

Erasmus+ project

“Multi-purpose center for adult education in clean environment – ECO-Center”

Instructor manual

Practical instructions how to explore ECO-Center training model for arrangement and offer of personalized learning on demand

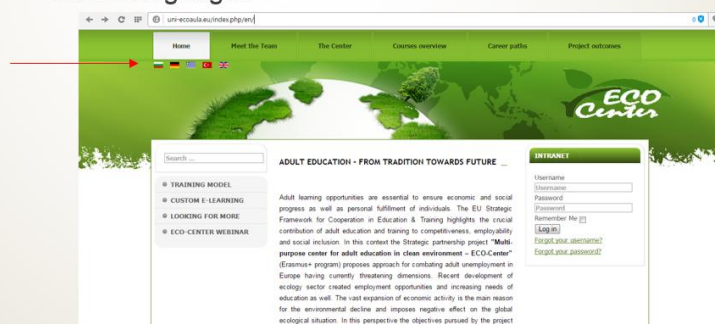
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Get acquainted with ECO-Center project online ...

► HOW TO DO IT?

- Use a recent version of any common web browser with enabled JavaScript to go to: <http://uni-ecoaula.eu>
- Select a language: the information is multilingual - choose among Bulgarian, German, English, Greek and Turkish languages



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Get acquainted with ECO-Center project online ...

► WHAT IS ESSENTIAL TO KNOW?

- Meet the project team



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Get acquainted with ECO-Center project online ...

► WHAT IS ESSENTIAL TO KNOW?

- Get familiar with strategic multipurpose ECO-Center



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Explore the training model ...

► HOW TO BEGIN?

- Choose the left-side menu TRAINING MODEL



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Explore the training model ...

► Learn about the model main pillars

- The 3-dimensional structure with key elements: Training panel; Carrier paths panel; Clean environment data base
- ECO-Center Competence-based training model – stages of development
- ECO-Center Competence-based training model structure - the hierarchic principle of the pyramid
- ECO-Center Competence-based training model two perspectives – academic and work place
- The specific training content in the model: academic, enrichment, and work-oriented training courses designed for project target groups at EQF levels 5, 6, and 7

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Explore the training model ...

► Learn about the model main pillars

- The 3-dimensional structure with key elements:
 - **The Training panel:** Learning Outcomes based training courses in clean environment with specific content and structured elements knowledge, skills and competence; assembled in training paths designed to fit the education requirements of the project target groups with implemented qualification evaluation and assessment instruments EUROPASS, EQF and EVCET
 - **The Carrier paths panel:** Competences catalogue in clean environment - a set of competences description for adult training providers in the project field; Knowledge & skills passport - a set of exemplary documents to form trainee personal professional portfolio; References of successful environmental projects
 - **The Clean environment data-base:** a meta-base of web-sources in the project field

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Explore the training model ...

Learn about the model main pillars

- ECO-Center Competence-based training model – stages of development

1st Needs analysis → 2nd Model design → 3rd Model development →
4th Model implementation → 5th Model assessment

Area	Description	Implementation
Area 1
Area 2
Area 3
Area 4
Area 5

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Explore the training model ...

Learn about the model main pillars

- ECO-Center Competence-based training model structure - the hierarchic principle of the pyramid:

Top

Training Paths (TP_n)

Professional Areas Specific
Competences/Green Abilities (GA)

Targets Specific Skills (TSS)

Soft Skills (SS)

Base



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Explore the training model ...

Learn about the model main pillars

- ECO-Center Competence-based training model two perspectives – academic and work place
 - The **academic model** - designed to comply with the demands of formal academic education in terms of curriculum evaluation, planning and development
 - The **work place model** - designed to respond to industry needs, workforce programme planning, human resource services in business, and career exploration and guidance



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Explore the training model ...

Learn about the model main pillars

- The specific training content in the model: academic, enrichment, and work-oriented training courses designed for project target groups at EQF levels 5, 6, and 7

Course type	For target groups:	No course / Topics	No of Learning Outcomes	EQF Ref. level
Academic courses	teachers/trainers in adult education	2 courses in "ECO-Biotechnologies"	4	4/7
Work-oriented training courses	adult learning providers at job risk: affected by unemployment, restructuring and career transitions	2 courses in "Environmental awareness and management"	4	4/7
Enrichment courses	career officers, counselors, inspectors, head teachers/principals/managers, other management staff in such institutions, non-teaching administrative staff	2 courses in "Environmental law and ethics"	4	5/6

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Explore the training model ...

► Put the model into practical use

- Click on '[Training Model](#)' link in the main screen of 'Training Model' menu and follow the **algorithm** to create competence-based training model



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Explore the training model ...

► Put the model into practical use

- **STAGE 1st**: Needs analysis
- The steps:
 - Desk research to gather up-to-date information about national policies; employment prospects and programmes; relevant training methods and curricula; compliance of national requirements with EU education standards
 - Analysis-based national reports
 - summary and conclusions
- The deliverables:
 - Synthesis outcome statement



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Explore the training model ...

Put the model into practical use

STAGE 2nd: Model design

The steps:

- Select the training design and
- Select the settings

The deliverables:

- Various modes of delivery: On-line; Off-line; Instructor-led; Paper based

	ALLIANCE MODEL		WORK-PLACED MODEL	
	Steps	Deliverables	Steps	Deliverables
Model design	Identifying design and setting	On-line Off-line Instructor-led Paper based	Identifying design and setting	On-line Off-line Instructor-led Paper based
Model development	Definition of soft competences Definition of target group specific competences Definition of subject specific competences (green competences EQF level)	Soft skills Target specific competences Subject specific competences Green competences	Definition of soft competences Definition of target group specific competences Definition of subject specific competences (green competences EQF level)	Soft skills Target specific competences Subject specific competences Green competences
Model implementation	Delivery of soft competences Delivery of target group specific competences Delivery of subject specific competences (green competences EQF level)	Soft skills Target specific competences Subject specific competences Green competences	Delivery of soft competences Delivery of target group specific competences Delivery of subject specific competences (green competences EQF level)	Soft skills Target specific competences Subject specific competences Green competences
Model evaluation	Control performance Control feedback production	Control performance Control feedback production	Control performance Control feedback production	Control performance Control feedback production

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Explore the training model ...

Put the model into practical use

STAGE 3rd: Model development

The steps:

- Definition of soft competences
- Definition of target group specific competences
- Definition of subject specific competences / green abilities per EQF level

The deliverables:

- Soft skills descriptions
- Targets specific competences descriptions
- Professional areas specific competences descriptions

	ALLIANCE MODEL		WORK-PLACED MODEL	
	Steps	Deliverables	Steps	Deliverables
Model design	Identifying design and setting	On-line Off-line Instructor-led Paper based	Identifying design and setting	On-line Off-line Instructor-led Paper based
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Model evaluation	Control performance Control feedback production	Control performance Control feedback production	Control performance Control feedback production	Control performance Control feedback production

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Explore the training model ...

Put the model into practical use

- STAGE 4th: Model implementation – **academic** context
- The deliverables:

ECO-Center Academic Training Paths -
a list of 24 Training Paths designed
for the selected 12 professions for
EQF level 5, 6 & 7

- Click on desired profession/ EQF level
leads to indicative table of the relevant
Training Path

Training Path	Occupation	EQF Ref. level	Credits	Unit of Learning Outcomes
BIO-6	Teacher / Trainer in Biology	6	7	3 (LO 1, LO 2, LO 11)
Learning Outcomes – knowledge content				Credits
LO 1. Introduction to remediation technology				2
LO 2. CMMs in food production and safety				3
LO 11. Plants as vehicles for novel effective substances & extraction				2
TEST			Total: 7	

Training Paths List

1 / 1

Academic Training Paths		
EQF 5	EQF 6	EQF 7
ENV-5-1	BIO-6	BIO-7
FUR-5-1	ENV-6-1	ECO-7
LEGE-6	EDU-6	CHEM-7
MATE-6	CHEM-6	ENV-EDU-7
ENV-5-2	ENV-6-2	ENV-EDU-7
FURN-6	CHEM-6	ENV-EDU-7
FURN-6	ENV-6-2	ENV-EDU-7
FURN-6	ENV-6-2	ENV-EDU-7
FURN-6	ENV-6-2	ENV-EDU-7

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Explore the training model ...

Put the model into practical use

- STAGE 4th: Model implementation – **academic** context
- The deliverables:

ECO-Center Academic Training Paths - the informative
table comprises:

- Training path composition: the Unit of Learning Outcomes
- The Credits this Training Path provides
- Access to the knowledge content
- Self-evaluation TEST
- Options for downloading & printing

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Explore the training model ...

► Put the model into practical use

- **STAGE 4th**: Model implementation – **academic** context
- The deliverables:

ECO-Center Academic Training Paths - the knowledge content:

- Is structured in hierarchical order up to 3-digit subtitles (e.g. 1., 1.1., 1.1.1)
- Is freely browsable among the main titles/subtitles through the „previous“/„next“ arrows or the submenu at the upper part of the main screen
- Each LO in the Unit of Learning Outcomes is independently accessible
- Can be (self)evaluated

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Explore the training model ...

► Put the model into practical use

- **STAGE 4th**: Model implementation – **academic** context
- The deliverables:

ECO-Center Academic Training Paths - the knowledge content:



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Explore the training model ...

► Put the model into practical use

- **STAGE 4th**: Model implementation – **academic** context
- The deliverables:
 - ECO-Center Academic Training Paths - checking and evaluation of the knowledge learned
 - The self-evaluation starts through „TEST“ link at the end of the Training path
 - A set of 10 questions: Multiple Choice Questions (MCQ) and True/False Questions (TFQ) is generated



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Explore the training model ...

► Put the model into practical use

- **STAGE 4th**: Model implementation – **academic** context
- The deliverables:
 - ECO-Center Academic Training Paths - checking and evaluation of the knowledge learned
 - The evaluation procedure – 6 consequent steps:
 - Starts with a click on the "TEST" link
 - Proceeds with answering the randomly chosen 10 questions from the question pool
 - Upon finishing the answering, the 'Quiz results' summary can be explored to provide checking the score by categories, the passing score threshold, and the elapsed time
 - Use of 'Quiz message' indication; in case of failure, the quiz may be taken again
 - The review of test results

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Explore the training model ...

Put the model into practical use

- STAGE 4th: Model implementation – **academic** context
- The deliverables:
 - ECO-Center Academic Training Paths - checking and evaluation of the knowledge learned
 - Points for the correct answer: 1
 - The advancement and achievement of the test can be followed in the 'Show results' panel



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Explore the training model ...

Put the model into practical use

- STAGE 4th: Model implementation – **academic** context
- The deliverables:
 - ECO-Center Academic Training Paths - checking and evaluation of the knowledge learned
 - 'Quiz message' announced the test final result: 'passed' or 'failed'
 - An option 'take this quiz again' generates another set of 10 subject questions; maximum 3 attempts are allowed



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Explore the training model ...

Put the model into practical use

- STAGE 4th: Model implementation – **academic** context
- The deliverables:
 - ECO-Center Academic Training Paths - checking and evaluation of the knowledge learned
 - 'Review' panel track question by question the true/false answers and trainee's personal score



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Explore the training model ...

Put the model into practical use

- STAGE 4th: Model implementation – **work-place** context
- The steps:
 - Development of learning materials – delivery of Work-Place Training
 - Development of instructor materials
 - Development of trainees guide
- The deliverables:
 - ECO-Center Work-Place Training - Competences Catalogue in Clean Environment
 - Instructor manual
 - Trainees guide

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Explore the training model ...

► Put the model into practical use

- **STAGE 4th**: Model implementation – **work-place** context
- The deliverables:
 - ECO-Center Work-Place Training - Competences Catalogue in Clean Environment



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Explore the training model ...

► Put the model into practical use

- **STAGE 5th**: Model assessment
- The steps:
 - Conduct pilot training
 - Conduct formative evaluation
- The deliverables:
 - National evaluation and sharing statements

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... and benefit also from:

► Courses overview

- Each course is offered as a blend of concise summary, full-text pdf, and as ppt



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► Courses overview

- Each course is offered as a blend of concise summary, full-text pdf, and as ppt



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... and benefit also from:

► Career paths

► ECO-Center Competences:

- A set of competences description for adult training providers in clean environment
- The competences are described in accordance with EQF levels 5, 6 and 7, and main descriptors knowledge, skills, abilities and individual attributes
- The competences outline the general as well specific cognitive and technical abilities you can re-build and re-skilled through the various types of courses offered

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... and benefit also from:

► Career paths

► ECO-Center Competences:

Professional area specific competences/ skills			
Technicians in adult education	Adult learning providers	Career officers, counsellors, inspectors, implementation/ projects	Educational managers, other management staff in adult learning institutions, non-teaching administrative staff
<ul style="list-style-type: none"> • Biology <ul style="list-style-type: none"> • EQF 5 • EQF 6 • EQF 7 • Chemistry <ul style="list-style-type: none"> • EQF 5 • EQF 6 • EQF 7 • Ecology <ul style="list-style-type: none"> • EQF 5 • EQF 6 • EQF 7 • Environmental engineering <ul style="list-style-type: none"> • EQF 5 • EQF 6 • EQF 7 • Civil engineering <ul style="list-style-type: none"> • EQF 5 • EQF 6 • EQF 7 	<ul style="list-style-type: none"> • Basic education <ul style="list-style-type: none"> • EQF 5 • EQF 6 	<ul style="list-style-type: none"> • Environmental ethics <ul style="list-style-type: none"> • EQF 5 • EQF 6 • EQF 7 • Public health <ul style="list-style-type: none"> • EQF 5 • EQF 6 • EQF 7 • Legislation <ul style="list-style-type: none"> • EQF 5 • EQF 6 • EQF 7 	<ul style="list-style-type: none"> • Management <ul style="list-style-type: none"> • EQF 5 • EQF 6 • EQF 7 • Public relations <ul style="list-style-type: none"> • EQF 5 • EQF 6 • EQF 7 • Economics <ul style="list-style-type: none"> • EQF 5 • EQF 6 • EQF 7

Specific competences and/or skills for technicians in adult education, area Biology

Area:	Biology
Language:	B
Define specific competences/ skills	
<p>The professional study helps engineers and their interaction with each other and with the environment, actively the knowledge in open, human health and environmental problems. They work in diverse fields such as biology, ecology, genetics, human biology, general knowledge, pharmacology, toxicology, physiology, biochemistry and entomology.</p>	
<p>Competences include skills/abilities in:</p> <ul style="list-style-type: none"> • advise the governmental organisations and businesses on inspection and management of natural resources, the state of living things and plants, etc. (1) • design and carry out environmental impact assessments to identify changes caused by natural or human factors (2) • design and conduct equipment and analysis • address plans for management environmental education (3) • examine living organisms using a variety of specialised equipment, instruments, technologies and techniques • explain environmental ecological systems and identify causes in biological systems (4) • gather specimens and data from living organisms and study their origin, development, chemical and physical form, structure, composition and life cycle reproductive processes • identify, classify, monitor and monitor living organisms and to maintain databases • research physical characteristics of different environments to determine their relationship to their habitats (5) 	

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... and benefit also from:

► Career paths

- Knowledge & skills passport: guidelines for assembly of personal professional portfolio to evidence mastery of skills, applied knowledge, and attitudes



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... and now

► Welcome to ECO-Center training model !

- We offer you an algorithm how to make a competence model
- We propose you a logical and consequent 5-stages track to assist trainees to reach desired competences, relevant to a specific qualification, through a personalized Training Path
- The model is oriented towards specific jobs/job groups within defined occupations' areas
- The model encourages the bridge building and information sharing between employers and the education system
- It offers both feasibility and flexibility since is scaled to trainees' needs and offered as a mix of options in hosting, technology, and learning levels
- Use the model to lay down the frame of LOs you offer to ensure that your trainees will gain the right knowledge, skills and wider competence
- Use the model as a scheme for developing new curricula, performance standards, and assessment instruments that measure the acquisition of knowledge and skills
- Use the model for work-place training independently on time-schedule or mode of delivery of cognitive information

ECO-Center Team

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