European Software
Skills Alliance.

ESSA Learning programmes

ANNEX VIII
Test Specialist EQF 4/5

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Deliverable 10 – ESSA Learning Programmes & Materials – ANNEX VIII

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About ESSA

The European Software Skills Alliance (ESSA) is a four-year transnational project funded under the EU's Erasmus+ programme. It ensures the skills needs of the rapidly evolving Software sector can be met — today and tomorrow.

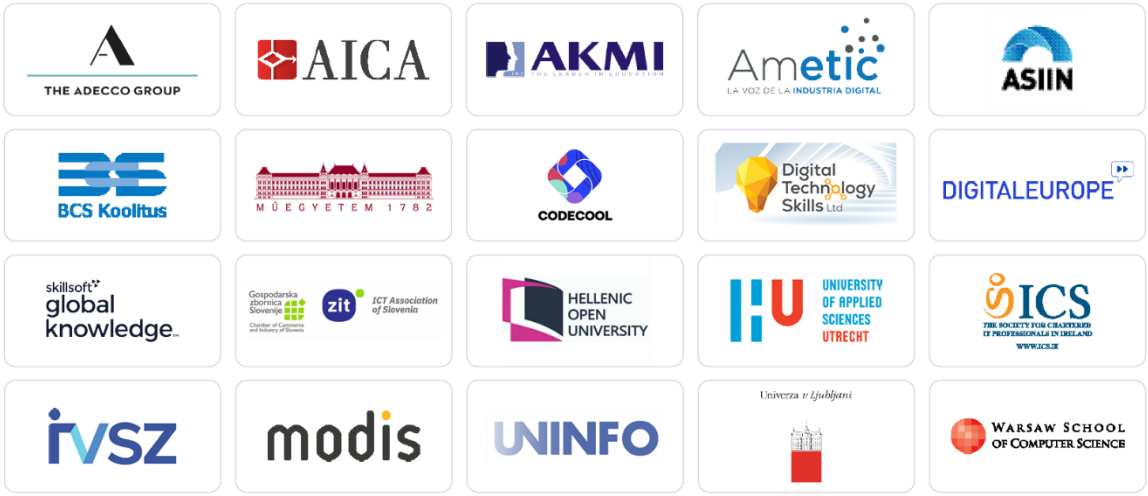
ESSA provides current and future software professionals, learning providers and organisations with software needs with the educational and training instruments they need to meet the demand for software skills in Europe.

ESSA will develop a European Software Skills Strategy and learning programmes for Europe. It will address skill mismatches and shortages by analysing the sector in depth and delivering future-proof curricula and mobility solutions; tailored to the European software sector's reality and needs.

Project partners

The ESSA consortium is led by DIGITALEUROPE. It is composed of academic and non-academic partners from the education, training, and software sectors.

View all project partners: ESSA Partners | ESSA Associated Partners



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List of abbreviations and acronyms

Abbreviation	Term
e-CF, EN 16234-1	European e-Competence Framework, European Norm 16234 - Part 1: Framework
ECTS	European Credit Transfer and Accumulation System
EQF	European Qualifications Framework
ESSA	European Software Skills Alliance
LO	Learning Outcome
PLO	Programme Learning Outcome

1 Test Specialist EQF 4/5 – ESSA Learning Programme

1.1 University students and professionals in upskilling/reskilling paths

Executive summary

The Learning Programme is being designed by Adecco Formazione (IT), in order to provide participants with the skills useful to perform software testing operations: an essential activity for the development of any software platform and application. Participants will learn the fundamentals of software testing and also how to use the main tools to support testing activities. Knowledge relating to the ISTQB certification procedures for software testing will also be provided.

In addition to the technical skills, the course provides the project management skills essential for the management of a digital project, as well as soft skills focused on team collaboration, essential for interacting effectively with colleagues and project stakeholders.

Targeted Institutions: Higher education, VET

The Learning programme recommended is articulated in ten (10) Learning Units, for a total of 120 hours and 5 ECTS.

The delivery method recommended is the Virtual Classroom.

1.1.1 PLO 1. Component integration [e-2]

1. PLO Component Integration [e-2]	
The learner has demonstrated capability *→ to integrate efficiently a software application or component into an existing system* *→ to document the installation activities*	
Unit learning outcomes	Explains and distinguishes common methods, techniques and tools related to efficient integration
	Describes the interplay between and compatibility of system components
	Selects the relevant integration testing techniques, to ensure the system meets requirements
	Monitors and tests the connectivity of integrated systems
	Writes an integration test result report

1.1.1.1 Duration of Study

Recommended duration: starting from 1 ECTS

Often integrated with studies of PLOs: PLO 2 -Testing [e-2]

1.1.1.2 Recommendations for Micro-credentials

This PLO should be an integral part of the initial studies for students with no prior knowledge of software testing procedures and tools.

1.1.1.3 Recommendations on Didactical Approach, Delivery Methods and Training Environment

Recommended didactical approach:

- Virtual Classroom ☒

Additional comments

It is recommended to deepen the topics presented in the Learning Units by reading publications dedicated to the various topics, reading websites specialized in software testing, watching online tutorials and downloading materials useful for practical exercises from realiable sources.

Recommended delivery methods:

- Lecture ☒ up to 30%
- Software testing Training Lab delivered by individual/team project work ☒ up to 70+%

Additional comments

After learning the basic principles, terminology, and models of software testing, the study should focus on analysing and simulating real work-life-like tasks as, for example, the student:

- Participates in a software testing process and applies a common software development method;
- Writes code and related documentation to it, by using a common software testing platform/tool and applying coding conventions;
- Monitors and tests the connectivity of integrated systems.

1.1.1.4 WBL and Follow-up Reinforcement

After learning the basic principles, terminology, and models of software design, the study should focus on analysing and simulating real work-life-like tasks as, for example:

- Designing simple design models & diagrams for a software testing project

1.1.1.5 Important (new) approaches and technologies to consider

- Not applicable

1.1.1.6 Assessment

Unit learning outcome	Assessment method	Validation of prior acquired competences (skills and knowledge)
Knowledge of ISTQB® procedures for software testing.	Assignement Practical activity: The candidate will perform a software test using the ISTQB® certified tester framework.	n/a

1.1.2 Learning Resources - PLO 1. Component integration [e-2]

LEARNING UNIT	EQF	Duration	Didactical Approach	ASSESSMENT	Title of the Learning material	Delivery method of the learning material	Quick link to learning materials
ISTQB® Advanced Level Test	4/5	20 hours	The didactic approach would be aimed to allows participants to understand the main procedures of software testing, through the use of practical examples, such as viewing and analyzing software and programming code.	Assignment: Practical activity: The candidate will perform a software test using the ISTQB® certified tester framework.	ISTQB Advanced level test Tool support for testing	Virtual classroom, Workshop and lecture guides	ISTQB_Advanced_Level Test.pptx Tool support for testing.pptx

1.1.3 PLO 2. Testing [e-2]

2. PLO Testing [e-2]	
The learner has demonstrated capability *→ to test a software application or component* *→ to document test outcomes*	
Unit learning outcomes	Explains and distinguishes principles of software testing, common testing methods, techniques, and tools
	Designs test cases, test scripts, test conditions, and test plans for given requirements
	Automates repeatable testing tasks
	Configures a test environment
	Performs manual and automated test activities, applying testing and debugging techniques and tools
	Records and interprets test outcomes and writes test result documentation/ test report

1.1.3.1 Duration of Study

Recommended duration: starting from 0,5 ECTS

Often integrated with studies of PLOs: PLO 5 Risk Management [e-2]

1.1.3.2 Recommendations for Micro-credentials

This PLO should be an integral part of the initial studies for students with no prior knowledge of software component integration.

1.1.3.3 Recommendations on Didactical Approach, Delivery Methods and Training Environment

Recommended didactical approach:

- Virtual Classroom ☒

Additional comments

It is recommended to deepen the topics presented in the Learning Units by reading publications dedicated to the various topics, reading websites specialized in programming and software testing methodologies, watching online tutorials and downloading materials useful for practical exercises from reliable sources.

Recommended delivery methods:

- Lecture ☒ up to 70%
- Software testing Training Lab delivered by individual/team project work ☒ up to 30+%

Additional comments

It is recommended to deepen the topics presented in the Learning Units by reading publications dedicated to the various topics, reading websites specialized in programming, watching online tutorials and downloading materials useful for practical exercises from reliable sources.

1.1.3.4 WBL and Follow-up Reinforcement

After learning the basic principles, terminology, and models of software testing, the study should focus on analysing and simulating real work-life-like tasks as, for example, the student:

- Participates in a software testing activity
- Writes code and related documentation

1.1.3.5 Important (new) approaches and technologies to consider

Not applicable

1.1.3.6 Assessment

Unit learning outcome	Assessment method	Validation of prior acquired competences (skills and knowledge)
Identify and explains and distinguishes principles of software testing, testing methods and techniques	Exam: Candidates should identify which software testing approach is most useful for solving a software bug.	n/a
Identify the main tools used for software testing.	Exam: Candidates should identify which software testing approach is most useful for solving a software bug.	n/a

1.1.4 Learning Resources – PLO 2. Testing [e-2]

LEARNING UNIT	EQF	Duration	Didactical Approach	ASSESSMENT	Title of the Learning material	Delivery method of the learning material	Quick link to learning materials
Fundamentals of software testing	4/5	12 hours	The didactic approach would be aimed to allows participants to understand the fundamentals software testing, through the use of practical examples, such as viewing and analyzing software and programming code.	Exam: Candidates should identify which software testing approach is most useful for solving a software bug.	Component testing and integration Fundamentals of software testing ISTQB Advanced Level Test Software Development Design Testing Design Techniques	Virtual classroom, Workshop and lecture guides	Component testing and integration.pptx Fundamentals of software testing.pptx ISTQB_Advanced_Level Test.pptx Software Development Design.pptx Testing Design Techniques.pptx

1.1.5 PLO 3. Solution Deployment [e-2]

3. PLO Solution deployment [e-2]	
The learner has demonstrated capability *→ to implement (parts of) a solution or software application or component* *→ to provide (part of) release documentation*	
Unit learning outcomes	Executes relevant tests during and after a solution/ software release, applying appropriate methods, techniques, and tools
	Writes (parts of) release documentation related to the verification and validation of solutions and services

1.1.5.1 Duration of Study

Recommended duration: starting from 0,5 ECTS

Often integrated with studies of PLOs: PLO 1 – Component integration [e-2], PLO 2 – Testing [e-2]

1.1.5.2 Recommendations for Micro-credentials

This PLO should be an integral part of the initial studies for students with no prior knowledge of software component integration.

1.1.5.3 Recommendations on Didactical Approach, Delivery Methods and Training Environment

Recommended didactical approach:

- Virtual Classroom ☒

Additional comments

Recommended delivery methods:

- Lecture ☒ up to 70%
- Software testing Training Lab delivered by individual/team project work ☒ up to 30%

Additional comments

It is recommended to deepen the topics presented in the Learning Units by reading publications dedicated to software testing, watching online tutorials and downloading materials useful for practical exercises from reliable sources.

1.1.5.4 WBL and Follow-up Reinforcement

After learning the basic principles, terminology, and models of Solution Deployment, the study should focus on analysing and simulating real work-life-like tasks as, for example, the student:

- Participates in a development process and applies a common software testing method;
- Monitors and tests the connectivity of integrated systems.

1.1.5.5 Important (new) approaches and technologies to consider

Not Applicable

1.1.5.6 Assessment

Unit learning outcome	Assessment method	Validation of prior acquired competences (skills and knowledge)
Design the last four applied software testing principles relating to early testing, defect clustering, pesticide paradox, and context dependency.	Assignement : Practical activity: The candidate produces a document which describes the design of a software testing.	n/a
Design test planning and control activities		n/a
Design test analysis and design activities.		n/a
Design test implementation and execution activities.		n/a
Design evaluation of exit criteria and test closure activities		n/a

1.1.6 Learning Resources - PLO 3. Solution Deployment [e-2]

LEARNING UNIT	EQF	Duration	Didactical Approach	ASSESSMENT	Title of the Learning material	Delivery method of the learning material	Quick link to learning materials
Testing Design Techniques	4/5	8 hours	The didactic approach would be aimed to allows participants to understand the fundamentals software testing techniques through the use of practical examples, such as viewing and analyzing software and programming code.	Assignement: Practical activity: The candidate produces a document which describes the design of a software testing.	Component testing and integration ISTQB Advanced Level Test	Virtual classroom, Workshop and lecture guides	Component testing and integration.pptx ISTQB_Advanced_Level Test.pptx
Component testing and integration	4/5	8 hours		Assignement: Practical activity: The candidate writes a report focused on the analysis of parameters and values of a software, side effects on parameters or resources, omitted or misunderstood functionality, non-functional properties and		Virtual classroom, Workshop and lecture guides	Component testing and integration.pptx ISTQB Advanced Level Test.pptx

			dynamic mismatches.			

1.1.7 PLO 4. Documentation production [e-2]

4. PLO Documentation Production [e-2]	
The learner has demonstrated capability *→ to draft technical documentation*	
Unit learning outcomes	Describes types of technical documentation
	Provides different (parts of) common technical documents, using appropriate tools (e.g. software documentation tools)

1.1.7.1 Duration of Study

Recommended duration: starting from 1 ECTS

Often integrated with studies of PLOs: 2

1.1.7.2 Recommendations for Micro-credentials

This PLO should be an integral part of the initial studies for students with no prior knowledge of software component integration.

1.1.7.3 Recommendations on Didactical Approach, Delivery Methods and Training Environment

Recommended didactical approach:

- Virtual Classroom ☒

Additional comments

n/a

Recommended delivery methods:

- Lecture ☒ up to 30%
- Software testing Training Lab delivered by individual/team project work ☒ up to 70%

Additional comments

It is recommended to deepen the topics presented in the Learning Units by reading publications dedicated to software testing, watching online tutorials and downloading materials useful for practical exercises from reliable sources.

1.1.7.4 WBL and Follow-up Reinforcement

After learning the basic principles, terminology, and models of Solution Deployment, the study should focus on analysing and simulating real work-life-like tasks as, for example, the student:

- Participates in a development process and applies a common software testing method and related documentation production.

1.1.7.5 Important (new) approaches and technologies to consider

Not Applicable

1.1.7.6 Assessment

Unit learning outcome	Assessment method	Validation of prior acquired competences (skills and knowledge)
Describes types of technical documentation	Assignment: Practical activity: The candidate writes a report focused on the analysis of parameters and values of two or more component on a digital application.	n/a
Provides different (parts of) common technical documents, using appropriate tools (e.g., software documentation tools)	Assignment: Practical activity: The candidate analyses a specific software following the STLC reference framework, writing a report of the activity performed.	n/a

1.1.8 Learning Resources - PLO 4. Documentation production [e-2]

LEARNING UNIT	EQF	Duration	Didactical Approach	ASSESSMENT	Title of the Learning material	Delivery method of the learning material	Quick link to learning materials
ISTQB Advanced Level Test	4/5	20 hours	The didactic approach would be aimed to allows participants to understand the fundamentals software testing techniques through the use of practical examples, such as viewing and analyzing software and programming code.	Assignment: Practical activity.	ISTQB Advanced Level Test	Virtual classroom, Workshop and lecture guides	ISTQB Advanced Level Test.pptx
Testing Design Techniques	4/5	8 hours	The didactic approach would be aimed to allows participants to understand the fundamentals software testing techniques	Assignment: Practical activity.	Testing Design Techniques	Virtual classroom, Workshop and lecture guides	Testing Design Techniques.pptx

			through the use of practical examples, such as viewing and analyzing software and programming code.			

1.1.9 PLO 5. Risk Management [e-2]

5. PLO Risk management [e-2]	
The learner has demonstrated capability *→ to apply risk management principles to perform common risk analysis of ICT solutions and services* *→ to propose actions to handle risks*	
Unit learning outcomes	Applies practices, principles, methods, tools and techniques related to risk-based testing
	Performs a risk analysis with identification and assessment of risks of IT solutions and services
	Proposes appropriate actions to handle risks, taking into account relevant conditions (e.g., risk/security exceptions, risk acceptance)
	Writes (parts of) a risk-based testing results report

1.1.9.1 Duration of Study

Recommended duration: starting from 2 ECTS

Often integrated with studies of PLOs: PLO 2 – Testing [e-2]

1.1.9.2 Recommendations for Micro-credentials

This PLO should be an integral part of the initial studies for students with no prior knowledge of software component integration.

1.1.9.3 Recommendations on Didactical Approach, Delivery Methods and Training Environment

Recommended didactical approach:

- Virtual Classroom ☒

Additional comments

Recommended delivery methods:

- Lecture ☒ up to 30%
- Software testing Training Lab delivered by individual/team project work ☒ up to 70%

Additional comments

It is recommended to deepen the topics presented in the Learning Units by reading publications dedicated to software testing, watching online tutorials and downloading materials useful for practical exercises from authoritative sources. Lectures, e-learning are recommended for learning the basic principles, terminology, and models of software testing and risk management. These should be reinforced through practical tasks, case studies, individual/team-projects.

1.1.9.4 WBL and Follow-up Reinforcement

After learning the basic principles, terminology, and models of software testing and risk management on digital projects, the study should focus on analysing and simulating real work-life-like tasks as, for example, the student:

- Participates in a development process and applies a common software testing method and related documentation production ab out risk management of software-related digital projects.

1.1.9.5 Important (new) approaches and technologies to consider

- Not Applicable

1.1.9.6 Assessment

Unit learning outcome	Assessment method	Validation of prior acquired competences (skills and knowledge)
Applies practices, principles, methods, tools and techniques related to risk based testing	Assignment: Exam: Candidates should identify which software testing approach is most useful for solving a software bug.	n/a
Performs a risk analysis with identification and assessment of risks of ICT solutions and services	Assignment: Practical activity: The candidate will perform a software test using one of the reference platforms for software testing	n/a
Proposes appropriate actions to handle risks, taking into account relevant conditions (e.g., risk/security exceptions, risk acceptance)	Assignment: Practical activity: The candidate produces a document which describes the design of a software testing.	n/a
Writes (parts of) a risk-based testing results report	Assignment: Practical activity: The candidate will perform a software test using the ISTQB® certified tester framework.	n/a

1.1.10 Learning Resources – PLO 5. Risk Management [e-2]

LEARNING UNIT	EQF	Duration	Didactical Approach	ASSESSMENT	Title of the Learning material	Delivery method of the learning material	Quick link to learning materials
Component testing and integration	4/5	8 hours	The didactic approach would be aimed to allows participants to understand the fundamentals of component testing and integration by the use of practical examples, such as viewing and analyzing software and programming code.	Assignment: Practical activity: The candidate writes a report focused on the analysis of parameters and values of a software, side effects on parameters or resources, omitted or misunderstood functionality, non-functional properties and dynamic mismatches.	Component testing and integration	Virtual classroom, Workshop and lecture guides	Component testing and integration.pptx
The fundamentals of software testing	4/5	12 hours	The didactic approach would be aimed to allow participants to understand the	Assignment: Exam: Candidates should identify which software testing approach	Fundamentals of software testing and integration	Virtual classroom, Workshop and lecture guides	Fundamentals of software testing.pptx

			fundamentals of software testing by the use of practical examples, such as viewing and analyzing software and programming code.	is most useful for solving a software bug.			
ISTQB® Advanced Level Test	4/5	20 hours	The didactic approach would be aimed to allows participants to understand the fundamentals of ISTQB framework by the use of practical examples, such as viewing and analyzing software and programming code.	Assignment: Practical activity: The candidate will perform a software test using the ISTQB® certified tester framework.	ISTQB Advanced Level Test	Virtual classroom, Workshop and lecture guides	ISTQB Advanced Level Test.pptx
Testing Design Tecniques	4/5	8 hours	The didactic approach would be aimed to allows participants to	Assignment: Practical activity: The candidate produces a document which	Testing Design Tecniques	Virtual classroom, Workshop and lecture guides	Testing Design Techniques.pptx

			understand the fundamentals of testing design by the use of practical examples, such as viewing and analyzing software and programming code.	describes the design of a software testing.			

1.1.11 PLO 6. Profession related competences [EQF5]

6. PLO Profession related competences [EQF5]	
The learner has demonstrated capability *→ to apply profession related skills*	
Unit learning outcomes	Masters common ICT knowledge
	Explains the principles, related concepts, advantages and disadvantages of a new technology. Applies and reports on basic methods, techniques and tools related to a new technology.
	Applies and reports on measures, methods, tools and techniques related to security
	Applies and reports on measures, methods, tools and techniques related to software lifecycle processes
	Is aware of basic ethical considerations and issues

1.1.11.1 Duration of Study

Recommended duration: starting from 1 ECTS

Often integrated with studies of PLOs: PLO 8. Functioning in organisation [EQF5], EXTRA CURRICULAR PLO: New Technology [EQF5]

1.1.11.2 Recommendations for Micro-credentials

This PLO should be an integral part of the initial studies for students with no prior knowledge of team collaboration and project management.

1.1.11.3 Recommendations on Didactical Approach, Delivery Methods and Training Environment

Recommended didactical approach:

- Virtual Classroom ☒

Additional comments

Recommended delivery methods:

- Lecture ☒ up to 30%
- Independent learning ☒ up to 70%

Additional comments

It is recommended to deepen the topics presented in the Learning Units by reading publications dedicated to software testing, watching online tutorials and downloading materials useful for practical exercises from reliable sources.

1.1.11.4 WBL and Follow-up Reinforcement

After learning the basic principles, terminology, and models of professional-related competences (such as: team collaboration and Project Management), the study should focus on analysing and simulating real work-life-like tasks.

1.1.11.5 Important (new) approaches and technologies to consider

Not Applicable

1.1.11.6 Assessment

Unit learning outcome	Assessment method	Validation of prior acquired competences (skills and knowledge)
Masters common ICT knowledge	Assignment: Candidates develop a report about the possible implementation of a new digital platform to solve a business or a technical need.	n/a
[Project skills] Works in project settings, applies project management methods and tools	Laboratory: Practical activity: The candidate will perform a software development activity using Agile methodology, working on a team group.	n/a
[Security skills] Applies and reports on methods, tools and techniques related to security	Assignment: Practical activity: The candidate analyses a specific software following the STLC reference framework, writing a report of the activity performed.	n/a
[Software life cycle skills] Applies and reports on methods, tools and techniques related to software lifecycle processes	Assignment: Practical activity: The candidate will perform a software test using the ISTQB® certified tester framework.	n/a
[Ethical awareness skills] Is aware of basic ethical considerations and issues	Assignment: Candidates develop a report about the possible implementation of a new digital platform to solve a business or a technical need.	n/a

1.1.12 Learning Resources - PLO 6. Profession related competences [EQF5]

LEARNING UNIT	EQF	Duration	Didactical Approach	ASSESSMENT	Title of the Learning material	Delivery method of the learning material	Quick link to learning materials
Introduction to ICT and digital system integration	4/5	8 hours	The didactic approach would be aimed to allows participants to understand the basic concept of ICT and Digital Transformation.	Assignment: Candidates develop a report about the possible implementation of a new digital platform to solve a business or a technical need.	Introduction to ICT and digital system integration	Assignment: Practical activity:	Introduction to ICT and digital system integration.pptx
Project Management	4/5	12 hours	The didactic approach would be aimed to allows participants to understand the basic concept of project management, agile project management and SCRUM	Laboratory: Practical activity: The candidate will perform a software development activity using Agile methodology, working on a team group.	Project Management basics, Agile and SCRUM	Assignment: Practical activity:	Project Management Basics Agile and SCRUM.pptx

Team Collaboration	4/5	8 hours	The didactic approach would be aimed to allows participants to understand the basic concept and mindset useful for team collaboration.	Laboratory: The candidate will develop a software testing project by communicating with other colleagues through collaboration and corporate communication tools.	Team Collaboration and file versioning		Team Collaboration and file versioning.pptx

1.1.13 PLO 7. Soft competences [EQF5]

7. PLO Soft competences [EQF5]	
The learner has demonstrated capability *→ to apply soft skills*	
Unit learning outcomes	Works together with others in a team
	Communicates with peers, colleagues, supervisors and or relevant other, appropriately to the context, using conventions that are relevant to professional practice. Explains and gives instruction.
	Masters the English language at a level B2. Can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in his/her field of specialisation
	Distinguishes and analyses fairly complex and unpredictable problems. Solves these problems systematically and in a creative way, using existing procedures and guidelines and own solutions by identifying and using data.
	Exercises self-management within the guidelines of contexts that are usually predictable but are subject to change. Is able to cope with limited change and to adapt to a certain level of variety in the workplace. Copes with pressure and stress setbacks and maintains composure. Shows some initiative and carries responsibility for the results of own activities, work and or study. Works correctly and carefully.
	Realises learning and personal development on request, where necessary with support, through self-reflection and external- and self-evaluation of own (learning) results.

1.1.13.1 Duration of Study

Recommended duration: starting from 0,5 ECTS

Often integrated with studies of PLOs: EXTRA CURRICULAR PLO: New Technology [EQF5]

1.1.13.2 Recommendations for Micro-credentials

This PLO should be an integral part of the initial studies for students with no prior knowledge of team collaboration and project management.

1.1.13.3 Recommendations on Didactical Approach, Delivery Methods and Training Environment

Recommended didactical approach:

- Virtual Classroom ☒

Additional comments
n/a

Recommended delivery methods:

- Lecture ☒ up to 70%
- Self study ☒ up to 30+%

Additional comments

Lectures, e-learning are recommended for learning the basic principles, terminology, and models of software design. These should be reinforced through practical tasks, case studies, individual/team-projects.

1.1.13.4 WBL and Follow-up Reinforcement

After learning the basic principles, terminology, and models of professional-related competences, the study should focus on analysing and simulating real work-life-like tasks.

1.1.13.5 Important (new) approaches and technologies to consider

Not applicable

1.1.13.6 Assessment

Unit learning outcome	Assessment method	Validation of prior acquired competences (skills and knowledge)
[Teamwork skills] Works together with others in a team [Communication skills] Communicates with peers, colleagues, supervisors and or relevant other, appropriately to the context, using conventions that are relevant to professional practice. Explains and gives instruction. Distinguishes and analyses fairly complex and unpredictable problems. Solves these problems systematically and in a creative way, using existing procedures and guidelines and own solutions by identifying and using data. Realises personal development on request, where necessary with support, through self-reflection and external- and self-evaluation of own (learning) results. Writes a self-reflection report.	Laboratory: The candidate will develop a software testing project by communicating with other colleagues through collaboration and corporate communication tools.	n/a

1.1.14 Learning Resources - PLO 7. Soft competence [EQF5]

LEARNING UNIT	EQF	Duration	Didactical Approach	ASSESSMENT	Title of the Learning material	Delivery method of the learning material	Quick link to learning materials
Team Collaboration	4/5	8 hours	Facilitate the acquisition of a mindset and skills useful for promoting team collaboration activities.	Laboratory: The candidate will develop a software testing project by communicating with other colleagues through collaboration and corporate communication tools.	Team collaboration and file versioning	Assignment: Practical activity	Team Collaboration and file versioning.pptx
Testing Design Techniques	4/5	8 hours	Generate awareness of key testing design practices	Assignment: Practical activity: The candidate produces a document which describes the design of a software testing.	Testing design techniques	Assignment: Practical activity	Testing Design Techniques.pptx

1.1.15 PLO 8. Functioning in organisation [EQF5]

8. PLO Functioning in organisation [EQF5]	
The learner has demonstrated capability *→ to function in an organisational context*	
Unit learning outcomes	Explains basics of organisation theory and behaviour
	Describes the relationship between business and IT
	Works in an organisational context under specific direction with limited autonomy and responsibility e.g., at the level of a trainee, junior or assistant
	Works in project settings, applies project management methods and tools
	Writes a report on functioning in the organisation

1.1.15.1 Duration of Study

Recommended duration: starting from 8 hours

Often integrated with studies of PLOs: PLO 7 Soft competence [EQF5]

1.1.15.2 Recommendations for Micro-credentials

Not Applicable

1.1.15.3 Recommendations on Didactical Approach, Delivery Methods and Training Environment

Recommended didactical approach:

- Virtual Classroom ☒

Additional comments

Recommended delivery methods:

- Lecture ☒ up to 100%

Additional comments

It is recommended to deepen the topics presented in the Learning Units by reading publications dedicated to organizational design, watching online tutorials and downloading materials useful for practical exercises from reliable sources.

1.1.15.4 WBL and Follow-up Reinforcement

Not Applicable

1.1.15.5 Important (new) approaches and technologies to consider

Participants are advised to delve deeper into the innovative topic of. Exponential organizations.

1.1.15.6 Assessment

Unit learning outcome	Assessment method	Validation of prior acquired competences (skills and knowledge)
Explains basics of organisation theory and behavior	Laboratory: The candidate will develop a software testing project by communicating with other colleagues through collaboration and corporate communication tools.	n/a
Describes the relationship between business and IT		
Works in an organisational context under specific direction with limited autonomy and responsibility e.g., at the level of a trainee, junior or assistant		
Writes a report on functioning in organisation		

1.1.16 Learning Resources - PLO 8. Functioning in organisation [EQF5]

LEARNING UNIT	EQF	Duration	Didactical Approach	ASSESSMENT	Title of the Learning material	Delivery method of the learning material	Quick link to learning materials
Team Collaboration	4/5	8 hours	Facilitate the acquisition of team collaboration skills through project management tools	Laboratory: The candidate will develop a software testing project by communicating with other colleagues through collaboration and corporate communication tools.	Fundamentals of Team Collaboration	Assignment: Practical activity	Fundamentals of Team Collaboration.pptx

1.1.17 EXTRA CURRICULAR PLO: New Technology [EQF5]

PLO New Technology [EQF5]	
The learner has demonstrated capability to understand how ICT technologies are used to develop platforms and software applications useful for digital products and services.	
Unit learning outcomes	Explains the principles, related concepts, advantages and disadvantages of a new technology
	Applies basic methods, techniques and tools related to a new technology
	Writes a report on the application of a method, technique or tool related to a new technology

1.1.17.1 Duration of Study

Recommended duration: starting from n.8 hours

Often integrated with studies of PLOs: 1 Recommendations for Micro-credentials

- This PLO should be an integral part of the initial studies for students with no prior knowledge of ICT Technologies .

1.1.17.2 Recommendations on Didactical Approach, Delivery Methods and Training Environment

Recommended didactical approach:

- Virtual Classroom ☒

Additional comments

Recommended delivery methods:

- Lecture ☒ up to 30%
- Case study. Individual/team project ☒ up to 70%

Additional comments

Not provided

1.1.17.3 WBL and Follow-up Reinforcement

Not provided

1.1.17.4 Important (new) approaches and technologies to consider

Not provided

1.1.17.5 Assessment

Unit learning outcome	Assessment method	Validation of prior acquired competences (skills and knowledge)
Explains the principles, related concepts, advantages and disadvantages of a new technology	Assignment: Candidates develop a report about the possible implementation of a new digital platform to solve a business or a technical need.	n/a
Explains and distinguishes common methods, techniques and tools related to efficient system integration	Assignment: Candidates write a report on the possible methods that can be used to perform the integration of a computer system in a specific industry.	

1.1.18 Learning Resources - EXTRA CURRICULAR PLO: New Technology [EQF5]

LEARNING UNIT	EQF	Duration	Didactical Approach	ASSESSMENT	Title of the Learning material	Delivery method of the learning material	Quick link to learning materials
Introduction to ICT and digital system integration	4/5	8 hours	Promote the understanding of the role of of ICT technologies and the way in which digital system integration create platforms and software applications to develop digital products and services.	Assignment: Candidates develop a report about the possible implementation of a new digital platform to solve a business or a technical need.	Fundamentals of Team Collaboration	Assignment: Practical activity	Fundamentals of Team Collaboration.pptx

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