https://teaching.unsw.edu.au/uploading-moodle-grades-sims-using-astra>