



# THE MULTITRACES MOODLE LEARNING PLATFORM: A SHORT INTRODUCTION

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#### The Moodle MULTITRACES learning environment

The Moodle (3.9.1) open source software has been used to create the MULTITRACES learning environment



### The International Hellenic University (IHU) Server requirements

#### Installation

#### Basic technical features

#### Hardware

Disk space: 200MB for the Moodle code, plus as much as it is needed to store the content of the courses. It is envisaged that 5GB is a realistic minimum.

Processor: 1GHz (min), 2GHz dual core at least.

Memory: 512MB (min), 1GB at least up to 8GB plus.

Software

OS: Ubuntu Server Apache Web Server + PHP MySQL Community Edition

The Server physical location is at IHU Kavala.

#### The Moodle MULTITRACES site administration

#### Authentication

Authentication is the process of allowing a user to log in to the Moodle MULTITRACES site with a username and password. There are different ways of logging in to a Moodle site, called authentication plugins.

Typical authentication plugins are the following:

- Manual accounts
- Email-based self-registration
- CAS server (SSO)
- External database
- MNet authentication
- OAuth 2 Shibboleth

Anyone who logs in to the Moodle MULTITRACES site should be allocated a role:

- Site administrator can "do everything" on the site (IHU will be the site administrator for the Moodle MULTITRACES site)
- Manager a lesser administrator role Course creator can create courses
- Teacher can manage and add content to courses
- Non-editing teacher can grade in courses but not edit them
- Student

#### The Moodle MULTITRACES users' requirements

The system requirements for the Moodle MULTITRACES users are modest. All that the users really need is a solid, reliable internet connection and a modern web browser. It may help to have a 200+Mhz processor on their computer if they are running Windows or MacOS.

- Moodle works with any modern web browser. However, it works best with the following:
  - Firefox
  - Chrome
- The browser should have both cookies and JavaScript enabled. These are typically enabled by default, but if these settings need enabling, the relevant documents on how to do it should be checked for the particular browser.
- Also the pop-ups for the Moodle MULTITRACES site should be enabled. The "Help" function should be consulted on how to enable pop-ups for the particular browser.

#### The basic structure of the Moodle MULTITRACES site

The Front page of the MULTITRACES site

The front page of the Moodle MULTITRACES Site is depicted in Image 1 and the users can join it via the URL of the site

http://websites3.teiemt.gr/moodle/

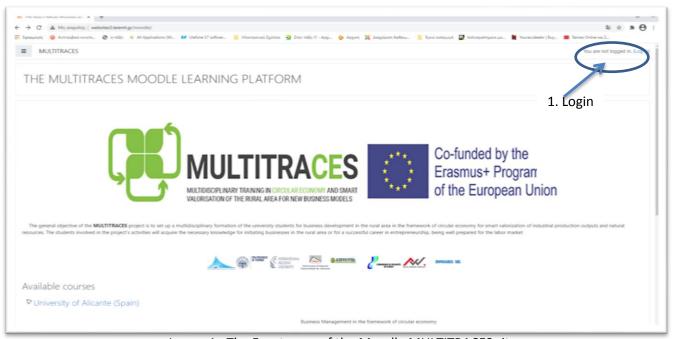


Image 1. The Front page of the Moodle MULTITRACES site

The users can Login or Register by clicking in the location shown in Image1. To Login the users should insert their username and password in the fields shown in Image 2.

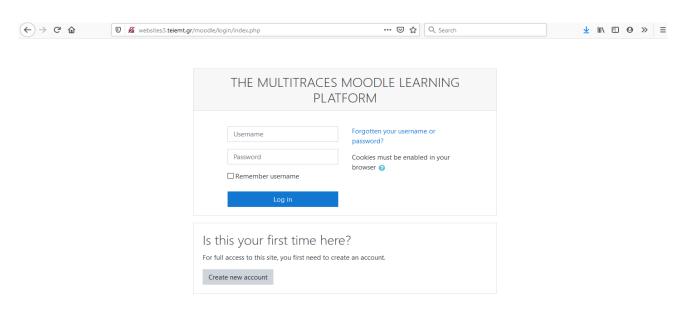


Image 2. The Login process of the Moodle MULTITRACES learning platform

In case the users do not have codes they can press the button *Create new account* and follow the prompted fields as in Image 3.

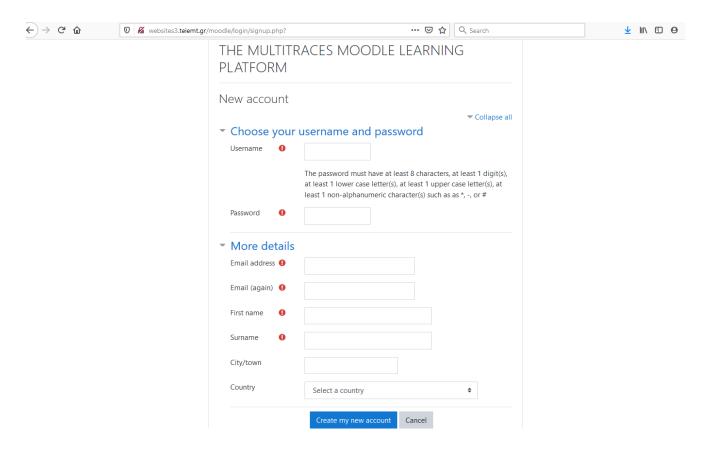


Image 3. Creation of new account in the Moodle MULTITRACES learning platform

The users need to fill in the following fields:

- -Username. It is mandatory.
- Password. It is mandatory. The password must have at least 8 characters, at least 1 digit(s), at least 1 lower case letter(s), at least 1 upper case letter(s), at least 1 non-alphanumeric character(s) such as as \*, -, or #,
- Email address. It is mandatory and it is prompted twice.
- First name. It is mandatory.
- Surname. It is mandatory.
- City/ town. It is optional.
- Country. It is optional.

For Login to the Moodle MULTITRACES site we recommend the following two options:

- Manual creation. The users send email to the IHU administrator, who then creates their account. This is a more secure choice.
- Email self-register. Users can create their own accounts via the 'Create new account' button on the login page. They then receive an email at the address they have specified in their account profile to confirm their account.

#### Inside the MULTITRACES Moodle site

Moodle's basic structure is organized around courses. The MULTITRACES Moodle site is organized in 4 areas according to the 4 MULTITRACES modules where teachers can present their learning resources and activities to students (Image 4).

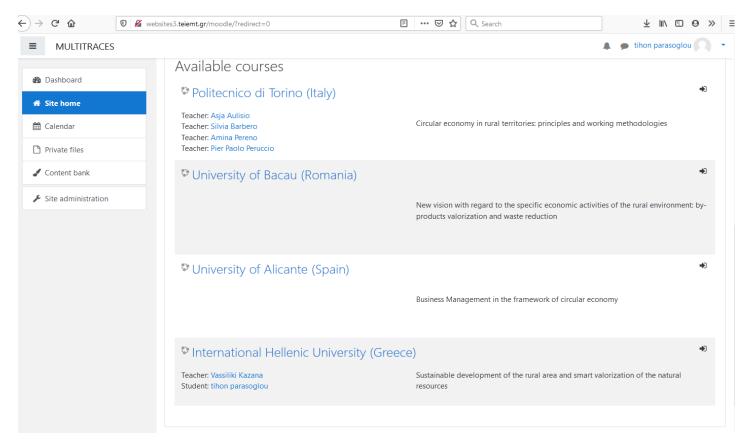


Image 4. Available courses in the Moodle MULTITRACES learning platform.

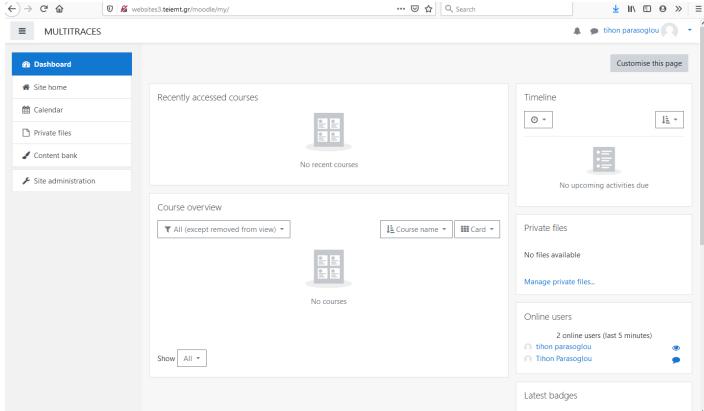


Image 5. Courses overview in the Moodle MULTITRACES learning platform

When the users Login for first time they must configure their profile. To do so they should go up right and click in the username and in the appearing menu (Image 6) click in the profile button. When the profile information appears (Image 7) they can configure their personal information by pressing Edit Profile.

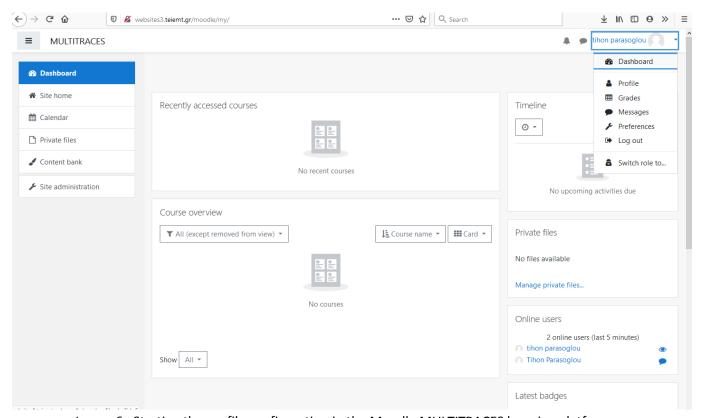


Image 6. Starting the profile configuration in the Moodle MULTITRACES learning platform

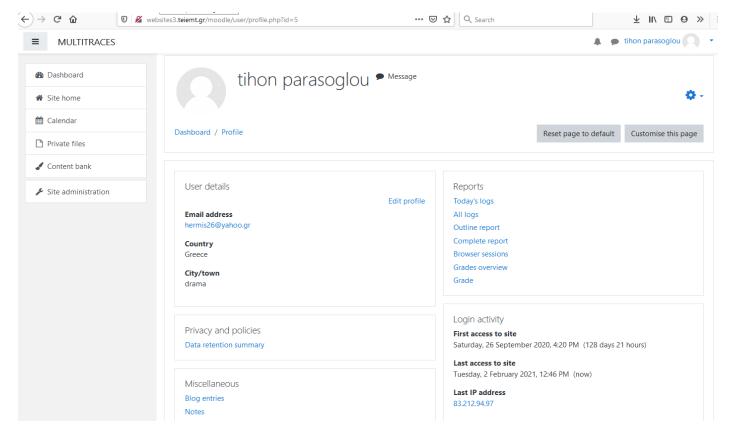


Image 7. Profile information in the Moodle MULTITRACES learning platform

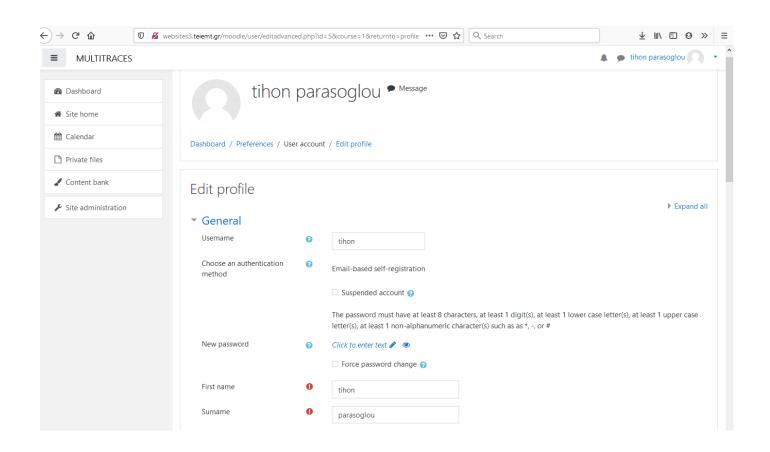


Image 8. Editing profile information in the Moodle MULTITRACES learning platform

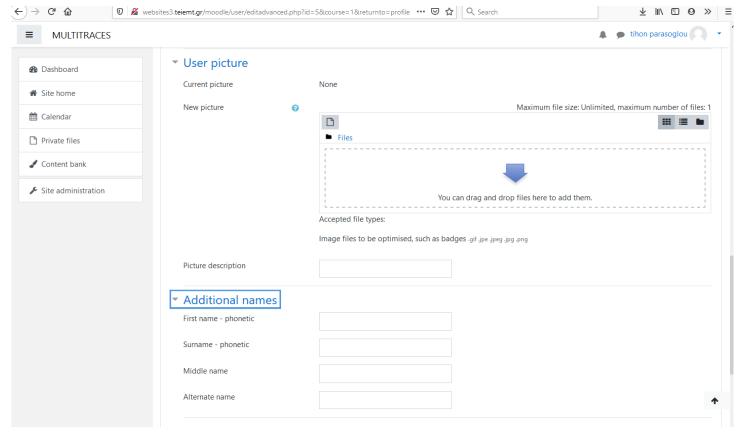


Image 9. User picture in the Moodle MULTITRACES learning platform

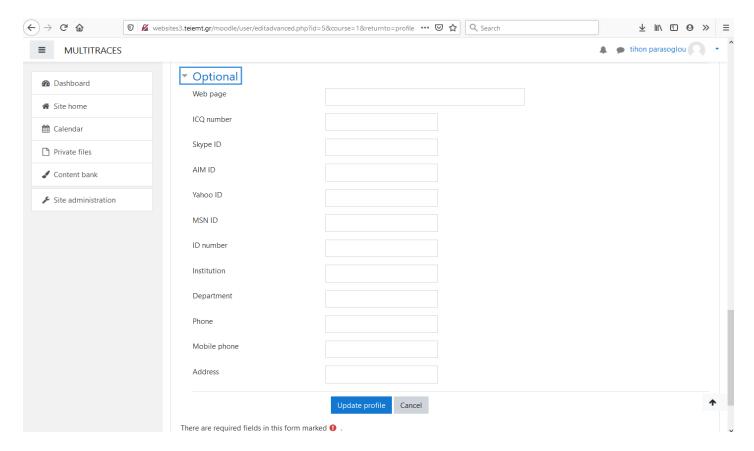


Image 10. Saving updated profile information in the Moodle MULTITRACES learning platform

Once the profile update has been completed (Images 8 & 9), the user should press save button (Image 10) and click in the *site home* button at the top left of the menu (Image 11) to see the updated information of all the available courses.

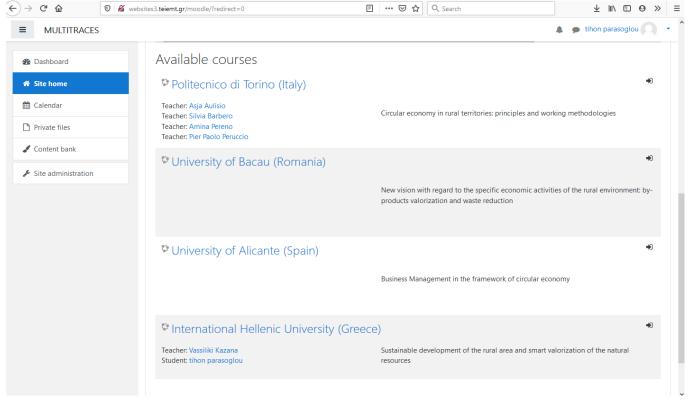


Image 11. Available Courses

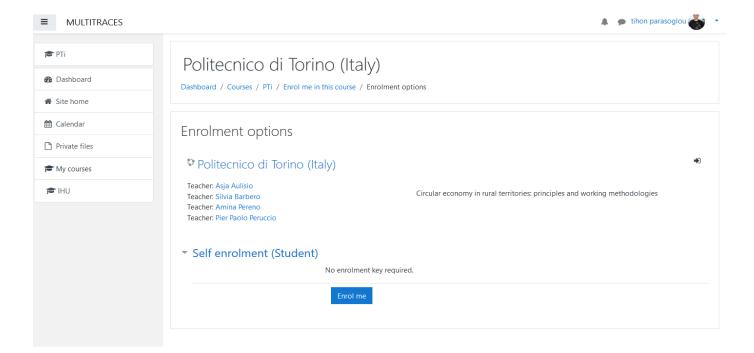


Image 12. Saving updated profile

The user (only under the student role) can click in the preferred course to enroll via the *Enrol me* button (The Administrator will edit the appropriate settings for the course to enable self-enrolment of the student).

## **Creating and Organizing Course Lessons**

- 1. First, the teachers need to login to the site. The main course modules have been created already by the site administrator, so the teachers can start organizing the lessons for their course module. To demonstrate how to do it we will use as an example the course of the International Hellenic University (Greece).
- 2. From the left panel (the Navigation drawer) we click Site home (Image 13)

From the menu site home, we choose the course we need to organize (here as an example we choose the course **International Hellenic University (Greece)** (Image 13)

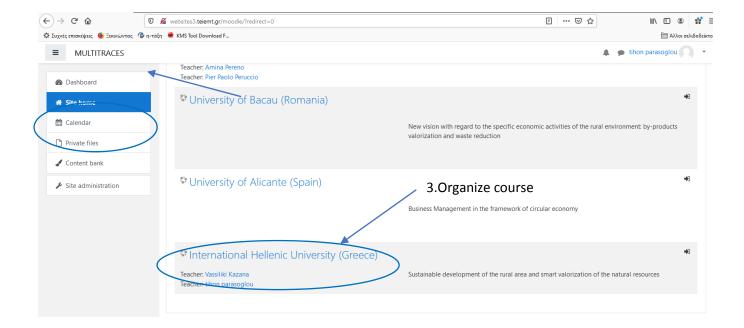


Image 13

From the right gear we click edit settings to edit the main course settings (image 14)

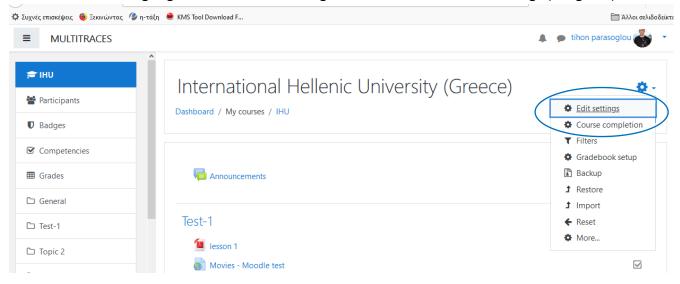


Image 14

The main settings include: i) the course title, ii) the course start date, iii) the course end date and iv)the course summary description (Image 15). If we wish we can also upload course images. Accepted files types are of GIF, JPEG and PNG formats (Image 16).



Image 15



Image 16

When we finish the configuring process, we scroll down and press the save button (Image 17).

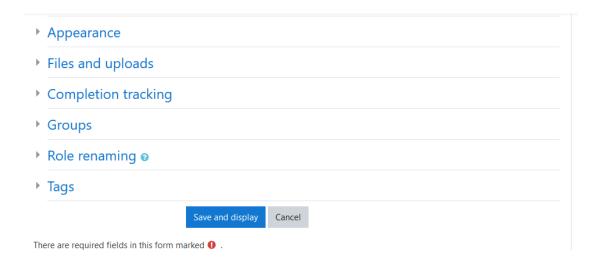


Image 17

# Organizing lessons

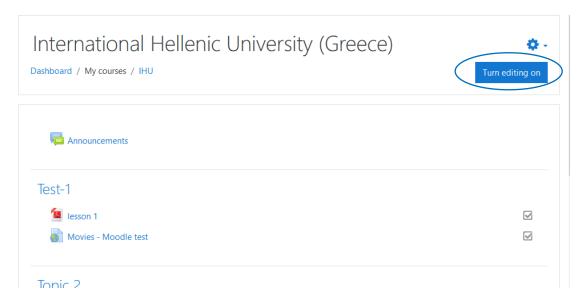


image 18

On the right of the site we press the button <turn editing on> (Image 18),

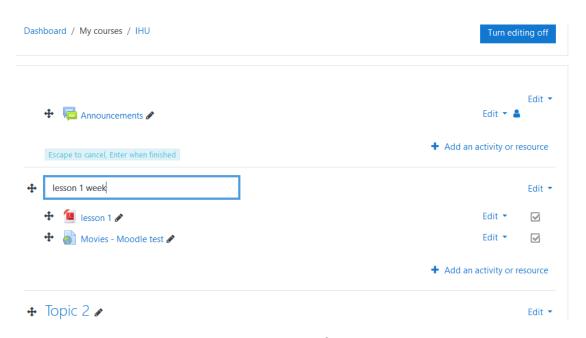


Image 19

and the site appears as in Image 19. Now we can change the lessons by clicking on the pencil icon or edit by clicking on the edit topic (Image 20).

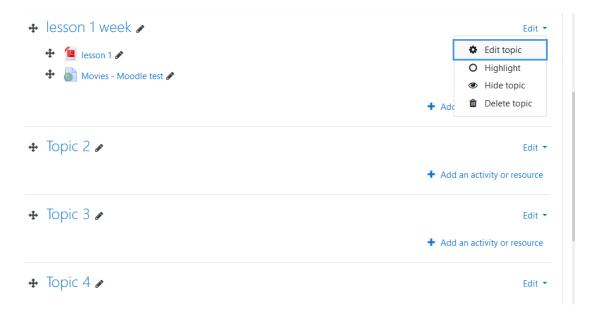


Image 20

## Adding Files

Once we finish with the configuration of this lesson we can add an activity (Image 21) by pressing (+Add an activity or resource) in the same week lesson, as it is depicted in Image 21. There are many different activity and resource options, but at this point we will demonstrate how to add a file and how to insert one URL.

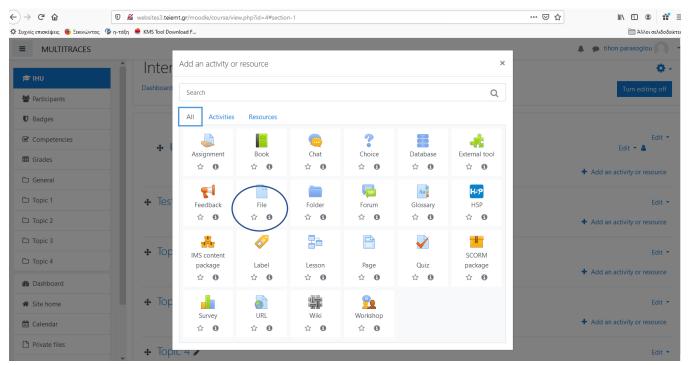


Image 21

By clicking on the file icon (Image 21) we move to the dashboard of Image 22.

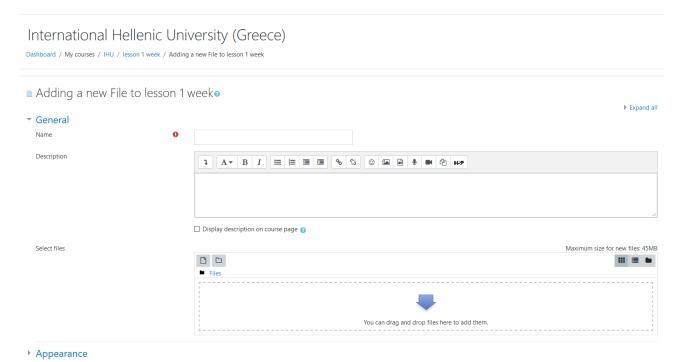


Image 22

Here we can upload a lessons file and we can configure the name and description of the files selected to upload. When we finish it, we scroll down, press save and return to course (Image 23).

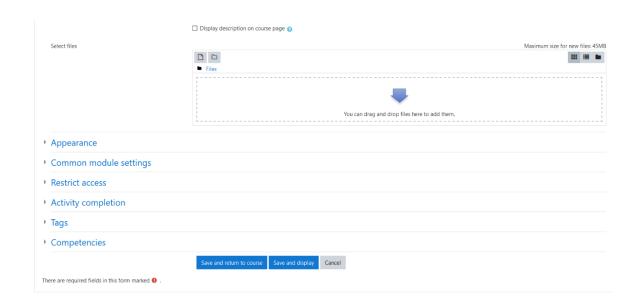


Image 23

## Adding an URL

By pressing (+Add an activity or resource) in the same week lesson, just as we did with adding an activity (Image 21), we click on the URL icon (Image 21) and move to the dashboard of Image 24. Here we insert the Name of the URL, then the external URL and then a short description.

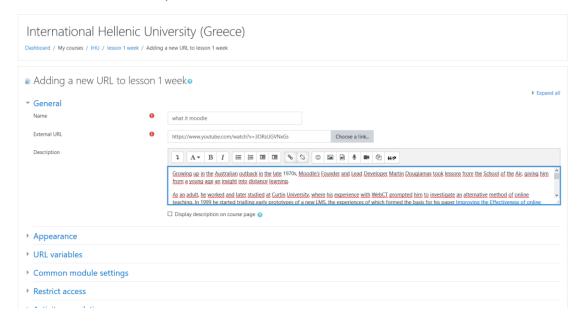


Image 24

When we finish it, we scroll down, press save and return to course (Image 25).

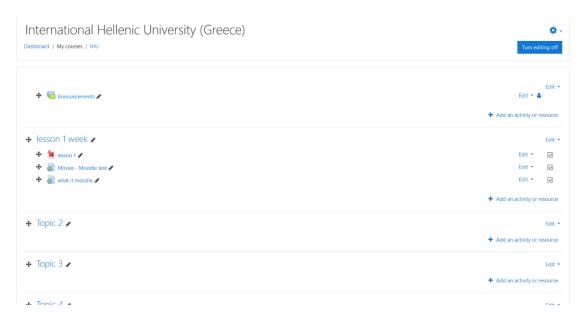


Image 25

## **Adding Lessons**

After making the adjustment in the dashboard of Image 18, we press "+Add an activity or resource" in the same week lesson, just as we did in the dashboard of Image 21 to add an activity; we click on the Lesson icon and move to the dashboard of Image 26. Here we can make the configuration of lessons as follows.

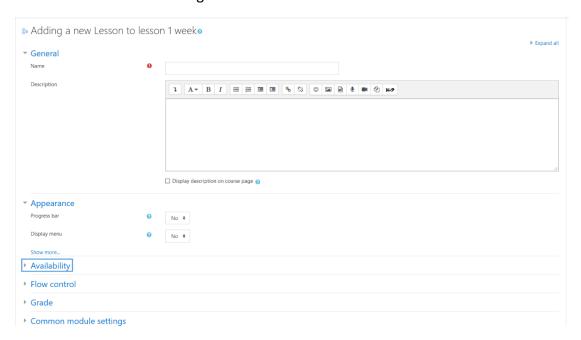


Image 26

Name: We insert the name of the lesson

Description: We insert a short description of the lesson and if we want to show the description in the course page we check in the checkbox

Appearance: We can make some display configurations about the lesson

Availability: We can insert how many days the lesson will be open and how many hours the students will have

Flow control: We can insert if the students are allowed make a review and if they can try the question again and the number of attempts

Grade: We can insert the points the students will take

When we finish with the configuration, we can press Save and display (Image 27)

## International Hellenic University (Greece)

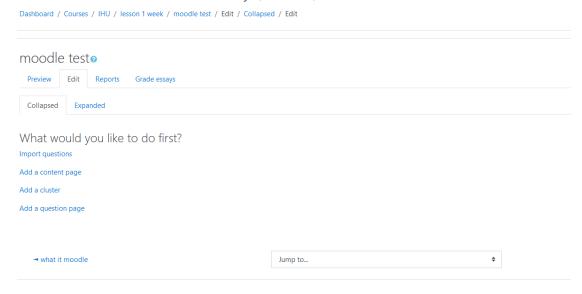
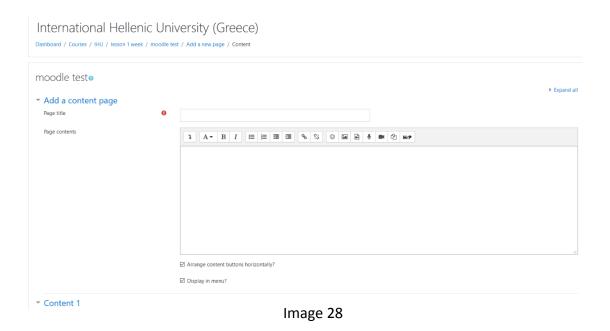


Image 27

Here we can click on "add a content page" and move to the dashboard of Image 28



or we can make a question page (Image 27) by clicking on "add question page" and move to the dashboard of Image 29, where we can choose among 6 types of questions.

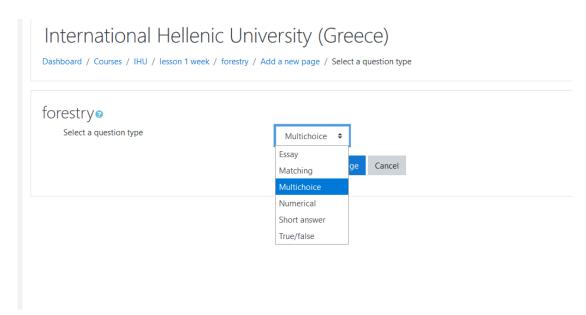


Image 29

For demonstration purposes we choose the true/false, which takes us to the dashboard of Image 30

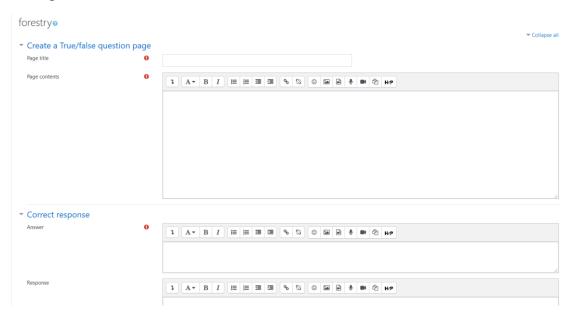


Image 30

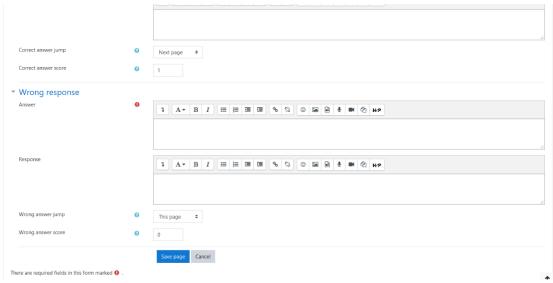


Image31

In Images 30 and 31 we can see how to configure a question page. We can insert the page title (question), the page contents (main question) and then the 2 responses correct and wrong. We can set and score (points) each correct answer and the type of action we want after the response, eg. next page.

# Adding a Zoom meeting

After making the adjustment in the dashboard of Image 18, we press "+Add an activity or resource" in the same week lesson, just as we did in the dashboard of Image 21 to add an activity; we click on the zoom meeting icon and move to the dashboard of Image 26. Here we can make the configuration of lessons as follows.

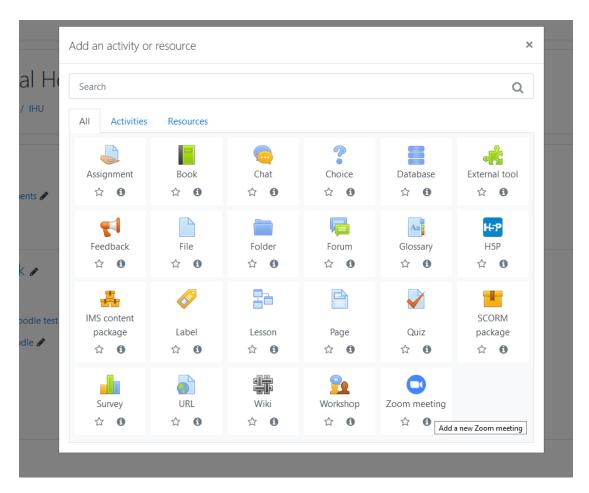


Image32

In Images 33 and 34 we can see how to configure a zoom meeting

• Adding a new Zoom meeting to lesson 1 week• ▼ General Topic Description 1 A → B I 등 등 5 5 % % © A № 4 M P When 9 \$ February \$ 2021 \$ 20 \$ 13 \$ Duration (minutes) hours \$ ☐ Recurring ② ☐ Webinar ⊘ Passcode 327948 Passcode may only contain the following characters: [a-z A-Z 0-9 @ -  $\_$ \*]. Max of 10 characters. Image 33 O On ● Off Host video ○ On ● Off Participants video ○ Telephony only ○ VoIP only ● VoIP and Telephony Audio options ✓ Mute upon entry ② Meeting option ☐ Enable join before host ☑ Enable waiting room ☐ Only authenticated users Alternative Hosts ▶ Grade Common module settings Restrict access Activity completion Tags Competencies Save and display Cancel

Image 34

## Adding a Forum

After making the adjustment in the dashboard of Image 18, we press "+Add an activity or resource" in the same week lesson, just as we did in the dashboard of Image 21 to add an activity; we click on the forum icon and move to the dashboard of Image 35. Here we can make the configuration of the forum as follows in Image 36.

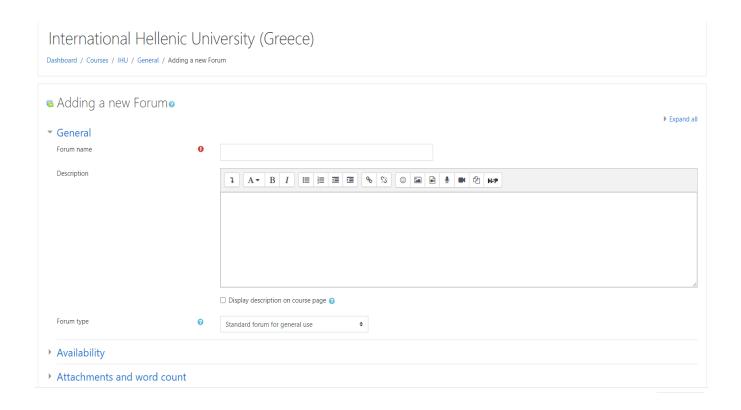


Image 35

We can enter the name of forum and we have the description of 5 forum types to choose from (Image 36)

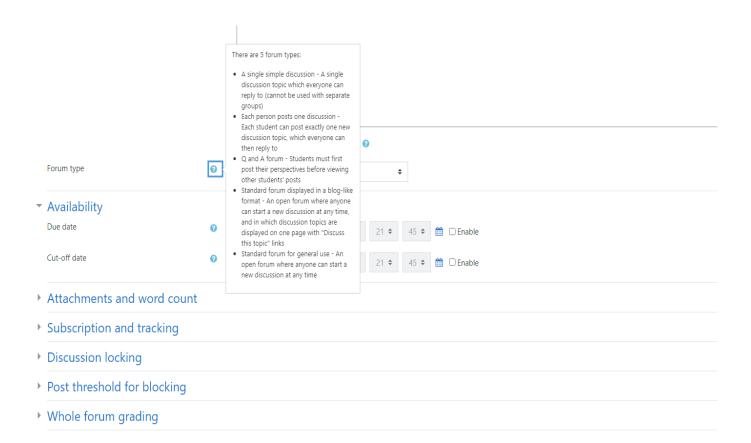


Image36

We choose the most suitable for the case, and if we want we set a specific period for the forum, and then we press save.

## Adding a Chat

After making the adjustment in the dashboard of Image 18, we press "+Add an activity or resource" in the same week lesson, just as we did in the dashboard of Image 21 to add an activity; we click on the chat icon and move to the dashboard of Image 37. Here we can make the configuration of the chat as follows in Image 37.

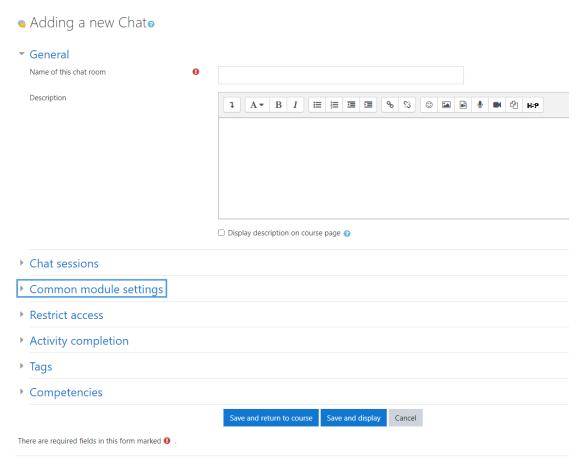


Image 37

We enter the name and the description of the chat (Image 37) and if we want we can choose in the chat session the next chat time.

## Adding a quiz

After making the adjustment in the dashboard of Image 18, we press "+Add an activity or resource" in the same week lesson, just as we did in the dashboard of Image 21 to add an activity; we click on the quiz icon and move to the dashboard of Image 38. Here we can make the configuration of a quiz as follows in Image 38.

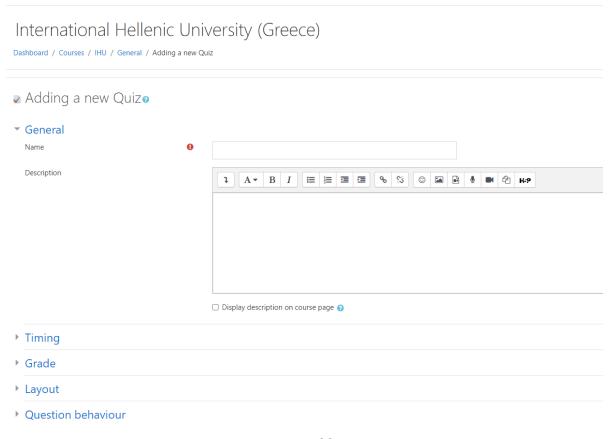


Image 38

We type a name and a description if required. With the default settings, students can repeat the quiz, moving freely between questions, each on a different page. There is no time limit and scores and feedback display once they have completed the quiz.

#### Quiz - Timing

#### Open the quiz

We can specify the open and close times the quiz could become accessible to the students who wish to attempt it. Before the opening time the quiz will be unavailable to students. They will be able to view the quiz introduction, but they will not be able to view the questions. Quizzes with start times in the future display both the open and the close dates for the students (Image 39)

#### Close the quiz

After the closing time, the students will not be able to start new attempts. Answers that the students submit after the quiz closing date will be saved but they will not be marked.

Even after the quiz has closed the students will still be able to see the quiz description and review their attempts. However, what exactly they will see depends on the settings we choose for the review options (see below).

#### Time limit

By default, quizzes do not have a time limit, which allows students as much time as they need to complete the quiz. If we do specify a time limit, several options can ensure that the quizzes are completed within that time:

#### When time expires..

When the time limit is up one of three options as to what can happen could be selected from a dropdown menu:

- o Open attempts are submitted automatically (This is the default)
- There is a grace period when open attempts can be submitted, but no more questions answered
- Attempts must be submitted before time expires, or they are not counted.

If we select "There is a grace period..." then we should check the box to enable the "Submission grace period" and specify a period of time during which the students may still submit the quiz after the time is up.

#### Quiz - Grade

#### **Grade category**

If we have categories in our gradebook, we should select the one you wish the quiz to be in, here.

#### Attempts allowed

Students may be allowed to have multiple attempts at a quiz. This can help make the process of taking the quiz more of an educational activity rather than simply an assessment.

#### Grade to pass

Here we can set a passing grade for the quiz. This may be connected with "Activity completion and Conditional activities", such that the students will not be able to access a follow up activity until they have passed the quiz.

#### **Grading method**

When multiple attempts are allowed, there are different ways we can use the grades to calculate the students' final grades for the quiz.

- Highest grade the final grade is the highest (best) grade in any attempt
- Average grade the final grade is the average (simple mean) grade of all attempts
- First grade the final grade is the grade earned on the first attempt (other attempts are ignored)
- Last grade the final grade is the grade earned on the most recent attempt only

#### Quiz – Layout

#### New page

For longer quizzes it makes sense to stretch the quiz over several pages by limiting the number of questions per page. When adding questions to the quiz, page breaks will automatically be inserted according to the setting we choose here. However, we will also be able to move page breaks around by hand later on the editing page.

Note that changing this setting has no effect on the questions we have already added to the quiz. The setting will only apply to the questions we add subsequently. To change the page breaks in an existing quiz, we need to go to the quiz editing screen, tick the 'Show page breaks' checkbox, then use the repaginate control.

If we have many questions that use many high definition images and the server suffers performance issues, showing only one question per page it is easier for the server than showing many (or all) questions in one page.

by clicking in show more

#### Navigation method (available by clicking Show More)

We choose Sequential instead of Free, if we want to force the students to progress through the questions in order and not go back to a previous question or skip to a later one.

#### Quiz - Question behaviour

#### How questions behave

This is the primary way to control the experience the students have as they interact with each question in the quiz. If we want the students to get immediate feedback on their response with a chance to try again, if they get it wrong, then we should select 'Interactive with multiple tries' (we can add some hints to our questions and specify a retry penalty if we so desire). If we want to replicate a traditional exam, we should select 'Deferred feedback'. In other situations, the other options can be useful. For a description of all the behaviours, see Question behaviours.

#### Allow redo within an attempt (available by clicking "Show more")

By using Interactive or Immediate feedback mode, the enabling of this setting means that the students can try a question again even if they have used up their allowed attempts. This is helpful if they wish to learn from the feedback given at the end of their attempts. It is important for the students to continue with the same question, that the question definition must contain hints. Also, it must have been added manually, rather than randomly into the quiz (see Building Quiz#Adding questions). Otherwise, the 'redo' will occur with a different question from the one they were working on previously, if other questions are available (such as when the question slot is filled by a random question). A student's grade for that question slot is based on the most recent question they have started with. We note that by default the students are allowed three tries to answer a question correctly in Interactive mode before the 'redo' option becomes available. The number of tries cannot be reduced but it can be increased by adding more hints to the question in the 'Multiple tries' section of the question's configuration page.

#### Each attempt builds on the last (available by clicking "Show more")

If multiple attempts are allowed and this setting is set to Yes, then each new attempt contains the results of the previous attempt. This allows the students on the new attempt to concentrate on just those questions they answered incorrectly on the previous attempt. If this option is chosen then each attempt by a particular student uses the same questions in the same order, independent of randomization settings. To show a fresh quiz on every attempt, we should select No for this setting.

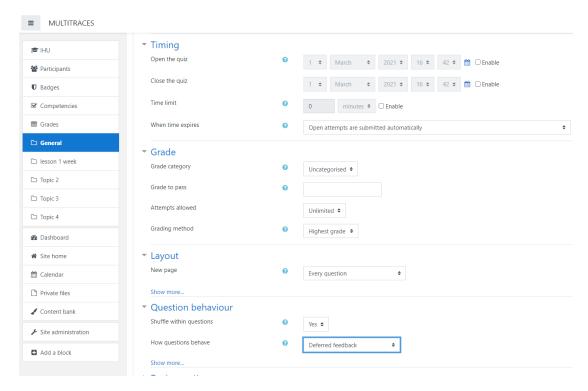


Image 39

When we finish the configuration of the quiz, we press save and display Image 40. In order to add questions, we press Edit quiz and configure the highest grade.

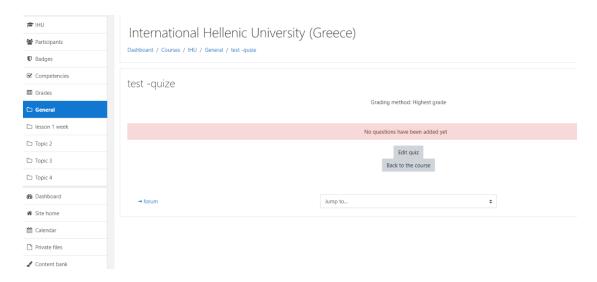


Image 40

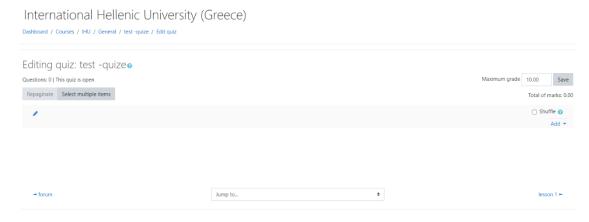


Image 41

We choose the question type we want to add (Image 42) and then we click 'Add' at the bottom to add our question.

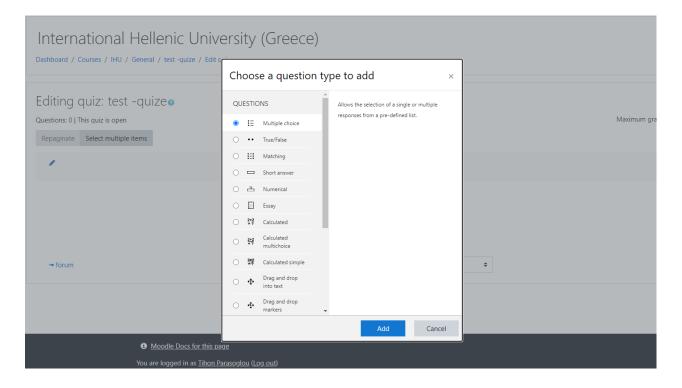


Image 42

We can click in the multiple choice (Image 42) and we can configure the question as follows in Images 43 and 44.

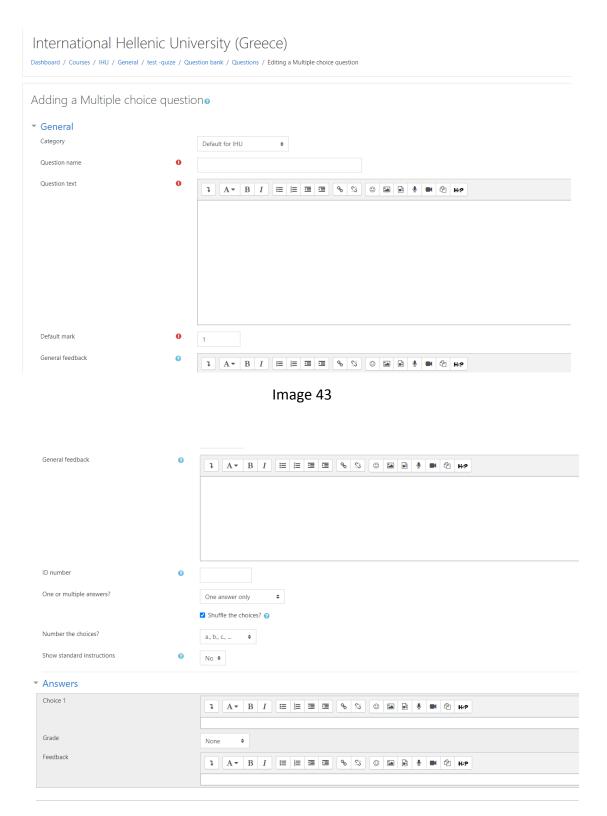


Image 44

#### multiple choice - General

For the *Category*, we select the appropriate category. The *question name* requires a descriptive name. The name will be used in the question lists on the quiz editing page

or in the lesson as a page title. It will not be shown to the students, so we can choose any name that makes sense to us and possibly to the other teachers.

For the *question text*, if we are using the HTML Editor, we can format the question as in a word processing document. If we wish, we can add *general feedback*. This is text that appears to the student after he/she has answered the question. We can choose whether the students can select only *one answer or multiple answers* and we can choose to shuffle the answer options.

We write our first answer in the Choice 1 text field and Select a grade percentage for the answer. This is the percentage of the total points worth the response selected for the particular question. We can select negative percentages, as well as positive percentages. So, selecting a correct response in a multiple answer question may allocate 50% of the possible points, while selecting a wrong answer may take away 10%. Note that in a multiple-answer question, the positive grades must add up to at least 100%.

If we wish, we can add feedback for each response. It may take a bit more work, but it's a good practice to tell the students why each answer is right or wrong using the feedback area. If the students know why an answer is right or wrong, they can analyze their own thinking and begin to understand why an answer is correct. Our feedback will only be displayed if we select Show Feedback in the quiz body options.

We fill in the rest of the response choices in the rest of the form. Any unused areas will be ignored.

We select the 'Save Changes' button at the bottom of the screen.

We click 'Save changes' and repeat the steps for as many questions as we need. We click 'Save changes' when we are done with the questions.