

Developing Innovative and Attractive CVET programmes in industrial shoe production

Task Analyses (TA) - Results from Romania

IO 1

This project is funded with support from the European Commission.
The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Co-funded by the
Erasmus+ Programme
of the European Union





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Project data:

Programme: Erasmus+

Project title: Developing Innovative and Attractive CVET programmes in industrial shoe production

Acronym: DIA-CVET

Project 2020-1-DE02-KA202-007600

Duration: 01.09.2020- 31.08.2023

Website: www.dia-cvet.eu

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1 DESIGN / How to create a shoe collection

Venue		Date
Papucei, Iasi, Romania		September 2021
Qualification for the sphere of activity		
Bachelor in fashion design or footwear design and technology		
Legal framework		
-		
Working environment		
Products	Sketches, prototypes, concept boards	
Users	Technical Development	
Interfaces internal	Sales, Marketing, Technical Development, Quality, Social Responsibility and Environment	
Interfaces external	Materials suppliers, customers	
Organization	-	
Production steps that already took place	-	
Level of autonomy	Independent, Approved by management	
Workplace	Office	
Tasks		
<ul style="list-style-type: none"> • Research and analyse fashion trends, consumer and market needs • Source new materials, components, innovative design concepts • Select materials, components and shoe lasts • Define footwear concepts, draw sketches, develop collections • Provide design/concept boards • Follow target prices • Responsible for prototypes manufacture • Evaluate prototypes and make changes according to observations from management, sales and technical development 		
Required knowledge and skills		
<ul style="list-style-type: none"> • Materials, foot anatomy, anthropometry and biomechanics, footwear fit, comfort, sustainability, footwear structure and functions, footwear manufacturing stages, patternmaking, CAD software, Photoshop, Illustrator, fashion trends, design concept, drawing and sketching • Market research and trends 		
Other		
<ul style="list-style-type: none"> • Initiative and receptivity to the new • Team work • Flexibility to adapt to changes • Highly motivated and creative • Understanding of interdependency between design and technical development 		

2 Production Planning

Venue		Date
Papeucei, Iasi, Romania		September 2021
Qualification for the sphere of activity		
Bachelor in footwear design and technology		
Legal framework		
-		
Working environment		
Products	Technical documents that include for each model manufacturing operations, instructions, manufacturing times	
Users	Manufacturing department, supply, sales	
Interfaces internal	Manufacturing, warehouse, sales, maintenance, quality, supply	
Interfaces external	Materials suppliers, clients	
Organization	-	
Production steps that already took place	Design, technical development, sales, supply chain	
Level of autonomy	Independent	
Workplace	Office and manufacturing	
Tasks		
<ul style="list-style-type: none"> • Communicate with sales, maintenance, production, quality • Calculate manufacturing times and determine productivity for models based on available workers and equipment • Communicate with supply chain on raw materials, accessories and components inventories • Plan, prioritize, schedule and distribute work orders depending on productivity and orders • Monitor daily and weekly production plans and adjust scheduled work orders • Establish and organize manufacturing workflow for footwear models 		
Required knowledge and skills		
<ul style="list-style-type: none"> • Footwear manufacturing systems and technologies • LEAN manufacturing • Production/product data management software • Ergonomics • Production time studies 		
Other		
<ul style="list-style-type: none"> • Creativity and initiative • Ability to plan and organize working time • Ability to work in a team 		

3 Technical Development

Venue		Date
Papucei, Iasi, Romania		September 2021
Qualification for the sphere of activity		
Bachelor in footwear design and technology		
Legal framework		
-		
Working environment		
Products	Technical data sheets	
Users	Clients, Manufacturing, Planning	
Interfaces internal	Design, Maintenance, Quality assurance	
Interfaces external	Clients	
Organization	-	
Production steps that already took place	Design	
Level of autonomy	Independent	
Workplace	Office and manufacturing	
Tasks		
<ul style="list-style-type: none"> • Technical development of models - patternmaking, grading • Develop models technical sheets • Develop manufacturing specification • Manufacture and validate first series samples • Take remedial measures identified by clients and quality inspectors • Develop technical drawings, data sheets and instructions for manufacturing to avoid non-conformities 		
Required knowledge and skills		
<ul style="list-style-type: none"> • Quality assurance system ISO 9001: 2000 • Work safety standards • CAD software • Materials for footwear • Footwear machinery • Footwear manufacturing stages and technologies 		
Other		
<ul style="list-style-type: none"> • Problem solving • Communication • Teamwork • Decision taking 		

4 Training Management

Venue		Date
Papucei, Iasi, Romania		September 2021
Qualification for the sphere of activity		
Degree in Education and Human Resources		
Legal framework		
Romanian Labour code at art. 192 – 200 Romanian Government Ordinance no. 129/2000 regarding the professional training of adults Romanian Law no. 279/2005 on apprenticeships at work, republished - OJ no. 498 of August 7, 2013; Romanian Law no. 200/2004 on the recognition of diplomas and professional qualifications for regulated professions in Romania		
Working environment		
Products	Training programs Training resources Training evidences	
Users	All employees	
Interfaces internal	Management, heads of departments	
Interfaces external	Training providers, private or public	
Organization	-	
Production steps that already took place	-	
Level of autonomy	Independent	
Workplace	Office	
Tasks		
<ul style="list-style-type: none"> • Supervise trainees and workers • Organise and schedule training activities • Track training activities • Establish and manage pre- and post-training logistics • Create and maintain resources for training • Analyse company needs for training • Create standardized processes and set-up facilities, equipment, materials • Evaluate workers and identify skill gaps • Evaluate trainees performance • Feedback from trainees and trainers • Develop learning programs • Manage company trainers • Manage training budget 		
Required knowledge and skills		
<ul style="list-style-type: none"> • knowledge of various training and teaching methods • knowledge on footwear manufacturing 		
Other		
<ul style="list-style-type: none"> • planning and organisational skills • leadership skills • time-management skills • interpersonal and communication skills 		

5 Maintenance Management

Venue		Date
Papucei, Iasi, Romania		September 2021
Qualification for the sphere of activity		
Bachelor in footwear design and technology, machinery technology, mechanics		
Legal framework		
-		
Working environment		
Products	Maintenance schedules, records and reports, checklists	
Users	Manufacturing, Planning, Quality	
Interfaces internal	Planning, Quality	
Interfaces external	Repair parts suppliers, machinery suppliers/manufacturers,	
Organization	-	
Production steps that already took place	Planning, technical development	
Level of autonomy	Independent	
Workplace	Office, manufacturing departments	
Tasks		
<ul style="list-style-type: none"> • Perform routine maintenance on machines • Create maintenance plans • Schedule preventive maintenance • Detects and reports improper operation of equipment, defective materials, and unusual conditions • Develop and implement maintenance quality standards • Ensure that work safety standards are followed • Monitor maintenance tasks • Record maintenance activities • Define a preventive maintenance program • Develop maintenance checklists • Supervise machinery set up and repair • Responsible for repair parts inventory • Manage maintenance budget 		
Required knowledge and skills		
<ul style="list-style-type: none"> • Footwear manufacturing processes • Footwear equipment, machines and tools • Maintenance management software • Work safety standards 		
Other		
<ul style="list-style-type: none"> • Problem solving • Planning • Decision making 		

6 Quality Management

Venue		Date
Papucei, Iasi, Romania		September 2021
Qualification for the sphere of activity		
Bachelor in footwear design and technology		
Legal framework		
-		
Working environment		
Products		
Users	Manufacturing, Maintenance,	
Interfaces internal	Technical development, Manufacturing, Maintenance, Warehouse, Sales	
Interfaces external	Clients, suppliers	
Organization	-	
Production steps that already took place	Design, technical development	
Level of autonomy	Independent	
Workplace	Manufacturing Departments	
Tasks		
<ul style="list-style-type: none"> • Implement, coordinate and supervise quality control for each manufacturing stage and for finished products • Develop quality standards for materials, operations and finished products • Monitor employees responsible with quality control • Propose corrective measures • Solve quality problems • Record quality problems • Perform quality statistical analysis • Provides the material and informational resources necessary for the implementation of the quality policy. 		
Required knowledge and skills		
<ul style="list-style-type: none"> • Quality control methods in footwear manufacturing • Quality management systems (ex. ISO 9001:2000) • Footwear manufacturing technologies • Work safety standards • Footwear materials and components • Quality standards 		
Other		
<ul style="list-style-type: none"> • Problems solving • Capacity for analysis and synthesis • Taking responsibility • Excellent communication • Team work 		

7 New Materials

Venue		Date
Papeuci, Iasi, Romania		September 2021
Qualification for the sphere of activity		
Bachelor in footwear design and technology, textiles, materials science		
Legal framework		
-		
Working environment		
Products	New materials	
Users	Design, technical development, manufacturing	
Interfaces internal	Design, technical development, manufacturing	
Interfaces external	Suppliers	
Organization	-	
Production steps that already took place	-	
Level of autonomy	Independent	
Workplace	Office	
Tasks		
<ul style="list-style-type: none"> • New concepts of materials for footwear uppers and footwear components (, nanotechnology, knitted structures of textile for footwear uppers, materials like rubber, thermoplastics, foams, composites for soles and reinforcements) • Aim to improve footwear sustainability and comfort • Source new materials and manufacturing technologies • Identify materials from other industries and find new applications • Create and maintain new and existing collaborations with materials and technologies providers • Perform mechanical tests and analysis of materials • Follow national and international standards for footwear materials and components • Implement testing procedures 		
Required knowledge and skills		
<ul style="list-style-type: none"> • Footwear materials (leather, textile, leather substitutes) and components • CAD Modelling • Mechanical testing • Footwear manufacturing technologies • Sustainability 		
Other		
<ul style="list-style-type: none"> • Research 		

8 Supply Chain Management

Venue		Date
Papucei, Iasi, Romania		September 2021
Qualification for the sphere of activity		
Bachelor in footwear design and technology or supply chain		
Legal framework		
Financial and customs regulations		
Working environment		
Products	-	
Users	Design, technical development, production planning, manufacturing, clients	
Interfaces internal	Warehouse, design, technical development, production planning, manufacturing, quality	
Interfaces external	Suppliers, clients	
Organization	-	
Production steps that already took place	Design, technical development, production planning	
Level of autonomy	Independent	
Workplace	Office	
Tasks		
<ul style="list-style-type: none"> • Manage inventory of materials and components • Purchase materials and components according to orders and planned production • Plan materials and components delivery • Maintain communication with suppliers and clients • Assure suppliers compliance with existing standards • Manage finished products shipping • Manage financial and customs documents 		
Required knowledge and skills		
<ul style="list-style-type: none"> • Footwear materials and components • Inventory management • Quality standards • Financial and customs legislation • ERP, PLM and WMS software systems • Transport planning 		
Other		
<ul style="list-style-type: none"> • Communication skills • Data skills • Teamwork • Negotiating skills 		

9 Social Responsibility Management

Venue		Date
Papucei, Iasi, Romania		September 2021
Qualification for the sphere of activity		
Bachelor in footwear design and technology and/or bachelor in a field related to CSR (environment, sustainability, business, communication)		
Legal framework		
Technical regulations		
Working environment		
Products	-	
Users	Company, clients, local community	
Interfaces internal	All departments	
Interfaces external	Clients, stakeholders, local authorities	
Organization	-	
Production steps that already took place	-	
Level of autonomy	Independent	
Workplace	Office	
Tasks		
<ul style="list-style-type: none"> • Raise awareness of Social Responsibility inside the organization by linking company activities with social environment and identify relevant stakeholders • Assess company purpose in its societal context and identify organizational values; • Establish a common vision and a working definition of Social Responsibility; • Assess company current Social Responsibility status by Auditing current CSR practices and Benchmarking competitors' practices and CSR norms and standards; • Develop a Social Responsibility strategic plan by integrating environmental issues, people, profit, strategy and action plans; • Implement a Social Responsibility integrated strategic plan; • Communicate about Social Responsibility commitments and performance; • Evaluate Social Responsibility integrated strategies and communication: effectiveness, problems, barriers, solutions. • Manage partnerships and sponsorships 		
Required knowledge and skills		
<ul style="list-style-type: none"> • Environment legislation • International standards associated with the environmental and labour protection • Marketing, communications 		
Other		
<ul style="list-style-type: none"> • Communication skills • Organization and Coordination skills 		

10 Sustainability Management

Venue		Date
Papucei, Iasi, Romania		September 2021
Qualification for the sphere of activity		
Bachelor in footwear design and technology, environmental sciences, environmental management, engineering or sustainability		
Legal framework		
Environment legislation		
Working environment		
Products	-	
Users	Company, environment	
Interfaces internal	All departments	
Interfaces external	Clients, suppliers	
Organization	-	
Production steps that already took place	-	
Level of autonomy	Independent	
Workplace	Office	
Tasks		
<ul style="list-style-type: none"> • Develop implement and monitor the company sustainability strategy • Measure and evaluate company sustainability performance • Measure and evaluate company products sustainability • Monitoring and evaluate manufacturing processes, wastes, shipping, materials and components • Collaborate with all departments assure that sustainability practices are incorporated • Evaluate sustainability of suppliers • Communicate company sustainability performance 		
Required knowledge and skills		
<ul style="list-style-type: none"> • Footwear manufacturing processes • Footwear machinery • Footwear materials and components • Environment regulations • Environment issues 		
Other		
-		

11 Environmental Management

Venue		Date
Papeucei, Iasi, Romania		September 2021
Qualification for the sphere of activity		
Bachelor in footwear design and technology, environmental sciences, environmental management, engineering or sustainability		
Legal framework		
Environment legislation		
Working environment		
Products	Company, environment	
Users	All departments	
Interfaces internal	Clients	
Interfaces external	Suppliers	
Organization	-	
Production steps that already took place	Independent	
Level of autonomy	Office	
Workplace	Company, environment	
Tasks		
<ul style="list-style-type: none"> • Develop company environmental strategy and standards • Monitor and evaluate company environmental performance • Assure compliance with existing environment regulations • Track company air emissions, energy consumption, water discharge and waste • Identify opportunities to reduce environmental impact • Implementation environmental management in the company • Train employees on environmental issues and responsibilities 		
Required knowledge and skills		
<ul style="list-style-type: none"> • Footwear manufacturing processes • Footwear machinery • Footwear materials and components • Environment regulations • Environment issues 		
Other		
<ul style="list-style-type: none"> • Excellent communication and influencing skills • Ability to inspire • Commercial awareness • Ability to plan and organise work 		

12 STEM in the Footwear Industry –New Technologies

Tasks of this sphere are not part of local work processes.

13 Health and Safety at Work

Venue		Date
Papucei, Iasi, Romania		September 2021
Qualification for the sphere of activity		
Bachelor in Engineering + Diploma/Certificate in Health and Safety at Work (minimum 80 hours) or Postgraduate course in Health and Safety at Work (minimum 180 hours)		
Legal framework		
Law no. 319/2006 on Safety and Health at work and all Complementary regulatory acts		
Working environment		
Products	-	
Users	Employs from all departments	
Interfaces internal	All departments	
Interfaces external	Local Labour Agency	
Organization	-	
Production steps that already took place	-	
Level of autonomy	Independent	
Workplace	Office	
Tasks		
<ul style="list-style-type: none"> Assess risks that certain workers may face and ensure that the necessary protection measures are in place Development of a global occupational safety policy Provide adequate training for company employees Verify the knowledge and application of all workers of the measures provided for in the prevention and protection plan, as well as their attributions and responsibilities in the field of occupational safety and health, established by their job description Take the necessary preventive measures for first aid, firefighting and evacuation in case of danger Elaborate and update the prevention and protection plan Provide employees all relevant information on possible occupational health and safety risks and the measures taken to prevent them Consults with employees and involves them in all discussions concerning health and safety at work Implement occupational safety and health regulations, taking into account the particularities of the company and each work place Monitor the operation of protection systems and devices, as well as ventilation systems or other installations for the control of pollutants in the work environment Check the operation status of emergency signalling systems and security systems Fill up individual occupational safety and health documents for employees Scheduled and unscheduled checks on compliance with occupational safety regulations. 		
Required knowledge and skills		
<ul style="list-style-type: none"> Health and safety at work legislation Work legislation Technical skills 		
Other		
-		