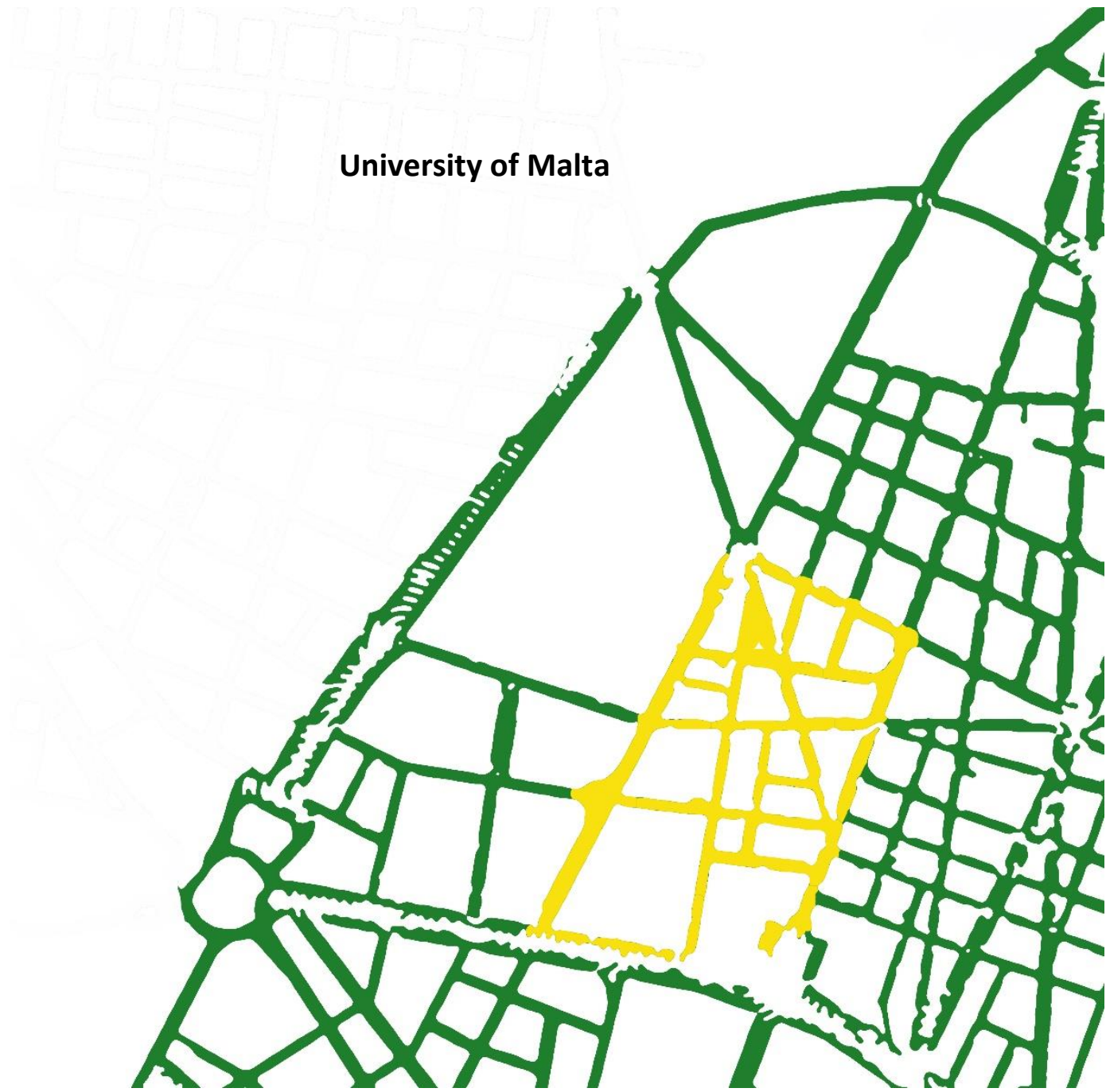




CESBA-MED

Deliverable 5.2.1- eLearning Courses

University of Malta



## Introduction

The project CESBA MED tested 10 case studies from all over Europe. A common sustainability assessment framework at an urban scale was selected after the testing phase. This supports the development of energy efficiency plans for public buildings in the context of their surrounding neighbourhood.

The objective of this work package is to transfer the CESBA MED main outcomes in the MED regions not involved in the project through a blended approach with approximately 80-90% e-Learning and 10-20% following the traditional face-to-face approach.

## The e-Learning Courses

Two pilot training courses will be organised using the CESBA MED e-learning platform developed in WP5, with free access to any interested individual or organization from the MED area. These training courses are a way to transfer the knowledge acquired from the testing phase of the project.

The Training Course are divided into two:

- 1) Course for Decision Makers
- 2) Course for Technical Experts

Each training course consists of a number of modules, highlighted below:

- **Course for Decision Makers:**
  - **Module 1:** The CESBA-MED Generic Framework Concept and Multicriteria Assessment Methodology
  - **Module 2:** The Decision-Making process
  - **Module 3:** Case Study Analysis focusing on decision making.
  - **Module 4:** Assessment criteria of a contextualised CESBA-MED SBTool (Building Scale) **(Optional)**
  - **Module 7:** The assessment criteria of the contextualised CESBA-MED SNTTool (Urban Scale) **(Optional)**
- **Course for Technical Experts:**
  - **Module 1:** The CESBA-MED Generic Framework Concept and Multicriteria Assessment Methodology
  - **Module 2:** The Decision-Making process
  - **Module 5:** Use of the contextualised CESBA-MED SBTool (Building Scale)
  - **Module 6:** Case Study Analysis
  - **Module 8:** Use of the contextualised CESBA-MED SNTTool (Urban Scale)

### Course content and Structure

The course content and structure are based on the work done in previous Work Packages by the various partners. In this section, a brief overview of the eight modules is given.

#### Module 1

##### **Long Title: The CESBA MED Generic Framework Concept and the multicriteria Assessment Methodology**

This module aims to present the basic concepts of sustainability in urban areas and of the assessment systems for the built environment focusing in particular on the CESBA MED Assessment Methodology, Generic Framework (Building and Urban Scale) and contextualisation process.

##### **Content:**

- Sustainability of urban areas
- The CESBA MED project: background information, objectives, methodology, deliverables
- Introduction to assessment systems for the built environment
- Basic overview of CESBA MED Assessment Methodology
  - basic definitions and structure of the SBEMethod
  - the assessment procedure in the SBEMethod
  - characterization step
  - normalisation step: assignment of a score to indicators' value
  - aggregation step
- Structure of the CESBA MED Generic Framework Building Scale
  - issues, categories and criteria
  - physical boundaries
  - time boundaries
- Structure of the CESBA MED Generic Framework Urban Scale
  - issues, categories and criteria
  - physical boundaries
  - time boundaries
- Contextualization process:
  - Selection of the active criteria
  - Benchmarking
  - Weighting

## Module 2

### **Long Title: The Decision-Making Process**

This module aims to present how to implement a decision- making process based on CESBA SBTool and SNTTool to set up high quality energy retrofitting/new construction projects as part of sustainable urban development plans.

#### **Content:**

- Model of decision-making process for sustainable urban areas and public buildings
  - Initiation
  - Preparation
  - Diagnosis
  - Strategic definition
    - Setting Targets
    - Setting constraints and restrictions
- Decision Making
  - Creation of retrofitting scenarios
  - Retrofit scenarios assessment and raking
- Retrofit concept
- Decision making process for new urban developments

### Module 3

**Long Title:** Case Studies Analysis (Integration of Building and Urban Scales)

This module, addressed to decision-makers, aims to present the choices made locally for the contextualisation of CESBA Tools and the motivations behind them. The presentation will be made by analysing the Maltese case study. The course video focusses mainly on the decision-making aspects.

**Content:**

- Presentation of the Local SNTTool and SBTool
- Case study presentation

### Module 4

**Long Title:** The assessment criteria of the contextualised CESBA MED SBTool - Building Scale

This module aims to give a detailed presentation of the assessment criteria of the CESBA MED SBTool – Building Scale. For each territory the presentation concerns KPIs and locally selected assessment criteria. For each criterion the intent, the assessment methods and the main elements that characterize the corresponding indicator are presented.

**Content:**

- For KPIs and locally selected assessment criteria, presentation of the following elements:
  - Intent
  - Indicator
  - Unit of measure
  - Information sources
  - Assessment method

## Module 5

**Long Title:** Use of the contextualised CESBA MED SBTool – Building Scale

This module aims to present how to calculate in practice the indicators of the CESBA MED SBTool – Building Scale. For each territory the presentation concerns KPIs and locally selected assessment criteria. For each indicator an example of calculation and an exercise will be included. The module also includes the explanation of score assignment and aggregation methods.

**Content:**

- For KPIs and locally selected criteria, presentation of three elements:
  - assessment method: illustrating the calculation step by step;
  - example of calculation: applying the calculation steps to a case study;
  - exercise: calculation exercise to be carried out by the participants.
- Scores assignment: method and examples of calculation;
- Scores aggregation: method and examples of calculation;

## Module 6

**Long Title:** Case Studies Analysis (Integration of Building and Urban Scales)

This module, addressed to technical experts, aims to present the choices made locally for the contextualization of CESBA Tools and the motivations behind them. The presentation will be made by analysing a fictional neighbourhood and using a simplified version of the tool to highlight the basic concepts behind the tool.

**Content:**

- Presentation of the Local SNTTool and SBTool
- Case study presentation

## Module 7

**Long Title:** The assessment criteria of the contextualised CESBA MED SNTTool – Urban Scale

This module aims to give a detailed presentation of the assessment criteria of the CESBA MED SNTTool – Urban Scale. For each territory the presentation concerns KPIs and locally selected assessment criteria. For each criterion the intent, the assessment methods and the main elements that characterise the corresponding indicator are presented.

### Content:

- For KPIs and locally selected criteria, presentation of:
  - Intent
  - Indicator
  - Unit of measure
  - Information sources
  - Assessment method

## Module 8

**Long Title:** Use of the contextualised CESBA MED SNTTool – Urban Scale

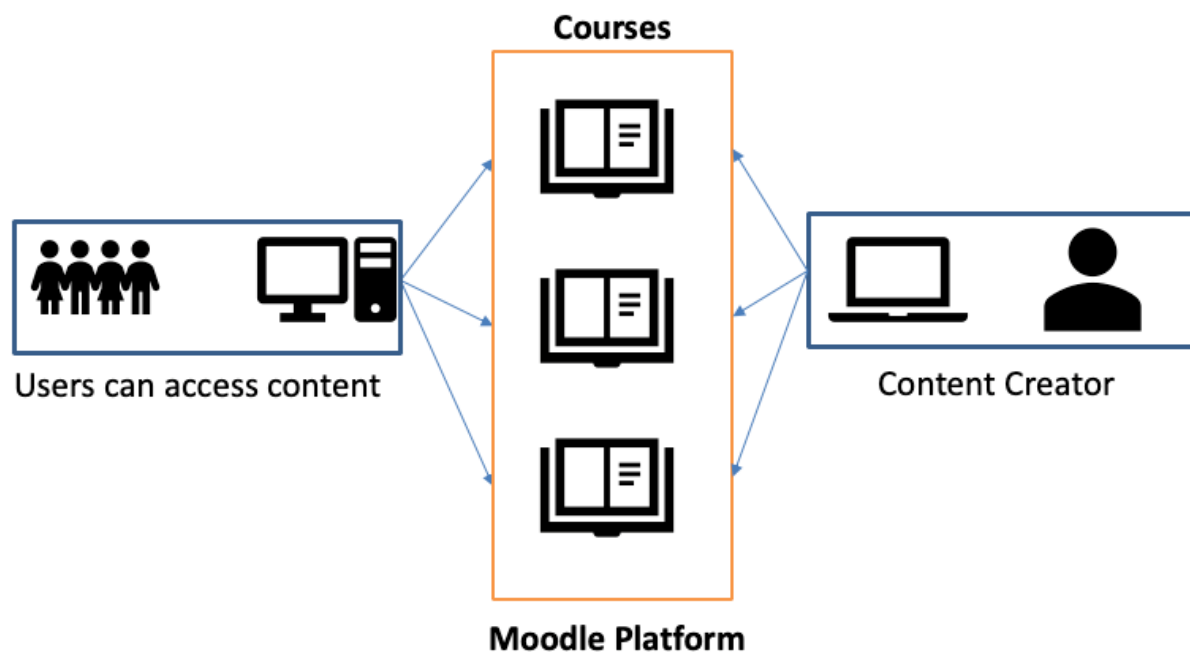
This module aims to present how to calculate in practice the indicators of the CESBA MED SNTTool – Urban Scale. For each territory the presentation concerns KPIs and locally selected assessment criteria. For each indicator an example of calculation and an exercise will be included. The module also includes the explanation of score assignment and aggregation methods.

### Content:

- For KPIs and locally selected criteria, presentation of 3 elements:
  - assessment method: illustrating the calculation step by step;
  - example of calculation: applying the calculation steps to a case study;
  - exercise: calculation exercise to be carried out by the participants.
- Scores assignment: method and examples of calculation;
- Scores aggregation: method and examples of calculation;

## The e-Learning Platform

The CESBA-MED Malta team has decided to adopt Moodle as its main platform for these e-Learning courses. This platform provides an online environment to support both teaching and learning, while including tools for content delivery, communication, assessment, and participant management. Furthermore, Moodle is built on the concept of modularity making it easy to use while also being free and open-source.



*Figure 1 - Basic Overview of the e-Learning Platform*

## Accessing Moodle

The e-Learning platform can be accessed by first registering on <http://tinyurl.com/cesbaregister>. Once this is done, an email is sent with further instructions on how to access the platform.

Thank you for registering for the CESBA MED Training!

The link to the training is: <https://cesba-med.research.um.edu.mt/moodle/>

You may now proceed to create an account on the training platform! Should you encounter any problems, kindly contact us on [cesbamed@um.edu.mt](mailto:cesbamed@um.edu.mt)

Thanks and Regards,

The CESBA-MED team

Figure 2 - Automatic Reply email

The registrant can then access Moodle through the link given in the email. The user needs to create an account, and when done he/she is automatically enrolled to the two courses. Figure 3 illustrates the registration and access procedure. Further details on the courses can be found on <https://cesba-med.research.um.edu.mt>.

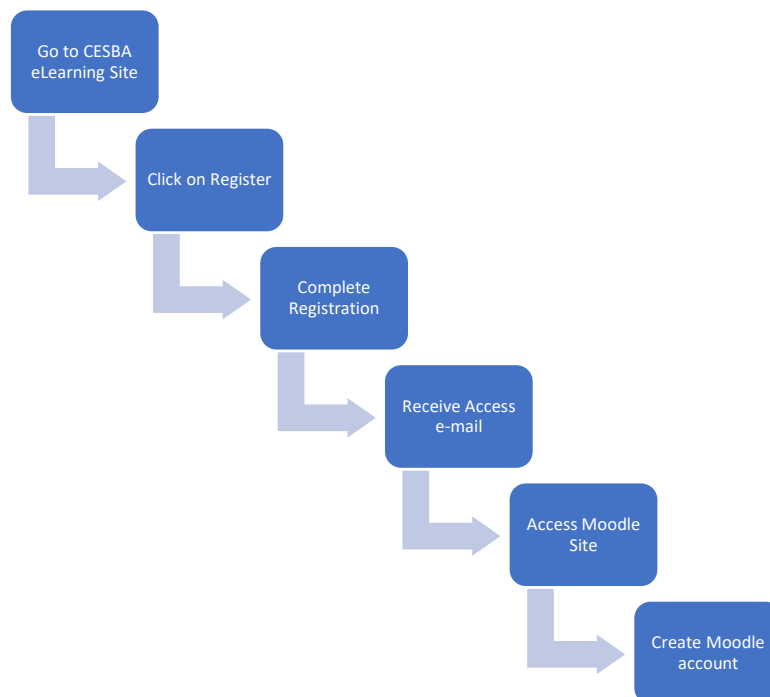
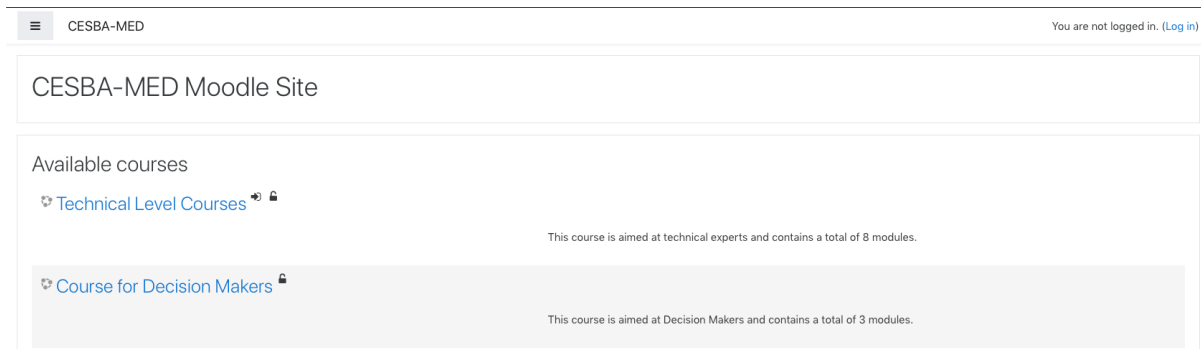


Figure 3 - Moodle registration and access procedure

## Accessing Moodle Areas (Enrolled Participant)

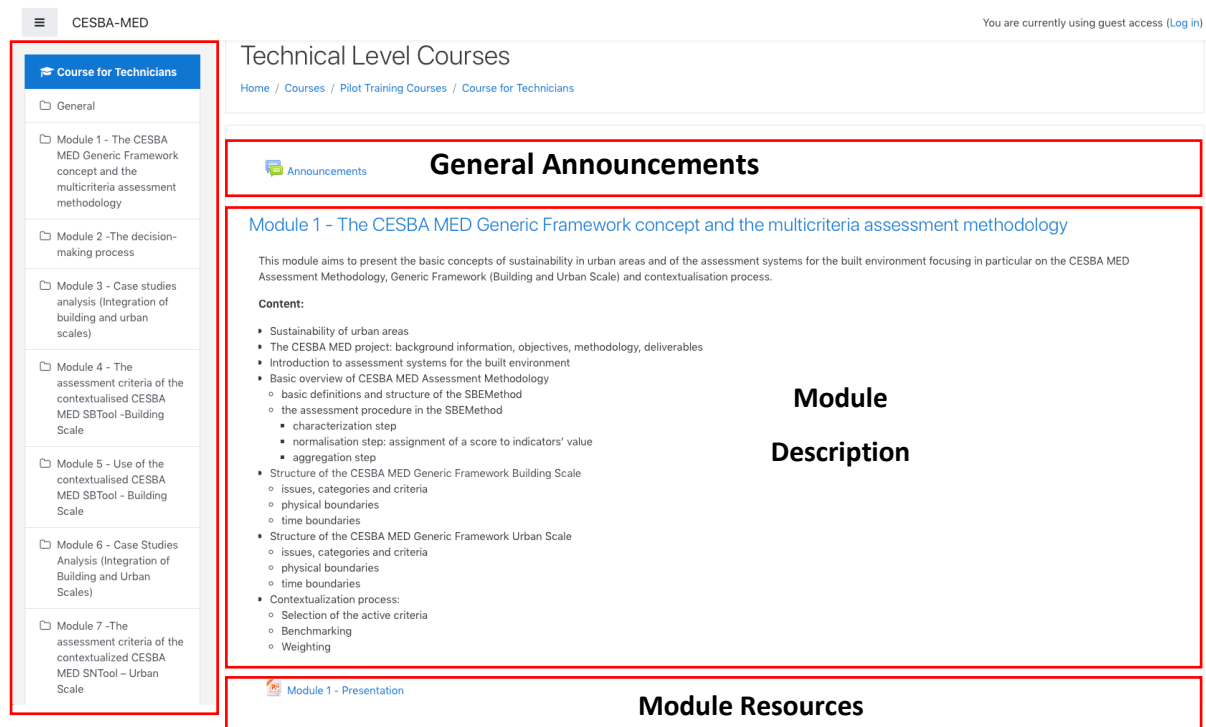
The Moodle platform is hosted on a University of Malta Server and can be accessed directly by going to <https://tinyurl.com/cesbamedlearn>.



Users are allowed to either register/log-in or to access content as guests. Guest users can only view content but not interact with any other users. To login, users can simply click on the **“Log In”** link on the top-right corner of Moodle and then entering their respective username and password. The process is the same for registering, but instead of logging in, new users can create an account by clicking on the appropriate button.

## Basic Format of Moodle

The basic format of Moodle is illustrated in the following figure. Each course consists of two main sections, and a side bar (navigation drawer) for ease of navigation.

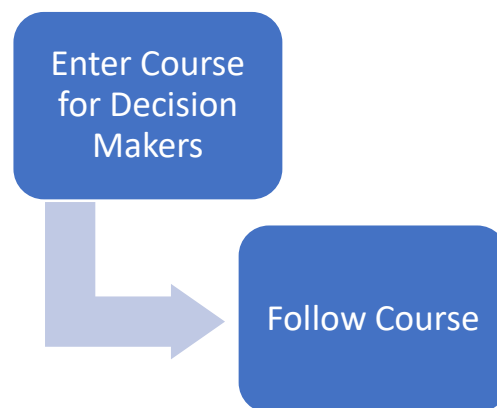


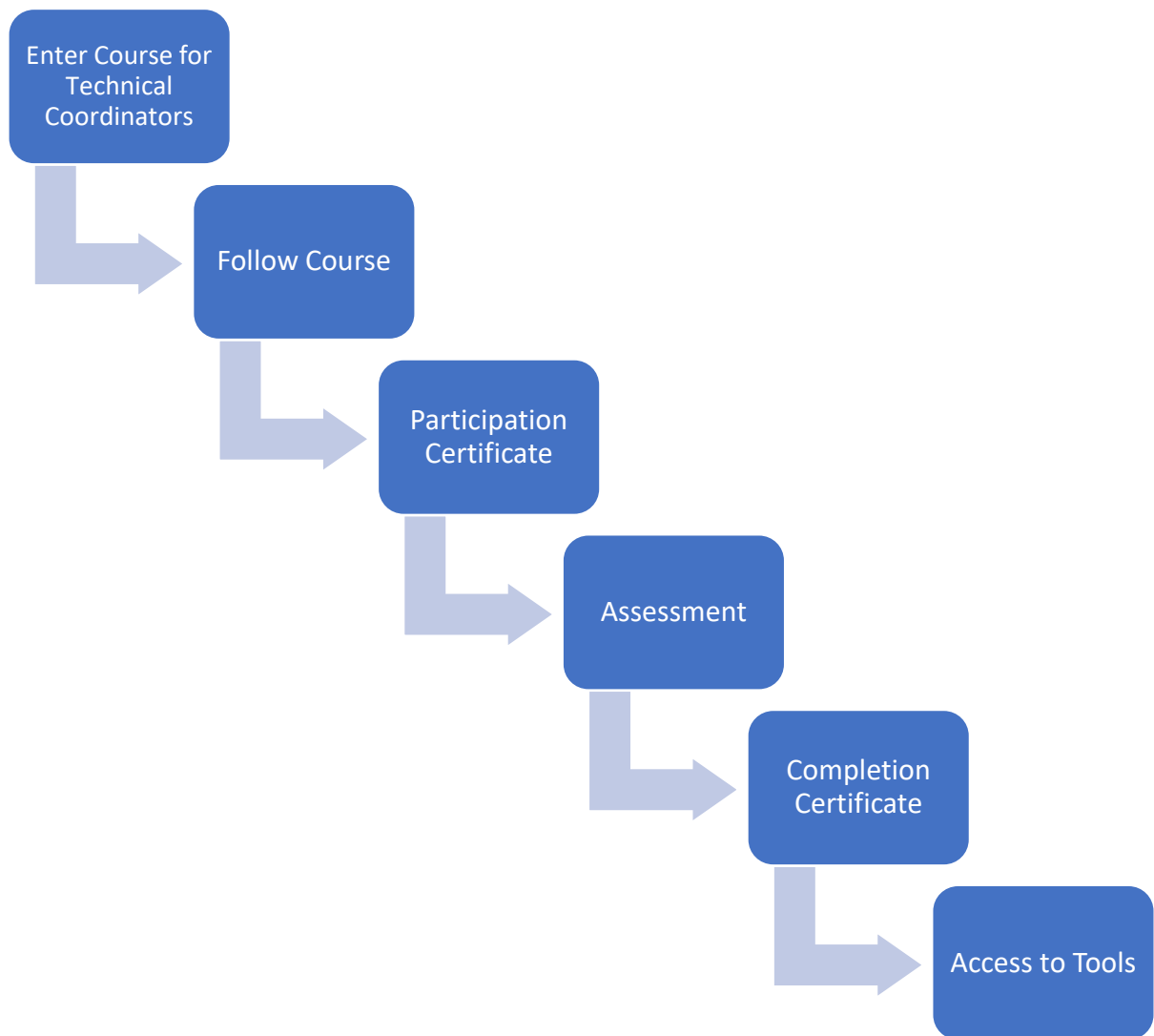
**List of  
Modules in  
course**

The first section is called **General Announcements** which can be used to send announcements to all enrolled users in a course and can also contain any other introductory messages from the instructors. The second section is the main content area where there are the main modules, together with its resources and activities. The navigation drawer includes links to a complete set of modules in the current course.

Procedure to follow courses

*Decision Makers*

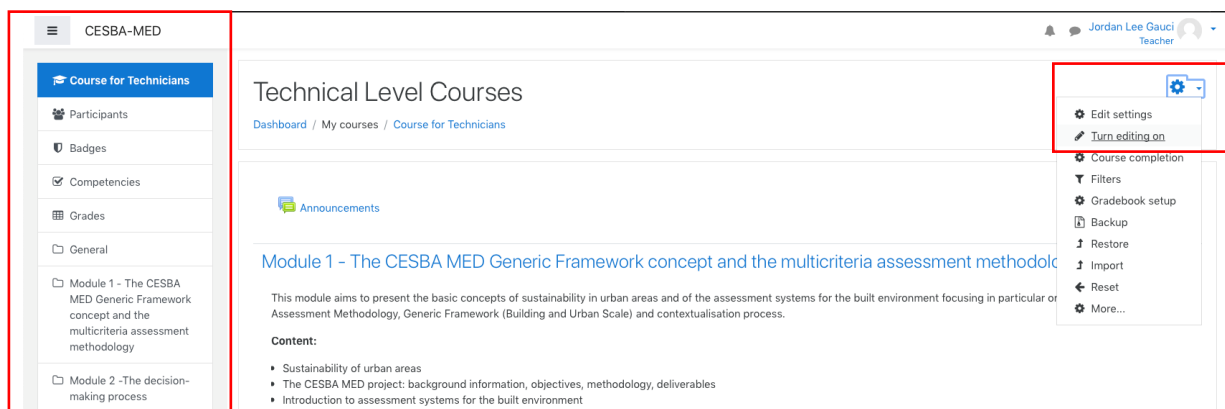




### Accessing Moodle (Tutor)

Accessing Moodle as a tutor is similar as above, with the exception that a tutor has to authenticate by clicking on “Log In” in the top-right corner of Moodle, and then entering their respective username and password.

While the general layout of Moodle will remain the same, tutors will notice that their navigation drawer includes some additional buttons. Of particular importance is the **Participants** button, through which participants can be enrolled or unenrolled from a certain course. In addition, above the general section, tutors can observe a “gear icon” which can be used to edit specific settings in the course, such as course information and description, while also being allowed to enable editing. By enabling editing, tutors are allowed to edit the different modules and upload/delete course material.



### Enrolling Users to a course

Through the Moodle platform, each user has their own username and password, and they can either self-enrol or be enrolled by a tutor.

To enrol existing users:

- 1) Log in
- 2) Go to specific course
- 3) Click on Participants
- 4) Enrol Users
- 5) Select which users to enrol and assign a role.
  - a. **Student** – Normal student that can only view course content and communicate in forums or via messaging.
  - b. **Teacher** – Can upload/delete course content
  - c. **Manager** – Can manage **all** aspects of the course (not recommended)

The screenshot shows the Moodle interface for the 'CESBA-MED' course. The 'Participants' page is active, and the 'Enrol users' button is highlighted with a red box. The 'Enrol users' dialog box is open, showing the 'Enrolment options' section. The 'Select users' field displays a 'DEMO Account' with the email 'jordanleegauci@gmail.com'. Below this is a 'Search' dropdown menu. The 'Assign role' field is set to 'Student'. A 'Show more...' link is visible below the role field. At the bottom right of the dialog are 'Enrol users' and 'Cancel' buttons.

If a student does not yet exist on Moodle, the student needs to register before this process can be done. Otherwise, the student can self-enrol to the course.

### Adding Content to Courses

The content in courses falls under two categories:

- **Static study material:** Resources that students read but do not interact with such as documents, presentations, videos, etc.
- **Interactive activities:** Resources that allows both students and tutors to interact with each other. Such resources include multiple choice quizzes, forums, etc.

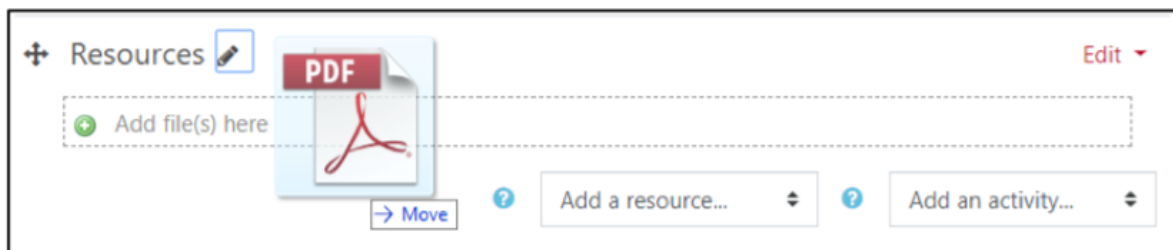
### Uploading Files

There are two main methods to upload files to Moodle.

#### Method 1: Drag and Drop

To add a file using this method:

1. Click “Turn Editing On”
2. Locate files to upload from the computer or a USB stick.
3. Click the file to upload and drag the file directly to the appropriate section of the course area. An indicating stating “**Add file(s) here**” will be displayed during the dragging process.
4. Release the mouse button to upload file.



#### Method 2: Add a Resource

The traditional method of uploading files can be found through the “**Add a Resource**” option.

1. Click “**Turn Editing On**”
  - a. Each section in the middle block displays “**Add an activity or resource**”

**+ Add an activity or resource**

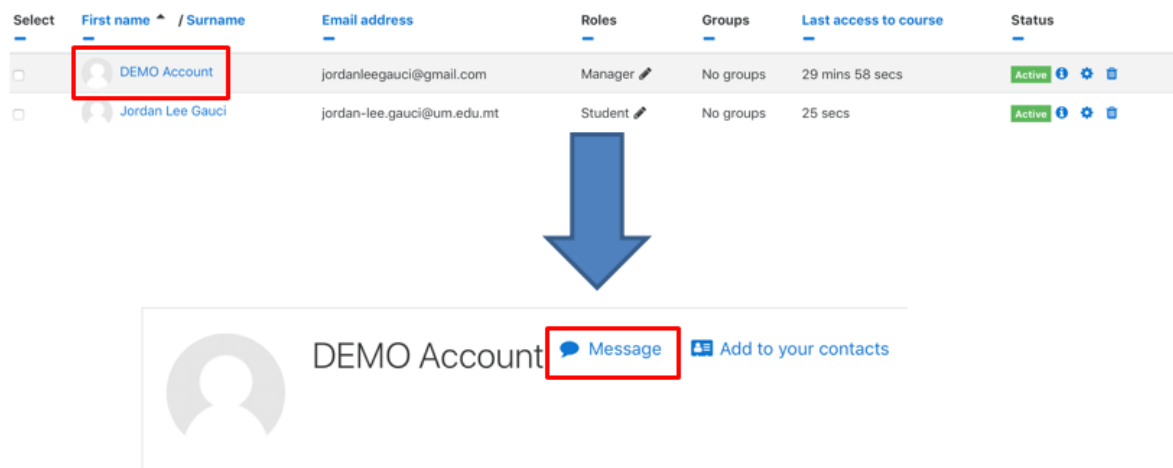
2. Scroll down to the Module where you want to add the file
3. Click on “**Add an activity or resource**”
4. Click File

5. Type a name and description for the file
6. Through the **“Select files”** section you can upload the files either by choosing the required file or by drag-and-drop.

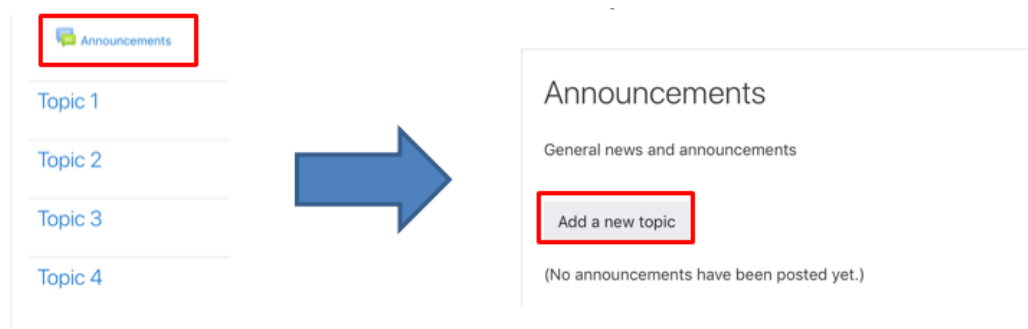
## Messaging

All users can send messages to each other (regardless of whether they are a tutor or a student), through the messaging function built in Moodle.

An individual message can be sent to each user by clicking the name of the user from the participants list and clicking on **“Message”**.



Class announcements can be sent to the whole list of enrolled users. Class announcements is a general form, where everything you write will be sent as a message to everyone. An announcement can be sent by clicking on **“Announcements”**, and on **“Add a new topic”**.



## Certificates



*Figure 4 - Participation Certificate*




Figure 5 - Completion Certificate


## Feedback Questionnaire


The e-Learning platform contains a feedback questionnaire, which is filled by the participants at the end of each course. The questionnaire is returned anonymously for monitoring purposes.


### Feedback on Course

Mode: Anonymous

The content of the course met my initial expectations.  ☒ Not selected  
☐ (5) Strongly Agree  
☐ (4) Agree  
☐ (3) Not Sure  
☐ (2) Disagree  
☐ (1) Strongly Disagree


There was a link between this course and my line of work.  ☒ Not selected  
☐ (5) Strongly Agree  
☐ (4) Agree  
☐ (3) Not Sure  
☐ (2) Disagree  
☐ (1) Strongly Disagree


I would recommend this course to other professionals if given a choice.  ☒ Not selected  
☐ (5) Strongly Agree  
☐ (4) Agree  
☐ (3) Not Sure  
☐ (2) Disagree  
☐ (1) Strongly Disagree


There are required fields in this form marked  .

### Feedback on Course

Mode: Anonymous


The module descriptions were clear.  ☒ Not selected  
☐ (5) Strongly Agree  
☐ (4) Agree  
☐ (3) Not Sure  
☐ (2) Disagree  
☐ (1) Strongly Disagree

The outline of the course was followed and the aims/expected learning outcomes presented in the description were achieved.  ☒ Not selected  
☐ (5) Strongly Agree  
☐ (4) Agree  
☐ (3) Not Sure  
☐ (2) Disagree  
☐ (1) Strongly Disagree


There are required fields in this form marked  .

## Feedback on Course


Mode: Anonymous

Course was well organised 

- ☒ Not selected  
☐ (5) Strongly Agree  
  
☐ (4) Agree  
  
☐ (3) Not Sure  
  
☐ (2) Disagree  
  
☐ (1) Strongly Disagree

Quantity of material presented was adequate 

- ☒ Not selected  
☐ (5) Strongly Agree  
  
☐ (4) Agree  
  
☐ (3) Not Sure  
  
☐ (2) Disagree  
  
☐ (1) Strongly Disagree

Delivery of courses was good 

- ☒ Not selected  
☐ 5/Strongly Agree  
  
☐ 4/Agree  
  
☐ 3/Not Sure  
  
☐ 2/Disagree  
  
☐ 1/Strongly Disagree

General Comments and Feedback 

## Important Links

**Registration Form**

<http://tinyurl.com/cesbaregister>

**CESBA-MED eLearning Main Page**

<https://cesba-med.research.um.edu.mt>

**CESBA-MED eLearning Platform**

<https://cesba-med.research.um.edu.mt/moodle>

## Appendix – Leaflet for courses

### Project Partners

iiSBE Italia R&D srl,(IT),  
www.iisbeitalia.org, andrea.moro@iisbeitalia.org

Municipality of Udine, (IT),  
www.comune.udine.it, agnese.presotto@comune.udine.it

EnvirobatBDM, (FR),  
www.polebdm.eu, fcorset@envirobatbdm.eu

Rhône-Alp Énergie Environnement, (FR),  
www.raee.org, patrick.biard@raee.org

Government of Catalonia, (ES),  
www.gencat.cat, wxmart@genctat.cat

Municipality Sant Cugat del Vallès, (ES),  
www.santcugat.cat, Gerardriba@santcugat.cat

University of Malta, (MT),  
www.um.edu.mt, ruben.p.borg@um.edu.mt

National Observatory of Athens, (GR),  
www.meteo.noa.gr, costas@noa.gr

CESBA – Common European Sustainable Built Environment Assessment, (AT),  
www.cesba.eu, office@cesba.eu

Energy Institute Hrvoje Požar, (HR),  
www.eihp.hr, mzidar@eihp.hr

Urban Community of Marseille Metropolitan Province, (FR),  
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### The CESBA MED e-Learning Platform



Project co-financed by the European  
Regional Development Fund



### What is CESBA-MED?

The project CESBA MED tested 10 case studies from all over Europe. A common sustainability assessment framework at an urban scale was selected after the testing phase. This supports the development of energy efficiency plans for public buildings in the context of their surrounding neighbourhood.

### What are the courses?

Two pilot training courses are available on the CESBA MED e-learning platform, with free access to any interested individual or organisation from the MED area. These training courses are a way to transfer the knowledge acquired from the testing phase of the project.

There are 2 training courses:

1. Course for Decision Makers
2. Course for Technical Experts

### Which course should I choose?

If you are a policy maker, investor, developer or a manager in a public body, then you need to follow the **Course for Decision Makers**.

If you are a professional, SME technician, urban planner, or form part of the technical staff of public bodies, then you have the necessary technical background to follow the **Technical Experts Course**.

### Course for Decision Makers

This course reinforces your capability to set up high quality energy retrofitting actions on public buildings or new construction projects as part of effective urban development plans by using the CESBA MED tools and methodologies. This course consists of 3 compulsory modules, and another 2 which are optional:

- ☐ **Module 1: The CESBA-MED Generic Framework Concept and Multicriteria Assessment Methodology**
- ☐ **Module 2: The Decision-Making process**
- ☐ **Module 3: Case Study Analysis focusing on decision making**
- ☐ **Module 4: Assessment criteria of a contextualised CESBA-MED SBTTool (Building Scale) (Optional)**
- ☐ **Module 7: The assessment criteria of the contextualised CESBA-MED SNTTool (Urban Scale) (Optional)**

### Course for Technical Experts

This course allows you to learn how to effectively use the CESBA MED tools and methodologies in terms of both technical and functional aspects. You will also learn to use these tools on both Urban and Building scale levels. This course consists of the 5 modules.

- ☐ **Module 1: The CESBA-MED Generic Framework Concept and Multicriteria Assessment Methodology**
- ☐ **Module 2: The Decision-Making process**
- ☐ **Module 5: Use of the contextualised CESBA-MED SBTTool (Building Scale)**
- ☐ **Module 6: Case Study Analysis**
- ☐ **Module 8: Use of the contextualised CESBA-MED SNTTool (Urban Scale)**



### Do I get a certification?

If you follow the Technical Expert course, you will be eligible to sit for a quick test after which you will be certified and able to use the CESBA tools!

Do not want to sit for the test? If you follow all the modules in the courses, you will get a certificate of participation!

### How do I access these courses?

Registration is quick, easy, and free! To register go to:

<http://tinyurl.com/cesbaregister>

Once registered, you will receive a detailed email with instructions on how to access the courses!

### More information

More information on the courses can be found on the main eLearning page:

<https://cesba-med.research.um.edu.mt>