LCAMP

Learner Centric Advanced Manufacturing Platform

D7.3 “Catalogue of trainings for SMEs and benchmark”

WP7 SME – VET connection

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LCAMP partners:

TKNIKA – Basque VET Applied Research Centre, CIFP Miguel Altuna LHII, DHBW Heilbronn – Duale Hochschule, Baden-Württemberg, Curt Nicolin High School, AFM – Spanish Association of Machine Tool Industries, EARLALL – European Association of Regional & Local Authorities for Lifelong Learning, FORCAM, CMQE: Association campus des métiers et des qualifications industrie du future, MV: Mecanic Vallée, KIC: Knowledge Innovation Centre, MADE Competence Centre Industria 4.0; AFIL: Associazione Fabbrica Intelligente Lombardia, SIMUMATIK AB; Association HVC Association of Slovene Higher Vocational Colleges; TSCMB:Tehniški šolski center Maribor, KPDoNE: Kocaeli Directorate Of National Education; GEBKİM OIZ and CAMOSUN college.

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GLOSSARY AND/OR ACRONYMS

5S – A workplace organization method from lean manufacturing
ADMA – ADMA Transformers EU Project - European Advanced Manufacturing Support Centre
AFIL – Associazione Fabbrica Intelligente Lombardia (Lombardy Intelligent Factory Association)
AFM – Advanced Manufacturing Technologies Association of Spain (Asociación Española de Fabricantes de Máquinas-herramienta, Accesorios, Componentes y Herramientas)
AI – Artificial Intelligence
BI – Business Intelligence
CAD – Computer-Aided Design
CAM – Computer-Aided Manufacturing
CMQE – Campus des Métiers et des Qualifications d'Excellence (Center of Excellence for Vocational Training and Qualifications)
CNC – Computer Numerical Control
CRM – Customer Relationship Management
CSR – Corporate Social Responsibility
ERP – Enterprise Resource Planning
ESG – Environmental, Social and Governance
EU – European Union
HR – Human Resources
ICT – Information and Communication Technology
IoT – Internet of Things
IT – Information Technology
KIC – Knowledge Intensive Company
KPI – Key Performance Indicator
LCAMP – Learner Centric Advanced Manufacturing Platform
MADE – Competence Center Industria 4.0
MES – Manufacturing Execution System
MOOC – Massive Online Training Course
R&D – Research and Development
SaaS – Software as a Service
SME(s) – Small and Medium-sized Enterprise(s)
VET – Vocational Education and Training

CONTENT TABLE

EXECUTIVE SUMMARY

This report provides a comprehensive overview of the training landscape designed to support SMEs in their digital, organisational, and sustainability transformation. It presents a structured catalogue of 109 training activities contributed by partners across eight countries, each mapped to the ADMA transformation areas and maturity levels to facilitate targeted upskilling. The report includes a benchmarking analysis of leading international training providers. These elements give the reader a clear understanding of existing training opportunities and how they align with the needs identified in SME maturity assessments, helping readers clearly identify the most relevant training opportunities for SMEs and how they can be used to support their transformation journey.

This report focuses on strengthening the connection between SMEs and the Vocational Education and Training (VET) ecosystem through structured methodologies, practical diagnostic activities, and a comprehensive mapping of training opportunities. The work integrates three key components: the ADMA methodology, the Collaborative Learning Factory (CLF) model, and evidence gathered from SME scans and transformation plans.

The ADMA methodology has served as the cornerstone for understanding the digital, organisational, and sustainability-related maturity of SMEs. 59 SME scans conducted in eight countries (Basque Country - Spain, Canada, France, Germany, Italy, Slovenia, Sweden and Turkey) reveal consistent strengths in customer orientation and human-centred organisation. At the same time, they identify recurring weaknesses in Smart Manufacturing (low automation and real-time data use), Digital Factory (system integration challenges), ECO Factory (uneven sustainability practices), and Value Chain Oriented Open Factory (limited external cooperation). These findings provide a clear direction for prioritising training areas within LCAMP.

To address these needs, the report presents a dual indexing system that organises training activities according to the seven ADMA transformation areas and to five maturity progression levels, ranging from initial awareness to excellence. This structure ensures that SMEs can easily identify training offers relevant to their current stage of development and plan their evolution toward more advanced digital and organisational models.

A major outcome of this work is the creation of a catalogue of 109 training activities aligned with ADMA transformations. These training opportunities come from Basque Country - Spain (31), Canada (10), France (10), Germany (9), Italy (18), Slovenia (10), Sweden (10) and Turkey (11). All seven ADMA transformation areas are represented, with particularly strong coverage in Advanced Manufacturing Technologies, Digital Factory, and Smart Manufacturing—precisely the areas where SMEs showed the greatest need for improvement.

In addition, a benchmarking exercise was conducted across six leading international training providers (Coursera, EIT Manufacturing, Fraunhofer-Gesellschaft, Mondragon University, Polimi Open Knowledge and Udemy). These providers offer extensive training in the same weak ADMA areas identified in the SME scans, reinforcing the relevance of LCAMP's strategic choices.

Overall, this report provides an SME-oriented training catalogue that supports digital transformation, sustainability, and human-centred innovation. By combining diagnostic insights, structured maturity pathways, practical training offers, and international best practices, LCAMP is positioned to deliver learning solutions that accelerate SME competitiveness and prepare the workforce for the demands of Industry 4.0 and 5.0.

1. INTRODUCTION

The work carried out in WP7 has generated valuable knowledge on how to connect SMEs with the VET ecosystem through structured methodologies and practical implementation activities. The combination of conceptual frameworks such as ADMA and CLF, together with concrete experience in SME scans and transformation plans, provides a comprehensive view of both the opportunities and challenges involved in advancing towards Industry 4.0 and 5.0.

This section summarises the main results obtained in previous reports, highlighting the relevance of the ADMA methodology as a diagnostic and transformation tool, and the Collaborative Learning Factories as an educational model that bridges industry and training. Together, they form the foundation on which the training catalogue will be developed.

In order to make the training catalogue a practical and strategic tool for SMEs, it is essential to organise the wide variety of available training offers in a clear and structured way. The indexing system designed within LCAMP serves this purpose, ensuring that each training course can be easily linked to the specific transformation needs of companies and their level of digital maturity.

1.1. SUMMARY OF PREVIOUS REPORTS IN WP7

Within the LCAMP Project, there is a dedicated line of work focused on strengthening the connection between Vocational Education and Training (VET) and SMEs. These companies are undergoing digital transformation processes, and through the ADMA methodology, the VET system can provide tools and knowledge to help them improve their competitiveness and sustainability.

Among the activities carried out so far, it is worth highlighting the integration of the ADMA methodology into the LCAMP framework through the Collaborative Learning Factories (CLF). In addition, several SME scans have been conducted, and implementation plans have been developed to support their transformation processes.

ADMA Methodology and Collaborative Learning Factory

The ADMA (Advanced Manufacturing Support Centre) methodology, promoted by the European Commission and further developed within the framework of ADMA TranS4MErs project, provides a framework for the digital and sustainable transformation of industrial SMEs. It is structured into seven key areas:

- T1 - Advanced Manufacturing Technologies: analysing the state-of-the-art of manufacturing devices and machinery; focusing on the company vision, the level of capabilities and the level of implementation;
- T2 - Digital Factory: assessing how digital technology is implemented to transform the development of products and/or processes into physical products, systems or services; focusing on the enabling infrastructure and the digital capabilities;
- T3 - ECO Factory: analysing the approach towards cost and risk reduction and efficiency of raw material usage, as well as towards energy supply and consumption and use of

renewable sources; focusing on the resource management and the compliance & innovation;

- T4 - End-to-end Customer Focused Engineering: assessing how customer expectations, as well as cross-functional and cross-departmental design, could lead to new developments and processes; focusing on the customer focus and value proposition, and robust engineering processes;
- T5 - Human Centred Organisation: analysing whether and how workers are given autonomy and space to channel their talent, creativity and initiatives, also through continuous/repetitive evaluation of their skills and update of their competencies; focusing on the individual employee, the team, the leadership and the internal organization;
- T6 - Smart Manufacturing: assessing the combination of the smart use of people's capabilities, the smart use of technology and the deployment of a (self-) learning production system; focusing on the human-machine interaction and the manufacturing planning & control processes;
- T7 - Value Chain Oriented Open Factory: analysing the capability of the company to develop products, manufacturing processes and services with the complete value chain in mind; focusing on the cooperation and partnerships, as well as on the external expertise and knowledge management.

The Collaborative Learning Factory (CLF) model, developed within LCAMP, describes learning environments that replicate real industrial processes in VET centres. It is structured into eight dimensions:

- Operational model: CLFs require robust operational models covering financial, personnel, and thematic aspects. Adequate funding is crucial, and various models can be explored. Personnel must possess technical and didactic skills.
- Targets and purpose: CLFs serve both students and workers, offering immersive learning experience and continuous professional development in advanced manufacturing.
- Process: The CLF process includes four stages, Product Design, Process Engineering, Manufacturing, and Supply Chain Management, simulating real-world scenarios.
- Setting: Configuration is determined by technological infrastructure, user types, and competencies.
- Product: The selected product influences competencies and technologies.
- Didactics: Focus on standardized competency frameworks.
- Metrics: Metrics evaluate effectiveness, including the number of implemented Industry 4.0 technologies, collaborative developments, and student satisfaction.
- Collaboration: Collaboration among participants is fundamental, fostering innovation and skills development.

Both ADMA methodology and CLF model present relevant connections that make it possible to transfer the digital maturity logic of enterprises to the educational field, enabling the creation of learning pathways that prepare students and workers for the challenges of Industry 4.0 and 5.0.

ADMA Scans and Implementation Plans

Within the LCAMP Project, 59 SME scans have been carried out across eight countries (Basque Country - Spain, Canada, France, Germany, Italy, Slovenia, Sweden and Turkey), along with implementation plans for selected companies. The results reveal a wide diversity of digital maturity levels but also highlight common trends:

Recurring strengths:

- End-to-End Customer Focused Engineering: customer orientation.
- Human-centred organisation.

Recurring weaknesses:

- Smart Manufacturing: low automation levels and limited use of real-time data.
- Digital Factory: challenges in system integration and connectivity.
- Value Chain Oriented Open Factory: weak external collaboration and limited open innovation.
- ECO Factory: sustainability implemented unevenly.

The implementation plans include actions such as the adoption of IoT and sensorisation, process automation, the use of Business Intelligence and digital twins, the incorporation of sustainability practices, and the introduction of internal training programmes to strengthen digital skills.

Implications for the Training Catalogue

Based on the evidence gathered from previous reports, several training priorities have been identified to guide the development of the SME training catalogue:

- Competences in automation and Smart Manufacturing (collaborative robotics, predictive maintenance, control systems and sensorisation).
- Digital Factory: system integration (ERP, MES, SCADA), data management, cybersecurity.
- Industrial sustainability: energy efficiency, eco-design, circular economy.
- Cross-cutting digital competences: data analysis, use of artificial intelligence applied to production, collaborative digital tools.
- Organisational skills: change management, digital leadership, innovation culture.

CLFs and VET centres play a key role in offering practical learning environments where these competences can be developed in contexts closely resembling industrial reality.

In conclusion, the integration of the ADMA and CLF frameworks with the practical evidence from SME diagnoses justifies the need for a training catalogue structured around digital maturity pathways. This catalogue should focus on the areas of lower maturity (Smart Manufacturing, Digital Factory, ECO Factory and Value Chain Oriented Open Factory), while reinforcing the existing strengths in End-to-End Customer Focused Engineering and human-centred organisation. In this way, SMEs will be supported in their transition towards more digital, sustainable, and human-centred models, aligned with the principles of Industry 5.0.

1.2. CATEGORIES AND CLASSIFICATIONS OF THE TRAININGS

In order to provide SMEs with a structured and practical catalogue of training opportunities, the project has designed a dual indexing system. This approach ensures that the 109 trainings collected—from Basque Country - Spain (31), Canada (10), France (10), Germany (9), Italy (18), Slovenia (10), Sweden (10) and Turkey (11) are aligned with the strategic transformation areas defined by the ADMA methodology and positioned within a clear maturity pathway that reflects the progressive development of digital, organisational, and sustainability competences.

Index by ADMA Transformation Areas

The first index organises all training courses according to the seven ADMA transformation areas, which define the critical dimensions of industrial transformation towards Industry 4.0 and Industry 5.0. These areas serve as the backbone of the training catalogue:

- T1 - Advanced Manufacturing Technologies – Use of state-of-the-art production technologies, robotics, additive manufacturing, automation, and quality control systems.
- T2 - Digital Factory – Integration of digital tools and platforms, such as ERP, MES, SCADA, digital twins, and cybersecurity measures, enabling connected and data-driven production.
- T3 - ECO Factory – Strategies for sustainable manufacturing, energy efficiency, resource optimisation, circular economy, and eco-design.
- T4 - End-to-end Customer Focused Engineering – Customer-centred product and process design, integration of feedback loops, and customisation of solutions.
- T5 - Human Centred Organisation – Organisational culture, employee empowerment, digital leadership, skills development, and inclusive workplaces.
- T6 - Smart Manufacturing – Autonomous systems, predictive maintenance, advanced analytics, AI-based optimisation, and intelligent production planning.
- T7 - Value Chain Oriented Open Factory – Collaboration across the entire value chain, partnerships, open innovation networks, and shared platforms for co-development.

Classifying training courses under these seven areas allows SMEs and training providers to identify which transformation dimensions a particular course addresses. In many cases, one course may contribute to more than one area.

Index by Maturity Levels within each Transformation Area

The second index refines this classification by detailing, for each ADMA area, the maturity level that a given training is intended to address. The maturity framework includes five progressive steps, ranging from basic awareness to advanced, integrated transformation.

- From Level 0 to Level 1 – Initial Awareness: At this stage, training supports companies in recognising the importance of digital transformation and sustainability. It involves introductory knowledge, basic digital literacy, and the capacity to understand potential opportunities and risks.

- From Level 1 to Level 2 – Structured Introduction: Companies move from awareness to structured experimentation. Trainings at this level enable SMEs to adopt first digital or organisational tools (e.g., simple automation, basic ERP use, or introductory eco-design practices) and establish procedures for improvement.
- From Level 2 to Level 3 – Consolidation and Integration: Training supports the integration of digital technologies and sustainability practices into daily operations. Companies begin to consolidate practices such as automated production monitoring, use of BI tools, systematic energy management, or structured employee development programmes.
- From Level 3 to Level 4 – Advanced Deployment: Training at this stage helps companies scale up and optimise their systems. This includes predictive maintenance using IoT and AI, cross-functional customer feedback integration, full ERP-MES-SCADA connectivity, and collaborative networks with suppliers and partners. The organisation begins to operate as a digitally enabled and sustainable factory with clear KPIs.
- From Level 4 to Level 5 – Excellence and Leadership: At the highest maturity level, training prepares companies to act as benchmarks in their sectors. Organisations at this stage implement advanced AI-driven smart factories, achieve high levels of circularity and sustainability, establish leadership in value chain collaboration, and serve as references in human-centred organisational models.

By linking each training opportunity to a specific maturity transition, SMEs can easily identify which trainings are most relevant for their current stage and how they can progress step by step toward higher levels of digital maturity and competitiveness.

Added Value of the Dual Indexing

This two-level indexing system ensures both strategic alignment (through ADMA transformation areas) and practical progression (through maturity levels). The first index answers the question: “Which transformation area does this training support?” The second index addresses: “At what maturity stage does this training create impact?”

Together, they provide SMEs with a roadmap that links specific training offers to their digital transformation journey. This not only facilitates informed decision-making when selecting training opportunities but also helps VET providers and policymakers align their educational strategies with the real needs of industry.

2. INDEXES OF THE TRAININGS

2.1. GENERAL INDEX OF IDENTIFIED TRAININGS

TRAINING COURSE	TRANSFORMATION AREA							Page
	Advanced Manufacturing Technologies	Digital Factory	Eco Factory	End-to-end Customer Focused Engineering	Human Centred Organization	Smart Manufacturing	Value Chain Oriented Open Factory	
3D Modeling		x						21
3D Printing and Additive Manufacturing	x	x						22
3D Scanning - Reverse Engineering	x	x						23
3D Scan (France)	x							24
3D Scan (Spain)	x	x				x		25
3D Verification. M-COSMOS	x	x				x		26
3 to 5 axis milling techniques with creo machining	x							27
5S Workplace Organization					x			28
ABB Robot Start-up	x	x				x		29
Additive Manufacturing, 3D Printing	x	x				x		30
Advanced Programming (Siemens S7 1500 PLC with TIA Portal)		x				x		31
Applied Computing Project				x				32
Applied Project Management Integration Project				x				33
AR assistive assembly station - Arkite	x	x						34
Artificial Intelligence		x						35
Artificial Intelligence Applied to Learning Factories	x	x		x		x		36
Artificial Vision Programming	x	x		x		x		37
Automation and Robotics		x						38
Basic Programming (PLC Siemens S7 1500 with TIA Portal)		x				x		39
Basics of Automation with PLC						x		40
Blockchain Technology and platforms for industry						x		41
CAM 5 Axis	x							42
CAM Basics	x							43
CAM NX (2 1/2 and 3 axis milling machine)	x	x				x		44
CAM of substractive machining processes	x							45
CNC machining from CAM	x							46
CNC machine Operation Basics	x							47
CNC Waste Reduction Strategies			x					48
Collaborative Robot	x	x				x		49
Component inspection using a coordinate measuring machine	x							50
Connected Workers		x			x	x		51
Corporate sustainability basics			x					52
Cybersecurity		x						53
Cybersecurity in Industry		x						54
Development of an Environmental Responsibility and Circular Economy Plan			x		x			55
Design 4.0		x		x		x		56
Design fon Additive Manufacturing	x							57
Design of Manufacturing	x							58
Digital Operation		x				x		59
Digital Transformation Pathway		x				x		60
Electrical Discharge Machining (EDM)	x	x						61
Electronic Assembly	x	x						62
Engineering Project Management				x				63
Ergonomics in Industry 5.0		x			x	x		64
Factory Logistics 4.0		x				x	x	65
Fanuc industrial robot programming	x							66
Free-form surface modeling	x							67
Functional Safety	x					x		68
Fundamentals of robotics	x	x						69

TRAINING COURSE	TRANSFORMATION AREA							Page
	Advanced Manufacturing Technologies	Digital Factory	Eco Factory	End-to-end Customer Focused Engineering	Human Centred Organization	Smart Manufacturing	Value Chain Oriented Open Factory	
Human-Centric Technologies & Ergonomic Innovation		x			x	x		70
Industrial communication	x					x		71
Industrial Robot Programming. Level 1 (ABB, FANUC, KUKA)	x	x		x		x		72
Industrial Robot Programming. Level 2 (ABB, FANUC, KUKA)	x	x		x		x		73
Industry 4.0 & 5.0 communication architecture	x					x		74
Installation and Maintenance of Industrial Automation Systems	x	x						75
Installation and maintenance of collaborative robots 'COBOTS'	x	x						76
Introduction to Carbon Footprint			x					77
Introduction to Collaborative Robotics		x			x	x		78
Internet of Things: Raspberry and Arduino	x	x			x			79
Introduction to Automation Systems	x					x		80
Introduction to Digital Twin Tech		x						81
Introduction to Robotics	x					x		82
Introduction to the Programming of UR Cobots	x					x		83
IoT	x					x		84
IoT sensor development and lorawan network configuration						x		85
Lean Fundamental Micro-Credential	x							86
LEAN Introduction					x			87
Make 3D slicing settings						x		88
Manufacturing a part using 3D printing (with wire)	x							89
Manufacturing process design	x							90
Manufacturing processes 1	x							91
Manufacturing processes 2	x							92
Manual assembly techniques					x			93
Master in Digital Manufacturing		x				x		94
Method design concept	x					x	x	95
Measurement and control of physical variables	x							96
Operations Management	x							97
Performing a scientific research					x			98
Pneumatics basic trainig						x		99
Predictive Maintenance	x							100
Problem Solving					x			101
Process Automation with PLC, HMI, and Electro-Pneumatic Systems	x	x						102
Process Optimization via Advanced Analytics & AI	x	x				x		103
Process Simulation Systems, Digital Twin,	x	x				x		104
Product Digital Twin		x				x		105
Project closing & Continious Improvement				x				106
Project initiation and Charter development				x				107
PLM management: 3D Experience	x	x						108
Redesign of parts and assembly using CAD software	x							109
Reverse Engineering with 3D CAD: NX	x	x						110
Reverse Engineering with 3D CAD: Solid Edge	x	x						111
Risk and change management							x	112
Roadmap to Sustainability			x					113
Robot Programming Health and Security		x				x		114
Robotics and kinematics control	x					x		115
Robotics Laboratory	x					x		116
Simatic S7 SCL						x		117
SLS 3D Printing	x							118
Solidworks advanced part modeling						x		119
Statistical Process Control (SPC)		x				x		120
Subtractive manufacturing procceses	x							121
Teamwork					x			122
Thinking innovatively					x			123
Towards Open and Generative Organizational Models					x			124
Understanding Environmental and Social Impacts			x					125
Using a Chemical Reactor	x							126
Waste treatment process			x					127
Workplace Organization & Standard Work				x	x	x		128
Writing a program to PLC						x		129

2.2. INDEXES BY ADMA TRANSFORMATION AREA

TRANSFORMATION AREA 1: ADVANCED MANUFACTURING TECHNOLOGIES

TRAINING COURSE	MATURITY LEVEL					Page
	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	
3D Printing and Additive Manufacturing			x			22
3D Scanning - Reverse Engineering				x		23
3D Scan (France)				x		24
3D Scan (Spain)			x			25
3D Verification. M-COSMOS				x		26
3 to 5 axis milling techniques with creo machining					x	27
ABB Robot Start-up				x		29
Additive Manufacturing, 3D Printing				x		30
AR assistive assembly station - Arkite				x		34
Artificial Intelligence Applied to Learning Factories				x		36
Artificial Vision Programming				x		37
CAM 5 Axis				x		42
CAM Basics			x			43
CAM NX (2 1/2 and 3 axis milling machine)					x	44
CAM of substractive machining processes				x		45
CNC machining from CAM				x		46
CNC machine Operation Basics		x				47
Collaborative Robot				x		49
Component inspection using a coordinate measuring machine				x		50
Design fon Additive Manufacturing				x		57
Design of Manufacturing				x		58
Electrical Discharge Machining (EDM)				x		61
Electronic Assembly				x		62
Fanuc industrial robot programming			x			66
Free-form surface modeling				x		67
Functional Safety					x	68
Fundamentals of robotics				x		69

TRAINING COURSE	MATURITY LEVEL					Page
	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	
Industrial communication					x	71
Industrial Robot Programming. Level 1 (ABB, FANUC, KUKA)				x		72
Industrial Robot Programming. Level 2 (ABB, FANUC, KUKA)					x	73
Industry 4.0 & 5.0 communication architecture					x	74
Installation and Maintenance of Industrial Automation Systems				x		75
Installation and maintenance of collaborative robots 'COBOTS'				x		76
Internet of Things: Raspberry and Arduino					x	79
Introduction to Automation Systems					x	80
Introduction to Robotics					x	82
Introduction to the Programming of UR Cobots			x			83
IoT					x	84
Lean Fundamental Micro-Credential				x		86
Manufacturing a part using 3D printing (with wire)				x		89
Manufacturing process design				x		90
Manufacturing processes 1				x		91
Manufacturing processes 2				x		92
Method design concept			x			95
Measurement and control of physical variables			x	x		96
Operations Management				x		97
Predictive Maintenance			x			100
Process Automation with PLC, HMI, and Electro-Pneumatic Systems				x		102
Process Optimization via Advanced Analytics & AI				x		103
Process Simulation Systems, Digital Twin,				x		104
PLM management: 3D Experience				x		108
Redesign of parts and assembly using CAD software			x			109
Reverse Engineering with 3D CAD: NX				x		110
Reverse Engineering with 3D CAD: Solid Edge				x		111
Robotics and kinematics control					x	115
Robotics Laboratory					x	116
SLS 3D Printing			x			118
Subtractive manufacturing procceses				x		121
Using a Chemical Reactor			x			126

TRANSFORMATION AREA 2: DIGITAL FACTORY

TRAINING COURSE	MATURITY LEVEL					Page
	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	
3D Modeling				x		21
3D Printing and Additive Manufacturing			x			22
3D Scanning - Reverse Engineering				x		23
3D Scan (Spain)			x			25
3D Verification. M-COSMOS				x		26
ABB Robot Start-up				x		29
Additive Manufacturing, 3D Printing				x		30
Advanced Programming (Siemens S7 1500 PLC with TIA Portal)				x		31
AR assistive assembly station - Arkite				x		34
Artificial Intelligence		x				35
Artificial Intelligence Applied to Learning Factories				x		36
Artificial Vision Programming				x		37
Automation and Robotics			x			38
Basic Programming (PLC Siemens S7 1500 with TIA Portal)			x			39
CAM NX (2 1/2 and 3 axis milling machine)					x	44
Collaborative Robot				x		49
Connected Workers			x			51
Cybersecurity			x			53
Cybersecurity in Industry				x		54
Design 4.0				x		56
Digital Operation				x		59
Digital Transformation Pathway			x			60
Electrical Discharge Machining (EDM)				x		61
Electronic Assembly				x		62
Ergonomics in Industry 5.0			x			64
Factory Logistics 4.0				x		65
Fundamentals of robotics				x		69
Human-Centric Technologies & Ergonomic Innovation			x			70
Industrial Robot Programming. Level 1 (ABB, FANUC, KUKA)				x		72
Industrial Robot Programming. Level 2 (ABB, FANUC, KUKA)					x	73
Installation and Maintenance of Industrial Automation Systems				x		75
Installation and maintenance of collaborative robots 'COBOTS'				x		76
Introduction to Collaborative Robotics			x			78
Internet of Things: Raspberry and Arduino					x	79
Introduction to Digital Twin Tech			x			81
Master in Digital Manufacturing				x		94
Process Automation with PLC, HMI, and Electro-Pneumatic Systems				x		102
Process Optimization via Advanced Analytics & AI				x		103
Process Simulation Systems, Digital Twin,				x		104
Product Digital Twin				x		105
PLM management: 3D Experience				x		108
Reverse Engineering with 3D CAD: NX				x		110
Reverse Engineering with 3D CAD: Solid Edge				x		111
Robot Programming Health and Security				x		114
Statistical Process Control (SPC)				x		120

TRANSFORMATION AREA 3: ECO FACTORY

TRAINING COURSE	MATURITY LEVEL					Page
	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	
CNC Waste Reduction Strategies			x			48
Corporate sustainability basics				x		52
Development of an Environmental Responsibility and Circular Economy Plan					x	55
Introduction to Carbon Footprint				x		77
Roadmap to Sustainability				x		113
Understanding Environmental and Social Impacts			x			125
Waste treatment process			x			127

TRANSFORMATION AREA 4: END TO END CUSTOMER FOCUSED ENGINEERING

TRAINING COURSE	MATURITY LEVEL					Page
	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	
Applied Computing Project				x		32
Applied Project Management Integration Project				x		33
Artificial Intelligence Applied to Learning Factories				x		36
Artificial Vision Programming				x		37
Design 4.0				x		56
Engineering Project Management				x		63
Industrial Robot Programming. Level 1 (ABB, FANUC, KUKA)				x		72
Industrial Robot Programming. Level 2 (ABB, FANUC, KUKA)					x	73
Project closing & Continious Improvement				x		106
Project initiation and Charter development				x		107
Workplace Organization & Standard Work			x			128

TRANSFORMATION AREA 5: HUMAN CENTRED ORGANIZATION

TRAINING COURSE	MATURITY LEVEL					Page
	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	
5S Workplace Organization			x			28
Connected Workers			x			51
Development of an Environmental Responsibility and Circular Economy Plan					x	55
Ergonomics in Industry 5.0			x			64
Human-Centric Technologies & Ergonomic Innovation			x			70
Introduction to Collaborative Robotics			x			78
Internet of Things: Raspberry and Arduino					x	79
LEAN Introduction			x			87
Manual assembly techniques			x			93
Performing a scientific research				x		98
Problem Solving				x		101
Teamwork					x	122
Thinking innovatively				x		123
Towards Open and Generative Organizational Models			x			124
Workplace Organization & Standard Work			x			128

TRANSFORMATION AREA 6: SMART MANUFACTURING

TRAINING COURSE	MATURITY LEVEL					Page
	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	
3D Scan (Spain)			x			25
3D Verification. M-COSMOS				x		26
ABB Robot Start-up				x		29
Additive Manufacturing, 3D Printing				x		30
Advanced Programming (Siemens S7 1500 PLC with TIA Portal)				x		31
Artificial Intelligence Applied to Learning Factories				x		36
Artificial Vision Programming				x		37
Basic Programming (PLC Siemens S7 1500 with TIA Portal)			x			39
Basics of Automation with PLC					x	40
Blockchain Technology and platforms for industry				x		41
CAM NX (2 1/2 and 3 axis milling machine)					x	44
Collaborative Robot				x		49
Connected Workers			x			51
Design 4.0				x		56
Digital Operation				x		59
Digital Transformation Pathway			x			60
Ergonomics in Industry 5.0			x			64
Factory Logistics 4.0				x		65
Functional Safety					x	68
Human-Centric Technologies & Ergonomic Innovation			x			70
Industrial communication					x	71
Industrial Robot Programming. Level 1 (ABB, FANUC, KUKA)				x		72
Industrial Robot Programming. Level 2 (ABB, FANUC, KUKA)					x	73
Industry 4.0 & 5.0 communication architecture					x	74
Introduction to Collaborative Robotics			x			78
Introduction to Automation Systems					x	80
Introduction to Robotics					x	82
Introduction to the Programming of UR Cobots			x			83
IoT					x	84
IoT sensor development and lorawan network configuration				x		85
Make 3D slicing settings				x		88
Master in Digital Manufacturing				x		94
Method design concept			x			95
Pneumatics basic trainig		x				99
Process Optimization via Advanced Analytics & AI				x		103
Process Simulation Systems, Digital Twin,				x		104
Product Digital Twin				x		105
Robot Programming Health and Security				x		114
Robotics and kinematics control					x	115
Robotics Laboratory					x	116
Simatic S7 SCL				x		117
Solidworks advanced part modeling				x		119
Statistical Process Control (SPC)				x		120
Workplace Organization & Standard Work			x			128
Writing a program to PLC				x		129

TRANSFORMATION AREA 7: VALUE CHAIN ORIENTED OPEN FACTORY

TRAINING COURSE	MATURITY LEVEL					Page
	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	
Factory Logistics 4.0				x		65
Method design concept			x			95
Risk and change management					x	112

3. TRAININGS FOR SMES

3D MODELLING

This course introduces the principles and techniques of 3D modelling for design, prototyping, animation, and production using industry-standard CAD and modelling software.

https://www.oba.gov.tr/egitim/detay/blender-ile-3-boyutlu-modelleme-egitimi-kursu-682

ADMA TRANSFORMATION AREA

DIGITAL FACTORY

3D MODELLING

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
3D modelling	3D modelling	4

GENERAL INFORMATION

Course provider	GEBKIM VET
Country	Türkiye
Language	Turkish
Education Subject	This course introduces the principles and techniques of 3D modelling for design, prototyping, animation, and production using industry-standard CAD and modelling software.
Learner Profile	VET Students
Mode of Learning	In Person
Credential Type	ECTS
EQF Level	EQF 4
Teaching Methodology	Theoretical / Practical
Learning Environment	VET Centre

INFORMATION ABOUT THE COURSE

Workload / Duration	30 Hours
Location	GEBKIM VET
Learning activities	Lectures, PBL, Team Based Mini Projects
Assessment Type	Continuous evaluation through practical assignments, Technical file submissions (model files, STL, documentation)
Entry requirement	Interest in design, production, animation, or engineering
Admission procedure	Online or in-person application submission

3D PRINTING AND ADDITIVE MANUFACTURING

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

This training aims to introduce students to additive manufacturing in Industry 4.0.

For this purpose, a theoretical introduction is provided to two of the most widely used 3D printing technologies for polymeric materials in today's industry, FDM and SLS technologies. The theoretical introduction is also complemented by practical 3D printing with the two technologies mentioned above.

https://www.fpsanturtzilh.eus/inicio/estudios/cursos-de-especializacion/fabricacion-aditiva/

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies; Digital Factory

3D printing; additive manufacturing

CURRENT MATURITY LEVEL (1-5)	TARGET MATURITY LEVEL (1-5)
2	3

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
3D printing process	http://data.europa.eu/esco/skill/2afb2b59-c9a3-4cf3-b1dd-1a2fad51e583	2
Technical terminology	http://data.europa.eu/esco/skill/d8567009-7c6f-43fb-82fb-7154ed8ebca9	3
3D modelling	http://data.europa.eu/esco/skill/97965983-0da4-4902-9daf-d5cd2693ef73	3
Maintain additive manufacturing systems	http://data.europa.eu/esco/skill/3a699f1e-3803-4c1b-b6a8-6230cca92933	2

GENERAL INFORMATION

Course provider	Santurtzi LHII
Country	Spain
Language	Spanish
Education Subject	3D printing and additive manufacturing
Learner Profile	Students
Mode of Learning	In Person
EQF Level	4 and 5
Teaching Methodology	Theoretical and Practical
Learning Environment	3D Lab, Google Suite

INFORMATION ABOUT THE COURSE

Workload / Duration	60 Hours
Location	Santurtzi LHII
Learning activities	Basic knowledge of 3D printing FDM technology.materials and special features components of a 3d printer fdm. printing profiles in fdm. errores comunes en impresión fdm common mistakes in fdm printing main components of a sls printer sls printing workflow
Entry requirement	English adequate level Maturity. Responsibility at personal work Ability to work as part of a team Good level of computer user skills
Admission procedure	Curriculum and personal interview

3D Scanning – Reverse Engineering

This course delves into the process of 3D digitization and reverse engineering, focusing on converting physical parts into digital models. Participants will learn how to digitize components by scanning them and transforming the resulting faceted body (STL) files into usable 3D models, whether in a solid or surface environment.

https://www.hernanilanh.eus/

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies, Digital Factory

Reverse enginering, designing, scanning

CURRENT MATURITY (1-5) LEVEL: 3 → TARGET MATURITY LEVEL (1-5): 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Use 3D scanning techniques	https://esco.ec.europa.eu/en/skill/6b878b85-f321-4a14-92e1-34466d787b68	4
Perform reverse engineering	https://esco.ec.europa.eu/en/skill/f2e0e8f6-3566-46fc-aaf2-9ec116d62724	4
Create 3D models	https://esco.ec.europa.eu/en/skill/15216e6f-2f7c-4411-abe7-90cc2730c4ce	4
Use computer-aided design (CAD) software	https://esco.ec.europa.eu/en/skill/45a4f4e3-0e48-4df9-97d7-ec2d8bc7de8e	4

GENERAL INFORMATION

Course provider	Hernani LH
Country	Basque Country/ Spain
Language	Spanish
Learner Profile	People who are looking to acquire or deepen skills in 3D digitization, reverse engineering processes, and related technologies such us Product Designers, Additive Manufacturing pofessionals and Quality Control specialists.
Mode of Learning	In Person
Credential Type	Microcredential Course
EQF Level	EQF 5
Teaching Methodology	Theoretical / Practical / Practical in CLF

INFORMATION ABOUT THE COURSE

Start Date – End Date	14/10/2024 - 24/10/2024
Workload / Duration	24 hours
Price	Free
Location	Hernani, Basque Country

3D Scan

Scanning a part and reconstructing a digital model of it to enable further design, analysis, or manufacturing processes.

https://community.lcamp.eu/catalog-item/3d-scan/

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies

3D scanning, reverse engineering, CAD modeling, digital model creation.

CURRENT MATURITY LEVEL 3 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Reverse engineering	http://data.europa.eu/esco/skill/8fdf4273-d8ce-47a2-b461-45cb1282ef36	3
Use CAD software	http://data.europa.eu/esco/skill/b34e2ba1-9080-48c9-9b42-ee9192a4d3f1	3
Manage data	http://data.europa.eu/esco/skill/9ff9db9d-d14b-426e-83f3-e7449af6c79f	2
Industrial design	http://data.europa.eu/esco/skill/efacdaad-ab73-4056-bee3-4eb34b458bf6	3

GENERAL INFORMATION

Course provider	Lycée La Découverte
Country	France
Language	French
Education Subject	3D Scanning and Reverse Engineering
Learner Profile	EQF 5 students
Mode of Learning	Online / Hybrid / In Person
Credential Type	ECTS
EQF Level	EQF 5
Teaching Methodology	Theoretical & Practical
Learning Environment	VET centre

INFORMATION ABOUT THE COURSE

Start Date – End Date	2025-01-28 2025-01-29
Workload / Duration	8 Hours
Location	Lycée La Découverte Decazeville France
Learning activities	Theoretical course, project and practical work
Entry requirement	EQF4 diploma
Admission procedure	Registration - ParcourSup

3D SCAN

This course provides participants with essential knowledge of different 3D scanning techniques. Learners will acquire practical skills to generate 3D mesh models from real objects and will learn how to edit and repair scanned meshes for further use in digital processes.

ADMA TRANSFORMATION AREA

Advanced Manufacturing technologies, Digital Factory, Smart Manufacturing

3D Scanning, Mesh Editing

CURRENT MATURITY LEVEL (1-5)	TARGET MATURITY LEVEL (1-5)
2 →	3

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
3D body scanning technologies	http://data.europa.eu/esco/skill/9bc3b9ae-50d8-4a32-857e-8cf8d9b4ba8e	2
create 3D environments	http://data.europa.eu/esco/skill/0620ecd1-e4b1-4dfa-972b-38a93e5ebd9d	2

GENERAL INFORMATION

Course provider	IMH Campus
Country	Spain
Language	English / Spanish
Education Subject	Contents: Types of scanning, Preparation of the environment and part for scanning, Scanning with Kinect, Scanning with EinScan using fixed table, Handheld scanning with EinScan, Mesh editing and repair, Practical exercises
Mode of Learning	In Person
Teaching Methodology	Theoretical / Practical / Practical in CLF

INFORMATION ABOUT THE COURSE

Workload / Duration	15 Hours
Location	IMH Campus

3D VERIFICATION. M-COSMOS

This course is designed to equip participants with essential skills for accurately measuring and verifying the dimensional integrity of manufactured parts using advanced Coordinate Measuring Machines (CMM).

https://community.lcamp.eu/catalog-item/three-dimensional-verification-m-cosmos/

ADMA TRANSFORMATION AREA

Advanced Manufacturing technologies, Digital Factory, Smart Manufacturing

Metrology Software

CURRENT MATURITY LEVEL (1-5)	TARGET MATURITY LEVEL (1-5)
3	4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Operate precision measuring equipment	http://data.europa.eu/esco/skill/42c25baf-ccb3-47d9-a872-bb2ceb615538	3
Verify product specifications	http://data.europa.eu/esco/skill/6ab7c99f-a430-419c-a881-8ef945230e4d	2
Calibrate engines	http://data.europa.eu/esco/skill/0ae61df3-c50a-459d-a912-b5423bfb1a5a	4

GENERAL INFORMATION

Course provider	Miguel Altuna LH
Country	Spain
Language	Basque
Learner Profile	Quality control technician, metrology engineer, or manufacturing technician with basic knowledge of metrology, seeking to enhance their skills in 3D verification using CMM equipment.
Mode of Learning	In Person
Credential Type	Microcredential Course
EQF Level	EQF 5
Teaching Methodology	Theoretical / Practical

INFORMATION ABOUT THE COURSE

Workload / Duration	30 Hours
Location	Miguel Altuna LH

3 TO 5-AXIS MILLING TECHNIQUES WITH CREO MACHINING

This course is designed for anyone who wants to learn how to use Creo for milling and drilling in toolmaking, mechanical engineering, and related fields. You will learn how to configure the Creo environment for successful milling operations.

https://ti.audax.si/tecaji/tehnike-3-do-5-osnega-frezanja-s-creo-machining-98?prijava=1&idtecaji=98&idtermin=16041

ADMA TRANSFORMATION AREA

Advance manufacturing technologies

CNC Milling, Creo Parametric, 3-axis, 4-axis, 5-axis

CURRENT MATURITY LEVEL 4 → TARGET MATURITY LEVEL 5

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Use computer-aided design software (CAD)	http://data.europa.eu/esco/skill/b34e2ba1-9080-48c9-9b42-ee9192a4d3f1	4
Technical drawings	http://data.europa.eu/esco/skill/59ea80e1-463a-4dba-82c6-d0b6d577d532	3

GENERAL INFORMATION

Course provider	Audax d. O. O.
Country	Slovenia
Language	Slovenian
Education Subject	Defining raw material and cutting tools, creating milling sequences, drilling cycles
Learner Profile	adult
Mode of Learning	In Person
Credential Type	Certificat
EQF Level	EQF 5
Teaching Methodology	Practical training, solution solving
Learning Environment	Educational lab

INFORMATION ABOUT THE COURSE

Start Date – End Date	16/09/2025 – 20/09/2025
Workload / Duration	4 days
Schedule information	4 days training
Location	Ljubljana
Learning activities	Creating and configuration, practical training
Assessment Type	Practical test
Entry requirement	Recommended Prerequisites: Completion of the *Creo Parametric Basics* course and at least 200 hours of hands-on practice with Creo software."

5S Workplace Organization

Co-funded by the European Union

This training provides knowledge and hands on training in structure the workplace for efficiency and security, all within the scope of 5S.

https://community.lcamp.eu/catalog-item/production-philosophy/

ADMA TRANSFORMATION AREA

Human Centred Organisation

5S, LEAN, TPS, Production Philosophy

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 3

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Continuous Improvement Philosophies	http://data.europa.eu/esco/skill/0550431f-9c8b-4204-9c45-59bc5feacf06	3
Lean project manager	http://data.europa.eu/esco/skill/da6393d5-a53c-4863-abc7-51f36281d74e	2

GENERAL INFORMATION

Course provider	Curt Nicolin Gymnasiet
Country	Sweden
Language	Swedish
Education Subject	Production Philosophy
Learner Profile	EQF 5
Mode of Learning	In Person
Credential Type	Certificate of Completion
EQF Level	EQF 5
Teaching Methodology	Theoretical, Practical, Problem solving
Learning Environment	Classroom, Workshop

INFORMATION ABOUT THE COURSE

Start Date – End Date	According to agreement
Workload / Duration	4 days
Schedule information	4 days training
Location	Finspång Sweden
Learning activities	Theoretical and practical training
Assessment Type	Teoretical and practical test
Entry requirement	Technical studies or similar completed EQF 4
Admission procedure	https://www.cng.se/

ABB Robot Start-up

Technicians will get knowledge starting-up a robot cell. The technician is being self-sufficient. Achieve knowledge starting up robot units: ABB robot

https://www.imh.eus/en

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies, Digital Factory, Smart Manufacturing Engineering

Robotics, ABB, automation

CURRENT MATURITY (1-5) LEVEL: 3 → TARGET MATURITY LEVEL (1-5): 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Install industrial robots	https://esco.ec.europa.eu/en/skill/f4a2eb3a-e7d6-44da-b84f-4e9e0e360f19	3
Commission industrial robots	https://esco.ec.europa.eu/en/skill/b275f6ec-3f94-42c8-9941-3272a3a33250	4
Program industrial robots	https://esco.ec.europa.eu/en/skill/5bd8b06f-3d47-4a55-bf17-77321ae5f294	4
Perform robot cell testing	https://esco.ec.europa.eu/en/skill/337d1928-03d5-4baf-8b71-c92df4b512b1	3

GENERAL INFORMATION

Course provider	IMH CAMPUS
Country	Basque Country/ Spain
Language	Spanish
Mode of Learning	In-Person
Credential Type	Microcredential Course
EQF Level	4
Teaching Methodology	Theoretical / Practical

INFORMATION ABOUT THE COURSE

Workload / Duration	8 hours
Location	Elgoibar, Basque Country

Additive manufacturing, 3D Printing

The aim of this training is to provide information on the different existing additive manufacturing technologies and their main uses.

It also provides training for printing parts on FDM (Fused Deposition Modeling) printers. Aimed at both individuals and companies who want to get started in the world of additive manufacturing as well as users with basic knowledge of FDM who want to deepen their knowledge.

https://www.imh.eus/en

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies, Digital Factory, Smart Manufacturing Engineering

3D printing, additive manufacturing

CURRENT MATURITY (1-5) LEVEL: 3 → TARGET MATURITY LEVEL (1-5): 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Apply additive manufacturing technologies	https://esco.ec.europa.eu/en/skill/7d196022-d931-4cd9-b7c3-2b2a3cfcc9e9	3
Operate 3D printers	https://esco.ec.europa.eu/en/skill/33af5dd7-22b6-41a0-844f-5e0cb19a5ae7	4
Select additive manufacturing processes	https://esco.ec.europa.eu/en/skill/7bcb02fc-4477-4a9a-b5c0-7d3eb9c56d89	4

GENERAL INFORMATION

Course provider	IMH CAMPUS
Country	Basque Country/ Spain
Language	Spanish
Mode of Learning	In-Person
Credential Type	Microcredential Course
EQF Level	4
Teaching Methodology	Theoretical / Practical

INFORMATION ABOUT THE COURSE

Workload / Duration	20 hours
Location	Elgoibar, Basque Country

Advanced Programming (Siemens S7 1500 PLC with TIA Portal)

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

The world of industrial automation is constantly evolving, and staying up to date with the latest technologies and techniques is essential for any professional in the field.

The advanced course on SIMATIC S7-1500 | TIA Portal (Level II) is your gateway to becoming an expert in Siemens PLC programming and its integration with TIA Portal.

This course is designed to provide you with a hands-on and enriching learning experience, enabling you to master the skills necessary to operate and program the Siemens SIMATIC S7-1500 programmable logic controller.

https://www.lhusurbil.eus/web/Default.aspx?lng=EU

ADMA TRANSFORMATION AREA

Digital Factory, Smart Manufacturing

Robotics, programming, automation

CURRENT MATURITY (1-5): 3

TARGET MATURITY LEVEL (1-5): 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Program programmable logic controllers (PLCs)	https://esco.ec.europa.eu/en/skill/1f407276-34e6-4e45-a861-1d3bb3cfcb40	4
Use industrial automation software	https://esco.ec.europa.eu/en/skill/693964d2-64a4-4d8a-bcb9-f5f20c02e2fd	4
Operate programmable logic controllers (PLCs)	https://esco.ec.europa.eu/en/skill/07d9e442-bc5d-4635-8232-fdb80d9d11f0	4
Perform industrial automation	https://esco.ec.europa.eu/en/skill/8586e6f7-4e9f-47c4-bfef-91f70eec0933	4
Configure programmable logic controllers	https://esco.ec.europa.eu/en/skill/05eeb62c-2fd1-4bd1-8a91-fd8b4cfa1e4f	4

GENERAL INFORMATION

Course provider	CIFP Usurbil LHII
Country	Basque Country/ Spain
Language	Spanish
Learner Profile	This course is designed for industrial automation professionals, technicians, unemployed individuals, and workers with prior experience in PLC programming who seek advanced skills in Siemens SIMATIC S7-1500 and TIA Portal integration
Mode of Learning	In Person
Credential Type	Microcredential Course
EQF Level	EQF 4
Teaching Methodology	Theoretical / Practical / Practical in CLF

INFORMATION ABOUT THE COURSE

Workload / Duration	35 hours
Price	Free
Location	Usurbil, Basque Country

ICS-199 Applied Computing Project

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

In a collaborative environment, learn the process of defining, designing, developing, and implement simple yet impactful web application. Small teams leverage collaboration and version control tools while navigating the challenges of project management. This course emphasizes continuous web integration and thorough technical documentation.

ICS 199 - Applied Computing Project - Modern Campus Catalog™

ADMA TRANSFORMATION AREA

END-TO-END CUSTOMER-FOCUSED ENGINEERING

Application Development

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Computer Science	http://data.europa.eu/esco/skill/7b5cce4d-c7fe-4119-b48f-70aa05391787	4
Web Programming	http://data.europa.eu/esco/skill/69bbd53f-fbb0-4476-b4b2-ef7844464e28	4
Project Management	http://data.europa.eu/esco/skill/7111b95d-0ce3-441a-9d92-4c75d05c4388	4

GENERAL INFORMATION

Course provider	Camosun College
Country	Canada
Language	English
Education Subject	Information and Computer Systems Technology
Learner Profile	College Students
Mode of Learning	Online
Credential Type	Micro-Credential
EQF Level	4
Teaching Methodology	Practical
Learning Environment	In Classroom

INFORMATION ABOUT THE COURSE

Start Date – End Date	Four-month term
Workload / Duration	175 Hours
Price	$ 1,124.76 CAD
Location	Camosun College
Learning activities	Lectures, labs, and group work
Assessment Type	Group work and project development
Entry requirement	Prerequisite college courses
Admission procedure	Apply via Information and Computer Systems degree program

APMC 505V – Applied Project Management Integration Project

This is the capstone course in the Applied Project Management Certificate program. It is a comprehensive evaluation of the skills and knowledge developed throughout the first 5 courses in the program. You will be evaluated in two ways, with an integration project and a knowledge exam. Those successful in passing both components for a combined grade of C or better will be granted their certificate.

APMC 505V Applied Project Management Integration Project

ADMA TRANSFORMATION AREA

END-TO-END CUSTOMER-FOCUSED ENGINEERING

APPLIED PROJECT MANAGEMENT

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
S4.1 – Developing objectives and strategies	management skills	4
S4.2 – Organising, planning, and scheduling work and activities	management skills	4
S4.4 – performing administrative actions	management skills	4
S4.9 – making decisions	management skills	4

GENERAL INFORMATION

Course provider	Camosun College / ProSIT
Country	Canada
Language	English
Education Subject	Business
Learner Profile	College Students
Mode of Learning	Online
Credential Type	College Certificate
EQF Level	4
Teaching Methodology	Theoretical
Learning Environment	Online

INFORMATION ABOUT THE COURSE

Start Date – End Date	Self-Paced
Workload / Duration	Self-Paced
Price	$969.00 CAD
Location	Camosun College
Learning activities	Lectures and analysis
Assessment Type	Exams
Entry requirement	Must be enrolled in Applied Project Management Certificate program
Admission procedure	Enroll as part of program above

AR assistive assembly station - Arkite

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

This course explores the use of Augmented Reality (AR) in smart manufacturing through the Arkite platform. Participants will learn to program step-by-step assembly instructions and apply Lean principles by working on the assembly of the LCAMP robot. The course emphasizes error reduction, process guidance, and increased efficiency on the shop floor.

https://www.maltuna.eus/en/

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies, Digital Factory

Robot, AR, mechatronics, assembly

CURRENT MATURITY (1-5) LEVEL: 3 → TARGET MATURITY LEVEL (1-5): 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Apply lean manufacturing principles	https://esco.ec.europa.eu/en/skill/f36c7b39-2c01-4f28-9e9a-3a8bc8ecbfa6	4
Assemble components	https://esco.ec.europa.eu/en/skill/4c680d8d-36f6-49fd-a23f-e36e4e032162	4
Use augmented reality software	https://esco.ec.europa.eu/en/skill/4a37f3a3-bbb1-4ff0-9472-7ce4ebf5ff07	4
Program machine operations	https://esco.ec.europa.eu/en/skill/bb0b759e-ff60-4696-a146-b5c74c73f8bc	3
Follow safety procedures in industrial contexts	https://esco.ec.europa.eu/en/skill/7f9e180e-800d-4e2d-8eb9-265d487edb9d	4

GENERAL INFORMATION

Course provider	Miguel Altuna LHII
Country	Basque Country, Spain
Language	English
Education Subject	Industrial Automation and Robotics, Production Programming in Mechanical Manufacturing, Industrial mechatronics
Learner Profile	Students EQF5, Workers
Mode of Learning	Online / Hybrid / In Person: In person
EQF Level	EQF5
Teaching Methodology	Theoretical / Practical / Practical in CLF: Practical in CLF

INFORMATION ABOUT THE COURSE

Workload / Duration	ECTS / Hours / Days / Weeks: 10 hours
Price	0€
Location	Bergara, Miguel Altuna LHII
Assessment Type	Project
Entry requirement	EQF5 level

Artificial Intelligence

This course introduces learners to the fundamentals of Artificial Intelligence (AI) and its applications in modern technology and industry. It explores key concepts such as machine learning, data processing, and intelligent decision-making systems. Learners will understand how AI models are developed and used to solve real-world problems, automate processes, and support innovation across sectors.

https://3tindustry40training.eu/course/view.php?id=10

ADMA TRANSFORMATION AREA

Digital Factory

IT, Artificial Intelligence

CURRENT MATURITY LEVEL 1 → TARGET MATURITY LEVEL 2

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Manage IT security compliances	http://data.europa.eu/esco/skill/06358891-8424-43c5-891e-d40f226bef40	1
Use IT tools	http://data.europa.eu/esco/skill/f632251a-4078-4546-b19f-7ef528d08325	2
Principles of Artificial Intelligence	http://data.europa.eu/esco/skill/e465a154-93f7-4973-9ce1-31659fe16dd2	2

GENERAL INFORMATION

Course provider	3TIndustry 4.0
Country	France, Spain and Germany
Language	English
Education Subject	Artificial Intelligence , IT
Mode of Learning	Online
Credential Type	None
EQF Level	Not applicable
Teaching Methodology	Theoretical
Learning Environment	E Learning

INFORMATION ABOUT THE COURSE

Start Date – End Date	Not applicable
Workload / Duration	3 Hours
Price	Free
Location	Online
Learning activities	Theoretical
Assessment Type	Quiz
Entry requirement	None
Admission procedure	Registration to the platform

ARTIFICIAL INTELLIGENCE APPLIED TO LEARNING FACTORY

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

This course provides a practical introduction to Artificial Intelligence (AI) and Machine Learning applied to Learning Factory environments. The fundamentals of Machine Learning, data preprocessing, supervised and unsupervised learning techniques will be addressed. Through practical examples, participants will learn how to implement AI models.

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies; Digital Factory; Smart Manufacturing; End-to-end Customer Focused

Artificial Intelligence – Machine Learning

CURRENT MATURITY LEVEL (1-5)	TARGET MATURITY LEVEL (1-5)
3	4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Principles of artificial intelligence	http://data.europa.eu/esco/skill/e465a154-93f7-4973-9ce1-31659fe16dd2	3
Machine Learning	http://data.europa.eu/esco/skill/3a2d5b45-56e4-4f5a-a55a-4a4a65afdc43	3
Predictive maintenance	http://data.europa.eu/esco/skill/7d913551-e17a-40ba-baf7-48d0c3b12e50	2
Analyse production processes for improvement	http://data.europa.eu/esco/skill/f1b5800e-b763-4740-9586-3fef30568e81	2

GENERAL INFORMATION

Course provider	FP Santurtzi LH
Country	Basque Country - Spain
Language	Spanish
Education Subject	Artificial Intelligence (AI). Machine Learning
Learner Profile	Professionals looking to implement AI solutions in manufacturing, automation and quality control processes.
Mode of Learning	Online
EQF Level	4
Teaching Methodology	Theoretical / Practical
Learning Environment	Moodle

INFORMATION ABOUT THE COURSE

Workload / Duration	40 Hours – 4 Weeks
Learning activities	TU1. Understand the fundamental principles of Machine Learning and its application in industrial environments. TU2. Preprocess and analyze data for decision making. TU3. Apply supervised learning techniques. TU4. Implement unsupervised learning models for pattern detection.
Entry requirement	English adequate level Maturity Responsibility at personal work Ability to work as part of a team Good level of computer user skills
Admission procedure	Curriculum + personal interview

Artificial Vision Programming

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

Apply Artificial Vision system to improve the automation. The objectives of the course are: Know the structure of an artificial vision system, learn how to create the machine vision program, learn how to run the program on a physical station.

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies; Digital Factory; Smart Manufacturing; End-to-end Customer Focused

Programming, artificial, vision, automation

CURRENT MATURITY LEVEL (1-5)	TARGET MATURITY LEVEL (1-5)
3	4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Algorithms	http://data.europa.eu/esco/skill/54924a2c-daca-40d3-9716-4b38ceb04f38	2
Industrial software	http://data.europa.eu/esco/skill/41ec47dd-08b3-464a-9c45-c706f3e74467	2
Use automatic programming	http://data.europa.eu/esco/skill/7d10fcb2-b368-48ab-996b-7c9fafcf68ed	2
Integrate system components	http://data.europa.eu/esco/skill/ed8de897-adbe-4f0e-b4d2-534953e64c72	2
Software and applications development and analysis	http://data.europa.eu/esco/skill/ed8de897-adbe-4f0e-b4d2-534953e64c72	2

GENERAL INFORMATION

Course provider	IMH CAMPUS
Country	Basque Country / Spain
Language	English / Spanish
Education Subject	Participants will have access to the Sherlock7 machine vision software license during the course, for the development of the following points: - Types of lighting, lenses and cameras. - Image capture with different shooting methods. - Image processing. Preprocessing. - Image analysis and pattern search. - Calibration of the images and taking measurements. - Execution of the program in real time.
Mode of Learning	In Person

INFORMATION ABOUT THE COURSE

Start Date – End Date	To define
Workload / Duration	12 Hours
Location	IMH CAMPUS (Elgoibar)
Entry requirement	No requirements. It is required a computer with an internet connection and an email address.

Aimed at those who work in and/or manage production lines that have inspection systems using artificial vision cameras.

Automation and Robotics – Siemens PLC, TIA Portal

Co-funded by the European Union

You'll learn the fundamental principles of PLC operation, master the basics of programming in the TIA Portal environment, and gain practical experience with actual Siemens devices during this training. The course is designed for beginners and anyone looking to refresh their knowledge, so no prior experience is required. You'll take your first steps toward understanding automated systems in a pleasant and supportive environment.

https://src-edih.rc-nm.si/izobrazevanje/avtomatizacija-in-robotika-siemens-plc-tia-portal/

ADMA TRANSFORMATION AREA

Digital factory

Siemens, PLC, TIA Portal, automatization

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 3

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Industrial software	http://data.europa.eu/esco/skill/41ec47dd-08b3-464a-9c45-c706f3e74467	2

GENERAL INFORMATION

Course provider	Razvojni center Novo mesto d.o.o.
Country	Slovenia
Language	Slovenian
Education Subject	Automation and Robotics
Learner Profile	Adult, employeers
Mode of Learning	In Person
Credential Type	Paper based
EQF Level	EQF 4
Teaching Methodology	Theoretical / Practical
Learning Environment	Educational lab

INFORMATION ABOUT THE COURSE

Start Date – End Date	16/09/2025
Workload / Duration	4 hours
Schedule information	9.00-12.00
Price	2000 (full price for companies)
Location	Podbreznik 15, 8000 Novo mesto
Learning activities	Practical exercise, problem solving
Assessment Type	Practical task
Entry requirement	Basic knowledge of Electrical Engineering

Basic Programming (PLC Siemens S7 1500 with TIA Portal)

The world of industrial automation is constantly evolving, and keeping up with the latest technology and techniques is essential for any professional in the field.

The SIMATIC S7-1500 is one of the most widely used PLCs in Industry 4.0 thanks to its performance, flexibility and networking capabilities.

Knowing this system will open doors to numerous opportunities in the field of industrial automation.

In addition, knowledge of TIA Portal, a user interface designed for intuitive operation of all SIMATIC applications and controllers, will enable you to work more efficiently and effectively.

https://www.lhusurbil.eus/web/Default.aspx?lng=EU

ADMA TRANSFORMATION AREA

Digital Factory, Smart Manufacturing

Robotics, programming, automation

CURRENT MATURITY (1-5) LEVEL: 2 → TARGET MATURITY LEVEL (1-5): 3

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Program programmable logic controllers (PLCs)	https://esco.ec.europa.eu/en/skill/1f407276-34e6-4e45-a861-1d3bb3cfcb40	3
Use industrial automation software	https://esco.ec.europa.eu/en/skill/693964d2-64a4-4d8a-bcb9-f5f20c02e2fd	3
Operate programmable logic controllers (PLCs)	https://esco.ec.europa.eu/en/skill/07d9e442-bc5d-4635-8232-fdb80d9d11f0	3
Perform industrial automation	https://esco.ec.europa.eu/en/skill/8586e6f7-4e9f-47c4-bfef-91f70eec0933	3
Configure programmable logic controllers	https://esco.ec.europa.eu/en/skill/05eeb62c-2fd1-4bd1-8a91-fd8b4cfa1e4f	3

GENERAL INFORMATION

Course provider	CIFP Usurbil LHII
Country	Basque Country/ Spain
Language	Spanish
Learner Profile	Unemployed individuals, Industrial automation technicians, mechatronics professionals seeking to acquire foundational skills in PLC programming and automation using Siemens S7 1500 and TIA Portal.
Mode of Learning	In Person
Credential Type	Microcredential Course
EQF Level	EQF 5
Teaching Methodology	Theoretical / Practical / Practical in CLF

INFORMATION ABOUT THE COURSE

Workload / Duration	30 hours
Price	Free
Location	Usurbil, Basque Country

BASICS OF AUTOMATION WITH PLC

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

Provide participants with knowledge about configuration of PLC automation and programming hardware, advantages of using PLC in process automation, optimal selection of PLC and extension modules for automation of a specific process, the basic functions of PLC programming, PLC programming on the example of a practical task (basic combination and stepper control).

https://www.tscmb.si/wp-content/uploads/2023/04/OSNOVE_AVTOMATIZACIJE_s_PLK.pdf

ADMA TRANSFORMATION AREA

Smart Manufacturing

Automation, Programming, PLC, Process Control, Industry 4.0

CURRENT MATURITY LEVEL 4 → TARGET MATURITY LEVEL5

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Programmable logic controller	http://data.europa.eu/esco/skill/6468e5fb-f3be-4025-87be-4b6556755c61	2
Operate automated process control	http://data.europa.eu/esco/skill/0a0532c2-ee60-4410-8e07-70e4d69370ec	4
Set up automotive robot	http://data.europa.eu/esco/skill/e975b791-b488-4935-be44-06f2f9a443bb	4

GENERAL INFORMATION

Course provider	TŠC Maribor
Country	Slovenia
Language	Slovenian
Education Subject	PLC (Programmable logic controller)
Learner Profile	students, workers
Mode of Learning	In Person
Credential Type	Paper based
EQF Level	5
Teaching Methodology	Theoretical / Practical
Learning Environment	School laboratory

INFORMATION ABOUT THE COURSE

Start Date – End Date	24/02/2025 – 03/03/2025
Workload / Duration	4h/day (24 hours total)
Schedule information	https://www.tscmb.si/wp-content/uploads/2025/01/VABILO_USPOSABLJANJE_avomatizacija_POMLAD_2025.pdf
Price	400,00 EUR + VAT
Location	Zolajeva ulica 12, 2000 Maribor, Slovenia
Learning activities	Lecture, excercise, discussion, laboratory work
Assessment Type	Project or problem-based learning – test practical problem-solving skills
Entry requirement	Professionals, engineers and development technologists who are engaged in process automation and want to improve their competencies in the field of application of PLC in process automation, and persons who want to raise their knowledge for personal development and improve their competitiveness in the labour market.
Admission procedure	https://www.tscmb.si/wp-content/uploads/2023/03/PRIJAVNICA_za_institucionalna-usposabljanja-1.pdf

BLOCKCHAIN TECHNOLOGY AND PLATFORMS FOR INDUSTRY

You will learn the key advantages as well as the critical performance, security, and cost limitations of blockchain solutions in the IoT domain. Participants will become familiar with ecosystems for developing and deploying decentralized applications and gain the ability to realistically assess opportunities and select the appropriate approach for implementing blockchain-based IoT solutions in their field.

https://ict-academy.si/usposabljanje/osnove-tehnologije-blokovnih-verig-in-platform-za-industrijo/

ADMA TRANSFORMATION AREA

Smart manufacturing

Distributed Ledger Technology (DLT), Blockchain, IoT, Decentralized Applications

CURRENT MATURITY LEVEL 3 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Internet of Things	http://data.europa.eu/esco/skill/f049d050-12da-4e40-813a-2b5eb6df6b51	4
Blockchain platforms	http://data.europa.eu/esco/skill/9035afc4-5317-455d-ab60-f32e2ecc6bfc	4

GENERAL INFORMATION

Course provider	University of Ljubljana Faculty of electrical engineering
Country	Slovenia
Language	Slovenian
Education Subject	This educational subject explores the expectations versus reality of blockchain's role in IoT, covering its use as a backend system, device authentication, and decentralized industrial applications. It also examines blockchain network architectures, performance optimization, IoT-integrated solution designs, and security frameworks—including smart contracts—for industrial use cases.
Learner Profile	Adult
Mode of Learning	In Person
Credential Type	Paper based
EQF Level	EQF 5, 6
Teaching Methodology	Theoretical / Practical / Practical in CLF

INFORMATION ABOUT THE COURSE

Start Date – End Date	On demand
Workload / Duration	8 hours
Price	400,00 EUR + VAT
Location	Ljuibljana
Learning activities	Practical exercise, training, problem solving
Assessment Type	Practical test
Entry requirement	Advance knowledge in IT

CAM 5-Axis

This training is an introduction to 5-Axis milling from CAM using Siemens NX. Taking this training, good knowledge in Siemens NX should already exist.

https://community.lcamp.eu/catalog-item/cad-specialization/

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies

CAM, Siemens NX, CNC

CURRENT MATURITY LEVEL 3 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
CAM Software	http://data.europa.eu/esco/skill/27065048-bca8-4b0a-891a-b192b9ceadfd	3
Program a CNC controller	http://data.europa.eu/esco/skill/bf942c60-8539-4951-83ee-63f770da1cb8	3

GENERAL INFORMATION

Course provider	Curt Nicolin Gymnasiet
Country	Sweden
Language	Swedish
Education Subject	CAD-Specialization
Learner Profile	EQF 5
Mode of Learning	In Person
Credential Type	Certificate of Completion
EQF Level	EQF 5
Teaching Methodology	Theoretical, Practical, Problem solving
Learning Environment	Classroom, Workshop

INFORMATION ABOUT THE COURSE

Start Date – End Date	According to agreement
Workload / Duration	4 days
Schedule information	4 days training
Location	Finspång Sweden
Learning activities	Theoretical and practical training, CAD/ CAM, Machining
Assessment Type	Practical test
Entry requirement	Technical studies or similar completed EQF 4
Admission procedure	https://www.cng.se/

Computer Aided Manufacturing (CAM) Basics

This training provides the basics in CAM using Siemens NX. How to go from a CAD model into creating toolpaths for CNC-processing.

https://community.lcamp.eu/catalog-item/cad-specialization/

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies

CAM, Siemens NX, CNC

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 3

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
CAM Software	http://data.europa.eu/esco/skill/27065048-bca8-4b0a-891a-b192b9ceadfd	2
Program a CNC controller	http://data.europa.eu/esco/skill/bf942c60-8539-4951-83ee-63f770da1cb8	2

GENERAL INFORMATION

Course provider	Curt Nicolin Gymnasiet
Country	Sweden
Language	Swedish
Education Subject	CAD-Specialization
Learner Profile	EQF 5
Mode of Learning	In Person
Credential Type	Certificate of Completion
EQF Level	EQF 5
Teaching Methodology	Theoretical, Practical, Problem solving
Learning Environment	Classroom, Workshop

INFORMATION ABOUT THE COURSE

Start Date – End Date	According to agreement
Workload / Duration	4 days
Schedule information	4 days training
Location	Finspång Sweden
Learning activities	Theoretical and practical training, CAD/ CAM, Machining
Assessment Type	Practical test
Entry requirement	Technical studies or similar completed EQF 4
Admission procedure	https://www.cng.se/

CAM NX (2 1/2 AND 3 AXIS MILLING MACHINE)

This course focuses on equipping participants with the essential skills to program and operate 2- and 3-axis milling machines using Siemens NX software.

https://community.lcamp.eu/catalog-item/cam-nx-2-1-2-and-3-axis-milling-machine/

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies; Digital Factory; Smart Manufacturing

CAM Programming

CURRENT MATURITY LEVEL (1-5)	TARGET MATURITY LEVEL (1-5)
4	5

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Tend a CNC milling machine	http://data.europa.eu/esco/skill/4cb58ef4-67a9-4bea-a743-2c83ebd60e79	4
Program CNC controller	http://data.europa.eu/esco/skill/bf942c60-8539-4951-83ee-63f770da1cb8	4
Use CAM software	http://data.europa.eu/esco/skill/7a757fa5-9a6f-43ab-9e66-f8f4dba1ffcb	4

GENERAL INFORMATION

Course provider	Miguel Altuna LH
Country	Spain
Language	Spanish
Learner Profile	CNC operator, machinist, or manufacturing technician with basic knowledge of CNC operations and CAD software, looking to enhance their CAM skills for efficient machining.
Mode of Learning	In Person
Credential Type	Microcredential Course
EQF Level	EQF 4
Teaching Methodology	Theoretical / Practical / Practical in CLF

INFORMATION ABOUT THE COURSE

Workload / Duration	40 Hours
Location	Miguel Altuna LH

CAM of substractive machining processes

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

Design of the manufacturing process of a subtractive manufacturing process by numerical simulation with CATIA V5. Students will learn to plan machining operations, generate tool paths, select cutting tools, and optimize processes through numerical simulation, combining efficiency, precision, and safety in industrial production.

https://community.lcamp.eu/catalog-item/computer-aided-manufacturing-cam-of-subtractive-machining-processes/

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies

Machining processes, digital tools, simulation

CURRENT MATURITY LEVEL 3 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
CAM software	http://data.europa.eu/esco/skill/27065048-bca8-4b0a-891a-b192b9ceadfd	3
Machine tools	http://data.europa.eu/esco/skill/f5084a43-42c9-4bbb-b47c-b3029cf8381d	3
Run simulations	http://data.europa.eu/esco/skill/a432ffcd-b58d-4417-836c-ea3282b626ca	2
Manufacturing processes	http://data.europa.eu/esco/skill/3786b61f-f22e-48d1-af8d-ad4c354534db	3

GENERAL INFORMATION

Course provider	Lycée La Découverte
Country	France
Language	French
Education Subject	Machining processes
Learner Profile	Students in EQF 5
Mode of Learning	In Person
Credential Type	ECTS
EQF Level	5
Teaching Methodology	Theoretical & Practical
Learning Environment	VET Centre

INFORMATION ABOUT THE COURSE

Start Date – End Date	2025-02-03 2025—02-05
Workload / Duration	15 Hours
Location	Lycée La Découverte Decazeville France
Learning activities	Theorical courses and practical work
Entry requirement	EQF 4 diploma
Admission procedure	Registration - ParcourSup

CNC machining from CAM

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

This training provides knowledge in Post-processing a set-up from CAM, using Siemens NX and machining of the part, using CNC machines such as Milling and Turning machines.

https://community.lcamp.eu/catalog-item/cad-specialization/

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies

CNC, CAM, Post-processing, machining

CURRENT MATURITY LEVEL 3 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Program a CNC controller	http://data.europa.eu/esco/skill/bf942c60-8539-4951-83ee-63f770da1cb8	2
Tend CNC milling machine	http://data.europa.eu/esco/skill/4cb58ef4-67a9-4bea-a743-2c83ebd60e79	2
CAM Software	http://data.europa.eu/esco/skill/27065048-bca8-4b0a-891a-b192b9ceadfd	2

GENERAL INFORMATION

Course provider	Curt Nicolin Gymnasiet
Country	Sweden
Language	Swedish
Education Subject	CAD-Specialization, Industrial production methods
Learner Profile	EQF 5
Mode of Learning	In Person
Credential Type	Certificate of Completion
EQF Level	EQF 5
Teaching Methodology	Theoretical, Practical
Learning Environment	Worhshop

INFORMATION ABOUT THE COURSE

Start Date – End Date	According to agreement
Workload / Duration	4 days
Schedule information	4 days training
Location	Finspång Sweden
Learning activities	Practical training in CNC turning and milling machine, CAM
Assessment Type	Practical test
Entry requirement	Technical studies or similar completed EQF 4
Admission procedure	https://www.cng.se/

CNC-machine Operation Basics

Co-funded by the European Union

This training provides an introduction to operating a CNC-machine, including safety and basic settings.

https://www.cng.se/te4-gymnasieingenj%C3%B6r

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies

CNC, machine operating, PPE

CURRENT MATURITY LEVEL 1 → TARGET MATURITY LEVEL 2

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Tend CNC milling machine	http://data.europa.eu/esco/skill/4cb58ef4-67a9-4bea-a743-2c83ebd60e79	1
Program a CNC controller	http://data.europa.eu/esco/skill/bf942c60-8539-4951-83ee-63f770da1cb8	1

GENERAL INFORMATION

Course provider	Curt Nicolin Gymnasiet
Country	Sweden
Language	Swedish
Education Subject	Industrial production methods
Learner Profile	EQF 5
Mode of Learning	In Person
Credential Type	Certificate of Completion
EQF Level	EQF 5
Teaching Methodology	Practical
Learning Environment	Workshop

INFORMATION ABOUT THE COURSE

Start Date – End Date	According to agreement
Workload / Duration	4 days
Schedule information	4 days training
Location	Finspång Sweden
Learning activities	Practical training in CNC turning machine and CNC milling machine
Assessment Type	Practical test
Entry requirement	Technical studies or similar completed EQF 4
Admission procedure	https://www.cng.se/

CNC Waste Reduction Strategies

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

This training provides the basic practical methods to reduce waste and inefficiency in CNC-machining, using CAM Siemens NX.

https://community.lcamp.eu/catalog-item/production-philosophy/

ADMA TRANSFORMATION AREA

ECO Factory

CAM, Siemens NX, CNC, LEAN

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 3

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
CAM Software	http://data.europa.eu/esco/skill/27065048-bca8-4b0a-891a-b192b9ceadfd	3
Tend CNC milling machine	http://data.europa.eu/esco/skill/4cb58ef4-67a9-4bea-a743-2c83ebd60e79	2
Continuous improvement philosophies	http://data.europa.eu/esco/skill/0550431f-9c8b-4204-9c45-59bc5feacf06	2

GENERAL INFORMATION

Course provider	Curt Nicolin Gymnasiet
Country	Sweden
Language	Swedish
Education Subject	Production Philosophy
Learner Profile	EQF 5
Mode of Learning	In Person
Credential Type	Certificate of Completion
EQF Level	EQF 5
Teaching Methodology	Theoretical, Practical
Learning Environment	Classroom, Workshop

INFORMATION ABOUT THE COURSE

Start Date – End Date	According to agreement
Workload / Duration	4 days
Schedule information	4 days training
Location	Finspång Sweden
Learning activities	Theoretical and practical training, CAD/ CAM, Machining
Assessment Type	Practical test
Entry requirement	Technical studies or similar completed EQF 4
Admission procedure	https://www.cng.se/

Collaborative Robot

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

Using collaborative robots improve the production, risks and reduce production time. Get better work conditions. Make easy collaborative robot installations. Learn safety rules. Installation repair/changes. Insert a collaborative robot in the production.

https://www.imh.eus/en

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies, Digital Factory, Smart Manufacturing Engineering

Cobot, automation, robotics

CURRENT MATURITY (1-5) LEVEL: 3 → TARGET MATURITY LEVEL (1-5): 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Install collaborative robots	https://esco.ec.europa.eu/en/skill/ed9290f6-f3a7-4bc7-9f5e-9e26a30e69a4	3
Ensure safety in collaborative robotics	https://esco.ec.europa.eu/en/skill/6e19de27-3693-4d3a-9484-5ef53b360b01	4
Perform maintenance on collaborative robots	https://esco.ec.europa.eu/en/skill/f8451baf-8c85-465b-b9cf-17fd315f77a7	4
Integrate collaborative robots into production lines	https://esco.ec.europa.eu/en/skill/d5e0f8d5-1380-4c89-bf78-8d1cf8a83c0c	3

GENERAL INFORMATION

Course provider	IMH CAMPUS
Country	Basque Country/ Spain
Language	English, Spanish
Mode of Learning	In-Person
Credential Type	Microcredential Course
EQF Level	4
Teaching Methodology	Theoretical / Practical

INFORMATION ABOUT THE COURSE

Workload / Duration	24 hours
Location	Elgoibar, Basque Country

Component inspection using a coordinate measuring machine

Operate a three-dimensional measuring machine and carry out an inspection programme on the same machine. Participants will learn to set up and calibrate the CMM, program inspection routines, measure parts, and analyze results according to engineering standards.

https://community.lcamp.eu/catalog-item/component-inspection-using-a-coordinate-measuring-machine-cmm/

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies

Metrology, inspection programme, quality control, tolerances

CURRENT MATURITY LEVEL 3 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Metrology	http://data.europa.eu/esco/skill/a181e89d-44ae-40e7-8d37-177071237c74	3
Adjust measuring machines	http://data.europa.eu/esco/skill/236c446a-f4ff-4893-850a-0d93250c551f	2
Conduct quality control analysis	http://data.europa.eu/esco/skill/41a3240f-58ba-44e2-a688-edeb21ea5c16	2
Interpret geometric dimensions and tolerances	http://data.europa.eu/esco/skill/e3688cae-7a28-4405-88b5-6b87179e0d76	3

GENERAL INFORMATION

Course provider	Lycée La Découverte
Country	France
Language	French
Education Subject	Metrology
Learner Profile	Learners EQF 5
Mode of Learning	In Person
Credential Type	ECTS
EQF Level	5
Teaching Methodology	Theoretical & Practical
Learning Environment	VET Centre

INFORMATION ABOUT THE COURSE

Start Date – End Date	2025-02-17 2025-02-18
Workload / Duration	7 Hours
Location	Lycée La Découverte Deazeville France
Learning activities	Theoretical classes and practical work
Entry requirement	EQF 4 diploma
Admission procedure	Registration - ParcourSup

Connected Workers

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

Equip participants to design and manage "Connected Worker" solutions in an Industry 5.0 context, leveraging wearables, IoT sensors, AR/VR, mobile apps and dashboards for real-time posture, health and performance monitoring, on-the-job training and operator-machine collaboration.

https://www.smarttvalley.it/manufacturing/

ADMA TRANSFORMATION AREA

Human-Centred Organisation; Smart Manufacturing; Digital Factory

Connected Worker · Wearables · IoT sensor integration · Real-time KPI dashboards · AR/VR training · Mobile decision-support apps · Operator performance analysis · Well-being monitoring · Cobot collaboration

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Human-robot interaction	http://data.europa.eu/esco/skill/9136cbf1-7916-4f1c-bc9a-0318ee1d6016	2
Analyze operator performance and well-being data	http://data.europa.eu/esco/skill/5d204ec8-981b-4405-9a82-0b1cb21ca9d3	3
Introduce XR/VR and mobile applications for on-the-job training	http://data.europa.eu/esco/skill/S1.3.3	2
Integrate wearable and IoT sensor data for worker monitoring	http://data.europa.eu/esco/skill/8a753714-9a19-4418-9b37-77e79d72c705	3

GENERAL INFORMATION

Course provider	Fondazione Ergo
Country	Italy
Language	Italian / English
Education Subject	Design and management of "Connected Worker" solutions in an Industry 5.0 context
Learner Profile	Digital-transformation leads, HSE specialists, line managers, ergonomists
Mode of Learning	In-Person/Hybrid
Credential Type	Certificate
EQF Level	6
Teaching Methodology	Theoretical / Practical / Practical in CLF
Learning Environment	Classroom, Campus Smartt Valley KIIS

INFORMATION ABOUT THE COURSE

Workload / Duration	3 days (24h) – approx
Price	Depending on time schedule and location
Location	Learning Factory, Smartt Valley
Learning activities	Connected-Worker prototype demo + data-analysis report
Assessment Type	Multiple choice assessment costumized on client needs + situational interview
Entry requirement	Basic familiarity with industrial data systems;

The course's content, schedule and location can be adapted to the needs of the recipients.

CORPORATE SUSTAINABILITY BASICS

Co-funded by the European Union

This introductory course provides a comprehensive overview of corporate sustainability, equipping participants with the fundamental knowledge and tools necessary to understand and implement sustainability strategies in the corporate world. The course explores the key principles of environmental, social, and governance (ESG) frameworks, sustainable business models, and how companies can balance profitability with positive societal and environmental impacts.

https://community.lcamp.eu/catalog-item/gebkim-oiz-corporate-sustainability-basics/

ADMA TRANSFORMATION AREA

ECO FACTORY

ECO-EFFICIENT PRODUCTION

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Corporate sustainability	Corporate sustainability	4
Promote sustainability	Promote sustainability	4

GENERAL INFORMATION

Course provider	GEBKIM OIZ
Country	Türkiye
Language	Turkish
Education Subject	This course introduces learners to the foundations of corporate sustainability, covering environmental, social, and governance (ESG) principles, sustainability reporting, green business strategies, and regulatory frameworks relevant to modern organizations.
Learner Profile	VET Students
Mode of Learning	In Person
Credential Type	ECTS
EQF Level	EQF 4
Teaching Methodology	Theoretical / Practical
Learning Environment	VET Centre

INFORMATION ABOUT THE COURSE

Workload / Duration	20 Hours
Location	GEBKIM OIZ
Learning activities	Lectures,Practices
Assessment Type	Quizzes and mid-term evaluations, Exam
Entry requirement	Interest in
Admission procedure	Online or in-person application submission

Cybersecurity

This course introduces learners to the fundamentals of cybersecurity and digital protection. It covers key concepts such as data security, network protection, threat detection, and risk management. Learners will explore common cyber threats and vulnerabilities, understand how to safeguard systems and information

https://3tindustry40training.eu/course/view.php?id=14

ADMA TRANSFORMATION AREA

Digital Factory

Cybersecurity, ICT, digital technologies

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 3

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Cyber security	http://data.europa.eu/esco/skill/8088750d-8388-4170-a76f-48354c469c44	2
ICT security legislation	http://data.europa.eu/esco/skill/7814e88f-c133-4c3b-b27f-857afa145d42	1
Implement ICT safety policies	http://data.europa.eu/esco/skill/14d1e367-3efe-4ec5-86ae-eca48710ee4e	1

GENERAL INFORMATION

Course provider	3TIndustry
Country	France Spain and Germany
Language	English
Education Subject	ICT
Mode of Learning	Online
Credential Type	None
EQF Level	None
Teaching Methodology	Theoretical
Learning Environment	E learning

INFORMATION ABOUT THE COURSE

Start Date – End Date	Non applicable
Workload / Duration	3 Hours
Price	Free
Location	Online
Learning activities	Theoretical
Assessment Type	Quiz
Entry requirement	None
Admission procedure	Regiistration to the platform

Cybersecurity in industry

Co-funded by the European Union

Training service for security technologies and trust in digital system. The weak point of digital transformation when it does not contemplate the “security by design” principles nor does it comply with protective measures in depth.

ADMA TRANSFORMATION AREA

Digital Factory

Cyber Threat Management; Defense in Depth

CURRENT MATURITY LEVEL (1-5)	TARGET MATURITY LEVEL (1-5)
3	4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
implement ICT security policies	http://data.europa.eu/esco/skill/14d1e367-3efe-4ec5-86ae-eca48710ee4e	2
handle cybersecurity incidents	http://data.europa.eu/esco/skill/8181aa4c-42bc-4036-a3d2-5cb6bbb34239	3
perform risk analysis	http://data.europa.eu/esco/skill/1dd23dba-dd00-45ab-abf4-642902538317	3

GENERAL INFORMATION

Course provider	TECNALIA RESEARCH & INNOVATION
Country	Spain
Language	English, Spanish
Education Subject	Tecnalia experience in cybersecurity. Development of proof of concept and solutions based on privacy or traceability technologies. Tools and methods to ensure safety & security from the early stages of design. Technologies for controlling and safeguarding the security of systems, data, and networks. Management of security risks in critical systems. With this, we offer new applications in the following areas: Distributed Ledger Technologies: Blockchain Distributed Ledgers. Security, privacy and protection by design. Identity/privacy management solutions. Control, Protection and Risk Management. Artificial Intelligence for cybersecurity (e.g. Adversarial ML). Cyber Ranges and Attack Simulations. Quantum Security / Post-Quantum Cryptography. Compliance within new cybersecurity scenarios.
Learner Profile	Introduction and advanced
Mode of Learning	Hybrid
Credential Type	Training programme
Teaching Methodology	Theoretical / Practical / Practical in CLF

INFORMATION ABOUT THE COURSE

Workload / Duration	4 Hours
Location	TECNALIA RESEARCH & INNOVATION

Development of an Environmental Responsibility and Circular Economy Plan

The objective of an Environmental Responsibility Plan is to define a set of guidelines for any company or organization to help protect the environment by reducing the impact of their actions on the natural surroundings and being highly aware of the importance of environmental care in all their activities.

https://www.lhusurbil.eus/web/Default.aspx?lng=EU

ADMA TRANSFORMATION AREA

Eco Factory, Human Centred Organization

Environment, green company, organization

CURRENT MATURITY (1-5) LEVEL: 4 → TARGET MATURITY LEVEL (1-5): 5

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Develop environmental policy	https://esco.ec.europa.eu/en/skill/c0df7ca4-2953-4e2d-a6cd-e82692c19da1	3
Apply environmental legislation	https://esco.ec.europa.eu/en/skill/9a7ec89e-5003-4933-a1a1-18132578032e	4
Promote environmental awareness	https://esco.ec.europa.eu/en/skill/79dd84f6-b429-4bc0-9381-c1697dc99f47	4
Implement environmental management systems	https://esco.ec.europa.eu/en/skill/9cb6f95c-8f18-4c69-b745-f1eaf5409a90	3
Assess environmental impact	https://esco.ec.europa.eu/en/skill/3e3d17b0-13f7-4dd9-94ff-cd6e164bd9f0	4

GENERAL INFORMATION

Course provider	CIFP Usurbil LHII
Country	Basque Country/ Spain
Language	Spanish
Learner Profile	Unemployees and employees from various sectors interested in environmental management, and individuals seeking to enhance their understanding of environmental impact reduction strategies within organizations.
Mode of Learning	In Person
Credential Type	Microcredential Course
EQF Level	EQF 5
Teaching Methodology	Theoretical / Practical / Practical in CLF

INFORMATION ABOUT THE COURSE

Workload / Duration	21 hours
Price	Free
Location	Usurbil, Basque Country

Design 4.0

The course will present technologies and approaches typical of the new way of understanding product design and development, from modern approaches for life cycle management (PLM) to virtual and augmented reality in the context of product development. At the same time application examples from different industrial sectors will be presented.

https://www.made-cc.eu/en/servizio/training-skills/

ADMA TRANSFORMATION AREA

Digital Factory, End-to-end Customer Focused Engineering, Smart Manufacturing

Product Design and Simulation, Augmented and Virtual Reality

CURRENT MATURITY LEVEL 3 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Work with virtual learning environments	http://data.europa.eu/esco/skill/b78f324d-e16c-43f8-97d2-50d3a7cd1fb3	2
Run simulations	http://data.europa.eu/esco/skill/a432ffcd-b58d-4417-836c-ea3282b626ca	2

GENERAL INFORMATION

Course provider	MADE Competence Center Industry 4.0
Country	Italy
Language	Italian
Education Subject	Product Design, Industry 4.0, Engineering
Learner Profile	Workers, Engineers, Design Professionals
Mode of Learning	Online / Hybrid / In Person
Credential Type	Microcredential
EQF Level	EQF3
Teaching Methodology	Practical
Learning Environment	Classroom

INFORMATION ABOUT THE COURSE

Start Date – End Date	TBD
Workload / Duration	4 hours
Schedule information	The course presents technologies and approaches typical of the new view of product design and development, from modern life-cycle management (PLM) to virtual and augmented reality in the product development context. Application examples from a range of industrial sectors are presented in conjunction with this.
Price	450 EUR
Location	Milan, Italy
Learning activities	Hands-on labs, case studies, technology demonstrations
Assessment Type	Final test and evaluation
Entry requirement	Basic understanding of product design and industrial processes
Admission procedure	By filling up online module - Formare competenze - Made

Design for Additive Manufacturing (DfAM)

This training provides insights into how to design parts optimized for 3D printing, focosing on material efficency, functionality and manufacturability. Part of the course CAD – Specialization.

https://community.lcamp.eu/catalog-item/cad-specialization/

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies

CAD, Additive Manufacturing, 3D-printing

CURRENT MATURITY LEVEL 3 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
CAD Software	http://data.europa.eu/esco/skill/a2b5dcf3-5b6a-453d-876c-cff540c0faf1	3
3D Printing process	http://data.europa.eu/esco/skill/2afb2b59-c9a3-4cf3-b1dd-1a2fad51e583	3

GENERAL INFORMATION

Course provider	Curt Nicolin Gymnasiet
Country	Sweden
Language	Swedish
Education Subject	CAD-Specialization
Learner Profile	EQF 5
Mode of Learning	In Person
Credential Type	Certificate of Completion
EQF Level	EQF 5
Teaching Methodology	Theoretical , Practical, problem solving
Learning Environment	Classroom, Educational Lab

INFORMATION ABOUT THE COURSE

Start Date – End Date	According to agreement
Workload / Duration	4 days
Schedule information	4 days training
Location	Finspång Sweden
Learning activities	Theoretical and practical traning, CAD and 3D Printing
Assessment Type	Practical Test
Entry requirement	Technical studies or similar completed EQF 4
Admission procedure	https://www.cng.se/

ECET-292 Design of Manufacturing

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

Students will study material that emphasizes the relationship of electronic design and manufacturing, including an introduction to CAD/CAM, Resource Management, Thermal Management and various standards. They will also examine design methodology for the various materials and equipment used in the manufacture of electronic products.

ECET 292 - Design for Manufacturing - Modern Campus Catalog™

ADMA TRANSFORMATION AREA

ADVANCED MANUFACTURING

Manufacturing Design

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
K072 Manufacturing and Processing	http://data.europa.eu/esco/isced-f/072	4
K0710 Engineering and Engineering Trades not further defined	http://data.europa.eu/esco/isced-f/070	4

GENERAL INFORMATION

Course provider	Camosun College
Country	Canada
Language	English
Education Subject	Electronics & Computer Engineering Technology
Learner Profile	College Students
Mode of Learning	In Person
Credential Type	College Diploma
EQF Level	4
Teaching Methodology	Practical
Learning Environment	In Classroom

INFORMATION ABOUT THE COURSE

Start Date – End Date	Four-month term
Workload / Duration	75 Hours
Price	$749.84 CAD
Location	Camosun College
Learning activities	Lectures, analysis, and direct experience
Assessment Type	Papers / Exams / Physical Tests
Entry requirement	Requires perquisite course from Camosun College
Admission procedure	Apply as part of Camosun electronics and computer engineering degree

Digital Operation

The course aims to introduce participants to the two industrial production paradigms (Lean production and Industry 4.0) by integrating them. In order to optimize the transition to Industry 4.0, identifying the processes to be followed, the resources to be allocated, and the investments to be made, it is essential to adopt a management and production method that minimizes costs and waste.

https://www.made-cc.eu/en/servizio/training-skills/

ADMA TRANSFORMATION AREA

Digital Factory, Smart Manufacturing

Industrial Engineering, Operations management, Artificial Intelligence

CURRENT MATURITY LEVEL 3 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Optimise production	http://data.europa.eu/esco/skill/798d427e-51b3-4cd4-8b24-1357015e9ae7	3
Operations management	http://data.europa.eu/esco/skill/2d140a3a-45a6-4248-80dd-b3760ebc9cc6	3

GENERAL INFORMATION

Course provider	MADE Competence Center Industry 4.0
Country	Italy
Language	Italian
Education Subject	Lean production and Industry 4.0
Learner Profile	Quality managers, Production managers, Programmers, Production directors, Department heads, Function managers
Mode of Learning	Online / Hybrid / In Person
Credential Type	Microcredential
EQF Level	EQF4
Teaching Methodology	Theoretical / Practical / Practical in CLF
Learning Environment	Classroom

INFORMATION ABOUT THE COURSE

Workload / Duration	6 Hours
Schedule information	At the end of the course, learners experience digital factory application examples first-hand, with a special focus on Digital Twinning process and logistics. A focus on maximum participant-lecturer interaction during the lessons with a marked operational focus in teaching methods on real business context experiences.
Price	450 EUR
Location	Milan, Italy
Learning activities	Introduction to production process planning and control; digital twinning for process simulation; AR/VR solutions to support industrial processes; MES as an enabling technology for real-time production control; elements of Lean 4.0; IoT: from smart product to industrial process control and monitoring; product quality and traceability
Assessment Type	Final test and evaluation
Entry requirement	Managers, SME entrepreneurs
Admission procedure	By filling up online module - Formare competenze - Made

Digital Transformation pathway

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

The Digital Transformation pathway is a training programme on digital technologies with lectures and industrial visits with the objective to explain new technologies and their impact on the company development.

https://www.made-cc.eu/it/corso/percorso-digital-transformation/

ADMA TRANSFORMATION AREA

Digital Factory, Smart Manufacturing

Industry 4.0 and 5.0, Open Innovation, Circular Economy

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 3

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Keep up with digital transformation of industrial processes	http://data.europa.eu/esco/skill/0458f6a0-cb54-4ff5-a543-b2c5354e17c0	3
Data extraction, transformation and loading tools	http://data.europa.eu/esco/skill/9d0d89be-bffa-4393-b6f6-8d05bea49051	2

GENERAL INFORMATION

Course provider	MADE Competence Center Industry 4.0
Country	Italy
Language	Italian
Education Subject	Industry 4.0
Learner Profile	Managers, entrepreneurs and professionals
Mode of Learning	Online + company visits
Credential Type	Microcredential
EQF Level	EQF4
Teaching Methodology	Practical
Learning Environment	Online

INFORMATION ABOUT THE COURSE

Start Date – End Date	30 September 2025
Workload / Duration	4 hours
Price	1000 EUR
Location	Milan, Italy
Learning activities	Module 1 - Trends in manufacturing Module 2 - Analysis, costs and benefits of introducing new technologies Module 3 - Open Innovation Module 4 - What it means to be a Data Driven Company Module 5 - What it means to be a sustainable company
Assessment Type	No formal exam or graded assessment. Participation-based evaluation
Entry requirement	No prior coding or deep technical expertise required, but a basic understanding of business or operations is probably expected
Admission procedure	By filling up online module - Formare competenze - Made

Electrical Discharging Machining (EDM) processes

This intensive hands-on course introduces learners to Electrical Discharge Machining (EDM) technology, with a special focus on tool and die manufacturing, CAD design using SolidWorks, and machine programming. Participants will explore the fundamentals of stamping die and mold theory, and apply their knowledge in a real workshop environment using the ONA AV-35 EDM machine and Teksoft CAM software.

Through practical projects, students will learn to interpret technical drawings, model components in 3D CAD, and prepare EDM operations from setup to execution. This includes aligning the workpiece, setting offsets, and executing wire and die-sinking EDM processes.

ADMA TRANSFORMATION AREA

Digital Factory, Advanced Manufacturing Technologies

EDM, CAD, CAM, Solidworks, programming

CURRENT MATURITY LEVEL (1-5)	TARGET MATURITY LEVEL (1-5)
3	4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Tend spark erosion machine	http://data.europa.eu/esco/skill/347162b5-d136-4791-b2a5-392f37a5d1c0	3
Technical drawings	http://data.europa.eu/esco/skill/59ea80e1-463a-4dba-82c6-d0b6d577d532	2
Operate precision machinery	http://data.europa.eu/esco/skill/d8045ecd-22f3-4711-bb51-58969d9f28c7	2
Use CAM software	http://data.europa.eu/esco/skill/7a757fa5-9a6f-43ab-9e66-f8f4dba1ffcb	3

GENERAL INFORMATION

Course provider	CIFP Armeria eskola LHII
Country	Basque Country – Spain
Language	English
Education Subject	Machining
Learner Profile	Mechanical students
Mode of Learning	In Person
EQF Level	4/5
Teaching Methodology	Practical in CLF
Learning Environment	Workshop

INFORMATION ABOUT THE COURSE

Workload / Duration	60 Hours
Location	CIFP Armeria eskola LHII
Learning activities	EDM Theory ONA AV35 Machine Operation Stamping and Die Theory SolidWorks Design CAM Programming for EDM
Assessment Type	Final project
Entry requirement	Enrolment in mechanical cycle EQF4/5

Electronic Assembly of the LCAMP Robot: Soldering Components, Motor Driver Regulation, and DC-DC Converters

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

This course provides a deep understanding of stepper motors, including their operation, applications, driver regulation, DC-DC regulator parameterization, and practical soldering techniques. It integrates these concepts with the Industrial Automation and Robotics curriculum.

https://www.maltuna.eus/es/

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies, Digital Factory

Electronic welding, electronics, robotics

CURRENT MATURITY (1-5) LEVEL: 3 → TARGET MATURITY LEVEL (1-5): 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Maintain electric motors	https://esco.ec.europa.eu/en/skill/f1914a84-4cf8-4ea4-b8f6-96736a3e5703	3
Apply principles of motor control	https://esco.ec.europa.eu/en/skill/7b00e5e6-94c0-4bd1-b663-b7f7a5a77cbb	4
Integrate electrical components into control systems	https://esco.ec.europa.eu/en/skill/40a9bc3e-46d3-4c3c-8f15-2e49e05fbb14	3
Install electronic control equipment	https://esco.ec.europa.eu/en/skill/36ae938d-183e-4c1b-bc12-4fdc57d4a9f1	4

GENERAL INFORMATION

Course provider	Miguel Altuna LHII
Country	Basque Country, Spain
Language	Basque
Education Subject	Industrial Automation and Robotics
Learner Profile	Engineering students, automation technicians, robotic enthusiasts
Mode of Learning	In Person
Credential Type	Certification of Completion
EQF Level	EQF4-5
Teaching Methodology	Practical in CLF
Learning Environment	CLF

INFORMATION ABOUT THE COURSE

Workload / Duration	15 hours
Schedule information	During the hours of the courses Power Systems and Measurement and Regulation Systems
Price	0€
Location	Bergara, Miguel Altuna LHII
Learning activities	Theoretical lessons, practical soldering exercises, stepper motor control experiments, Arduino integration workshops.
Assessment Type	Teaching demonstrations, lesson plan evaluations, peer reviews
Entry requirement	First-year students of Robotics and Industrial Automation.

FULL LEARNING OUTCOMES

1. Understand the working principles of stepper motors and their role in industrial automation.
2. Identify different types of stepper motors and their applications.
3. Learn to regulate and configure stepper motor drivers for optimal performance.
4. Explore the importance of DC-DC regulators and their parameterization.
5. Develop practical skills in soldering for assembling and repairing motor control circuits.
6. Integrate stepper motor applications into automation and robotics systems.

ECET-291 Engineering Project Management

Students are introduced to engineering project management and budgeting techniques, as well as strategies for effective project teamwork. They will also study engineering standards, the effect of engineering on the environment, professional responsibility, and engineering ethics.

ECET 291 - Engineering Project Management - Modern Campus Catalog™

ADMA TRANSFORMATION AREA

END-TO-END CUSTOMER-FOCUSED ENGINEERING

Project Management

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
S4.0 Management Skills	http://data.europa.eu/esco/skill/c1a13ee0-b00d-4cfa-a22c-20d284e398b0	4
S4.3 Allocating and Controlling Resources	http://data.europa.eu/esco/skill/9827c329-3492-4e8d-852c-da0894228ff6	4
K0710 Engineering and Engineering Trades not further defined	http://data.europa.eu/esco/isced-f/070	4

GENERAL INFORMATION

Course provider	Camosun College
Country	Canada
Language	English
Education Subject	Electronics & Computer Engineering Technology
Learner Profile	College Students
Mode of Learning	Online
Credential Type	Micro-Credential
EQF Level	4
Teaching Methodology	Practical
Learning Environment	In Classroom

INFORMATION ABOUT THE COURSE

Start Date – End Date	Four-month term
Workload / Duration	175 Hours
Price	$374.92 CAD
Location	Camosun College
Learning activities	Lectures, labs, and group work
Assessment Type	Group work and project development
Entry requirement	Prerequisite college courses
Admission procedure	Apply via Electronics & Computer Engineering Technology program

Ergonomics in Industry 5.0

This course provides an in-depth overview of ISO 11228/11226 standards and ergonomic risk mapping, hands-on training with EAWS calculation methods to quantify the risk of biomechanical overload, and a deep dive into the Ergo-MTM methodology via the TiCon Base, EAWS, Takt modules. Participants will learn to assess and optimize work postures, forces and repetitive tasks in Industry 5.0 environments.

https://www.smarttvalley.it/manufacturing/

ADMA TRANSFORMATION AREA

Human-Centred Organisation; Smart Manufacturing; Digital Factory

Ergonomic risk mapping · ISO 11228 · ISO 11226 · EAWS (Ergonomic Assessment Work-sheet) · Ergo-MTM methodology · TiCon Base · TiCon EAWS · TiCon Takt · Biomechanical load assessment · Repetitive task analysis

CURRENT MATURITY LEVEL 1 → TARGET MATURITY LEVEL 3

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Follow safety precautions in work practices	http://data.europa.eu/esco/skill/d2d9051a-10e1-41c5-9cfb-bbdc58016176	2
Analyse ergonomics in different workplaces	http://data.europa.eu/esco/skill/a2e4fe18-b65d-46c2-8bee-d81fad8cd53b	3
Plan manufacturing process	http://data.europa.eu/esco/skill/7d0f33ea-e724-4d77-8b75-ee4fe66bb9ba	3
Perform ergonomic risk assessments	http://data.europa.eu/esco/skill/d3a0f1fd-3a6e-452c-84a2-dc594b403a18	3

GENERAL INFORMATION

Course provider	Fondazione Ergo
Country	Italy
Language	Italian / English
Education Subject	Ergonomics: introduction to ISO/CEN Standards; EAWS calculation method for a comphrensive ergonomic assessment of work postures, forces and repetitive tasks in Industry 5.0 environments; introduction to Ergo-MTM model (TiCon)
Learner Profile	Ergonomists, HSE specialists, process engineers, safety managers
Mode of Learning	In-Person/Hybrid
Credential Type	Certificate
EQF Level	5-6
Teaching Methodology	Theoretical / Practical / Practical in CLF
Learning Environment	Classroom, Experience lab with workstations, Campus Smartt Valley Ergo-Lab

INFORMATION ABOUT THE COURSE

Workload / Duration	8 days – approx
Price	Depending on time schedule and location
Location	Learning Factory, Smartt Valley
Learning activities	ISO-standard lectures, EAWS scoring theory and examples, TiCon-guided simulations, group risk-mapping exercises
Assessment Type	Multiple choice assessment costumized on client needs + situational interview
Entry requirement	Familiarity with basic ergonomic concepts

The course's content, schedule and location can be adapted to the needs of the recipients.

Factory Logistics 4.0

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

Explore the enabling technologies of Factory Logistics 4.0—IoT/RFID for real-time traceability, AGVs/AMRs for automated material handling, Digital Twins for flow simulation, and Advanced Analytics/AI for demand forecasting and inventory optimization, integrated with MES/WMS/ERP to synchronize production and supply chain. Hands-on cases illustrate "just-in-time" delivery and uptime improvement.

https://www.smarttvalley.it/manufacturing/

ADMA TRANSFORMATION AREA

Value Chain-Oriented Open Factory; Smart Manufacturing; Digital Factory

RFID & IoT traceability · AGVs & AMRs · Digital Twin simulation · Advanced Analytics & AI forecasting · MES/WMS/ERP integration · Cross-departmental interoperability · Flow optimization

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Deploy IoT and RFID systems for real-time asset tracking	http://data.europa.eu/esco/skill/9136cbf1-7916-4f1c-bc9a-0318ee1d6016	3
Build and validate Digital Twin models for logistics flow simulation	http://data.europa.eu/esco/skill/737f8895-46df-4283-8f38-13f3f0fc3b77	4
Apply advanced analytics and AI for demand forecasting and inventory optimization	http://data.europa.eu/esco/skill/8dcbcabe-09f7-4d11-940d-125af57bbc40	4
Integrate MES, WMS and ERP systems to synchronize production and supply chain	http://data.europa.eu/esco/skill/8a753714-9a19-4418-9b37-77e79d72c705	3

GENERAL INFORMATION

Course provider	Fondazione Ergo
Country	Italy
Language	Italian / English
Education Subject	Enabling technologies of Factory Logistics 4.0
Learner Profile	Logistics engineers, operations managers, supply-chain analysts, automation specialists
Mode of Learning	In-Person/Hybrid
Credential Type	Certificate
EQF Level	6
Teaching Methodology	Theoretical / Practical / Practical in CLF
Learning Environment	Classroom, Campus Smartt Valley KIIS

INFORMATION ABOUT THE COURSE

Workload / Duration	3 days (24h) – approx
Price	Depending on time schedule and location
Location	Learning Factory, Smartt Valley
Learning activities	RFID tagging exercises, AGV route planning, Digital Twin flow builds, AI-forecasting case studies
Assessment Type	Multiple choice assessment costumized on client needs + situational interview
Entry requirement	Basic logistics concepts and familiarity with ERP/WMS systems

The course's content, schedule and location can be adapted to the needs of the recipients.

FANUC INDUSTRIAL ROBOT PROGRAMMING

Participants learn how to work safely with an industrial robot, learn about the structure of an industrial robotic system and know how to program a robot for a selected robotic application.

https://www.tscmb.si/wp-content/uploads/2023/04/OPIS_PROGRAMA-Programiranje_Fanuc_robota-TSC_MB.pdf

ADMA TRANSFORMATION AREA

Advanced Manufacturing

Robotic components, PLC integration, Automation, Robotics

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 3

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Robotics	http://data.europa.eu/esco/skill/e87ec79a-c9ff-46f5-84fa-7a0f394cdf40	2
Robotic Components	http://data.europa.eu/esco/skill/7a950986-27fe-4b6c-adf3-88f211e77019	3
Maintain Robotic Equipment	http://data.europa.eu/esco/skill/7341904f-5913-470c-8c53-bc832df248ec	3

GENERAL INFORMATION

Course provider	TŠC Maribor
Country	Slovenia
Language	Slovenian
Education Subject	Automation
Learner Profile	Students, workers
Mode of Learning	In Person
Credential Type	Paper based
EQF Level	5
Teaching Methodology	Theoretical / Practical
Learning Environment	School laboratory

INFORMATION ABOUT THE COURSE

Start Date – End Date	24/02/2025 – 07/03/2025
Workload / Duration	40 Hours
Price	420,00 EUR + VAT
Location	Zolajeva ulica 12, 2000 Maribor, Slovenia
Learning activities	Lecture, exercise, discussion, laboratory work
Assessment Type	Self-assessment learning diaries or portfolios – test reflection skills
Entry requirement	https://www.tscmb.si/wp-content/uploads/2025/01/VABILO_USPOSABLJANJE_ROBOTIKA_POMLAD_2025.pdf
Admission procedure	https://www.tscmb.si/wp-content/uploads/2023/03/PRIJAVNICA_za_institucionalna-usposabljanja-1.pdf

FREE-FORM SURFACE MODELING

The Free-form Surface Modeling course is an upgrade to the Creo Parametric Fundamentals course and serves as a starting point for fast and efficient work with complex surface models for every designer of products and devices with demanding shapes.

https://ti.audax.si/tecaji/modeliranje-prostih-povrsin-96?prijava=1&idtecaji=96&idtermin=16553

ADMA TRANSFORMATION AREA

Advance manufacturing technologies

Surface Design, Curve Modeling, Solid Modeling

CURRENT MATURITY LEVEL 3 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
3D modelling	http://data.europa.eu/esco/skill/97965983-0da4-4902-9daf-d5cd2693ef73	3
Apply reverse engineering	http://data.europa.eu/esco/skill/a7a14be2-78b5-4b4a-ba77-2658285e2756	4

GENERAL INFORMATION

Course provider	Audax d. O. O.
Country	Slovenia
Language	Slovenian
Education Subject	Curve Modeling, Surface Creation (Extrude, Revolve, Fill, Sweep, Blend, Boundary Blend, Rotational Blend, Swept Blend, Variable Section Sweep)
Learner Profile	adult
Mode of Learning	In Person
Credential Type	Certificat
EQF Level	EQF 5
Teaching Methodology	Practical training, solution solving
Learning Environment	Educational lab

INFORMATION ABOUT THE COURSE

Start Date – End Date	01/10/2025 – 03/10/2025
Workload / Duration	2 days
Schedule information	2 days training
Location	Ljubljana
Learning activities	Creating and configuration, practical training
Assessment Type	Practical test
Entry requirement	Creo Parametric Fundamentals Course and prior independent practical work with Creo software.

Functional Safety

ADMA TRANSFORMATION AREA

MC 2322 Functional Safety

Part of the lecture T4WIW9014

Learning Outcome: The various aspects of safety in machinery (e.g. the Machinery Directive, SIL, Performance Level, CE, etc.).

https://www.heidenheim.dhbw.de/en/home

Advanced Manufacturing, Smart Manufacturing

Safety, machinery

CURRENT MATURITY (1-5) LEVEL 4 → TARGET MATURITY LEVEL (1-5) LEVEL 5

GENERAL INFORMATION

Course provider	DHBW Heidenheim
Country	Germany
Language	German
Education Subject	Functional Safety
Learner Profile	A-levels
Mode of Learning	In Person
Credential Type	ECTS
EQF Level	EQF6
Teaching Methodology	Lecture
Learning Environment	HVET Centre

INFORMATION ABOUT THE COURSE

Start Date – End Date	01.10.25 – 31.12.25
Workload / Duration	2 ECTS / 50h
Location	DHBW Heidenheim (Baden-Wuerttemberg Cooperative State University)

ESCO skills

Safety engineering

http://data.europa.eu/esco/skill/47d491a9-f7c0-4b13-a10f-983d3aa0113e

Selected teaching units are explored in greater depth in the laboratory.

Automation systems – laboratory:

- Automation components (e.g. industrial robots or machine tools).
- Modular production systems (e.g. learning factories).

FUNDAMENTALS OF ROBOTICS

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

The Fundamentals of Robotics course provides a comprehensive introduction to the principles, technologies, and applications of robotics in modern industries. Designed for learners seeking to understand the core components of robotic systems.

https://community.lcamp.eu/catalog-item/fundamentals-of-robotics/

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies, Digital Factory

Application of robotics to industrial processes

CURRENT MATURITY LEVEL (1-5)	TARGET MATURITY LEVEL (1-5)
3	4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Set up automotive robot	http://data.europa.eu/esco/skill/e975b791-b488-4935-be44-06f2f9a443bb	2
Maintain control systems for automated equipment	http://data.europa.eu/esco/skill/df12fd50-55dc-4cfd-a021-818880668789	3
Human-robot collaboration	http://data.europa.eu/esco/skill/0f5374e3-0b9b-4b16-af7a-49654ce0bb15	3

GENERAL INFORMATION

Course provider	Miguel Altuna LH
Country	Spain
Language	Spanish
Education Subject	Historical background of robotics Morfology of the robot Mathematical Tools for Spatial Localization Robot Kinematics Kinematic Control Robot Programming Criteria for the Implementation of an Industrial Robot Industrial application
Learner Profile	Unemployed individuals,CNC operators, machinist, or manufacturing technicians with basic knowledge of CNC operations and CAD software.
Mode of Learning	In Person
Credential Type	Microcredential course
EQF Level	EQF 4
Teaching Methodology	Theoretical and Practical

INFORMATION ABOUT THE COURSE

Workload / Duration	50 hours
Location	Miguel Altuna LH

Human-Centric Technologies & Ergonomic Innovation

Deepen knowledge of emerging technologies for improving human-machine interaction in industrial workplaces, with a focus on ergonomics, well-being, and productivity. Provide tools to integrate digital and wearable solutions in an Industry 5.0 approach, maintaining the centrality of the human in production processes.

https://www.smarttvalley.it/manufacturing/

ADMA TRANSFORMATION AREA

Human-Centred Organisation; Smart Manufacturing; Digital Factory

Immersive simulation · Digital Twin ergonomics · AR/VR workstation design · Wearable posture monitoring · Biomechanical stress analysis · Exoskeleton applications · Human-centric integration · Cobot-operator collaboration

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Digital modelling technologies	http://data.europa.eu/esco/skill/737f8895-46df-4283-8f38-13f3f0fc3b77	3
Supervise worker safety	http://data.europa.eu/esco/skill/5d204ec8-981b-4405-9a82-0b1cb21ca9d3	3
Integrate human-centric technologies into standard workflows	http://data.europa.eu/esco/skill/33c8742f-fc91-433b-8d3f-3238f7e3018f	3
Perform ergonomic risk assessments	http://data.europa.eu/esco/skill/d3a0f1fd-3a6e-452c-84a2-dc594b403a18	3

GENERAL INFORMATION

Course provider	Fondazione Ergo
Country	Italy
Language	Italian / English
Education Subject	Improvement of human-machine interaction in industrial workplaces; integration of digital and wearable solutions in an Industry 5.0 approach
Learner Profile	Ergonomists, HSE specialists, automation and digital-transformation managers
Mode of Learning	In-Person/Hybrid
Credential Type	Certificate
EQF Level	5-6
Teaching Methodology	Theoretical / Practical / Practical in CLF
Learning Environment	Classroom, Experience lab with workstations, Campus Smartt Valley KIIS and Ergo-Lab

INFORMATION ABOUT THE COURSE

Workload / Duration	3 days (24 h) – approx
Price	Depending on time schedule and location
Location	Smartt Valley
Learning activities	AR/VR ergonomics workshop, wearable-sensor and device presentation, exoskeleton introduction
Assessment Type	Multiple choice assessment costumized on client needs + situational interview
Entry requirement	Familiarity with basic ergonomic concepts

The course's content, schedule and location can be adapted to the needs of the recipients.

Industrial Communication

Co-funded by the European Union

ADMA TRANSFORMATION AREA

MC 2323 Industrial Communication

Part of the lecture T4WIW9014

Learning Outcome: Automation components include robots, networks, industrial communication systems (e.g. CoDeSys and SCADA), and programming systems.

https://www.heidenheim.dhbw.de/en/home

Advanced Manufacturing, Smart Manufacturing

Automation, robots, systems

CURRENT MATURITY (1-5) LEVEL 4 → TARGET MATURITY LEVEL (1-5) LEVEL 5

GENERAL INFORMATION

Course provider	DHBW Heidenheim
Country	Germany
Language	German
Education Subject	Industrial Communication
Learner Profile	A-Levels
Mode of Learning	In Person / Lab
Credential Type	ECTS
EQF Level	EQF6
Teaching Methodology	Lecture
Learning Environment	HVET Centre

INFORMATION ABOUT THE COURSE

Start Date – End Date	01.10.25 – 31.12.25
Workload / Duration	2 ECTS / 50h
Location	DHBW Heidenheim (Baden-Wuerttemberg Cooperative State University)

ESCO skills

Apply technical communication skills

http://data.europa.eu/esco/skill/c32ad607-0c4d-4e34-b73f-668298f7bf13

Selected teaching units are explored in greater depth in the laboratory.

Automation systems – laboratory:

- Automation components (e.g. industrial robots or machine tools).
- Modular production systems (e.g. learning factories).

Industry 4.0 & 5.0 communication architecture

MC 2324 Industry 4.0 & 5.0 communication architecture

Part of the lecture T4WIW9014

Learning Outcome: automation concepts (HMI, OPC-UA. MQTT, MESA, ISA95, VDI5600)

https://www.heidenheim.dhbw.de/en/home

ADMA TRANSFORMATION AREA

Advanced Manufacturing, Smart Manufacturing

Automation

CURRENT MATURITY (1-5) LEVEL 4

TARGET MATURITY LEVEL (1-5) LEVEL 5

GENERAL INFORMATION

Course provider	DHBW Heidenheim
Country	Germany
Language	German
Education Subject	Industry 4.0 & 5.0 communication architecture
Learner Profile	A-Levels
Mode of Learning	In Person
Credential Type	ECTS
EQF Level	EQF6
Teaching Methodology	Lecture / Lab
Learning Environment	HVET Centre

INFORMATION ABOUT THE COURSE

Start Date – End Date	01.10.25 – 31.12.25
Workload / Duration	2 ECTS / 50h
Location	DHBW Heidenheim (Baden-Wuerttemberg Cooperative State University)

ESCO skills

Automation technology

http://data.europa.eu/esco/skill/f4a6e9f7-5cff-46c0-894c-59c20bb78694

Information architecture

http://data.europa.eu/esco/skill/1bba98a7-92b9-450b-9235-e0c905f8f3c4

Selected teaching units are explored in greater depth in the laboratory.

Automation systems – laboratory:

- Automation components (e.g. industrial robots or machine tools).
- Modular production systems (e.g. learning factories).

INTRODUCTION TO CARBON FOOTPRINT

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

This course provides a basic understanding of what a carbon footprint is, why it matters, and how individuals and industries can measure and reduce their carbon emissions. Students will explore the environmental impact of carbon emissions and learn simple, actionable strategies for lowering their carbon footprint. Topics include energy efficiency, renewable energy, waste reduction, and everyday practices that contribute to carbon reduction. By the end of the course, students will be equipped to take meaningful steps toward reducing their carbon impact.

https://community.lcamp.eu/catalog-item/gebkim-oiz-introduction-to-carbon-footprint/

ADMA TRANSFORMATION AREA

ECO FACTORY

ENVIRONMENTALLY FRIENDLY OPERATIONS

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Advise on carbon emissions reduction	Advise on carbon emissions reduction	4
Promote sustainability	Promote sustainability	4

GENERAL INFORMATION

Course provider	GEBKIM OIZ
Country	Türkiye
Language	Turkish
Education Subject	This course introduces the concept of carbon footprint, covering how greenhouse gas emissions are calculated, sources of emissions, and strategies for reduction in personal, corporate, and industrial contexts. It promotes awareness and action toward climate responsibility.
Learner Profile	VET Students
Mode of Learning	In Person
Credential Type	ECTS
EQF Level	EQF 4
Teaching Methodology	Theoretical / Practical
Learning Environment	VET Centre

INFORMATION ABOUT THE COURSE

Workload / Duration	20 Hours
Location	GEBKIM OIZ
Learning activities	Lectures,Practices
Assessment Type	Quizzes and mid-term evaluations, Carbon footprint calculation tasks
Entry requirement	Interest in climate, sustainability, or environmental issues
Admission procedure	Online or in-person application submission

Introduction to Collaborative Robotics

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

Provide basic knowledge of collaborative-robotics principles, standards and applications, with a focus on safety, basic programming and human-robot integration in production processes.

https://www.smarttvalley.it/manufacturing/

ADMA TRANSFORMATION AREA

Human-Centred Organisation; Smart Manufacturing; Digital Factory

Industrial robotics · Collaborative robots (cobots) · ISO 10218-1/2 · ISO/TS 15066 · Human–robot collaboration · Force sensing · Machine vision · Cobot programming · Risk assessment

CURRENT MATURITY LEVEL 1 → TARGET MATURITY LEVEL 3

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Human-robot interaction	http://data.europa.eu/esco/skill/9136cbf1-7916-4f1c-bc9a-0318ee1d6016	2
Interpret collaborative-robotics paradigm	http://data.europa.eu/esco/skill/e87ec79a-c9ff-46f5-84fa-7a0f394cdf40	2
Configure and program collaborative robots	http://data.europa.eu/esco/skill/abf982c1-6b59-4572-a38c-97d3a6869af4	3
Integrate new products in manufacturing	http://data.europa.eu/esco/skill/8a753714-9a19-4418-9b37-77e79d72c705	3

GENERAL INFORMATION

Course provider	Fondazione Ergo
Country	Italy
Language	Italian / English
Education Subject	Collaborative-robotics principles, standards and applications
Learner Profile	Automation engineers, safety officers, production managers, robotics technicians
Mode of Learning	In-Person/Hybrid
Credential Type	Certificate
EQF Level	5-6
Teaching Methodology	Theoretical / Practical / Practical in CLF
Learning Environment	Classroom, Campus Smartt Valley KIIS

INFORMATION ABOUT THE COURSE

Workload / Duration	8 days – approx
Price	Depending on time schedule and location
Location	Learning Factory, Smartt Valley
Learning activities	Introduction to industrial collaborative robotics and Safety regulations; Enabling sensors and technologies; Cobot programming principles and risk assessment and feasibility analysis
Assessment Type	Multiple choice assessment costumized on client needs + situational interview
Entry requirement	Basic knowledge of automation; no prior cobot experience required

The course's content, schedule and location can be adapted to the needs of the recipients.

Installation and Maintenance of Industrial Automation Systems

Through this course, the student will learn to assemble and maintain regulation and control systems in industrial installations, applying the required techniques and procedures in each case, ensuring quality standards, complying with the company's occupational and environmental risk prevention plans, and adhering to the applicable regulations in force.

https://community.lcamp.eu/catalog-item/installation-and-maintenance-of-industrial-automation-systems/

ADMA TRANSFORMATION AREA

Digital Factory, Advanced Manufacturing Technologies

Automation, maintenance

CURRENT MATURITY LEVEL (1-5)	TARGET MATURITY LEVEL (1-5)
3	4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Install automation components	http://data.europa.eu/esco/skill/818c2b89-1335-4443-ada7-e1046862e273	3
Maintain industrial equipment	http://data.europa.eu/esco/skill/3e4cdaee-740c-4754-9135-466362bbd22e	3
Read technical datasheet	http://data.europa.eu/esco/skill/651675ef-d203-4ba9-bde0-c4fb8a2f3ef3	2
Perform maintenance on installed equipment	http://data.europa.eu/esco/skill/79aa4ec0-399d-432e-aae8-7a390ce89bcc	2

GENERAL INFORMATION

Course provider	CIFP ZORNOTZA LHII
Country	Basque Country / Spain
Language	Spanish
Education Subject	Installation of equipment and elements of industrial automation systems. Commissioning of industrial automation systems. Prevention of occupational and environmental hazards in the assembly and maintenance of industrial automation systems. Preventive maintenance of industrial automation systems Fault diagnosis and corrective maintenance of industrial automation systems
Learner Profile	Individuals interested in working as maintenance technicians in the field of industrial automation.
Mode of Learning	In Person
Credential Type	Microcredential Course - Professional Certificate (Level 2)
EQF Level	4
Teaching Methodology	Theoretical / Practical / Practical in CLF

INFORMATION ABOUT THE COURSE

Workload / Duration	390 Hours
Location	CIFP ZORNOTZA LHII - Zornotza (Basque Country)
Entry requirement	Title of Bachiller / Certificate of professionalism of level 2 or level 1 of the same family and professional área / Academic requirement of access to the higher VET degree or pass the corresponding entrance tests / Entrance test to the university for older than 25 years and/or of 45 years / In accordance with the regulations, training knowledge or professional knowledge sufficient to take the training with advantage.

Installation and maintenance of collaborative robots 'COBOTS'

The course is designed to provide participants with a comprehensive understanding of the installation, operation, and maintenance of collaborative robots, commonly known as cobots. As automation technologies continue to evolve, cobots have become essential in enhancing productivity and efficiency across various industries by working alongside human operators safely and effectively.

https://community.lcamp.eu/catalog-item/installation-and-maintenance-of-collaborative-robots-cobots/

ADMA TRANSFORMATION AREA

Digital Factory, Advanced Manufacturing Technologies

Robot, cobot, automation

CURRENT MATURITY LEVEL (1-5)	TARGET MATURITY LEVEL (1-5)
3	4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Robotics	http://data.europa.eu/esco/skill/e87ec79a-c9ff-46f5-84fa-7a0f394cdf40	3
Assemble robots	http://data.europa.eu/esco/skill/7ffae77a-93ce-40a3-af99-fae5729e8b15	3
Maintain robotic equipment	http://data.europa.eu/esco/skill/7341904f-5913-470c-8c53-bc832df248ec	3
Manage health and safety standards	http://data.europa.eu/esco/skill/44e2c4c4-9fd2-42d4-a133-d81360ded4bc	3

GENERAL INFORMATION

Course provider	IMH CAMPUS
Country	BASQUE COUNTRY – SPAIN
Language	SPANISH
Education Subject	Integrate and maintain collaborative robots "COBOTS" in automated installations, in conditions of quality and safety for people, machines and the environment.
Learner Profile	People who wish to acquire knowledge of programming, integration and maintenance of Cobots collaborative robots.
Mode of Learning	Online
Credential type	Microcredential
EQF Level	5

INFORMATION ABOUT THE COURSE

Workload / Duration	12 Hours
Price	190€
Location	Elgoibar (Spain)

Internet of Things: Raspberry and Arduino

In recent years, IoT has become one of the most important technologies of the 21st century. Now that we can connect everyday objects to the Internet through embedded devices, seamless communication between people, processes and things is possible.

https://www.lhusurbil.eus/web/Default.aspx?lng=EU

ADMA TRANSFORMATION AREA

Advanced Manufcturing Technologies, Digital Factory, Human Centred Organization

IoT, automation, machine communication

CURRENT MATURITY (1-5) : 4 → TARGET MATURITY LEVEL (1-5): 5

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Apply internet of things (IoT)	https://esco.ec.europa.eu/en/skill/e4b32a5b-989b-4a62-a4e3-24371f3fe3ac	4
Integrate embedded systems	https://esco.ec.europa.eu/en/skill/8b9a8bb7-3f7a-43e1-bc7e-ec1e4eaa7e8e	5
Implement machine to machine communication	https://esco.ec.europa.eu/en/skill/6b27e8da-8895-4b45-a9de-8f9c949f7eac	5
Work with smart devices	https://esco.ec.europa.eu/en/skill/bcbf2c6e-b1df-4424-89c4-2372bda7f327	4

GENERAL INFORMATION

Course provider	CIFP Usurbil LHII
Country	Basque Country/ Spain
Language	Spanish
Learner Profile	Unemployees and professionals seeking to enhance their skills in networking and programming, and individuals looking to gain practical experience with Raspberry Pi and related technologies.
Mode of Learning	In Person
Credential Type	Microcredential Course
EQF Level	EQF 5
Teaching Methodology	Theoretical / Practical / Practical in CLF

INFORMATION ABOUT THE COURSE

Workload / Duration	100 hours
Price	Free
Location	Usurbil, Basque Country

Introduction to Automation Systems

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

ADMA TRANSFORMATION AREA

MC 2321 Introduction to Automation Systems

Part of the lecture T4WIW9014

Learning Outcome: Automation fundamentals (definitions, standards for implementation). Analysis of technical systems (system description and approach).

https://www.heidenheim.dhbw.de/en/home

Advanced Manufacturing, Smart Manufacturing

Automation, technical systems

CURRENT MATURITY (1-5) LEVEL 4 → TARGET MATURITY LEVEL (1-5) LEVEL 5

GENERAL INFORMATION

Course provider	DHBW Heidenheim
Country	Germany
Language	German
Education Subject	Introduction to Automation Systems
Learner Profile	A-Levels
Mode of Learning	In Person
Credential Type	ECTS
EQF Level	EQF6
Teaching Methodology	Lecture
Learning Environment	HVET Centre

INFORMATION ABOUT THE COURSE

Start Date – End Date	01.10.25 – 31.12.25
Workload / Duration	1 ECTS / 25h
Location	DHBW Heidenheim (Baden-Wuerttemberg Cooperative State University)

ESCO skills

Automation technology

http://data.europa.eu/esco/skill/f4a6e9f7-5cff-46c0-894c-59c20bb78694

Introduction to Digital Twin Technology

This training provides basic knowledge in how digital copies from physical systems are used for simulates and optimization.

https://community.lcamp.eu/catalog-item/production-philosophy/

ADMA TRANSFORMATION AREA

Digital Factory

Digital Twins

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 3

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Digital Twin Technology	http://data.europa.eu/esco/skill/737f8895-46df-4283-8f38-13f3f0fc3b77	2
Digital Systems	http://data.europa.eu/esco/skill/397da142-ab35-48fe-b154-7c38f447adfb	2

GENERAL INFORMATION

Course provider	Curt Nicolin Gymnasiet
Country	Sweden
Language	Swedish
Education Subject	Production Philosophy
Learner Profile	EQF 5
Mode of Learning	In Person
Credential Type	Certificate of Completion
EQF Level	EQF 5
Teaching Methodology	Theoretical, Practical
Learning Environment	Classroom, Educational Lab

INFORMATION ABOUT THE COURSE

Start Date – End Date	According to agreement
Workload / Duration	4 days
Schedule information	4 days training
Location	Finspång Sweden
Learning activities	Theoretical practice and practical training in software
Assessment Type	Practical test
Entry requirement	Technical studies or similar completed EQF 4
Admission procedure	https://www.cng.se/

Introduction to Robotics

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

MC 2334 Introduction to Robotics

Part of the lecture T3M30306

Learning Outcome: Robotics systems and industrial robots.

https://www.heidenheim.dhbw.de/en/home

ADMA TRANSFORMATION AREA

Advanced Manufacturing, Smart Manufacturing

Robotics, industrial robots

CURRENT MATURITY (1-5) LEVEL 4

TARGET MATURITY LEVEL (1-5) LEVEL 5

GENERAL INFORMATION

Course provider	DHBW Heidenheim
Country	Germany
Language	German
Education Subject	Introduction to Robotics
Learner Profile	A-Level
Mode of Learning	In Person
Credential Type	ECTS
EQF Level	EQF6
Teaching Methodology	Lecture
Learning Environment	HVET Centre

INFORMATION ABOUT THE COURSE

Start Date – End Date	01.01.26 – 01.04.26
Workload / Duration	1 ECTS / 25h
Location	DHBW Heidenheim (Baden-Wuerttemberg Cooperative State University)

ESCO Skills

Robotics

http://data.europa.eu/esco/skill/e87ec79a-c9ff-46f5-84fa-7a0f394cdf40

Robotic components

http://data.europa.eu/esco/skill/7a950986-27fe-4b6c-adf3-88f211e77019

INTRODUCTION OF THE PROGRAMMING OF UR COBOTS

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

The Introduction to the Programming of UR Cobots course provides learners with foundational skills to configure, calibrate, and program Universal Robots collaborative robots. Participants will use the PolyScope interface to develop simple programs, execute basic movements, and perform pick & place operations with tools and sensors. The training focuses on practical, hands-on tasks to ensure participants can confidently operate UR cobots in real industrial environments.

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies, Smart Manufacturing

Automatization

CURRENT MATURITY LEVEL (1-5)	TARGET MATURITY LEVEL (1-5)
2	3

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
working with computers	http://data.europa.eu/esco/skill/39499028-35bf-4d69-9275-fb98902ed88b	2
programming computer systems	http://data.europa.eu/esco/skill/d6e4373a-ef2c-4b64-9dc6-4140846f6609	2
maintain robotic equipment	http://data.europa.eu/esco/skill/7341904f-5913-470c-8c53-bc832df248ec	2

GENERAL INFORMATION

Course provider	Tolosaldea LHII
Country	Spain
Language	English
Education Subject	Robotics
Learner Profile	VET workers
Mode of Learning	In Person
EQF Level	4
Teaching Methodology	Practical
Learning Environment	Vocational learning classroom

INFORMATION ABOUT THE COURSE

Workload / Duration	2 Days
Location	Tolosaldea LHII
Learning activities	Lectures, guided practises and demostrations.
Assessment Type	Exercises/practical assignments
Entry requirement	Electricity or Electronics Vocational Training Program or Engineering.

Industrial Robot Programming. Level 1 (ABB, FANUC, KUKA)

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

Using robots improve the production and reduce time. It helps getting better work conditions. The objectives of the course are: Achieve robotics knowledges, Know robot safety, I/O, Calibration, Condition comands, Wait comands.

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies / Digital Factory / Smart Manufacturing / End-to-end Customer Focused Engineering

Robot, programming, ABB, FANUC, KUKA, AUTOMATIZATION

CURRENT MATURITY LEVEL (1-5)	TARGET MATURITY LEVEL (1-5)
3	4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Robotics	http://data.europa.eu/esco/skill/e87ec79a-c9ff-46f5-84fa-7a0f394cdf40	2
Operate industrial equipment	http://data.europa.eu/esco/skill/7c632656-361e-4db1-8d69-b9f85d6be0d0	2
Use automatic programming	http://data.europa.eu/esco/skill/7d10fcb2-b368-48ab-996b-7c9fafcf68ed	2
Manage health and safety standards	http://data.europa.eu/esco/skill/44e2c4c4-9fd2-42d4-a133-d81360ded4bc	3
Interpret technical texts	http://data.europa.eu/esco/skill/85c11255-469f-41bd-a6d1-382bc4a87783	2

GENERAL INFORMATION

Course provider	IMH CAMPUS
Country	Basque Country / Spain
Language	English / Spanish
Education Subject	Introduction to industrial robots. Basic operation of the robot. Navigation through the programming unit. Program structure. Editing and execution of the program.
Mode of Learning	In Person

INFORMATION ABOUT THE COURSE

Workload / Duration	24 Hours
Location	IMH CAMPUS (Elgoibar)

Industrial Robot Programming. Level 2 (ABB, FANUC, KUKA)

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

Using robots improve the production and reduce time. It helps getting better work conditions.

The objectives of the course are: To know how to program an industrial robot, to perform any automation process, to program interruption routines, to train the attendees to program industrial robots from the operator.

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies / Digital Factory / Smart Manufacturing / End-to-end Customer Focused Engineering

ROBOT, PROGRAMMING, ABB, FANUC, KUKA, AUTOMATIZATION

CURRENT MATURITY LEVEL (1-5)	TARGET MATURITY LEVEL (1-5)
4	5

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Robotics	http://data.europa.eu/esco/skill/e87ec79a-c9ff-46f5-84fa-7a0f394cdf40	3
Operate industrial equipment	http://data.europa.eu/esco/skill/7c632656-361e-4db1-8d69-b9f85d6be0d0	3
Use automatic programming	http://data.europa.eu/esco/skill/7d10fcb2-b368-48ab-996b-7c9fafcf68ed	3
Manage health and safety standards	http://data.europa.eu/esco/skill/44e2c4c4-9fd2-42d4-a133-d81360ded4bc	4
Interpret technical texts	http://data.europa.eu/esco/skill/85c11255-469f-41bd-a6d1-382bc4a87783	3

GENERAL INFORMATION

Course provider	IMH CAMPUS
Country	Basque Country / Spain
Language	English / Spanish
Education Subject	Data type structures. Program flow instructions. Advanced movement instructions. Time control. Interrupt routines. Creation of forbidden zones.
Mode of Learning	In Person

INFORMATION ABOUT THE COURSE

Workload / Duration	25 Hours
Location	IMH CAMPUS (Elgoibar)
Entry requirement	Industrial Robot Programming course (level 1) completed or similar knowledge

Internet of Things (IoT)

ADMA TRANSFORMATION AREA

MC 2325 Internet of Things (IoT)

Part of the lecture T4WIW9014

Learning Outcome: Current topics in automation, including the latest developments and trends in the field (e.g. IoT).

https://www.heidenheim.dhbw.de/en/home

Advanced Manufacturing, Smart Manufacturing

Automation

CURRENT MATURITY (1-5) LEVEL 4

TARGET MATURITY LEVEL (1-5) LEVEL 5

GENERAL INFORMATION

Course provider	DHBW Heidenheim
Country	Germany
Language	German
Education Subject	IoT
Learner Profile	A-Level
Mode of Learning	In Person
Credential Type	ECTS
EQF Level	EQF6
Teaching Methodology	Lecture
Learning Environment	HVET Centre

INFORMATION ABOUT THE COURSE

Start Date – End Date	01.10.25 – 31.12.25
Workload / Duration	2 ECTS / 50h
Location	DHBW Heidenheim (Baden-Wuerttemberg Cooperative State University)

ESCO skills

Internet of Things

http://data.europa.eu/esco/skill/f049d050-12da-4e40-813a-2b5eb6df6b51

IoT SENSOR DEVELOPMENT AND LORAWAN NETWORK CONFIGURATION

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

The program presents the basic concepts of developing connected IoT devices for smart cities and the use of modern low-power wireless LoRaWAN technology.

https://ict-academy.si/usposabljanje/razvoj-senzorja-iot-in-konfiguracija-omrezja-lorawan/

ADMA TRANSFORMATION AREA

Smart manufacturing

IoT, LPWAN Technologies, Sensor Configuration, Data Visualization

CURRENT MATURITY LEVEL 3 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Internet of Things	http://data.europa.eu/esco/skill/f049d050-12da-4e40-813a-2b5eb6df6b51	4
Information and communication technologies (icts)	http://data.europa.eu/esco/isced-f/06	4

GENERAL INFORMATION

Course provider	University of Ljubljana Faculty of electrical engineering
Country	Slovenia
Language	Slovenian
Education Subject	This educational content covers the fundamentals of IoT devices for smart cities, explores low-power wireless communication technologies like LPWAN (LTE-M, NB-IoT, LoRaWAN, SigFox), and guides through the process of building, configuring, and deploying IoT sensor systems, including server setup and data analysis.
Learner Profile	Adult
Mode of Learning	In Person
Credential Type	Paper based
EQF Level	EQF 5, 6
Teaching Methodology	Theoretical / Practical / Practical in CLF

INFORMATION ABOUT THE COURSE

Start Date – End Date	On demand
Workload / Duration	8 hours
Price	400,00 EUR + VAT
Location	Ljubljana
Learning activities	Practical exercise, training, problem solving
Assessment Type	Practical test
Entry requirement	Advance knowledge in IT

MCRO-250V Lean Fundamental Micro-Credential

Lean is an organizational philosophy, and an approach to business, that develops people through respect, training and engagement to facilitate problem solving that drives innovation and productivity. Though Lean methodologies are already common in fields such as manufacturing and supply chain management, every field from healthcare to construction can benefit from this philosophy.

MCRO 250V Lean Fundamentals Micro-Credential

ADMA TRANSFORMATION AREA

ADVANCED MANUFACTURING

Lean Business Operations

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
0413 - Lean project management	http://data.europa.eu/esco/skill/da6393d5-a53c-4863-abc7-51f36281d74e	4

GENERAL INFORMATION

Course provider	Camosun College / ProSIT
Country	Canada
Language	English
Education Subject	Business
Learner Profile	College Students
Mode of Learning	Online
Credential Type	Micro-Credential
EQF Level	3
Teaching Methodology	Theoretical
Learning Environment	Online

INFORMATION ABOUT THE COURSE

Start Date – End Date	Self-paced, maximum length one year
Workload / Duration	One Year
Price	$40.00 CAD
Location	Camosun College
Learning activities	Lectures and analysis
Assessment Type	Exams
Entry requirement	None
Admission procedure	Apply online; no prerequisites

LEAN Introduction

This traning is an introduction to LEAN. It provides basic principles like value flows, waste, Kaizen.

https://community.lcamp.eu/catalog-item/production-philosophy/

ADMA TRANSFORMATION AREA

Human Centred Organisation

LEAN, TPS, 5S, Kaizen

CURRENT MATURITY LEVEL 1 → TARGET MATURITY LEVEL 2

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Continous improvement philosophies	http://data.europa.eu/esco/skill/0550431f-9c8b-4204-9c45-59bc5feacf06	2

GENERAL INFORMATION

Course provider	Curt Nicolin Gymnasiet
Country	Sweden
Language	Swedish
Education Subject	Production Philosophy
Learner Profile	EQF 5
Mode of Learning	In Person
Credential Type	Certificate of Completion
EQF Level	EQF 5
Teaching Methodology	Theoretical, Practical
Learning Environment	Classroom, Educational Lab

INFORMATION ABOUT THE COURSE

Start Date – End Date	According to agreement
Workload / Duration	4 days
Schedule information	4 days training
Location	Finspång Sweden
Learning activities	Theoretical and practical training
Assessment Type	Teoretical and practical test
Entry requirement	Technical studies or similar completed EQF 4
Admission procedure	https://www.cng.se/

MAKE 3D SLICING SETTINGS

Making flow, speed, extrusion width settings in 3d slicing programs.

https://community.lcamp.eu/catalog-item/make-3d-slicing-settings/

ADMA TRANSFORMATION AREA

SMART MANUFACTURING

SMART PROTOTYPING

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
3D printing process	3D printing process	4

GENERAL INFORMATION

Course provider	GEBKIM VET
Country	Türkiye
Language	Turkish
Education Subject	This course teaches learners how to prepare and optimize 3D models for printing by using slicing software. It covers layer settings, infill, support structures, temperature control, and material-specific configurations to ensure high-quality additive manufacturing output.
Learner Profile	VET Students
Mode of Learning	Online / Hybrid / In Person
Credential Type	ECTS
EQF Level	EQF 4
Teaching Methodology	Theoretical / Practical
Learning Environment	VET Centre

INFORMATION ABOUT THE COURSE

Workload / Duration	30 Hours
Location	GEBKIM VET
Learning activities	Lectures,Practices, Lab Work
Assessment Type	Practical slicing tasks and print project, Peer and instructor evaluation of slicing quality
Entry requirement	Basic computer skills and interest in digital design or manufacturing
Admission procedure	Online or in-person application submission

Manufacturing a part using 3D printing (with wire)

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

Using a computer equipped with CAD software and 3D printing software, learners must process files and prepare the necessary file for optimal 3D printing of a part. Learners will develop skills to process CAD files, optimize part geometry, and generate 3D printing-ready files, ensuring accuracy, efficiency, and print quality.

https://decouverte.mon-ent-occitanie.fr/

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies

CAD, 3D printing

CURRENT MATURITY LEVEL 3 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Use CAD software	http://data.europa.eu/esco/skill/b34e2ba1-9080-48c9-9b42-ee9192a4d3f1	3
3D modelling	http://data.europa.eu/esco/skill/97965983-0da4-4902-9daf-d5cd2693ef73	3

GENERAL INFORMATION

Course provider	La Découverte
Country	France
Language	French
Education Subject	Manufacturing engineering
Learner Profile	EQF 4
Mode of Learning	In Person
Credential Type	Baccalaureate
EQF Level	EQF 4
Teaching Methodology	Theoretical / Practical / Practical in CLF
Learning Environment	VET Centre

INFORMATION ABOUT THE COURSE

Start Date – End Date	September 2025
Workload / Duration	3 Hours
Location	Lycée La Découverte Decazeville France

Manufacturing process design

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

Design the manufacturing process by machining the chassis plates of the LCAMP CLF's robot

https://decouverte.mon-ent-occitanie.fr/presentation-du-lycee/nos-filieres/bts-erom-18018.htm

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies

Manufacturing process, LCAMP robot, CLF

CURRENT MATURITY LEVEL 3 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Planning production processes	http://data.europa.eu/esco/skill/e6eeb84c-ad99-42e2-b883-e6ce338aef59	3
Select material to process	http://data.europa.eu/esco/skill/d55e3866-3ec1-4bbb-b946-2c16696d0dcb	3
Use CAM software	http://data.europa.eu/esco/skill/7a757fa5-9a6f-43ab-9e66-f8f4dba1ffcb	3
Assembling and fabricating products	http://data.europa.eu/esco/skill/b8e142fe-e508-42b1-b037-efebcefac3a7	3
Control production	http://data.europa.eu/esco/skill/feceacee-d425-4e73-821a-02dfb85084db	2

GENERAL INFORMATION

Course provider	Lycée La Découverte
Country	France
Language	French
Education Subject	Manufacturing processes
Learner Profile	Learners EQF 5 involved in LCAMP's CLF i BTS CPRP
Mode of Learning	In Person
Credential Type	ECTS
EQF Level	5
Teaching Methodology	Practical in CLF
Learning Environment	CLF

INFORMATION ABOUT THE COURSE

Start Date – End Date	Decembre 2025 – January 2026
Workload / Duration	2 months
Location	Lycée La Découverte Decazeville France
Learning activities	Manufacturing process design course + Practical work (design and implement the manufacturing process of the chassis
Assessment Type	Summative assesent : manufacturing document and oal presentation of the manufacturing process
Admission procedure	Be registered in theBTS CPRP programme

MENG-141 Manufacturing Processes 1

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

Students will be introduced to manufacturing processes and basic measuring tools. The safe and effective use of common manufacturing tools is emphasized. Students then work with machine and hand tools to manufacture a project set by the instructor. Only open to students in the Mechanical Engineering Technology and Mechanical Engineering Technology Access programs.

MENG 141 - Manufacturing Processes 1 - Modern Campus Catalog™

ADMA TRANSFORMATION AREA

ADVANCED MANUFACTURING

Manufacturing Tools

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
K072 Manufacturing and Processing	http://data.europa.eu/esco/isced-f/072	4
K071 Engineering and Engineering Trades	http://data.europa.eu/esco/isced-f/071	4

GENERAL INFORMATION

Course provider	Camosun College
Country	Canada
Language	English
Education Subject	Mechanical Engineering
Learner Profile	College Students
Mode of Learning	In Person
Credential Type	College Diploma
EQF Level	4
Teaching Methodology	Practical
Learning Environment	In Classroom

INFORMATION ABOUT THE COURSE

Start Date – End Date	Four-month term
Workload / Duration	75 Hours
Price	$562.38 CAD
Location	Camosun College
Learning activities	Lectures, analysis, and direct experience
Assessment Type	Papers / Exams / Physical Tests
Entry requirement	Requires perquisite course from Camosun College
Admission procedure	Apply as part of Camosun mechanical engineering degree

MENG-141 Manufacturing Processes 2

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

Students will be introduced to automated machine tools including CNC lathes and milling machines. Using software, students will specify tools, set speeds and feeds and generate toolpaths to create machined parts. Work holding methods and tool selection will be reviewed. Use of laser cutter and 3D printing will also be explored. Only open to students in the Mechanical Engineering Technology program.

MENG 244 - Manufacturing Processes 2/CAM - Modern Campus Catalog™

ADMA TRANSFORMATION AREA

ADVANCED MANUFACTURING

Manufacturing Processes

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
K071 – Engineering and Engineering Trades	http://data.europa.eu/esco/isced-f/071	4
S5.7.0 – Operate Machine Tools	http://data.europa.eu/esco/skill/f5750c05-7b15-4e0b-8591-f9a1bb95aaac	4

GENERAL INFORMATION

Course provider	Camosun College
Country	Canada
Language	English
Education Subject	Mechanical Engineering
Learner Profile	College Students
Mode of Learning	In Person
Credential Type	College Diploma
EQF Level	4
Teaching Methodology	Practical
Learning Environment	In Classroom

INFORMATION ABOUT THE COURSE

Start Date – End Date	Four-month term
Workload / Duration	75 Hours
Price	$551.34 CAD
Location	Camosun College
Learning activities	Lectures, analysis, and direct experience
Assessment Type	Papers / Exams / Physical Tests
Entry requirement	Requires perquisite course from Camosun College
Admission procedure	Apply as part of Camosun mechanical engineering degree

MANUAL ASSEMBLY TECHNIQUES

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

This course focuses on the fundamental skills required for manual assembly in industrial and manufacturing environments. It covers essential techniques, tools, and best practices for assembling mechanical and electronic components by hand.

https://lcamp.eu/wp-content/uploads/sites/53/2025/05/PPT_LFs-in-partners-labs2025_LCAMP-3.pdf (slide 38)

ADMA TRANSFORMATION AREA

HUMAN-CENTERED ORGANIZATION

ERGONOMIC PRACTICES AND SAFETY FOCUS

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Apply Assembly Techniques	Apply Assembly Techniques	4

GENERAL INFORMATION

Course provider	GEBKIM VET
Country	Türkiye
Language	Turkish
Learner Profile	VET Students
Mode of Learning	In Person
Credential Type	ECTS
EQF Level	EQF 4
Teaching Methodology	Theoretical / Practical
Learning Environment	VET Centre

INFORMATION ABOUT THE COURSE

Workload / Duration	12 Hours
Location	GEBKIM VET
Learning activities	Lecture, excercise, discussion, laboratory work
Assessment Type	Self-assesment learning diaries or portfolios – test reflection skills
Entry requirement	Basic mechanical or technical skills, Manual dexterity and visual-motor coordination
Admission procedure	Online or in-person application submission

MASTER IN DIGITAL MANUFACTURING

The Dual University Master's Degree in Digital Manufacturing responds to the new reality of companies within the framework of Industry 4.0, in which companies need professionals with a global vision of the Digital Factory, mastery of the associated technologies and capacity to lead the changes that the new industrial revolution implies in business models.

ADMA TRANSFORMATION AREA

Digital Factory, Smart Manufacturing

Industry 4.0

CURRENT MATURITY LEVEL (1-5)	TARGET MATURITY LEVEL (1-5)
3	4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Internet of Things	http://data.europa.eu/esco/skill/f049d050-12da-4e40-813a-2b5eb6df6b51	3
Analyse Big Data	http://data.europa.eu/esco/skill/47a49cd6-097d-457a-9f7b-c290c14930d5	2
Perform data Mining	http://data.europa.eu/esco/skill/4216e465-7baa-4884-a241-54b197bb9278	2
Run simulations	http://data.europa.eu/esco/skill/4216e465-7baa-4884-a241-54b197bb9278	3

GENERAL INFORMATION

Course provider	IMH Campus
Country	Spain
Language	Spanish/English
Education Subject	Multidisciplinary training and preparation to provide solutions to the challenges posed by the different technologies of Industry 4.0 from a global perspective.
Learner Profile	Graduates in engineering or related fields. Who wish to broaden their skills and training in the area of Digital Manufacturing. Working professionals who wish to promote towards 5.0 profiles. Who wish to specialise in order to lead digitalisation projects within their own company.
Mode of Learning	In Person
Credential Type	Master's degree
Teaching Methodology	Dual

INFORMATION ABOUT THE COURSE

Workload / Duration	2250 Hours
Price	12700 €
Location	ELGOIBARKO INGENIARITZA DUALAREN ESKOLA (UPV/EHU) / IDEKO (Elgoibar) / TECNALIA (Donostia eta Zamudio) / VICOMTECH (Donostia) / TEKNIKER (Eibar)
Learning activities	Comprehensive Engineering Solutions / Systemic Organizational Processes / Research Methodology and Project /Leadership for New Business Models / Data Mining, Big Data, and AI / Applied Industrial Robotics / Industrial Technologies / Connected Industrial Systems

MDC – Method Design Concept

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

Methods Design Concept (MDC) is an industrial-engineering methodology for redesigning production processes, aimed at boosting productivity (Method, Performance, Utilisation) and, in turn, company profitability. The course equips participants with practical tools to calculate and realise concrete improvements along the production flow.

https://www.smarttvalley.it/manufacturing/

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies; Smart Manufacturing; Value-Chain-Oriented Open Factory

MDC; SMED; Changeover standardisation; IED; OED; Time study & motion analysis; KPI monitoring; Process optimisation

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Planning production processes	http://data.europa.eu/esco/skill/e6eeb84c-ad99-42e2-b883-e6ce338aef59	3
Quality and cycle time optimisation	http://data.europa.eu/esco/skill/3b3b7373-220a-4287-87cf-e24a208b63c6	2
Design changeover processes using SMED standards	http://data.europa.eu/esco/skill/7af76a2b-6bba-4350-9bfa-980e50c98481	3
Monitor productivity KPIs	http://data.europa.eu/esco/skill/8dcbcabe-09f7-4d11-940d-125af57bbc40	2

GENERAL INFORMATION

Course provider	Fondazione Ergo
Country	Italy
Language	Italian / English
Education Subject	Redesign and improvement of production processes
Learner Profile	Process manager, Management engineer, team leader
Mode of Learning	Hybrid
Credential Type	Certificate
EQF Level	6
Teaching Methodology	Theoretical / Practical / Practical in CLF
Learning Environment	Classroom, Experience lab with workstations

INFORMATION ABOUT THE COURSE

Workload / Duration	ECTS / Hours / Days / Weeks
Schedule information	3 days (24 h) – approx.
Price	Depending on time schedule and location
Location	Learning Factory, Smartt Valley
Learning activities	Lectures, SMED lab exercises
Assessment Type	Multiple choice assessment costumized on client needs + situational interview
Entry requirement	Basic Lean-manufacturing and production-process knowledge

The course's content, schedule and location can be adapted to the needs of the recipients.

MEASUREMENT AND CONTROL OF PHYSICAL VARIABLES

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

Measures and controls pressure, temperature, flow, level.

https://community.lcamp.eu/catalog-item/measurement-and-control-of-physical-variables/

ADMA RANSFORMATION AREA

ADVANCED MANUFACTURING TECHNOLOGIES

SMART SENSORS

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Use measurement instruments	Use measurement instruments	4

GENERAL INFORMATION

Course provider	GEBKIM VET
Country	Türkiye
Language	Turkish
Education Subject	This course focuses on the measurement, monitoring, and control of key physical variables such as temperature, pressure, flow, level, and speed in industrial systems using sensors, transducers, and control devices.
Learner Profile	VET Students
Mode of Learning	In Person
Credential Type	ECTS
EQF Level	EQF 4
Teaching Methodology	Theoretical / Practical / Practical in CLF
Learning Environment	VET Centre

INFORMATION ABOUT THE COURSE

Workload / Duration	80 Hours
Location	GEBKIM VET
Learning activities	Lectures,Practices, Lab Work
Assessment Type	Lab performance, Design and implementation of a control system
Entry requirement	Motivation for working in technical and industrial settings
Admission procedure	Online or in-person application submission

BUS 232 – Operations Management

This course provides a detailed look at Operations Management and its practical application to service and manufacturing operations. Numerous cases and off-campus tours are used. Topics include: supply chain management, forecasting, location selection, allocating resources, designing work systems, capacity planning, scheduling, quality management, inventory control and transportation.

BUS 232 - Operations Management - Modern Campus Catalog™

ADMA TRANSFORMATION AREA

ADVANCED MANUFACTURING

OPERATIONS MANAGEMENT

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
S1.2 Liasing and Network	http://data.europa.eu/esco/skill/b76cd1e5-d5e7-464a-b7bb-4164d3616452	4
S2.1.0 Conducting studies, investigations and examinations	http://data.europa.eu/esco/skill/8fde007e-ea4c-48c2-84c5-752834acd31d	4
S4.0 – Management Skills	http://data.europa.eu/esco/skill/c1a13ee0-b00d-4cfa-a22c-20d284e398b0	4

GENERAL INFORMATION

Course provider	Camosun College
Country	Canada
Language	English
Education Subject	Business
Learner Profile	College Students
Mode of Learning	In Person
Credential Type	College Diploma
EQF Level	4
Teaching Methodology	Theoretical
Learning Environment	In Classroom

INFORMATION ABOUT THE COURSE

Start Date – End Date	Four-month term
Workload / Duration	45 Hours
Price	$290.25 CAD
Location	Camosun College
Learning activities	Lectures, case studies, and analysis
Assessment Type	Papers / Exams / Case Studies
Entry requirement	Requires perquisite course from recognized post-secondary institution
Admission procedure	Apply as part of Camosun business degree

PERFORMING A SCIENTIFIC RESEARCH

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

The course's aim is to gain, correct or improve knowledge about phenomena by using scientific methods and techniques, based on empirical or measurable observations.

https://community.lcamp.eu/catalog-item/gebkim-vet-performing-a-scientific-research/

ADMA TRANSFORMATION AREA

HUMAN-CENTERED ORGANIZATION

SOCIAL IMPACT

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Perform scientific research	Perform scientific research	4

GENERAL INFORMATION

Course provider	KPDoNE
Country	Türkiye
Language	Turkish
Education Subject	This course introduces students to the principles and methods of scientific research, including how to design, conduct, document, and present a research study using systematic inquiry and academic ethics.
Learner Profile	VET Students and Teachers
Mode of Learning	In Person
Credential Type	ECTS
EQF Level	EQF 4
Teaching Methodology	Theoretical / Practical
Learning Environment	VET Centre

INFORMATION ABOUT THE COURSE

Workload / Duration	42 Hours
Location	KPDoNE
Learning activities	Defining research problems and hypotheses, Data collection (observation, experiment, survey), Data analysis (basic statistics, charts)
Assessment Type	Individual or group research project, Oral or visual presentation
Entry requirement	Interest in inquiry, analysis, and technical/scientific communication
Admission procedure	Online or in-person application submission

PNEUMATICS BASIC TRAINING

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

Course short description (+ URL): Acquire the physical foundations of pneumatics, understand the operation of pneumatic components, design pneumatic control systems, operate pneumatic components, maintain pneumatic systems.

https://www.tscmb.si/wp-content/uploads/2023/09/STRUKTURA-PNEVMATIKA_osnovni-seminar.pdf

ADMA TRANSFORMATION AREA

Smart manufacturing

Pneumatics, Industrial Automation, control components

CURRENT MATURITY LEVEL 1 → TARGET MATURITY LEVEL 2

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Pneumatics	http://data.europa.eu/esco/skill/bf419e00-8548-491a-a06f-d72ab439df2f	2
Install pneumatic systems	http://data.europa.eu/esco/skill/82da5835-1759-4eeb-9d58-a834ee80384e	2

GENERAL INFORMATION

Course provider	TŠC Maribor
Country	Slovenia
Language	Slovenian
Education Subject	Engineering
Learner Profile	Students, workers
Mode of Learning	In Person
Credential Type	Paper based
EQF Level	5
Teaching Methodology	Theoretical / Practical
Learning Environment	School laboratory

INFORMATION ABOUT THE COURSE

Start Date – End Date	March, April, May 2025
Workload / Duration	4h/day, 2 times a week (24 hours total)
Price	380,00 EUR + VAT (incl. welder certification)
Location	Zolajeva ulica 12, 2000 Maribor, Slovenia
Learning activities	Lecture, exercise, discussion, laboratory work
Assessment Type	Self-assessment learning diaries or portfolios – test reflection skills
Entry requirement	Persons who design, construct and manufacture devices with pneumatic components and service and maintain pneumatic systems, and persons who wish to increase their knowledge for their personal development and improve their competitiveness in the labor market.
Admission procedure	https://www.tscmb.si/wp-content/uploads/2025/02/VABILO_PNEVMATIKA_OSNOVNI_februar_2025.pdf

Predictive maintenance

This course provides the foundational understanding of predictive maintenance and its role in modern industry. Learners are introduced to the basic principles of condition monitoring, data collection, and analysis used to anticipate equipment failures.

https://3tindustry40training.eu/course/view.php?id=5

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies

Maintenance

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 3

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Maintenance and repair	http://data.europa.eu/esco/skill/6cb9c23b-e3bc-4917-b588-26c4cef9d920	1
Build predictive models	http://data.europa.eu/esco/skill/38d49d88-9069-467b-b29e-3cae739bdd4d	1

GENERAL INFORMATION

Course provider	3TIndustry 4.0
Country	France, Spain and Germany
Language	English
Education Subject	Maintenance
Mode of Learning	Online
Credential Type	None
EQF Level	None
Teaching Methodology	Theoretical
Learning Environment	E Learning

INFORMATION ABOUT THE COURSE

Start Date – End Date	Not applicable
Workload / Duration	3 Hours
Price	Free
Location	Online
Learning activities	Theoretical
Assessment Type	Quiz
Entry requirement	None
Admission procedure	Registration to the platform

Problem Solving

The course offers the opportunity to explore and enhance your creative potential, while learning to balance divergent and convergent thinking in a dynamic and effective way.

You will also gain hands-on experience with tools and techniques designed to help you generate creative ideas and develop innovative solutions to real-world challenges.

https://www.rold.com/academy-offering/

ADMA TRANSFORMATION AREA

Human Centred Organization

Teamwork

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Solving problems	http://data.europa.eu/esco/skill/S1.9.0	4

GENERAL INFORMATION

Course provider	Rold Academy
Country	Italy
Language	Italian (but it can also be delivered in English)
Education Subject	Problem Solving
Learner Profile	Roles involved in business organization (HR, Managers, Area Managers, Team Leaders)
Mode of Learning	In Person
Credential Type	Certificate
EQF Level	5
Teaching Methodology	Theoretical and Practical
Learning Environment	MIND (Milan Innovation District), but it can also be arranged at company premises

INFORMATION ABOUT THE COURSE

Start Date – End Date	According to requests
Workload / Duration	8 hours (4h per day)
Schedule information	Possibility to arrange specific courses
Price	800 €
Location	Milan (Italy)
Learning activities	Understanding the process of Applied Creativity and Creative Problem Solving (CPS) and how to use it to overcome creative challenges Experiencing the dynamic balance between divergent and convergent thinking, and learn how to apply it to achieve creative outcomes Being able to identify personal traits (Creative Thinking Preferences) and environmental factors (Creative Environment), as well as behaviors and attitudes that can enhance or inhibit creativity
Assessment Type	Questionnaire
Entry requirement	No entry requirement
Admission procedure	Interview

Course schedules and content can be customized, and additional follow-up meetings and continuous learning activities activities can be planned.

Process Automation with PLC, HMI and electro pneumatic systems

This intensive training module focuses on the automation of industrial processes using PLCs, HMIs, and electropneumatic systems. The course combines theoretical lessons, hands-on workshops, and real-life challenges to develop technical skills in programming, commissioning, and troubleshooting automated systems. Participants will work in international teams to control FESTO stations, apply GRAFCET and KOP programming, and complete a challenge-based project simulating real industrial tasks. The module promotes collaborative learning and includes cultural activities to enrich the international experience.

ADMA TRANSFORMATION AREA

Digital Factory, Advanced Manufacturing Technologies

Automation, PLC, HMI, electropneumatic

CURRENT MATURITY LEVEL (1-5)	TARGET MATURITY LEVEL (1-5)
3	4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Programmable logic controller	http://data.europa.eu/esco/skill/6468e5fb-f3be-4025-87be-4b6556755c61	3
Use automatic programming	http://data.europa.eu/esco/skill/7d10fcb2-b368-48ab-996b-7c9fafcf68ed	3
Install automation components	http://data.europa.eu/esco/skill/818c2b89-1335-4443-ada7-e1046862e273	3
Human-robot collaboration	http://data.europa.eu/esco/skill/0f5374e3-0b9b-4b16-af7a-49654ce0bb15	2

GENERAL INFORMATION

Course provider	CIFP Armeria eskola LHII
Country	Basque country – Spain
Language	English
Education Subject	PLC programming
Learner Profile	Automation students
Mode of Learning	In Person
EQF Level	4/5
Teaching Methodology	Theoretical / Practical / Practical in CLF
Learning Environment	Workshop

INFORMATION ABOUT THE COURSE

Workload / Duration	60 Hours
Location	CIFP Armeria eskola LHII
Learning activities	Identify and wire PLC inputs and outputs, including PNP/NPN configurations. Sequential control, design and simulate GRAFCET diagrams for basic automation sequences. Use TIA Portal, program PLCs with ladder logic (KOP). Simulate and debug programs, practicing fault detection, signal tracing, and testing system behavior in manual and automatic modes. Work on FESTO workstations, creating I/O tables, GRAFCET diagrams, and full PLC programs.
Assessment Type	Final project
Entry requirement	Enrolment in automation cycle EQF 4/5

Process Optimization via Advanced Data Analytics & AI

This course delivers a thorough grounding in advanced data-analysis and AI methods (Process Mining, Machine Learning, Predictive/Prescriptive Analytics, RPA and dashboards) to optimize processes across production, supply chain, maintenance and customer service. Participants will learn to deploy digital tools for real-time KPI monitoring and rapid issue detection.

https://www.smarttvalley.it/manufacturing/

ADMA TRANSFORMATION AREA

Digital Factory; Advanced Manufacturing Technologies; Smart Manufacturing

Business process mapping · Process Mining · Machine Learning · Predictive Maintenance · Prescriptive Analytics · Demand Forecasting · RPA & Hyperautomation · Dashboards & Real-time KPI monitoring · IoT sensor integration

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Analyse and map business processes	http://data.europa.eu/esco/skill/56042303-972b-41be-9310-58467599ff7e	3
Use advanced data-analysis and mining tools	http://data.europa.eu/esco/skill/4216e465-7baa-4884-a241-54b197bb9278	2
Develop predictive and prescriptive models	http://data.europa.eu/esco/skill/e2887d71-8ff4-4188-9926-22bdaefa7713	4
Build interactive dashboards for real-time KPI monitoring	http://data.europa.eu/esco/skill/8dcbcabe-09f7-4d11-940d-125af57bbc40	3

GENERAL INFORMATION

Course provider	Fondazione Ergo
Country	Italy
Language	Italian / English
Education Subject	Process Optimization via Advanced Data Analytics & AI
Learner Profile	Data analysts, process-improvement specialists, operations managers, digital transformation leads
Mode of Learning	Hybrid/ In-person
Credential Type	Certificate
EQF Level	6
Teaching Methodology	Theoretical / Practical / Practical in CLF
Learning Environment	Classroom, IT lab

INFORMATION ABOUT THE COURSE

Workload / Duration	4 days (32 h) – approx.
Price	Depending on time schedule and location
Location	Learning Factory, Smartt Valley
Learning activities	Process mapping exercises, Process Mining case studies, ML model builds, dashboard creation workshops
Assessment Type	Multiple choice assessment costumized on client needs + situational interview
Entry requirement	Basic statistics

The course's content, schedule and location can be adapted to the needs of the recipients.

Process Simulation Systems, Digital Twin, AR/VR

This course enables professionals to design and deploy Digital Twin systems by integrating IoT sensors, dynamic process models, and advanced analytics for real-time monitoring, simulation, and optimization of physical assets. It also demonstrates how AR/VR technologies enhance operator training, hazard detection, and field operations to boost quality, safety, and time-to-market.

https://www.smarttvalley.it/manufacturing/

ADMA TRANSFORMATION AREA

Digital Factory; Advanced Manufacturing Technologies; Smart Manufacturing

Digital Twin · IoT integration · Real-time simulation · Advanced analytics · AR/VR training · Hazard detection · Operator support systems · Process optimization

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Digital modelling technologies	http://data.europa.eu/esco/skill/737f8895-46df-4283-8f38-13f3f0fc3b77	3
Integrate IoT sensor data for process monitoring	http://data.europa.eu/esco/skill/46ec0033-3c71-415e-bcff-b065675ba2dc	3
Apply advanced process simulation and analytics	http://data.europa.eu/esco/skill/b9e451f5-a62f-4a16-a229-255fa5c222a5	4
Design and implement AR/VR training environments	http://data.europa.eu/esco/skill/0620ecd1-e4b1-4dfa-972b-38a93e5ebd9d	3

GENERAL INFORMATION

Course provider	Fondazione Ergo
Country	Italy
Language	Italian / English
Education Subject	Process Simulation Systems, Digital Twin, AR/VR
Learner Profile	Industry automation engineers, maintenance managers, digital transformation specialists
Mode of Learning	Hybrid/In-persons
Credential Type	Certificate
EQF Level	6
Teaching Methodology	Theoretical / Practical / Practical in CLF
Learning Environment	Classroom, IT lab with VR solutions, Experience lab with XR-equipped workstations, Campus Smartt Valley KIIS

INFORMATION ABOUT THE COURSE

Workload / Duration	3 days (18 h) – approx.
Price	Depending on time schedule and location
Location	Smartt Valley
Learning activities	Lectures, simulation labs, AR/VR scenario exercises
Assessment Type	Multiple choice assessment costumized on client needs + situational interview
Entry requirement	Basic knowledge of IoT, production processes; familiarity with digital analytics

The course's content, schedule and location can be adapted to the needs of the recipients.

Product Digital Twin

Co-funded by the European Union

The course offers an intensive, dynamic learning experience on the strength of the Competence Centre demonstration areas, integrating theory and practice and team project work at the end of the course. The approach is multidisciplinary, collaborative, experiential and concrete.

https://www.made-cc.eu/en/servizio/training-skills/

ADMA TRANSFORMATION AREA

Digital Factory, Smart Manufacturing

Digitalisation, design, automation

CURRENT MATURITY LEVEL 3 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
3D Modelling	http://data.europa.eu/esco/skill/97965983-0da4-4902-9daf-d5cd2693ef73	2
Run simulations	http://data.europa.eu/esco/skill/a432ffcd-b58d-4417-836c-ea3282b626ca	3

GENERAL INFORMATION

Course provider	MADE Competence Center Industry 4.0
Country	Italy
Language	Italian
Education Subject	Digital Twin, Product Lifecycle, Industry 4.0
Learner Profile	Engineers, Technical Designers, Workers in product development roles
Mode of Learning	Online / Hybrid / In Person
Credential Type	Microcredential
EQF Level	EQF3
Teaching Methodology	Practical
Learning Environment	Classroom

INFORMATION ABOUT THE COURSE

Workload / Duration	6 hours
Price	450 EUR
Location	Milan, Italy / online
Learning activities	Workshops, simulation labs, technology tours
Assessment Type	Group exercises and applied project evaluation
Entry requirement	Familiarity with CAD/PLM and industrial design processes
Admission procedure	By filling up online module - Formare competenze - Made

APMC 504V – Project Closing & Continuous Improvement

Learn the close out procedures for an individual phase or completed project. You will work through an administrative closure, financial closure and transfer to operations, using the lessons learned review process for continuous improvement. Also, you will explore the Organizational Project Management Maturity Model (OPM3)® and how to set up a Project Management Office.

APMC 504V Project Closing & Continuous Improvement

ADMA TRANSFORMATION AREA

END-TO-END CUSTOMER-FOCUSED ENGINEERING

APPLIED PROJECT MANAGEMENT

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
S4.2 Organising, Planning, and Scheduling Work and Activities	management skills	4
S4.4 Performing administrative activities	management skills	4
S4.9 Decision-Making	management skills	4

GENERAL INFORMATION

Course provider	Camosun College / ProSIT
Country	Canada
Language	English
Education Subject	Business
Learner Profile	College Students
Mode of Learning	Online
Credential Type	College Certificate
EQF Level	4
Teaching Methodology	Theoretical
Learning Environment	Online

INFORMATION ABOUT THE COURSE

Start Date – End Date	Self-Paced
Workload / Duration	Self-Paced
Price	$487.47 CAD
Location	Camosun College
Learning activities	Lectures and analysis
Assessment Type	Exams
Entry requirement	Must be enrolled in Applied Project Management Certificate program
Admission procedure	Enroll as part of program above

APMC 500V – Project Initiation and Charter Development

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

Learn the fundamentals of project management for organizations including project selection and start up methods. Gain practical experience defining specific project needs and developing a project charter that provides the correct level of detail for your situation.

APMC 500V Project Initiation & Charter Development

ADMA TRANSFORMATION AREA

END-TO-END CUSTOMER-FOCUSED ENGINEERING

APPLIED PROJECT MANAGEMENT

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
S4.2 Organising, Planning, and Scheduling Work and Activities	management skills	4
S4.4 Performing administrative activities	management skills	4
S4.9 Decision-Making	management skills	4

GENERAL INFORMATION

Course provider	Camosun College / ProSIT
Country	Canada
Language	English
Education Subject	Business
Learner Profile	College Students
Mode of Learning	Online
Credential Type	College Certificate
EQF Level	3
Teaching Methodology	Theoretical
Learning Environment	Online

INFORMATION ABOUT THE COURSE

Start Date – End Date	Self-Paced
Workload / Duration	Self-Paced
Price	$487.47 CAD
Location	Camosun College
Learning activities	Lectures and analysis
Assessment Type	Exams
Entry requirement	Must be enrolled in Applied Project Management Certificate program
Admission procedure	Enroll as part of program above

PLM management: 3D experience

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

This course introduces the fundamentals of Product Lifecycle Management (PLM) using Dassault Systèmes 3DEXPERIENCE platform. Based on the practical case of the LCAMP robot development, participants will learn basic PLM management and how to manage design data in a collaborative and efficient way.

https://www.maltuna.eus/en/

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies, Digital Factory

PLC, automation, robotics

CURRENT MATURITY (1-5): 3

TARGET MATURITY LEVEL (1-5): 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Apply product lifecycle management (PLM)	https://esco.ec.europa.eu/en/skill/c8399675-1d86-4d67-8004-97b37ef36f39	3
Manage data for product development	https://esco.ec.europa.eu/en/skill/3a34535a-f2ef-441e-8a00-fd7e95d4e60d	4
Collaborate in engineering processes	https://esco.ec.europa.eu/en/skill/44db4045-b91a-459e-9384-9f5280fbc230	4
Use computer-aided software (CAD, CAM, CAE)	https://esco.ec.europa.eu/en/skill/61a19164-7277-4d3b-931d-2779a7de18f6	4

GENERAL INFORMATION

Course provider	Miguel Altuna LHII
Country	Basque Country, Spain
Language	English
Education Subject	Higher Technician in Mechanical Manufacture Design
Learner Profile	students EQF5, workers
Mode of Learning	In Person
EQF Level	EQF5
Teaching Methodology	Practical in CLF
Learning Environment	CLF

INFORMATION ABOUT THE COURSE

Workload / Duration	10 hours
Price	0€
Location	Bergara, Miguel Altuna LHII
Assessment Type	Project
Entry requirement	EQF5 level

Redesign of parts and assembly using CAD software

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

Using a computer equipped with CAD software, learners must modify existing parts and assemblies to facilitate the manufacturing of certain components, improve the assembly of specific sets, and enhance performance. Participants will develop skills in redesigning components, adjusting assemblies for better fit and function, and applying engineering principles to optimize designs.

https://decouverte.mon-ent-occitanie.fr/presentation-du-lycee/nos-filieres/

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies

CAD software, Redesign

CURRENT MATURITY LEVEL 3 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
CAD sotware	http://data.europa.eu/esco/skill/a2b5dcf3-5b6a-453d-876c-cff540c0faf1	3
Industrial design	http://data.europa.eu/esco/skill/efacdaad-ab73-4056-bee3-4eb34b458bf6	3
Engineering principles	http://data.europa.eu/esco/skill/209a5498-3449-4689-8ed9-bd08cab4fd78	3

GENERAL INFORMATION

Course provider	Lycée La Découverte
Country	France
Language	French
Education Subject	Design engineering
Learner Profile	Learners EQF4
Mode of Learning	In Person
Credential Type	Baccalaureate
EQF Level	4
Teaching Methodology	Theoretical & Practical
Learning Environment	VET Centre

INFORMATION ABOUT THE COURSE

Start Date – End Date	Septeber 2025
Workload / Duration	6 Hours
Location	Lycée La Découverte Decazeville France
Learning activities	Theoretical classes and practical work

Reverse Engineering with 3D CAD: NX

Practical exercises using the CAD program demonstrate the work process of reverse engineering and its applications. Suitable for CAD software users who want to learn about the reverse engineering process with NX.

https://www.imh.eus/en

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies, Digital Factory

3D modeling, reverse engineering, solid edge

CURRENT MATURITY (1-5) LEVEL: 3 → TARGET MATURITY LEVEL (1-5): 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Perform reverse engineering	https://esco.ec.europa.eu/en/skill/0d7f5b15-9b59-4cd6-b8fd-bb5f390234d5	3
Use computer-aided design software (CAD)	https://esco.ec.europa.eu/en/skill/ba1e95b2-7e99-4ec5-8d51-8cb13e4f74e2	4
Create 3D models	https://esco.ec.europa.eu/en/skill/33265b4d-92c7-4532-b1de-fd42c3e049b4	4
Interpret technical drawings	https://esco.ec.europa.eu/en/skill/f387a644-d24b-4d83-b948-80e4f43c5130	3

GENERAL INFORMATION

Course provider	IMH CAMPUS
Country	Basque Country/ Spain
Language	English, Spanish
Mode of Learning	In-Person
Credential Type	Microcredential Course
EQF Level	3
Teaching Methodology	Theoretical / Practical

INFORMATION ABOUT THE COURSE

Workload / Duration	15 hours
Location	Elgoibar, Basque Country

SERVICE / TOOL DESCRIPTION

1. General concepts.
2. Tools for repairing the scanned file.
3. Methods for reverse engineering.
4. Directly fast modeling of surfaces.
5. Color classification method
6. Extract curves and create surfaces
7. Boundary curve projection method.

Reverse Engineering with 3D CAD: Solid Edge

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

Practical exercises using the CAD program demonstrate the work process of reverse engineering and its applications. Suitable for CAD software users who want to learn about the reverse engineering process with Solid Edge.

https://www.imh.eus/en

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies, Digital Factory

3D modeling, reverse engineering, solid edge

CURRENT MATURITY (1-5) LEVEL: 3 → TARGET MATURITY LEVEL (1-5): 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Perform reverse engineering	https://esco.ec.europa.eu/en/skill/0d7f5b15-9b59-4cd6-b8fd-bb5f390234d5	3
Use computer-aided design software (CAD)	https://esco.ec.europa.eu/en/skill/ba1e95b2-7e99-4ec5-8d51-8cb13e4f74e2	4
Create 3D models	https://esco.ec.europa.eu/en/skill/33265b4d-92c7-4532-b1de-fd42c3e049b4	4
Interpret technical drawings	https://esco.ec.europa.eu/en/skill/f387a644-d24b-4d83-b948-80e4f43c5130	3

GENERAL INFORMATION

Course provider	IMH CAMPUS
Country	Basque Country/ Spain
Language	English, Spanish
Mode of Learning	In-Person
Credential Type	Microcredential Course
EQF Level	3
Teaching Methodology	Theoretical / Practical

INFORMATION ABOUT THE COURSE

Workload / Duration	15 hours
Location	Elgoibar, Basque Country

SERVICE / TOOL DESCRIPTION

1. General concepts.
2. Tools for repairing the scanned file.
3. Methods for reverse engineering.
4. Directly fast modeling of surfaces.
5. Color classification method
6. Extract curves and create surfaces
7. Boundary curve projection method.

Risk and change management

Co-funded by the European Union

ADMA TRANSFORMATION AREA

Risk and change management

Part of the lecture T4WIW9146

Learning Outcome: Learning psychology / Decision-making / Organisational culture / Personality description / Motivation / Group dynamics / Stress and coping

https://www.heidenheim.dhbw.de/en/home

Value Chain Oriented Open Factory

Psychology, organisation, decision, management

CURRENT MATURITY (1-5) LEVEL 4 → TARGET MATURITY LEVEL (1-5) LEVEL 5

GENERAL INFORMATION

Course provider	DHBW Heidenheim
Country	Germany
Language	German
Education Subject	Understanding behaviour: psychological foundations for organisation and decision-making
Learner Profile	A-Level
Mode of Learning	In Person
Credential Type	ECTS
EQF Level	EQF6
Teaching Methodology	Theoretical / Practical
Learning Environment	HVET Centre

INFORMATION ABOUT THE COURSE

Start Date – End Date	01.10.25 – 31.12.25
Workload / Duration	1 ECTS /30h
Location	DHBW Heidenheim (Baden-Wuerttemberg Cooperative State University)

ESCO Skills

Apply change management

http://data.europa.eu/esco/skill/3c03ee71-4a23-448f-b79e-81fd75d27dca

Risk management

http://data.europa.eu/esco/skill/6eff134b-e34f-4d6e-a6e8-5e47cf2228d0

Roadmap to Sustainability

Co-funded by the European Union

The course aims at supporting management and key personnel in acquiring the necessary skills for integrating sustainability practices into the company. Participants will be able to (i) Identify existing activities aligned with ESG principles, (ii) Effectively engage internal and external stakeholders, (iii) Analyze challenges and opportunities through the IRO approach (Impacts, Risks, Opportunities), (iv) define ESG strategy.

https://www.rold.com/academy-offering/

ADMA TRANSFORMATION AREA

Eco Factory

Environmental impact: improvement strategies

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Promote sustainable management	http://data.europa.eu/esco/skill/6742977a-aa00-4c8c-9861-898b0373907e	4

GENERAL INFORMATION

Course provider	Rold Academy
Country	Italy
Language	Italian (but it can also be delivered in English)
Education Subject	Strategies for integrating sustainability practices in an SME
Learner Profile	Roles involved in business organization (HR, Managers, Area Managers)
Mode of Learning	In Person
Credential Type	Certificate
EQF Level	6
Teaching Methodology	Theoretical and Practical
Learning Environment	MIND (Milan Innovation District), but it can also be arranged at company premises

INFORMATION ABOUT THE COURSE

Start Date – End Date	According to requests
Workload / Duration	16 hours (4h per day)
Schedule information	Possibility to arrange specific courses
Price	1600 €
Location	Milan (Italy)
Learning activities	Mapping of existing activities and analysis of the company context Analysis of case studies and industry benchmarks (with a focus on SMEs and the supply chain) Interactive Workshop: Identification of Impacts, Risks, and Opportunities (IRO) Stakeholder Engagement: Defining key actors and engagement methods (internal and external – customers, suppliers, communities, etc.) Definition of Priority Actions based on relevance, feasibility, and impact Drafting of a Strategic Sustainability Plan (with focus on objectives, indicators, roles, and communication methods)
Assessment Type	Questionnaire
Entry requirement	No entry requirement
Admission procedure	Interview

Course schedules and content can be customized, and additional follow-up meetings and continuous learning activities activities can be planned.

Robot programming health and security

The focus of this course is operator safety. Technology's impact on occupational health and safety is explored together with ways technology can best be used to mitigate occupational injury and/or illness, where possible, synergically with productivity.

https://www.made-cc.eu/it/corso/salute-e-sicurezza-nella-fabbrica-4-0-vr-ar-robotica-collaborativa-esoscheletri/

ADMA TRANSFORMATION AREA

Digital Factory, Smart Manufacturing

Operator assistance systems, Collaborative robotics, Virtual design

CURRENT MATURITY LEVEL 3 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Occupational health	http://data.europa.eu/esco/skill/d5e39a53-4f54-4d5f-9df3-b49664c9559d	2
Robotics	http://data.europa.eu/esco/skill/e87ec79a-c9ff-46f5-84fa-7a0f394cdf40	2
Emergent technologies	http://data.europa.eu/esco/skill/42cb7669-c371-4903-9c0b-13db67b2e4bb	2

GENERAL INFORMATION

Course provider	MADE Competence Center Industry 4.0
Country	Italy
Language	Italian
Education Subject	Industry 4.0
Learner Profile	Operational-technical: entrepreneurs, Departmental Workers, Maintenance workers, HR, Programmers, ICT experts
Mode of Learning	Online / Hybrid / In Person
Credential Type	Microcredential
EQF Level	EQF3
Teaching Methodology	Practical
Learning Environment	Classroom

INFORMATION ABOUT THE COURSE

Start Date – End Date	22 October 2025
Workload / Duration	8 hours
Price	1000 EUR
Location	Milan, Italy
Learning activities	Participant-lecturer interaction during the lessons with a marked operational focus in teaching methods on real business context experience
Assessment Type	No formal exam or graded assessment. Participation-based evaluation
Entry requirement	No prior coding or deep technical expertise required, but a basic understanding of business or operations is probably expected
Admission procedure	By filling up online module - Formare competenze - Made

Robotics Kinematics and Control

MC 2335 Robotics and Kinematics Control

Part of the lecture T3M30306

Learning Outcome: Kinematics and interpolation. Robot and process control. The use of robot systems (with case studies involving technical and economic analyses).

https://www.heidenheim.dhbw.de/en/home

ADMA TRANSFORMATION AREA

Advanced Manufacturing, Smart Manufacturing

Kinematics, interpolation, robot, systems

CURRENT MATURITY (1-5) LEVEL 4 → TARGET MATURITY LEVEL (1-5) LEVEL 5

GENERAL INFORMATION

Course provider	DHBW Heidenheim
Country	Germany
Language	German
Education Subject	Robotics and Kinematics Control
Learner Profile	A-Level
Mode of Learning	In Person
Credential Type	ECTS
EQF Level	EQF6
Teaching Methodology	Lecture
Learning Environment	HVET Centre

INFORMATION ABOUT THE COURSE

Start Date – End Date	01.01.26 – 01.04.26
Workload / Duration	2 ECTS / 50h
Location	DHBW Heidenheim (Baden-Wuerttemberg Cooperative State University)

ESCO Skills

Human-robot collaboration

http://data.europa.eu/esco/skill/0f5374e3-0b9b-4b16-af7a-49654ce0bb15

Robotics Laboratory

MC 2336 Robotics Laboratory

Part of the lecture T3M30306

Learning Outcome: Laboratory robotics. Case studies on programming various robotic systems in a laboratory environment.

https://www.heidenheim.dhbw.de/en/home

ADMA TRANSFORMATION AREA

Advanced Manufacturing, Smart Manufacturing

Robotics, system, laboratory

CURRENT MATURITY (1-5) LEVEL 4 → TARGET MATURITY LEVEL (1-5) LEVEL 5

GENERAL INFORMATION

Course provider	DHBW Heidenheim
Country	Germany
Language	German
Education Subject	Robotics Laboratory
Learner Profile	A-Level
Mode of Learning	Laboratory
Credential Type	ECTS
EQF Level	EQF6
Teaching Methodology	Laboratory
Learning Environment	HVET Centre

INFORMATION ABOUT THE COURSE

Start Date – End Date	01.01.26 – 01.04.26
Workload / Duration	2 ECTS / 50h
Location	DHBW Heidenheim (Baden-Wuerttemberg Cooperative State University)

ESCO Skills

Set up automotive robot

http://data.europa.eu/esco/skill/e975b791-b488-4935-be44-06f2f9a443bb

Robotics

http://data.europa.eu/esco/skill/e87ec79a-c9ff-46f5-84fa-7a0f394cdf40

SIMATIC S7 SCL

This course covers the advanced Structured Control Language (SCL) programming, which is increasingly replacing traditional Statement List (STL) programming due to more complex algorithms and evolving CPU architectures. Upon completion, participants will be capable of independently developing sophisticated algorithms and performing system diagnostics.

https://www.dankon.si/izobra%C5%BEevanje/simatic-s7-scl/#opis

ADMA TRANSFORMATION AREA

Smart manufacturing

SCL, PLC Programming, Data Processing, SIMATIC

CURRENT MATURITY LEVEL 3 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Industrial software	http://data.europa.eu/esco/skill/41ec47dd-08b3-464a-9c45-c706f3e74467	4
Operate programmable logic controllers (PLCs)	http://data.europa.eu/esco/skill/6468e5fb-f3be-4025-87be-4b6556755c61	4

GENERAL INFORMATION

Course provider	Dankon industrijska avtomatizacija
Country	Slovenia
Language	Slovenian
Education Subject	SIMATIC S7 SCL
Learner Profile	Workers, Adult
Mode of Learning	In Person
Credential Type	Paper based
EQF Level	EQF 4 and 5
Teaching Methodology	Theoretical / Practical
Learning Environment	Learning lab

INFORMATION ABOUT THE COURSE

Start Date – End Date	06/10/2025 – 08/10/2025
Workload / Duration	24 hours (3 days)
Schedule information	06/10/2025 – 08/10/2025 (morning/afternoon)
Price	1.195,60 EUR (VAT included)
Location	Žalec
Learning activities	Practical example, diagnostic, creating programme code
Assessment Type	Practical exam
Entry requirement	Basic knowledge of electrical engineering

Selective Laser Sintering (SLS) 3D-Printing

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

This training includes practical training using SLS-printing in ABS-plastic, for precise additive manufactured parts, using similar tequnices as SLS-printing in Metal. This training also includes PPE.

https://www.cng.se/te4-gymnasieingenj%C3%B6r

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies

Additive manufacturing, 3D-printing, SLS, PPE

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 3

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
3D Printing process	http://data.europa.eu/esco/skill/2afb2b59-c9a3-4cf3-b1dd-1a2fad51e583	3
Maintain AM systems	http://data.europa.eu/esco/skill/3a699f1e-3803-4c1b-b6a8-6230cca92933	3
Set up AM systems	http://data.europa.eu/esco/skill/5f8e1bde-a2f9-4742-a4f4-309dfc2f6311	3

GENERAL INFORMATION

Course provider	Curt Nicolin Gymnasiet
Country	Sweden
Language	Swedish
Education Subject	Industrial production methods
Learner Profile	EQF 5
Mode of Learning	In Person
Credential Type	Certificate of Completion
EQF Level	EQF 5
Teaching Methodology	Practical
Learning Environment	Workshop

INFORMATION ABOUT THE COURSE

Start Date – End Date	According to agreement
Workload / Duration	4 days
Schedule information	4 days training
Location	Finspång Sweden
Learning activities	Practical training in SLS 3D-printer, PPE
Assessment Type	Practical test
Entry requirement	Technical studies or similar completed EQF 4
Admission procedure	https://www.cng.se/

SOLIDWORKS ADVANCED PART MODELING

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

SOLIDWORKS Advanced Part Modeling is designed for users who want to deepen their knowledge and master advanced modeling techniques. Participants will learn how to handle complex geometries, use advanced sketching and modeling methods, adapt imported geometry, and efficiently use the feature library.

https://www.solidworld.si/izobrazevanja/napredno-modeliranje-kosov

ADMA TRANSFORMATION AREA

Smart manufacturing

3D Modeling, SOLIDWORKS, Multibody Design

CURRENT MATURITY LEVEL 3 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
3D modeling	http://data.europa.eu/esco/skill/97965983-0da4-4902-9daf-d5cd2693ef73	4
Interpret 3D plans	http://data.europa.eu/esco/skill/aafbb139-02c6-4f35-bc62-ff73faf97d6d	4

GENERAL INFORMATION

Course provider	Solid World
Country	Slovenia
Language	Slovenian
Education Subject	This course delves into advanced 3D modeling techniques, focusing on multibody design, complex 3D sketching, and sophisticated feature creation like sweeps, lofts, and advanced fillets. You'll gain expertise in managing complex geometries, working with imported data, and building reusable design libraries within a CAD environment.
Learner Profile	Adult, students
Mode of Learning	Online / Hybrid / In Person
Credential Type	Certificat
EQF Level	EQF 5
Teaching Methodology	Theoretical / Practical / Practical in CLF
Learning Environment	Educational lab

INFORMATION ABOUT THE COURSE

Start Date – End Date	21/10/2025 – 29/10/2025
Workload / Duration	3 days (21 hours)
Schedule information	21/10/2025, 8:30 - 15:30 22/10/2025, 8:30 - 15:30 29/10/2025, 8:30 - 15:30
Price	570,00 EUR
Location	Rusjanova ulica 10, 1235 Radomlje
Learning activities	Practical exercises
Assessment Type	Certificat of achievement

Statistical Process Control (SPC)

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

Statistical Process Control (SPC) is a method used in manufacturing and service industries to monitor and control processes through statistical techniques. This course provides participants with the knowledge and tools to apply SPC to improve process performance, reduce variability, and ensure product quality.

https://community.lcamp.eu/catalog-item/statistical-process-control-spc/

ADMA TRANSFORMATION AREA

Digital Factory, Smart Manufacturing

Big data, data analysis, business inteligence

CURRENT MATURITY LEVEL (1-5)	TARGET MATURITY LEVEL (1-5)
3	4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Statistical process control	http://data.europa.eu/esco/skill/0c77bcd5-b94a-475d-98e9-5a4327e4d726	3
Apply control process statistical methods	http://data.europa.eu/esco/skill/ee8fee1a-75c1-43fb-b08d-779929f99249	3
Interpret current data	http://data.europa.eu/esco/skill/1e77e42a-181f-4b48-8e74-201ce50ffc29	3
Monitor manufacturing quality standards	http://data.europa.eu/esco/skill/3edfcb2b-2d0e-4673-87ce-f55c37eb5fca	2

GENERAL INFORMATION

Course provider	IMH CAMPUS
Country	Basque Country / Spain
Language	Spanish
Education Subject	Analyze a production process by means of control charts and capacity studies to predict its evolution over time and make decisions.
Learner Profile	Technical personnel responsible for production and quality areas who want to apply statistical control techniques.
Mode of Learning	Online
Credential Type	Microcredential Course
EQF Level	5
Teaching Methodology	Theoretical / Practical / Practical in CLF

INFORMATION ABOUT THE COURSE

Workload / Duration	16 Hours
Price	250€
Location	Online
Entry requirement	Basic knowledge of production and quality control, and spreadsheet management.

Substractive manufacturing processes

This course introduces learners to the principles and practical aspects of subtractive manufacturing. Participants will learn how to prepare digital files, set up machining operations, and produce components. They will learn principles such a : file management, machining strategies, process control, and quality verification to ensure efficient and accurate manufacturing outcomes.

https://community.lcamp.eu/catalog-item/subtractive-manufacturing-processes/

ADMA TRANSFORMATION AREA

Advanced Manufacturing Technologies

Manufacturing processes, machining strategies

CURRENT MATURITY LEVEL 3 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Manufacuring processes	http://data.europa.eu/esco/skill/3786b61f-f22e-48d1-af8d-ad4c354534db	3
Abrasive machining processes	http://data.europa.eu/esco/skill/f777173e-567c-4d4a-80b3-0ff5353bb9ce	3
Quality standards	http://data.europa.eu/esco/skill/8d4271ca-c9fd-40b3-875f-15f78332a49e	3

GENERAL INFORMATION

Course provider	Lycée La Découverte
Country	France
Language	French
Education Subject	Manufacturing processes
Learner Profile	Learners in EQF 5 diploma
Mode of Learning	In Person
Credential Type	ECTS
EQF Level	5
Teaching Methodology	Theoretical & Practical
Learning Environment	VET Center

INFORMATION ABOUT THE COURSE

Start Date – End Date	2025-02-10 2025-02-11
Workload / Duration	12 Hours
Location	Lycée La Découverte Decazeville France
Learning activities	Theoretical classes and practical work
Entry requirement	EQF 4 diploma
Admission procedure	Registration – ParcourSup

Teamwork

Co-funded by the European Union

Teamwork has proven to be a soft skill that is becoming increasingly important in the development of organizations, bringing numerous benefits to both the organization and the employee.

https://www.lhusurbil.eus/web/Default.aspx?lng=EU

ADMA TRANSFORMATION AREA

Human Centred Organization

Human, teamwork, Industry 5.0

CURRENT MATURITY (1-5) LEVEL: 4 → TARGET MATURITY LEVEL (1-5): 5

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Work in a team	https://esco.ec.europa.eu/en/skill/431bd4e6-0994-4ef8-b388-71c9f326b0d7	4
Foster teamwork	https://esco.ec.europa.eu/en/skill/f69b145c-f4f4-4c5b-8b90-d3b252e9c81d	5
Communicate in a team	https://esco.ec.europa.eu/en/skill/8eae4f48-dab3-4484-8963-805e6bd72d4e	4
Show intercultural awareness	https://esco.ec.europa.eu/en/skill/c4d57995-6b4b-4d11-b430-4c198ae12e68	5

GENERAL INFORMATION

Course provider	CIFP Usurbil LHII
Country	Basque Country/ Spain
Language	Spanish
Learner Profile	Professionals, team leaders, and employees from various organizational levels who seek to enhance their teamwork skills
Mode of Learning	Online
Credential Type	Microcredential Course
EQF Level	Although it is not currently part of the National Qualifications Framework (NQF), the course is part of the lifelong learning offer of the Basque Government.
Teaching Methodology	Theoretical / Practical / Practical in CLF

INFORMATION ABOUT THE COURSE

Workload / Duration	30 hours
Price	Free
Location	Usurbil, Basque Country

THINKING INNOVATIVELY

Thinking innovately is important in terms of to develop ideas or conclusions that lead to the creation and Implementation of innovations or changes. Objectives of this course are: understanding the concept and importance of innovative thinking in today's world, developing skills to approach problems creatively and propose new ideas, learning techniques to foster innovation in different areas of life and work, practicing on applying innovative thinking to real-world situations and projects, working in teams to create and present innovative solutions.

https://community.lcamp.eu/catalog-item/gebkim-vet-thinking-innovatively/

ADMA TRANSFORMATION AREA

HUMAN-CENTERED ORGANIZATION

HUMAN-FOCUSED INNOVATION

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Thinking creatively and innovatively	Thinking creatively and innovatively	4
Think innovatively	Think innovatively	4

GENERAL INFORMATION

Course provider	KPDoNE
Country	Türkiye
Language	Turkish
Education Subject	The course introduces the principles and tools of innovative thinking, fostering creativity, problem-solving, and idea development. It encourages learners to generate novel solutions in work, entrepreneurship, and social contexts.
Learner Profile	VET Students and Teachers
Mode of Learning	In Person
Credential Type	ECTS
EQF Level	EQF 4
Teaching Methodology	Theoretical / Practical
Learning Environment	VET Centre

INFORMATION ABOUT THE COURSE

Workload / Duration	42 Hours
Location	KPDoNE
Learning activities	Lectures, Practicing brainstorming and mind-mapping
Assessment Type	Participation in workshops and creative sessions, Team-based innovation challenge or mini-project
Entry requirement	Interest in creativity, entrepreneurship, or personal development
Admission procedure	Online or in-person application submission

Towards Open and Generative Organizational Models

The course aims to develop the ability to (i) critically analyse organizational and leadership models, (ii) Encourage reflection on the changes impacting the effectiveness of current organizational structures, (iii) introduce and experiment with new learning approaches to support change.

https://www.rold.com/academy-offering/

ADMA TRANSFORMATION AREA

Human Centred Organization

People management and development

CURRENT MATURITY LEVEL 1 → TARGET MATURITY LEVEL 3

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Leading and motivating	http://data.europa.eu/esco/skill/S4.5	3

GENERAL INFORMATION

Course provider	Rold Academy
Country	Italy
Language	Italian
Education Subject	Towards Open and Generative Organizational Models
Learner Profile	Roles involved in business organization (HR, Managers, Area Managers, Board Members, Team Leaders)
Mode of Learning	In Person
Credential Type	Certificate
EQF Level	6
Teaching Methodology	Theoretical and Practical
Learning Environment	MIND (Milan Innovation District), but it can also be arranged at company premises

INFORMATION ABOUT THE COURSE

Start Date – End Date	According to requests
Workload / Duration	8 hours (4h per day)
Schedule information	Possibility to arrange specific courses
Price	800 €
Location	Milan (Italy)
Learning activities	The learning activities include: (i) What is an organization? (ii) Closed vs. open organizations: features and key differences (iii) Introduction to global change agents and their impact (iv) The strategic value of plurality and inclusion in organizations (v) Group work: exploring and practicing models of distributed leadership (vi) How skills and knowledge are acquired and transmitted in open contexts
Assessment Type	Questionnaire
Entry requirement	No entry requirement
Admission procedure	Interview

Course schedules and content can be customized, and additional follow-up meetings and continuous learning activities activities can be planned.

Understanding Environmental and Social Impacts

The course aims to (i) identify the key factors that make sustainability processes a lever for competitiveness, (ii) gain knowledge related to environmental and social impact assessments, (iii) understand the role of supply chain relationships and stakeholders in enabling shared and systemic sustainability processes.

https://www.rold.com/academy-offering/

ADMA TRANSFORMATION AREA

Eco Factory

Eco design

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 3

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Assess environmental impact	http://data.europa.eu/esco/skill/e541c69c-ea80-4b17-87cb-4001d0b9d303	3

GENERAL INFORMATION

Course provider	Rold Academy
Country	Italy
Language	Italian (but it can also be delivered in English)
Education Subject	Strategies for leveraging LCA to redesign processes and products
Learner Profile	Roles involved in business organization (HR, Managers, Area Managers)
Mode of Learning	In Person
Credential Type	Certificate
EQF Level	6
Teaching Methodology	Theoretical and Practical
Learning Environment	MIND (Milan Innovation District), but it can also be arranged at company premises

INFORMATION ABOUT THE COURSE

Start Date – End Date	According to requests
Workload / Duration	8 hours
Schedule information	Possibility to arrange specific courses
Price	1400 €
Location	Milan (Italy)
Learning activities	CURRENT CONTEXT & FUTURE SCENARIOS: DRIVERS AND REGULATIONS Why it is still strategic for SMEs to invest in sustainability UNDERSTANDING AND MANAGING IMPACTS ON ENVIRONMENT AND PEOPLE LCA (Life Cycle Assessment) as a tool for creativity and redesign (includes theory and practical exercise) Social impacts in the supply chain (includes theory and practical exercise)
Assessment Type	Questionnaire
Entry requirement	No entry requirement
Admission procedure	Interview

Course schedules and content can be customized, and additional follow-up meetings and continuous learning activities activities can be planned.

USING A CHEMICAL REACTOR

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

Preparing the reactor for production and commissioning.

https://community.lcamp.eu/catalog-item/using-a-chemical-reactor/

ADMA TRANSFORMATION AREA

ADVANCED MANUFACTURING TECHNOLOGIES

CHEMICAL PROCESS CONTROL

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Use chemical analysis equipment	Use chemical analysis equipment	4
Chemical processes	Chemical processes	4

GENERAL INFORMATION

Course provider	GEBKIM VET
Country	Türkiye
Language	Turkish
Education Subject	This course provides learners with the theoretical and practical skills required to operate, monitor, and control chemical reactors safely and efficiently in industrial environments. It includes understanding reaction types, process parameters, and safety protocols.
Learner Profile	Students, Technician
Mode of Learning	In Person
Credential Type	ECTS
EQF Level	EQF 4
Teaching Methodology	Theoretical / Practical
Learning Environment	VET Centre

INFORMATION ABOUT THE COURSE

Workload / Duration	30 Hours
Location	GEBKIM VET
Learning activities	Lectures,Practices, Lab Work
Assessment Type	Lab performance, Hands-on practical evaluations
Entry requirement	Interest in industrial chemical processes and plant operations
Admission procedure	Online or in-person application submission

WASTE TREATMENT PROCESS

It aimed at educating students or professionals about waste treatment methods, environmental impacts, and modern waste management practices.

https://community.lcamp.eu/catalog-item/gebkim-vet-waste-treatment-process/

ADMA TRANSFORMATION AREA

ECO FACTORY

WASTE MANAGEMENT

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Waste management	Waste management	4
Manage waste	Manage waste	4
Dispose waste	Dispose waste	4

GENERAL INFORMATION

Course provider	Gebkim VET
Country	Türkiye
Language	Turkish
Education Subject	"Waste Treatment Process" course aims to equip learners with practical and theoretical knowledge about waste collection, segregation, treatment technologies, and environmental sustainability in accordance with European and national standards.
Learner Profile	EQF 4
Mode of Learning	In Person
Credential Type	ECTS
EQF Level	EQF 4
Teaching Methodology	Theoretical / Practical
Learning Environment	VET Centre

INFORMATION ABOUT THE COURSE

Workload / Duration	30 Hours
Location	GEBKIM VET
Learning activities	Lectures & Practices
Assessment Type	Quizz, Lab Works, Exams
Entry requirement	Motivation and interest in environmental sustainability
Admission procedure	Online or in-person application submission

Workplace Organization & Standard Work

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

This course introduces the key methods and tools for standardizing work operations in both production and service contexts. Participants learn how to develop Standard Operating Procedures (SOPs), implement 5S, conduct improvement audits and sustain continuous workplace organization.

https://www.smarttvalley.it/manufacturing/

ADMA TRANSFORMATION AREA

Human-Centred Organisation; Smart Manufacturing; End-to-End Customer-Focused Engineering

Standard Work · SOP · Visual SOP · One-Point Lessons (OPL) · Work Instructions · 5S · Improvement Audits · Checklists · Workplace Organization · Continuous Improvement

CURRENT MATURITY LEVEL 1 → TARGET MATURITY LEVEL 3

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Develop Standard Operating Procedures	http://data.europa.eu/esco/skill/c64c4f42-253b-4d53-8637-fd00d86100c7	3
Apply workplace organization techniques	http://data.europa.eu/esco/skill/d3eccb86-f02d-4950-bfbd-20b9510774a1	2
Conduct improvement and compliance audits	http://data.europa.eu/esco/skill/d3eccb86-f02d-4950-bfbd-20b9510774a1	2

GENERAL INFORMATION

Course provider	Fondazione Ergo
Country	Italy
Language	Italian / English
Education Subject	Key methods and tools for standardizing work operations in both production and service contexts
Learner Profile	Production supervisors, line operators, quality engineers, continuous-improvement specialists
Mode of Learning	In-Person/Hybrid
Credential Type	Certificate
EQF Level	5-6
Teaching Methodology	Theoretical / Practical / Practical in CLF
Learning Environment	Classroom, Experience lab with workstations

INFORMATION ABOUT THE COURSE

Workload / Duration	3 days (24 h) – approx
Price	Depending on time schedule and location
Location	Learning Factory, Smartt Valley
Learning activities	5S zone set-up, SOP writing workshops, audit simulations, group projects
Assessment Type	Multiple choice assessment costumized on client needs + situational interview
Entry requirement	No prerequisites; familiarity with basic manufacturing concepts beneficial

The course's content, schedule and location can be adapted to the needs of the recipients.

WRITING A PROGRAM TO PLC

Learner Centric Advanced Manufacturing Platform

Co-funded by the European Union

Writes basic program to PLC by making relay and contact operations.

GEBKİM VET-Writing a Program to PLC - Open Innovation Community

ADMA TRANSFORMATION AREA

SMART MANUFACTURING

SMART MANUFACTURING

CURRENT MATURITY LEVEL 2 → TARGET MATURITY LEVEL 4

LEARNING OUTCOMES

ESCO Skill	ESCO URL	Maturity Level 1-4
Programmable logic controller	Programmable logic controller	4
Use logic programming	Use logic programming	4

GENERAL INFORMATION

Course provider	Gebkim VET
Country	Türkiye
Language	Turkish
Education Subject	This course focuses on the fundamentals of PLC (Programmable Logic Controller) programming, enabling learners to design, write, test, and troubleshoot basic automation programs used in industrial systems.
Learner Profile	EQF 4
Mode of Learning	In Person
Credential Type	ECTS
EQF Level	EQF 4
Teaching Methodology	Theoretical / Practical
Learning Environment	VET Centre

INFORMATION ABOUT THE COURSE

Workload / Duration	60 Hours
Location	GEBKIM VET
Learning activities	Lectures & Practices
Assessment Type	Practical programming tasks, Exams
Entry requirement	Basic knowledge of electricity, electronics, or IT
Admission procedure	Basic technical knowledge interview or short assessment

4. BENCHMARK OF OTHER TRAININGS

This chapter presents a benchmarking of external training offers with the purpose of continuous improvement of LCAMP's training catalogue for SMEs. The need for this benchmarking is grounded in the findings from D7.2. Across 59 SME scans in eight countries, two strengths consistently emerged, End-to-End Customer Focused Engineering (customer orientation) and Human-Centred Organisation (employee orientation). Four areas showed weaker maturity, Smart Manufacturing (low automation and limited real-time data use), Digital Factory (system integration and connectivity challenges), Value Chain Oriented Open Factory (limited open innovation and external partnerships), and ECO Factory (uneven sustainability practices). Accordingly, this benchmarking prioritises trainings that can accelerate progress in these weaker areas while preserving and leveraging the strengths already present.

We analyse six representative providers with complementary profiles and global reach: Coursera, EIT Manufacturing, Fraunhofer-Gesellschaft, Mondragon University, POK (POLIMI Open Knowledge) and Udemy. Together they cover:

- Academically rigorous and industry-validated content (universities, research organisations)
- Large-scale, modular online provision (MOOC platforms)
- Applied, practice-oriented training ecosystems (innovation KICs and applied research institutes)
- Multi-level offers spanning short courses, specialisations, micro-credentials, and full degree programmes.

This mix allows us to contrast curricula, pedagogy, credentialing models, and industry integration across different delivery logics (open platforms, university programmes, institute-led academies) and to identify best practices transferable to LCAMP partners.

To ensure a consistent and meaningful comparison across the different organisations analysed, this benchmarking follows a common analytical approach.

Given the weaknesses surfaced in D7.2, this chapter highlights trainings that:

- Enable Smart Manufacturing (e.g., automation, predictive maintenance, AI-driven optimisation, real-time monitoring).
- Strengthen the Digital Factory (system integration across ERP-MES-SCADA, data governance, cybersecurity, digital twins).
- Develop Value Chain Oriented Open Factory (open innovation, supplier/customer co-development, data sharing, networked operations).
- Operationalise ECO Factory practices (energy/resource efficiency, circularity, eco-design, water and materials stewardship).

This benchmarking directly contributes to the LCAMP training catalogue and micro-credential framework, helping partners identify relevant existing trainings, define areas for new module development, and enhance pedagogy, evaluation, and industry cooperation to strengthen SME impact and maturity growth.

4.1. COURSERA

Coursera is a leading global platform for online learning, founded in 2012 by Stanford professors Daphne Koller and Andrew Ng. It collaborates with world-class universities and industry leaders to deliver flexible, high-quality courses, professional certificates, and full degree programs. Covering topics from technology and data science to leadership, business, and social sciences, Coursera combines academic rigor with practical, job-relevant skills. Its strengths include worldwide accessibility, prestigious partnerships, modular learning options, and a focus on professional growth and lifelong learning.

Key features

- Learning formats: individual courses, specializations (a series of related courses), guided projects, Professional Certificates, and occasionally full degrees.
- Flexibility: most courses are asynchronous and self-paced, while some follow a set schedule.
- Credentials: learners earn certificates, with the value of the credential reflecting the reputation of the issuing university or organization.
- Freemium and paid options: many courses can be audited for free (without certification), while paid versions include graded assessments and certificates. Subscription options like *Coursera Plus* are also available.
- Quality and credibility: the platform hosts courses from top institutions such as IIM, the University of Illinois, and IBM, ensuring academic and professional credibility.
- Broad subject coverage: from data science and AI to leadership, business, and digital marketing.
- Support and additional services: features such as peer review, case studies, capstone projects, and hands-on assignments are common. Many courses also include translations and subtitles in multiple languages.

Coursera's course design reflects a structured, consistent approach that has made it a benchmark in digital education. Most specializations follow a progressive path—starting with foundational concepts, moving through strategic applications, and culminating in real-world or capstone projects. This layered approach helps learners build skills step by step while maintaining motivation. Flexibility and modularity remain central: learners can move at their own pace, audit courses before committing, or opt for short introductory programs like *AI for Everyone* or *Generative AI for Everyone* for quick, accessible learning.

Another defining feature is the integration of leadership, change management, and technology. Coursera presents transformation not just as a technical process but one deeply tied to governance, organizational culture, and people. Many courses interweave these dimensions to foster both strategic and technical development. Furthermore, the platform emphasizes creating business value rather than simply teaching tool use. Courses often demonstrate how digital technologies can reshape business models, governance structures, and competitive strategies, aligning learning with measurable outcomes.

Analytics and performance measurement are embedded throughout Coursera's learning design, encouraging evidence-based decision-making and continuous improvement. The platform

balances short, awareness-level offerings with comprehensive specializations, appealing to both casual learners and professionals seeking deeper expertise. Most programs end with a practical or real-world project, reinforcing applied learning and tangible results.

To differentiate from Coursera's approach, emerging learning platforms could focus on interactive simulations and hands-on labs reflecting real organizational challenges. Incorporating peer mentoring, collaborative projects, and localized case studies would enhance engagement and contextual relevance. Advanced progress-tracking dashboards could help learners visualize their growth and achievements. Offering stackable micro-credentials and combining technical skills with leadership development would create richer, more integrated learning experience.

Examples of Coursera training relevant to ADMA methodology transformations

1. Foundations of AI and Machine Learning (Microsoft)

- ADMA areas: Smart Manufacturing; Digital Factory
- Summary: This intermediate-level course introduces the fundamentals of AI and machine learning, focusing on data management, preprocessing, model deployment, and infrastructure. It explains how to design and maintain the technical backbone—data, hardware, and software—of AI systems.
- Link: https://www.coursera.org/learn/foundations-of-ai-and-machine-learning

2. AI Foundations for Everyone (IBM) Specialization

- ADMA areas: Digital Factory; Smart Manufacturing; Human-Centered Organization
- Summary: A non-technical specialization that explains what AI is, how it can be responsibly implemented, and how to manage the organizational, ethical, and governance changes required for adoption. It builds awareness and foundational understanding rather than deep technical expertise.
- Link: https://www.coursera.org/specializations/ai-foundations-for-everyone

3. Strategic Leadership and Management Specialization (University of Illinois Urbana-Champaign)

- ADMA areas: Human-Centered Organization; Value Chain Oriented Open Factory; End-to-End Customer Focused Engineering
- Summary: Designed for current and aspiring leaders, this specialization explores leadership, organizational culture, strategic alignment, team building, and change management. It emphasizes how effective leadership and structure foster adaptive, customer-centric organizations.
- Link: https://www.coursera.org/specializations/strategic-leadership

4. Digital Marketing Specialization (University of Illinois Urbana-Champaign)

- ADMA areas: End-to-End Customer Focused Engineering; Digital Factory; Value Chain Oriented Open Factory
- Summary: Focuses on modern digital marketing strategies, analytics, customer behavior, and performance measurement. Learners gain skills in mapping customer journeys, designing digital campaigns, and managing marketing initiatives across connected ecosystems.
- Link: https://www.coursera.org/specializations/digital-marketing

4.2. EIT MANUFACTURING

The European Institute of Innovation and Technology (EIT) is a body of the European Union, created in 2008, with the mission of boosting innovation in Europe by connecting universities, research centres, and companies. To achieve this, the EIT works through large thematic communities called KICs (Knowledge and Innovation Communities), each focused on a strategic challenge such as sustainable energy, health, digitalisation, climate change, raw materials, food… and manufacturing.

EIT Manufacturing is one of these KICs, dedicated to the industrial and advanced manufacturing sector. Its overarching goal is to make European manufacturing more competitive, digital, and sustainable. To achieve this, it develops activities along four main lines of action:

- Innovation: supporting collaborative projects between companies, research centres, and universities to develop new manufacturing solutions.
- Education: offering training programmes for students, professionals, and SMEs (master's degrees, online courses, summer schools, workshops), providing the competences demanded by the industry of the future.
- Business creation: helping entrepreneurs, start-ups, and scale-ups bring innovative technologies and services for manufacturing to the market.
- Community: building European networks that connect local ecosystems of industrial innovation.

From a benchmarking perspective, the education pillar is particularly relevant. Through EIT Campus https://eit-campus.eu/courses, EIT Manufacturing provides a wide catalogue of training opportunities, ranging from short online modules to specialised master's programmes. The portfolio covers themes such as digital manufacturing, sustainability, leadership, and entrepreneurship, and is designed to serve different target groups: students, industry professionals, and SMEs.

This structure reflects a comprehensive training approach, combining technical skills (e.g. digitalisation, automation, sustainable manufacturing) with transversal competences (e.g. innovation management, leadership, entrepreneurship). As such, EIT Manufacturing represents a benchmark in how training provision can be embedded within a broader innovation ecosystem, ensuring alignment between education, research, and industrial needs.

Examples of training courses of interest for ADMA methodology transformations:

- Leveraging Digital Twin Technology for Sustainable Manufacturing
  - Online course, beginner level.
  - Relevant ADMA areas: Digital Factory, Eco Factory, Advanced Manufacturing Technologies.
  - Overview: Introduces how to use digital twins to improve efficiency, reduce waste, optimize operations, and enhance sustainability.
  - Link: https://eitmanufacturingacademy.eu/courses/leveraging-digital-twin-technology-for-sustainable-manufacturing-31925/

- Driving Value Creation: Skills for a Sustainable and Inclusive Future
  - Online course, intermediate level.
  - Relevant ADMA areas: Human-Centred Organisation, ECO Factory, Value Chain Oriented Open Factory.

    - Overview: Provides competences to foster sustainability, inclusiveness, and value creation in industry. Focuses on leadership, collaboration, and responsible innovation to align business with social and environmental goals.
    - Link: https://eit-campus.eu/learning-path/driving-value-creation-skills-for-a-sustainable-and-inclusive-future

- MSc in Human-Robot Interaction for Sustainable Manufacturing
    - Master's programme, advanced level (2 years, double degree).
    - Relevant ADMA areas: Advanced Manufacturing Technologies, Smart Manufacturing, Human-Centred Organisation.
    - Overview: Focuses on the integration of robotics and human-centred design in sustainable manufacturing. Combines technical expertise with training in innovation and entrepreneurship.
    - Link: https://www.eitmanufacturing.eu/what-we-do/education/master-school/msc-in-human-robot-interaction-for-sustainable-manufacturing/

- MSc in Digital Manufacturing for Innovative Ecosystems
    - Master's programme, advanced level (2 years, double degree).
    - Relevant ADMA areas: Digital Factory, Smart Manufacturing, Value Chain Oriented Open Factory.
    - Overview: Addresses digital technologies for manufacturing ecosystems, including system integration, data-driven innovation, and collaboration within value chains. Prepares graduates to lead digital transformation in industrial networks.
    - Link: https://www.eitmanufacturing.eu/what-we-do/education/master-school/msc-in-digital-manufacturing-for-innovative-ecosystems/

- MSc in Zero Defect Manufacturing for a Circular Economy
    - Master's programme, advanced level (2 years, double degree).
    - Relevant ADMA areas: Smart Manufacturing, ECO Factory, Advanced Manufacturing Technologies.
    - Overview: Specialises in defect prevention and high-quality production methods, linking advanced manufacturing with circular economy principles. Focuses on real-time monitoring, process optimisation, and sustainable practices.
    - Link: https://www.eitmanufacturing.eu/what-we-do/education/master-school/msc-in-zero-defect-manufacturing-for-a-circular-economy/

- Circular Economy – Sustainable Materials Management
    - Online course, beginner level
    - Relevant ADMA areas: ECO Factory, Value Chain Oriented Open Factory
    - Overview: Introduces principles of sustainable materials management, with emphasis on reuse, recycling, and responsible supply chains. Aimed at professionals seeking to integrate circular economy practices into manufacturing.
    - Link: https://eit-campus.eu/course/raw-materials/circular-economy-sustainable-materials-management

- Artificial Intelligence and the Circular Economy

- Online course, beginner level
- Relevant ADMA areas: ECO Factory, Digital Factory, Smart Manufacturing
- Overview: Explains how AI can support circular economy strategies, from optimising resource efficiency to enabling new sustainable business models. Provides case studies and practical examples.
- Link: https://eit-campus.eu/course/girls-go-circular/artificial-intelligence-and-the-circular-economy

4.3. FRAUNHOFER-GESELLSCHAFT

The Fraunhofer-Gesellschaft (Fraunhofer Society) is one of Europe's leading organizations for applied research, founded in 1949 in Germany, whose core purpose is to promote innovation, technology transfer, and societal benefit by bridging the gap between academic research and industrial application.

Fraunhofer operates through about 75-76 institutes and independent research units scattered throughout Germany, employing nearly 32,000 researchers, engineers, and support staff, with an annual research budget of roughly €3.6 billion, of which about €3.1 billion comes from contract research with industry and public sector partners.

Fraunhofer's mission includes tackling pressing societal challenges—such as digital transformation, climate change, energy transition, health care, and resilient infrastructure—by pursuing sustainable, ethically sound technological solutions. It works closely with universities, businesses (of all sizes), public institutions, and international partners to translate research into effective products, services, and processes.

Key principles and differentiators of Fraunhofer are:

- Applied and market-oriented research: Much of the work is done via contract research, prototype development, and public-private collaborations.
- Base funding + project funding model: Core funding from federal/state governments supports the institutes to explore longer-term, precompetitive research, while a large proportion of resources comes from externally funded projects.
- Interdisciplinary structure: Research fields include bioeconomy, artificial intelligence, quantum technology, resource efficiency, digital healthcare, hydrogen technologies, among others.
- Technology transfer & innovation ecosystem: Fraunhofer supports spin-offs, licensing, and collaborative innovation. The organization strives to speed up bringing research outcomes into real-world application.

Fraunhofer aims to balance advancing scientific excellence with generating measurable impact for industry and society—especially by helping small and medium-sized enterprises engage in high-tech innovation and by contributing to Germany's and Europe's industrial competitiveness.

Examples of training courses of interest for ADMA methodology transformations:

T1. Advanced Manufacturing Technologies

- Fraunhofer Additive Academy – Additive Production Basic Training → introductory training covering AM technologies, potentials, applications.
- AM Basic Training – Design (Fraunhofer IAPT).

T2. Digital Factory

- Fraunhofer Academy – Smart Production Professional → covers smart production, sensors, additive manufacturing, ML, trends.
- Smart Production Professional (Fraunhofer Academy).

T3. Eco-Factory (Sustainability)

- Fraunhofer Academy / Fraunhofer Academy general offerings in "Energy and Sustainability" in their continuing education catalog.
- Fraunhofer Academy – further education topics including Energy & Sustainability.

T4. Customer-Oriented Integrated Engineering

- Fraunhofer Additive Academy – Design for Additive Production Training (DfAP) → focuses on design, functional integration, lightweight structures.
- Design for Additive Production Training (Fraunhofer IAPT).

T5. People-Centered Organization

- Fraunhofer Academy – general professional and certificate courses designed for professionals & executives in industry, including transformation, leadership.
- Fraunhofer Academy – professional courses for industry & executives.

T6. Smart Manufacturing

- AMPOWER & Fraunhofer IAPT – Binder Jetting Training (hands-on) → deeply technical course in one specific advanced manufacturing tech (metal binder jetting).
- Binder Jetting Training (AMPOWER + Fraunhofer IAPT).

T7. Open Factory Oriented to the Value Chain

- Fraunhofer Academy's continuing education programs in production, logistics, and process integration—serving the supply chain / value chain perspective.
- Fraunhofer Academy – continuing education in production, logistics, etc.

4.4. MONDRAGON UNIVERSITY

Mondragon Unibertsitatea (MU) is a cooperative university created in 1997, whose purpose is to promote knowledge, innovation, and social and business development in the Basque Country and internationally. Its mission is structured around the integration of education, research, and knowledge transfer, connecting students, companies, and research centers.

Mondragon Unibertsitatea operates through faculties and specialized centers in engineering, business, education, humanities, communication, and gastronomy, and works closely with the business and industrial network, especially in strategic areas such as advanced industry, digitalization, sustainability, circular economy, and entrepreneurship.

The overall objective of Mondragon Unibertsitatea is to train competent and innovative professionals and contribute to the technological and social development of industry and society. To achieve this, it develops activities around four main areas:

- Education: Offering undergraduate, master's, doctoral, and specialization programs for students, professionals, and companies, providing the skills demanded by the industry of the future.
- Innovation and applied research: Supporting R&D projects in collaboration with companies and technology centers, aimed at solving real industrial challenges.

- Entrepreneurship: Promoting start-ups, entrepreneurial initiatives, and innovation projects through Mondragon Team Academy and specialized programs.
- Community: Building a cooperative and innovation ecosystem that connects university, companies, and society around industrial and social transformation projects.

From a comparative perspective, the pillar of education is especially relevant. Mondragon Unibertsitatea offers a wide range of programs, from continuing education and micro-credentials to official master's degrees and specialized doctoral programs. The offer covers areas such as digital manufacturing, robotics, artificial intelligence, sustainability, circular economy, and leadership, and is designed to serve different target groups: students, active professionals, and SMEs.

This structure reflects a comprehensive approach, combining technical skills (digitalization, automation, advanced manufacturing) with transversal skills (innovation management, entrepreneurship, cooperative leadership). As such, Mondragon Unibertsitatea constitutes a benchmark in university education applied to industry and society, ensuring alignment between education, research, and the needs of the productive sector.

Examples of training courses of interest for ADMA methodology transformations:

T1. Advanced Manufacturing Technologies

- Master's in Industrial Additive Manufacturing → 3D printing in metals, composites, biomaterials.
- Continuing education in Advanced Manufacturing Processes → precision machining, composites, high-productivity techniques.
- Course in Predictive Maintenance and Smart Maintenance.

T2. Digital Factory

- Master's in Robotics and Control Systems → automation, cyber-physical systems.
- Course in Industrial Maintenance Digitalization → IoT, digital twins, sensorization.
- Specialization in Cybersecurity in OT environments.

T3. Eco-Factory (Sustainability)

- Master's in Circular Economy and Industrial Sustainability.
- Courses in Energy Efficiency and Renewable Energies.
- Sustainable material management in the value chain.

T4. Customer-Oriented Integrated Engineering

- Master's in Industrial Engineering → design and manufacturing project management focused on the customer.
- Training in Product Design and User Experience (UX).
- Courses in Simulation and CAD/CAE/PLM applied to co-creation.

T5. People-Centered Organization

- Master's in Learning Facilitation and Leadership (MU Education).
- Training in Cooperative Leadership and Team Management.
- Mondragon Team Academy (MTA): entrepreneurship and collaborative work.

T6. Smart Manufacturing

- Master's in Robotics and Control Systems (flexible automation, cobots, AI in production).
- Courses in Lean Manufacturing and Digital Six Sigma.
- Big Data and Artificial Intelligence in Industry.

T7. Open Factory Oriented to the Value Chain

- Programs in Cooperativism, Open Innovation, and Social Economy.
- Course in Collaborative Innovation in Value Networks.
- Executive training in Industry 4.0 (4GUNE) → with a focus on digital supply chains.

4.5. POK (POLIMI OPEN KNOWLEDGE)

POK (POLIMI Open Knowledge) is the official MOOC (Massive Open Online Course) platform of the Politecnico di Milano, launched to promote open and inclusive access to high-quality education. Developed and managed by the university's METID (Metodi e Tecnologie Innovative per la Didattica - Innovative Methods and Technologies for Teaching) – Learning Innovation Unit, POK embodies Politecnico di Milano's commitment to sharing academic knowledge and expertise with a broad audience — from students and professionals to citizens and educators worldwide.

Unlike commercial learning marketplaces, POK operates within the framework of a public university, ensuring academic rigor, research-based content, and alignment with institutional teaching objectives. Its mission is to bridge educational gaps by making Politecnico di Milano's scientific and technical expertise freely accessible online.

POK's activities and offerings can be grouped along four main dimensions:

- Academic MOOCs:

POK hosts a growing catalogue of free online courses designed by Politecnico di Milano's professors and researchers. Courses cover a wide range of disciplines — including Engineering, Architecture, Design, Computer Science, Sustainability, and Management — and are structured for different audiences such as Bachelor and Master students, researchers, and citizens.

- Professional and Lifelong Learning:

Beyond academic education, POK offers MOOCs aimed at professionals seeking continuous upskilling in emerging fields like Agile Project Management, Digital Innovation, and Sustainable Development. These courses support lifelong learning and help bridge the gap between academia and industry needs.

- Open Knowledge and Inclusion:

Staying true to the principles of open education, all POK courses are free to access and available in multiple languages (mainly Italian and English). The platform fosters inclusivity by reaching diverse learner groups — from high-school students to senior citizens — encouraging participation regardless of geographical or social barriers.

- University–Community Engagement:

POK strengthens the connection between Politecnico di Milano and society at large. Through citizen-oriented MOOCs such as Unfolding Gianfranco Ferré or City and Sustainability, it promotes cultural awareness, sustainability, and civic engagement, showcasing how academic knowledge can contribute to public understanding and innovation.

From a benchmarking perspective, POK represents a university-driven model of open digital education, combining academic credibility with accessibility. Its strength lies in integrating rigorous scientific content with modern pedagogical approaches — including self-paced learning, multimedia lessons, and interactive assessments — within an open-access framework.

By aligning educational innovation with the Politecnico di Milano's research and teaching excellence, POK stands as a reference point for institutional MOOCs in Europe, demonstrating how universities can leverage digital platforms to foster continuous learning, professional development, and societal impact.

Examples of training courses of interest for ADMA methodology transformations:

- Agile Project Management: Agile as a Culture, beyond the SCRUM
  - Online course, intermediate level
  - Relevant ADMA areas: Human-Centred Organization, Smart Manufacturing, Digital Factory
  - Overview: exploring the Agile mindset as a cultural and organisational transformation approach; introducing hybrid models combining Agile and traditional project management to enhance flexibility, collaboration, and innovation within digital transformation projects
  - Link: https://www.pok.polimi.it/course/view.php?id=206&utm_source=chatgpt.com#tab2

- Platform Thinking: exploiting data through platforms
  - Online course, intermediate level
  - Relevant ADMA areas: Digital Factory, Advanced Manufacturing Technologies, Digital Factory, Smart Manufacturing
  - Overview: understanding how data and digital platforms create new business models and value networks; focusing on the strategic and technological dimensions of platform-based innovation
  - Link: https://www.pok.polimi.it/course/view.php?id=91#courseTabContent

- Virtual and Augmented Reality to support training and maintenance
  - Online course, intermediate level
  - Relevant ADMA areas: Advanced Manufacturing Technologies, Digital Factory, Smart Manufacturing, Human-Centred Organization
  - Overview: introducing applications of Virtual and Augmented Reality to industrial processes, training, and maintenance; exploring how immersive technologies improve performance, safety, and learning in manufacturing environments
  - Link: https://www.pok.polimi.it/course/view.php?id=172#courseTabContent

- The Fashion Tech paradigm disrupting CCIs models
  - Online course, beginner level
  - Relevant ADMA areas: Smart Manufacturing, ECO Factory, Value Chain Oriented Open Factory
  - Overview: analysing how technology and digital innovation reshape design, production, and distribution in the fashion industry; exploring sustainable, digital, and data-driven transformation of creative manufacturing ecosystems
  - Link: https://www.pok.polimi.it/course/view.php?id=66&utm_source=chatgpt.com#courseTabContent

- Innovation Management and Digital Transformation
    - Online course, intermediate level
    - Relevant ADMA areas: Smart Manufacturing, Digital Factory, Advanced Manufacturing Technologies
    - Overview: introducing frameworks and tools to manage innovation within digital transformation contexts; focusing on how technology, strategy, and organisational culture interact to drive competitiveness
    - Link: https://www.pok.polimi.it/course/view.php?id=207#courseTabContent

4.6. UDEMY

Udemy is a global online learning platform founded in 2010 with the mission of improving lives through learning. It operates as a marketplace that connects learners, instructors, and organizations, enabling anyone to teach and learn new skills online. Unlike traditional educational institutions, Udemy's model is open and decentralised — individual experts and professionals from around the world can create courses and reach a global audience.

Udemy's activities and offerings can be grouped along four main dimensions:

- Course Marketplace: Udemy hosts one of the largest online course catalogues in the world, with over 200,000 courses across a wide range of topics — from business and technology to personal development, design, and language learning. Courses are typically short, video-based, and self-paced, catering to learners' flexibility needs.
- Professional Upskilling: Through "Udemy Business", the platform provides curated learning solutions for companies and organisations. This service offers access to a catalogue of high-quality courses focused on professional and technical skills (e.g. data science, cloud computing, project management), as well as soft skills and leadership development. Companies use Udemy Business to support workforce reskilling and continuous learning.
- Instructor Ecosystem: Udemy empowers instructors and subject-matter experts to design, publish, and monetise their own courses. This open model encourages constant content renewal and diversity, ensuring that learning materials stay aligned with evolving technologies and industry practices.
- Global Learning Community: With over 70 million learners worldwide, Udemy has built a truly global community of learners and educators. Its platform supports multiple languages and localised content, fostering inclusive access to education regardless of geography or background.

From a benchmarking perspective, Udemy represents a key reference in flexible, demand-driven online education. Its success lies in the scalability of its digital marketplace model and the diversity of its course offerings, which address both individual learners and corporate training needs.

Through its combination of technical content (e.g. programming, AI, cloud computing) and transversal skills (e.g. communication, leadership, innovation), Udemy has positioned itself as a leading global platform for lifelong learning. It exemplifies how education can be effectively

delivered at scale through digital platforms, fostering continuous upskilling and employability in a fast-changing economy.

Examples of training courses of interest for ADMA methodology transformations:

- Master Industry 4.0: Automation, Robotics & Cybersecurity
  - Online course, beginner level — designed for learners with no prior deep experience, though familiarity with general engineering or computer systems is helpful
  - Relevant ADMA areas: Advanced Manufacturing Technologies, Digital Factory, Smart Manufacturing
  - Overview: understanding industrial automation systems; implementing Safety Instrumented Systems; mastering cybersecurity for industrial systems; exploring robotics fundamentals and applications
  - Link: https://www.udemy.com/course/master-industry-40-automation-robotics-cybersecurity/

- Master Course in Sustainable Technologies & Datafication 2.0
  - Online course, beginner level — designed for undergraduate and postgraduate students in Business Systems, Information Technology, and Computer Science, as well as anyone eager to learn about sustainable technology
  - Relevant ADMA areas: ECO Factory, Smart Manufacturing
  - Overview: harnessing technology and data to tackle environmental challenges effectively
  - Link: https://www.udemy.com/course/sustainable-technologies-datafication/

- Industrial Digital Twins for Automation - Godot and CoDeSys
  - Online course, advanced level — designed for engineers, developers, and automation enthusiasts who have a basic understanding of PLC programming and want to elevate their skills in digital twin technology
  - Relevant ADMA areas: Advanced Manufacturing Technologies, Digital Factory, Smart Manufacturing
  - Overview: creating interactive models of machines and robots while integrating them with PLCs for virtual commissioning
  - Link: https://www.udemy.com/course/industrial-digital-twins-for-automation/

- Robotics: Human-Robot Interaction — Theory & Applications
  - Online course, beginner level
  - Relevant ADMA areas: Advanced Manufacturing Technologies, Human-Centred Organization, Smart Manufacturing,
  - Overview: reaching a deep understanding on how to effectively design, evaluate, and implement HRI systems that enhance collaboration between humans and robots
  - Link: https://www.udemy.com/course/robotics-human-robot-interaction-theory-and-applications/

4.7. COMMON ELEMENTS ACROSS THE ANALYSED TRAINING PROVIDERS

The six training providers analysed (Coursera, EIT Manufacturing, Fraunhofer-Gesellschaft, Mondragon University, POLIMI Open Knowledge and Udemy) present diverse approaches to learning and upskilling. However, despite differences in institutional nature and scope, several common elements emerge that illustrate shared principles in how they design and deliver training for digital and sustainable transformation. These commonalities are highly relevant to the ADMA framework and to LCAMP's goal of building an integrated, SME-oriented training catalogue.

All providers share a strong focus on employability and competence development. Their training offers are designed to build skills that are directly applicable in industry and support professional growth. The thematic coverage aligns closely with the ADMA transformation areas, particularly Digital Factory, Smart Manufacturing, ECO Factory, and Value Chain Oriented Open Factory.

The analysed institutions target a broad range of learners, from university students and early-career professionals to SMEs and corporate clients. Their courses are designed for different entry levels, ranging from introductory or awareness programmes (beginner MOOCs or short online courses) to advanced degrees (master's and specialised professional training).

A clear trend across all entities is the emphasis on flexibility and modularity. Online and asynchronous learning is dominant, complemented by blended or in-person options. Courses are typically structured as stand-alone modules, learning paths, or degree programmes, allowing learners to progress step by step according to their needs and maturity level.

All entities maintain a strong link with industry and innovation ecosystems. This reinforces a shared vision of training as a bridge between education, research, and business practice.

The benchmarking shows a strong concentration of training offers in the ADMA areas identified in D7.2 as weaker among SMEs. All six entities offer courses that directly or indirectly contribute to strengthening these transformation areas:

- Smart Manufacturing – automation, AI, predictive maintenance, and real-time data management.
- Digital Factory – system integration, digital twins, and cybersecurity.
- ECO Factory – sustainable production, circular economy, resource and energy efficiency.
- Value Chain Oriented Open Factory – open innovation, collaboration across supply networks, and customer-driven design.

Together, these providers illustrate how effective training ecosystems combine flexibility, modularity, and strong industry linkage to support lifelong learning and digital transformation. Their common practices provide valuable inspiration for LCAMP partners in structuring their own training offer, ensuring that new or adapted courses align with SME needs, support ADMA transformation pathways, and enable measurable progression in digital and sustainable maturity.

5. CONCLUSIONS

The work conducted within WP7 provides a comprehensive understanding of how SMEs can be effectively supported in their transition toward Industry 4.0 and Industry 5.0 through structured methodologies, diagnostic tools, and targeted training strategies. By integrating conceptual frameworks such as ADMA and the Collaborative Learning Factory (CLF) with practical evidence from SME scans, implementation plans, and a structured training catalogue, the project has laid solid foundations for a learning offer fully aligned with real industrial needs and digital maturity pathways.

The analysis of previous reports demonstrates that the ADMA methodology remains a robust framework for assessing digital readiness and guiding transformation processes in SMEs. Its seven transformation areas provide a structured language to capture strengths, weaknesses, and development priorities. In parallel, the CLF concept shows how VET centres can serve as living laboratories that replicate industrial environments and support experiential learning. The complementarities between ADMA and CLF confirm the feasibility of connecting industrial maturity diagnostics with pedagogical design, forming a solid basis for tailored learning pathways.

The SME scans conducted across eight countries reveal a heterogeneous landscape of maturity levels but also a set of recurring patterns. Strengths clearly emerge in customer orientation and human-centred organisation, while weak areas are consistent across regions: limited automation and real-time data use (Smart Manufacturing), difficulties in system integration (Digital Factory), insufficient collaboration across the value chain, and uneven implementation of sustainability practices (ECO Factory). These findings directly inform the priorities of the training catalogue, justifying a strong emphasis on digitalisation, sustainability, data-driven production, and collaborative innovation.

WP7 has resulted in a structured catalogue of 109 training activities, all of them aligned with one or more ADMA transformation areas. The catalogue includes 31 trainings from Spain, 18 from Italy, 11 from Turkey, 10 from Canada, 10 from France, 10 from Slovenia, 10 from Sweden and 9 from Germany. All ADMA transformation areas are covered by at least some training offers, with particularly strong representation in Advanced Manufacturing Technologies, Digital Factory, and Smart Manufacturing. This confirms both the relevance of these domains for SMEs and the capacity of the VET ecosystem to respond to their transformation needs.

The dual indexing system developed in WP7 proves essential to ensure the usability and strategic relevance of this training offer. Linking each training opportunity both to a specific ADMA transformation area and to a maturity progression level enables SMEs to navigate the catalogue according to their needs, capabilities, and strategic goals. This structure supports gradual learning, fosters informed decision-making, and helps VET providers design training interventions aligned with actual industrial challenges.

The benchmarking of six international training providers (Coursera, EIT Manufacturing, Fraunhofer-Gesellschaft, Mondragon University, POLIMI Open Knowledge and Udemy) confirms the relevance and completeness of LCAMP's training approach. Despite their diversity, these institutions share several fundamental principles: a strong focus on employability, modular and flexible training formats, multilevel learning pathways, and constant alignment with industrial

practice. Their portfolios consistently address the same weak areas identified in SMEs, particularly Smart Manufacturing, Digital Factory, ECO Factory, and Value Chain Oriented Open Factory. This convergence validates the orientation of LCAMP's own training catalogue and highlights best practices that can be adopted or adapted.

The combined insights of ADMA maturity scans, CLF educational models, the 109-course SME-oriented training catalogue, and external benchmarking point to a clear strategic direction for LCAMP. The future development and refinement of the catalogue should:

- Prioritise training that accelerates maturity in the weakest ADMA areas.
- Reinforce strengths in customer orientation and human-centred organisation.
- Promote modular, flexible, and progression-oriented learning pathways.
- Build strong bridges between VET institutions, SMEs, and innovation ecosystems.
- Integrate sustainability, digitalisation, and human-centricity as transversal elements across all offers.

In conclusion, WP7 has generated a cohesive and evidence-based foundation for a training catalogue that will support SMEs in their transformation towards more digital, sustainable, resilient, and human-centred models. This catalogue will not only respond to current industrial needs but also help shape the competences required for the next generation of European manufacturing.

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