

	Title of the Training Unit	Objectives of the Training Unit	Structure of the Unit (Sub-units)	Total learning hours	Learning activities within the Unit	ECVET points	Assessment of Learning
1	Footwear and Footwear Industry	At the end of the training unit, the trainee should be able to: – describe footwear industry in their country, in Europe and worldwide – understand and describe the evolution of the footwear and footwear industry in general lines – understand and describe the organization of a footwear factory – understand and explain the most limiting factor of the success of the footwear industries	– FOOTWEAR INDUSTRY • Footwear industry in Europe and in the world – facts and figures • Evolution of the footwear and footwear Industry – general concept • General organization of a footwear factory – functional organisation chart • Management of resources – factors to consider, examples/case studies/good practices and practices to avoid	25	I. Training online: 1. Powerpoints/Lessons - 10 hours 2. Consolidation Exercises - 7 hours II. Self Study: 7 hours III. Practical training: 0 hours III. Assessment: 1. Assessment test/quiz (1	1	Quis test
2	Product Engineering	At the end of the training unit, the trainee should be able to: – identify different footwear types: shoe, boot, sandals, casual, athletic, ... – characterize different footwear parts considering their function and position within the shoe and previously established quality criteria: upper, bottoms, accessories, components... – identify the different components of a footwear model – identify the materials to use in footwear models – identify different models of shoes, their components and type of construction; – convert sizes from one sizing system to another – identify and recognize raw materials	– FOOTWEAR AND FOOTWEAR CONSTRUCTION • Types of footwear and their functionalities • Footwear materials and components – general overview • Footwear manufacturing process from raw-materials to packing: cutting, pre-stitching, stitching, pre-assembly, assembly, finishing, packing – equipment, processes, operations • approach to lead time / case studies • Different elements included in different footwear models • Different types of construction and their functionality: Cemented, Goodyear, Blake, Moccasin, Injection, Stitch and Turn, etc. – BRIEF APPROACH TO THE FOOT ANATOMY • Foot anatomy – from the foot to the last • Fitting criteria • Comfort assessment	75	I. Training online: 1. Powerpoints/Lessons - 30 hours 2. Consolidation Exercises - 7 hours II. Self Study: 12 hours III. Practical training: 15 hours III. Assessment: 1. Assessment test/quiz (1 hour) 2. Practical exercise/project (10 hours)	3	Quis test Practical project
3	Materials for Footwear Manufacturing	At the end of the training unit, the trainee should be able to: – identify materials used in footwear manufacturing, be familiar with their characteristics and their behaviour in the production process (temperature, humidity, press, stress...), – understand the origin or the production process of different materials: leather, textile, synthetics ... – detect defaults and classify them – describe the raw materials application, considering their characteristics and those of models pieces and yet the quality criteria – understand the relationship between quality control laboratory tests results and the behaviour of the materials – understand the potential of nanotechnology and possible features that can be added to the	– General overview of the materials and components used in footwear manufacturing and their properties • LEATHER: Tanning process Structure of the leather Influence of the tanning process and the leather finishing in the leather properties and characteristics • TEXTILES: Materials and properties Construction types of textile materials • SOLES: Types of soles materials and their properties • SYNTHETICS • ASSESSORIES AND COMPONENTS • OTHERS – Behaviour of the materials upon different	50	I. Training online: 1. Powerpoints/Lessons - 20 hours 2. Consolidation Exercises - 7 hours II. Self Study: 12 hours III. Practical training: 5 hours III. Assessment: 1. Assessment test/quiz (1 hour) 2. Practical exercise (laboratory) (5 hours)	2	Quiz test Practical Exercises - laboratory tests (?) and reports
4	Cutting	At the end of the training unit, the trainee should be able to: – identify the different parts of a given shoe model – describe manual, mechanic and automatic cutting techniques – identify the specific cutting tools: moulds and stitching/assembling marking, cutting dies, images projected... – understand mechanic and automatic procedures – adopt a good ergonomic posture when developing cutting operations – apply adequate environment and HSW practices – apply basic maintenance preventive measures when performing cutting – identify and prepare the due materials and equipment namely to set up equipment: manual, mechanic and automatic equipment. – apply footwear cutting techniques to different pieces and materials, considering quality, leather distension and minimisation of waste – create an effective nesting layout – interpret technical contents and technical	– Work station organization in the cutting room – Footwear cutting processes and techniques – Different materials and their variations – Thickness, tension and distension (stretch), texture, colour, defaults, others parameters – Cutting dies: double function of cutting and marking (and perforating) – Cutting equipment: knives, clicking machines, automatic cutting system (functioning and basic rules of maintenance) – Nesting technology and economy of materials – Footwear cutting techniques applied to different pieces and materials – Cutting of different footwear models: leather, lining, synthetics, components...	100	I. Training online: 1. Powerpoints/Lessons - 20 hours 2. Consolidation Exercises - 5 hours II. Self Study: 10 hours III. Practical training: 62 hours III. Assessment: 1. Assessment test/quiz (1 hour) 2. Practical exercise (2 hours)	3	Quiz text Practical assessment on cutting a entire model in all technologies available
5	Pre-Stitching	At the end of the unit, the trainee should be able to – interpret technical information for pre-stitching – identify and characterize the various operations and objectives within pre-stitching: splitting, crimping, splitting, embossing, perforating, referencing, skiving, stamping/printing, punching and inserting reinforces, folding (types of folding, thickness of the pieces, margins, pressure, cuts...) and attaching pieces on different footwear parts according to the technical specifications – set up the equipment according to the specifications	– Different pre-stitching operations: • Splitting and crimping, stamping/printing, marking, ironing, embossing and referencing operations in footwear parts, skiving, punching and inserting reinforcements in footwear parts, folding and attaching operations – Pre-stitching operations for different footwear models – Different tools, cleaning and conservation basic rules – Different equipment, set-up, fine-tuning and basic rules for maintenance	50	I. Training online: 1. Powerpoints/Lessons - 10 hours 2. Consolidation Exercises - 5 hours II. Self Study: 10 hours III. Practical training: 22 hours III. Assessment: 1. Assessment test/quiz (1 hour) 2. Practical exercise (2 hours)	2	Quiz text Practical assessment on pré-stitching in all techniques available

6	Stitching	At the end of the training unit, the trainee should be able to: – interpret technical information about footwear models – characterize the different types of stitching – identify and characterize the needed resources for stitching: materials, threads, needles, other equipment – choose the most appropriate needles and threads for each material to be stitched in order to obtain a good stitching quality – prepare stitching operations, namely to set up the equipment, to fine-tune the equipment and perform preventive maintenance – know the security measures to be taken at each operation – identify materials and accessories for the stitching equipment, in particular materials, threads and needles – identify different stitching processes and techniques, considering different types of stitching, materials and the use of different equipment – identify and describe preparatory operations – be able to set up, fine-tuning and programme the stitching equipment: flatbed machines	– Footwear stitching, materials and equipment • threads, needles, pliers, scissors and other tools • different types of stitching machines: flat bed, post bed, 1 and 2 needles, cylinder arm, zigzag...and correspondent accessories, set-up and fine-tuning • automatic stitching system • basic rules on maintenance • Equipment, set-up, fine-tuning and preventive maintenance – Footwear stitching processes and techniques • Footwear stitching techniques applied to different footwear models • Stitching of different footwear models	250	I. Training online: 1. Powerpoints/Lessons - 50 hours 2. Consolidation Exercises - 10 hours II. Self Study: 10 hours III. Practical training: 175 hours III. Assessment: 1. Assessment test/quiz (1 hour) 2. Practical exercise/project (4 hours)	6	Quiz text Practical assessment on stitching in all techniques available and in all equipments
7	Pre-Assembly	At the end of the training unit, the trainee should be able to: – recognize different footwear models and their construction – identify different last types – be able to work with adhesives – identify and characterize different types of reinforcements used in the assembly: stiffener, toe puffs, insoles... – perform the application and moulding of reinforcements – attach the insole to the last using various	– Footwear pre-assembling techniques and equipment – Equipment, set-up, fine-tuning and preventive maintenance – Pre-assembly operations – moulding stiffeners and toe puff and other reinforcements, attaching the sole to the last – Combining elements of shoes through other technologies than bonding techniques, eg. sewing, cure, pouring, injection, etc.	50	I. Training online: 1. Powerpoints/Lessons - 10 hours 2. Consolidation Exercises - 5 hours II. Self Study: 10 hours III. Practical training: 22 hours III. Assessment: 1. Assessment test/quiz (1 hour) 2. Practical exercise (2	2	Quiz text Practical assessment on ré-assembling operations
8	Assembly	At the end of the training unit, the trainee should be able to: – identify footwear assembling operation for different types of footwear – interpret footwear technical information – identify and characterize specific equipment and techniques for the fronts/vamps, sides and backwards lasting – set up lasting equipment according to the technical information and the footwear models – identify equipment and techniques for the preparation of the soles and uppers surfaces: mechanic roughing, chemical roughing, sanding, etc. – perform mechanic roughing, chemical roughing, sanding, of the soles and uppers surfaces – identify equipment and techniques of soles and heels to uppers attacking – perform the attaching of soles to the uppers – To evaluate the need of using additional operation to improve the quality of the shoe, namely apply heat to avoid wrinkles and others defaults. – use different equipment for assembling after the preparation and set-up of the equipment	– Perform toe, side and backparts lasting operations of different footwear models – Surface preparation of bottoms and uppers – primary, roughing – Drying and reactivation technology – Cementing and pressing bottoms to uppers through traditional methods and others non-solvent alternatives – Adhesive and bonding technologies – application to the lasting phase – Additional operation to improve the quality of the shoe – Stabilization operations – Pull out the lasts and attach heels – Equipment, set-up, fine-tuning and preventive maintenance – Assembly of different footwear models	100	I. Training online: 1. Powerpoints/Lessons - 20 hours 2. Consolidation Exercises - 5 hours II. Self Study: 10 hours III. Practical training: 62 hours III. Assessment: 1. Assessment test/quiz (1 hour) 2. Practical exercise (2 hours)	3	Quiz text Practical assessment on assembling operation of a given model (cementing?)
9	Finishing and Packing	At the end of the training unit, the trainee should be able to: – identify and characterize different finishing types: oil, cream, wax, gloss, plasticized, ... – identify and characterize different materials/products and substances used in the footwear finishing operations – perform footwear finishing techniques – adopt an ergonomic posture when performing finishing operations – apply good practices on workplace organization – apply adequate environment and HSW practices – apply equipment maintenance preventive	– Finishing products and subsidiary substances technology – Footwear finishing technology: • Techniques • Equipment, set-up, fine tuning and preventive maintenance – Perform all finishing operations in footwear manufacturing, namely to clean, to polish, to wax, to brush, to iron uppers and lining, to paint and treat surfaces, to ink the edges, to insert laces, to inset sock liners, using the adequate tools and the adequate products, according to the quality standards – Packing techniques and procedures – Equipment for packing, set up and preventive	50	I. Training online: 1. Powerpoints/Lessons - 15 hours 2. Consolidation Exercises - 5 hours II. Self Study: 7 hours III. Practical training: 20 hours III. Assessment: 1. Assessment test/quiz (1 hour) 2. Practical exercise (2 hours)	2	Quiz text Practical assessment on different finishing techniques Practical assessment on expedite quality control tests
10	Production and Productivity	At the end of the training unit, the trainee should be able to: – understand and distinguish production and productivity Concepts of production and productivity – understand why productivity is one of the most important factor of competitiveness – understand the main concepts of work	– Concepts of Production and Productivity – BRIEF APPROACH TO WORK STUDIES • Work Studies - Operation Methods and Timings and their relationship with budgeting, productivity and quality of the footwear; – WORPLACE ORGANISATION • Adjustment and organization of the workplace • New approaches for the workstation	25	I. Training online: 1. Powerpoints/Lessons - 10 hours 2. Consolidation Exercises - 7 hours II. Self Study: 7 hours III. Practical training: 0 hours	1	Quiz text
11	Bonding Technology	At the end of the training unit, the trainee should be able to: – understand the concept of bonding and the determinant aspects for the achievement of good bonds – understand the different bonding technologies, characteristics, variables, how to treat different materials – distinguish the different types of adhesive usage in footwear manufacturing and their properties	– Principles of bonding: terms and vocabulary, preconditions for a good bond, causes for soles coming off (insufficient bond) – Bonding phenomena – Adhesives: classification, types (water based, solvent based, polychloroprene, polyurethane, hot-melts, ...) – Which adhesive for which material? – Surface preparation: mechanic roughing, halogenation, cleaning with solvents and alternative non-solvent technology	50	I. Training online: 1. Powerpoints/Lessons - 15 hours 2. Consolidation Exercises - 7 hours II. Self Study: 10 hours III. Practical training: 17 hours III. Assessment: 1. Assessment test/quiz (1 hour)	2	Quiz text

12	Quality & Quality Control	At the end of the training unit, the trainee should be able to: – be familiar with the quality principals and procedures – recognize the importance of producing and accomplishing quality standards – understand standards and techniques used in quality control – apply methodologies, techniques and tools for the final product quality control – be able to register and analyse data related to the quality control procedures – perform visual quality control tests – list the various types of quality control laboratory tests and understand the possible results	– Quality in the footwear organization (rational); – Quality and Non-Quality – concepts and examples – Consequences of non-quality – Exceptional costs of non-quality – Individual responsibility for the quality control – Quality control techniques – General knowledge of the characteristics, technical specifications and behaviour during use of materials, components and finished footwear. – General knowledge of quality control tests: – Tests on uppers: tear strength, resistance to damage on lasting, seam strength, flex resistance, adhesion of finish, etc. – Tests on lining and insoles: abrasion resistance, rubbing fastness, fastness to perspiration, etc. – Tests on insoles: abrasion resistance, dimensional stability, heel pin holding strength, etc. – Tests on outsoles: abrasion resistance, water resistance, adhesion of finish, etc. – Tests on accessories and fastening systems: abrasion resistance of laces, performance of slide fasteners, corrosion resistance, etc	25	I. Training online: 1. Powerpoints/Lessons - 10 hours 2. Consolidation Exercises - 2 hours II. Self Study: 5 hours III. Practical training / visualization of laboratory control tests: 5 hours III. Assessment: 1. Assessment test/quiz (1 hour) 2. practical test on quality control procedures (2)	1	Quiz text Practical assessment on Quality control procedures
13	Hygiene & Security at Work / Environmental Responsibility	At the end of the training unit, the trainee should be able to: – identify the main environmental issues – promote and apply good practices on environment – identify and explain the concepts around Hygiene and Security at Work (HSW) – identify the duties and rights of the employer and employee according to the actual law	– Health and Security at work – general concepts • Mains risks in the footwear industry • General regulation on HSW • Prevention of accidents • Measures to take in case of an accident • Fire fighting measures – BEST PRACTICES ON ENVIRONMENTAL MANAGEMENT	25	I. Training online: 1. Powerpoints/Lessons - 10 hours 2. Consolidation Exercises - 7 hours II. Self Study: 7 hours III. Practical training: 0 hours III. Assessment:	1	Quiz text
14	Communication & Team Work	At the end of the training unit, the trainee should be able to: – adopt the most adequate communication techniques in the organization – adopt good practices regarding team work	– DEVELOPMENT OF COMMUNICATION AND INTERPERSONAL SKILLS ORIENTED TO RESULTS: • Return of information; • Active listening; • Positive focus on work; • Effective and non-effective attitudes – being assertive; • Constructive conflict management • Emotional intelligence • Good practices on organizational communication and practices to avoid	25	I. Training online: 1. Powerpoints/Lessons - 10 hours 2. Consolidation Exercises - 7 hours II. Self Study: 7 hours III. Practical training: 0 hours III. Assessment: 1. Assessment test/quiz (1 hour)	1	Quiz text

Total hours:
900

30 ECVET
points