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# Virtual Training Centre for Shoe Design

## User Manual



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# CONTENT

WHAT IS THE APPROACH IN VTC-SHOE ?	
WHAT IS THE METHODOLOGY IN VTC-SHOE ?	7
THE CONTENT AND TARGETS OF THE LESSONS	8
• PART I - FOOT	9
• PART II- FOOTWEAR	10
• PART III- MEASUREMENTS AND TOOLS	14
• PART IV.- DESIGN AND PATTERN MAKING	16
HOW TO USE TESTS?	29
HOW TO USE ANIMATIONS / VIDEOS?	31
DESIGN COLLECTION	32

# 1. WHAT IS THE APPROACH IN VTC-SHOE?

Trainers using this training tool should consider both training and education. Education refers to any act that has a formative effect on the mind, character, or physical ability. It is directly related with the process by which knowledge, skills and values is transmitted from one generation to another through educational institutions. Training refers to the acquisition of knowledge, skills, and competencies as a result of the teaching of vocational or practical skills and knowledge that relate to specific useful competencies.

When we use training, we generally refer to *on-the-job* or *off-the-job* activities. On-the-job training has a general acceptance as the most effective way of vocational education. It is carried out in a working environment, using the actual tools, equipment, documents or materials that trainees will use when fully trained. Off-the-job training is carried out away from normal work environment. This way is generally used as it enables people to be away from work and concentrate more on the training itself. Therefore, the foundations of VTC-Shoe approach lie both in *on-the-job* and *off-the-job* ways of training.

On the other hand, observation happens while a learner watches or listens to someone else. "Doing" comes after it. A learner can observe a teacher or a trainer by watching and/or listening. After this stage, he/she tries to put what has been observed into practice. This

step is directly related with training, especially with vocational training. VTC-Shoe, as a virtual environment, provides all the facilities for observation.

Trainers should also adopt VTC-Shoe as an active learning tool. Since active learning refers to making learners directly and actively involved in the learning process, the idea is to make students receive, participate and do instead of only receiving verbally and/or visually. Thus, when trainers apply active learning principles to training, that means they are doing “active training”, which is directly related with workforce training. Thus, trainers are supposed to apply techniques to enable learners do rather than simply listen to a lecture because “doing” includes discovering, processing, and applying information.

Trainers should also regard VTC-Shoe as a Virtual Reality to visualize, manipulate and interact with computers and extremely complex data. In VTC-Shoe, visualization refers to the computer generating visual, animations and other auditory or sensual outcomes within the computer.

VTC-Shoe presents many advantages to the trainers. For example, approx 30% of training can be done virtually and it helps save time and money as there is little need to form physical environment, equipment. When the program is loaded, a trainee can use it again and again when needed. Moreover, the trainee can go repeat a procedure over and over until he/she feels that acquisition has been achieved.

The authors present the lessons as units using modular approach. As each unit focus on a different product design, each unit has been regarded as a module since it can be presented to the trainees independently although it is linked to the whole training programme.

The aim is to give the trainer a chance to choose what he/she needs to learn. Therefore, the trainee does not need to learn the whole training programme if he/she needs to learn an independent

package. This helps him/her to save time and energy. Thus, it attracts new learners by proposing what they need in their professional development. In addition, it provides learners with special needs or difficulties a stress less means for training and encourages them to work at their pace by learning what they need.

VTC-Shoe can also supply trainers with the requirements of Lifelong Learning. By using VTC-Shoe, they can support improvements in quality and innovation in vocational education and training systems, institutions and practices. In addition, they can facilitate the development of innovative practices in the field of vocational education and training other than at tertiary level, and their transfer, including from one participating country to others. In this way, they can support the development of innovative ICT-based content, services, pedagogies and practice for lifelong learning.

## 2. WHAT IS THE METHODOLOGY IN VTC-SHOE?

The method used for pattern making in this virtual training centre is termed “VTC-Shoe Method” developed by the authors. This method is not a unique method but a combination between the 3D modelling method and the 2D grid based method. The authors decided to combine these two methods because if these two methods are taken separately, as other sources do, the trainee can find some limits with them. Considering that the level of VTC-Shoe is intermediate, what is important is to give trainees a basic grid, both in 3D and in 2D, to help them to feel the line and the shape of patterns. In further stages, they can design without so many construction lines. Thus, this method works for beginners, when they do not know how to place the right line, how to find the right position for a separation line between patterns. It also helps them to think on the patterns related with the position of that pattern on foot.

VTC-Shoe method, a combination of the methods presently being used in shoe design field, is based on step-by-step technique based on the common curriculum designed by the authors. The authors use the step-by-step technique due to the fact that this kind of training should be graded from the simple to the complex or from the basics to the more complicated application. Each unit/module is given step-by-step. Each unit is introduced to the trainee by giving the unit descriptor, Topics and Unit Content. Then, the authors give preparatory stages to start giving the actions. In this way, the knowledge regarding footwear design is transferred to the trainee on a virtual environment by using computer.

# 3. THE CONTENT AND TARGETS OF THE LESSONS

The content of VTC-Shoe is given in four different parts. The parts are organised in a gradual way from Foot, Footwear, Measuring the Foot - Foot Anthropometrics to Design and Pattern Making.



Trainers can use the following table to have a general idea about the content of the lessons and the foals of training in each lesson.

<b>PART I- FOOT</b>	
<b>1. Knowledge on Foot Anatomy Applied to Footwear Design and Pattern Making</b>	
<b>Objective of Lesson</b>	<b>Target</b>
To identify and describe the main structure and functions of the foot in order to apply this knowledge to designing the footwear.	<p><b>Learner will be able to:</b></p> <ul style="list-style-type: none"> <li>• identify foot structure and its functions</li> <li>• identify functions of the foot</li> </ul>
<b>2. Biomechanics Applied to Footwear Design and Pattern Making</b>	
<b>Objective of Lesson</b>	<b>Target</b>
To know and identify biomechanics parameters and gait analysis	<p><b>Learner will be able to:</b></p> <ul style="list-style-type: none"> <li>• manage and collect measurements of foot biomechanics parameters with computer techniques</li> <li>• gait analysis is performed to obtain baseline data of consumer's walk pattern</li> </ul>

## PART II - FOOTWEAR

### 1. Materials Used for Footwear Products

Objective of Lesson	Target
<p>This unit aims to identify and describe the entire range of materials used in shoe production both for upper and for bottom components (leather, textile, substitutes, rubber, synthetics, non-woven etc.).</p>	<p><b>Learner will be able to:</b></p> <ul style="list-style-type: none"> <li>• identify materials uses within footwear industry</li> <li>• recognize characteristics of materials</li> <li>• determine performance of materials</li> <li>• identify common faults, problems and surface defects of materials</li> <li>• select and test the materials accordingly with the purpose of the product</li> </ul>



The screenshot shows a web browser interface for 'VTC-Shoe'. The main content area is titled 'LESSON 1. MATERIALS USED FOR FOOTWEAR PRODUCTS'. It includes a sub-heading 'Mechanical properties of materials for footwear' and a paragraph explaining that during manufacturing and in use, materials are subjected to different mechanical stresses. It lists properties like tensile strength, elongation, and abrasion resistance. Below the text is a grid of 12 small images showing various shoe components and materials, and a larger image of a hand holding a shoe component.

## 2. Footwear: Structure and Functions

Objective of Lesson	Target
<p>This unit presents various types of footwear considering their structure. The footwear components, both for uppers and bottoms, are presented in relations with their role for structuring and achieving the function of the entire footwear product.</p>	<p><b>Learner will be able to:</b></p> <ul style="list-style-type: none"> <li>• identify standard footwear types</li> <li>• present the components of footwear: uppers (vamp, toe, quarter, counter, tongue, apron, tab, strips, linings, stiffener, toe puff) and bottom (insole, rigid insole backer, shank, bottom filling, insole cover, welt, middle sole, sole, heel)</li> <li>• identify footwear components both for upper and for bottom, their role and recommended materials</li> <li>• recognize the functions that footwear has to fulfil during its use</li> </ul>



### 3. Lasts for Footwear Industry

Objective of Lesson	Target
<p>Transferring the foot size and its general shape into definitive lasts includes variables such as nature and extent of functional demands, foot characteristics, styles and characteristics of the materials. This unit covers the theoretical knowledge regarding various types of lasts used in footwear industry, as well as the selection criteria of a last according to footwear design requirements</p>	<p><b>Learner will be able to:</b></p> <ul style="list-style-type: none"> <li>• transform the foot measurements into the last shape and dimensions</li> <li>• identify various types of lasts and their build-up components</li> <li>• measure and control the last</li> <li>• select an appropriate existing or commercial last which closely matches the required foot shape and size</li> </ul>



#### 4. Footwear Technology

4. Footwear Technology	
Objective of Lesson	Target
<p>This unit presents the entire manufacturing process, from pattern cutting through closing, lasting, soling and finishing.</p>	<p><b>Learner will be able to:</b></p> <ul style="list-style-type: none"> <li>• identify the entire manufacturing process, from pattern cutting through closing, lasting, soling and finishing.</li> </ul>

#### 5. Technological Allowances for Pattern Making

5. Technological Allowances for Pattern Making	
Objective of Lesson	Target
<p>There are three main types of allowances for the sectional patterns: lasting allowance, seam allowance and edge allowance. The unit presents basics information for establishing these allowance accordingly with the footwear manufacturing technology. Various design effects need special allowances and these can be estimated considering the treatments and materials involved.</p>	<p><b>Learner will be able to:</b></p> <ul style="list-style-type: none"> <li>• present and set up the allowances for different edge treatments (folded edge, binding edge, perforation on edge, special effects etc.);</li> <li>• present and set up the allowances for different type of seams</li> <li>• present and set up the lasting allowances accordingly with lasting technology</li> </ul>

**PART III- MEASUREMENTS AND TOOLS**

**1. Measuring the Foot - Foot Anthropometrics**

Objective of Lesson	Target
<p>This unit defines and presents the anthropometrical parameters within the foot and leg. Foot measurements may be undertaken by using basic measuring devices such as ruler and measuring tape (manual techniques) or special equipments such as 3D scanners (computer techniques).</p>	<p><b>Learner will be able to:</b></p> <ul style="list-style-type: none"> <li>• mark the anatomical points on foot and leg</li> <li>• measure the foot and define anthropometrical parameters</li> <li>• manage and collect measurements of foot parameters with computer techniques</li> <li>• assign the relation between main dimensions of the foot (length and girth) and shoe's size</li> </ul>



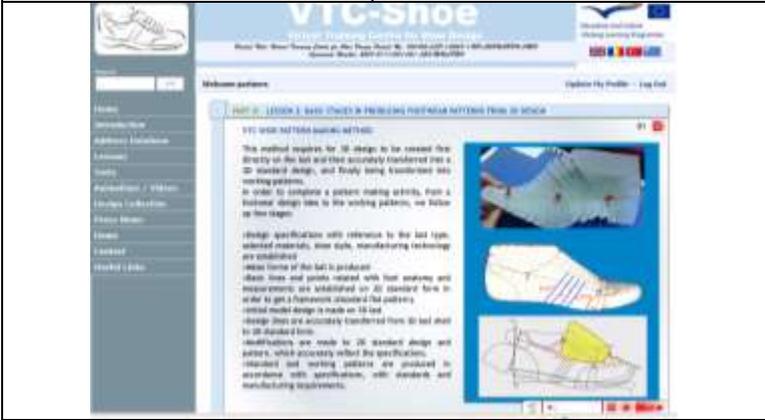
2. Measurement Systems	
Objective of Lesson	Target
<p>To present various measurement systems by connecting foot and last measurements with footwear sizing.</p>	<p><b>Learner will be able to:</b></p> <ul style="list-style-type: none"> <li>• describe foot, last and footwear measurement sizing</li> <li>• scope and interpret design brief</li> <li>• analyse and assess sizing for footwear design</li> <li>• adapt the measurements of foot to shoe design requirements</li> </ul>

3. Tools for Pattern Making	
Objective of Lesson	Target
<p>For creating a good pattern, the essential tools should be known and selected for good work. This unit demonstrates what these elements are and what they are used for.</p>	<p><b>Learner will be able to:</b></p> <ul style="list-style-type: none"> <li>• know about Cutting knife, File, Sharpening steel, Roulette, Compasses, Paper tape, Eraser, Setsquare, Metal ruler, Pencil, Cardboard, Templates</li> </ul>



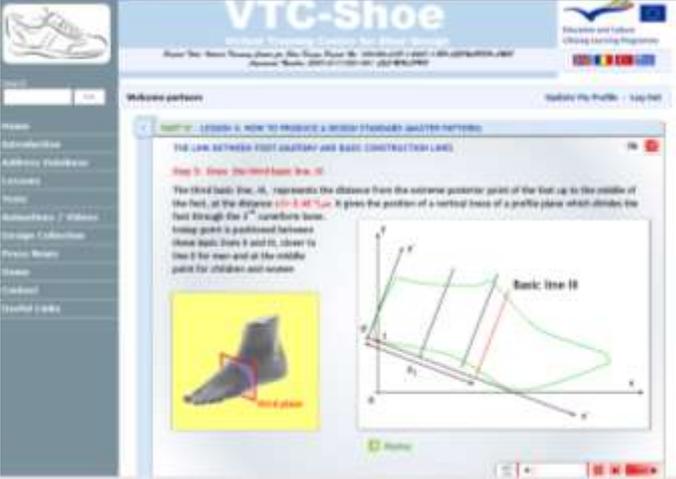
## 2. Basic Stages in Producing Footwear Patterns from 3D Design

Objective of Lesson	Target
<p>This unit aims present the essentials of footwear pattern making in accordance with the design specification and manufacturing requirements. The student will be introduced with the VTC Shoe pattern making method. This method requires for 3D design to be created first directly on the last and then accurately transferred into a 2D standard design, and finally being transformed into working patterns.</p>	<p><b>Learner will be able to:</b></p> <ul style="list-style-type: none"> <li>• define design lines and features on 3D last</li> <li>• translate designs from 3D to 2D standard forme</li> <li>• draw patterns to outfit required specifications of the footwear</li> <li>• modify and adjust patterns</li> </ul>

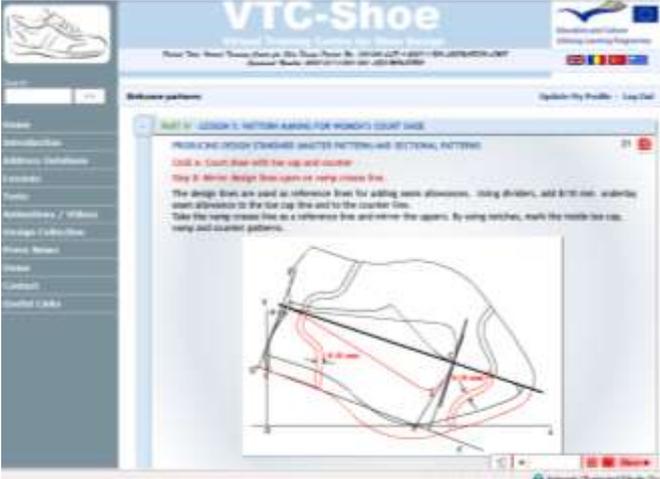


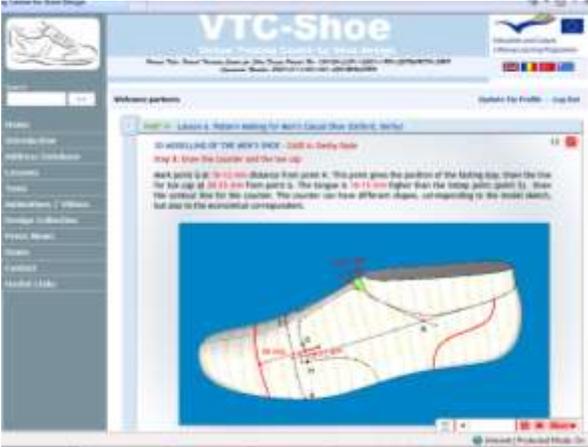
3. How to Produce the Mean Forme	
Objective of Lesson	Target
<p>The mean forme is the most important pattern in footwear design. If it is not accurate, all the patterns will reproduce the errors within the original mean forme.</p> <p>The unit presents several accurate methods of producing mean forme.</p>	<p><b>Learner will be able to:</b></p> <ul style="list-style-type: none"> <li>• identify the forme-making methods: paper slotted forme, paper taped forme;</li> <li>• transpose the main anatomical points and lines on the last accordingly with their position on foot</li> <li>• obtain outside and inside forme by flattening the surface of the last</li> </ul>
	

4. How to Produce a Design Standard (Master Pattern)	
Objective of Lesson	Target
<p>The standard design gives a <i>master pattern</i> that represents the shape and the basic lines of the footwear model, and they are transposed into a 2D drawing. It is very important that the design standard should have position points, and the basic lines should be clearly marked. These points and basic lines are linked with the anatomy and biomechanics of the foot, and have to be in view during all the stages of designing and pattern making process.</p>	<p><b>Learner will be able to:</b></p> <ul style="list-style-type: none"> <li>• Produce design standard in reference to foot anatomy, last construction/ characteristics and footwear style.</li> </ul>



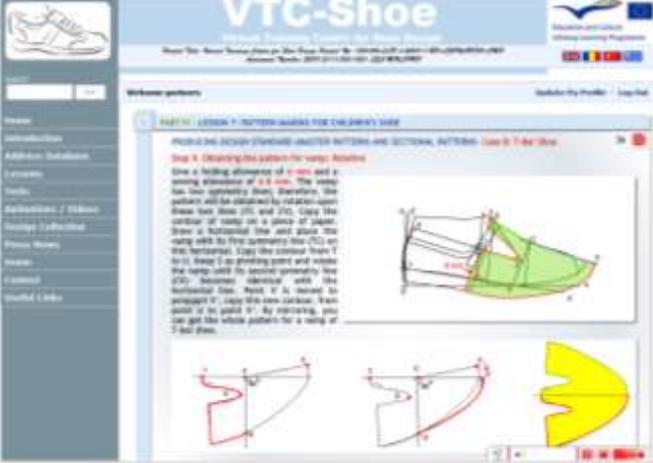
The screenshot shows a web application interface for 'VTC-Shoe'. The main content area displays a lesson titled 'LESSON 6: HOW TO PRODUCE A DESIGN STANDARD (MASTER PATTERN)'. Below the title, it reads 'THE LINK BETWEEN FOOT ANATOMY AND BASIC CONSTRUCTION LINES'. The text explains that 'Basic line II' represents the distance from the extreme posterior point of the foot up to the middle of the foot, at a distance of 1/3 of the last. It also mentions that 'Basic line I' is positioned between these points. To the right, there is a diagram showing a foot profile with various construction lines and points labeled (A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z). Below the diagram, there is a small image of a shoe with a red line indicating the 'Basic line II'.

5. Pattern Making for Women's Court Shoe	
Objective of Lesson	Target
<p>The classic court shoe is the most common model of women's footwear. In order to get an accurate pattern for this type of shoe fitting correctly on the last, basic principles of pattern making are to be known as well as the necessary adjustments.</p>	<p><b>Learner will be able to:</b></p> <ul style="list-style-type: none"> <li>• present principles and concepts of pattern making for court shoe</li> <li>• draw the outline for vamp, toe cap, quarter, counter</li> <li>• obtain design standards for court shoe</li> <li>• make and modify the working patterns</li> <li>• maintain accurate records, documents, sketches, samples, drawings sheets, working progress files</li> </ul>
	

<b>6. Pattern Making for Men's Casual Shoe (Oxford, Derby)</b>	
<b>Objective of Lesson</b>	<b>Target</b>
<p>Designing and producing patterns for classical types of men's shoes, as Oxford and Derby models, are presented in this unit. The Oxford style is characterized by the fact that the vamp section is laid over the quarter sections. The Derby shoe is a lace-up style in which the quarters are laid on the vamp section.</p>	<p><b>Learner will be able to:</b></p> <ul style="list-style-type: none"> <li>• present principles and concepts of pattern making for Oxford/Derby shoe</li> <li>• draw the outline for vamp, cap, quarter, tongue, back straps</li> <li>• obtain design standard for Men's Oxford shoe</li> <li>• obtain design standard for Men's Derby shoe</li> <li>• make and modify the working patterns</li> <li>• maintain accurate records, documents, sketches, samples, drawings sheets, working progress files</li> </ul>
	

**7. Pattern Making for Children's Shoe**

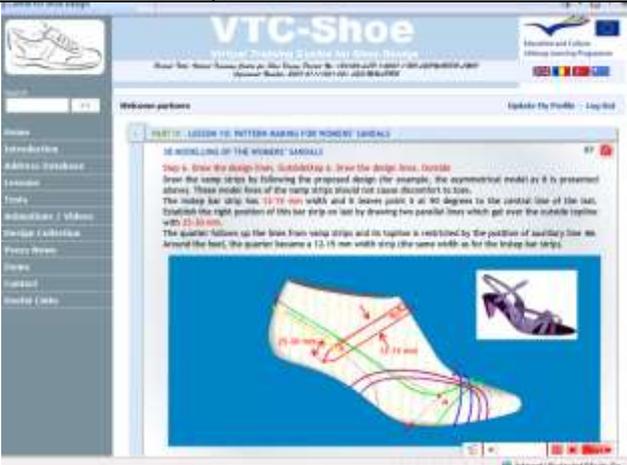
<p><b>Objective of Lesson</b></p>	<p><b>Target</b></p>
<p>It is to be noted that children's shoe is not a small size of an adult shoe. Special features are required for this category of shoes due to different conditions and features that children's feet have to perform.</p>	<p><b>Learner will be able to:</b></p> <ul style="list-style-type: none"> <li>• present principles and concepts of pattern making for children's shoe</li> <li>• draw the outline for vamp, cap, quarter, tongue, back straps</li> <li>• obtain design standard for children's shoe</li> <li>• make and modify the working patterns</li> <li>• maintain accurate records, documents, sketches, samples, drawings sheets, working progress files</li> </ul>



The screenshot shows the VTC-Shoe software interface. At the top, there is a header with the 'VTC-Shoe' logo and the European Union Lifelong Learning Programme logo. Below the header, there is a navigation sidebar on the left with options like 'Home', 'Introduction', 'Address Book', 'Tools', 'Substitutions / Tables', 'Settings / Collection', 'Process Notes', 'Lesson', 'Context', and 'Worked Example'. The main content area displays a lesson titled 'LESSON 7: PATTERN-MAKING FOR CHILDREN'S SHOE'. The lesson content includes a step-by-step instruction: 'Step 4: Obtaining the pattern for the vamp. Activities: Draw a holding allowance of 15 mm and a wing allowance of 2.5 cm. The vamp has two symmetry lines. Therefore, the pattern will be obtained by rotation-symmetry lines (see fig. 21) and 21'. Copy the outline of vamp on a piece of paper. Draw a horizontal line and mark the wing with its first symmetry line (12) on the horizontal line. Lift the corner from 1 to 1'. Draw 2 as a straight point and release the vamp with its second symmetry line (22) because identical with the horizontal line. Next, if it is needed to separate it, copy the same curve. Then mark it as point 3'. By mirroring, you can get the whole pattern for a wing of 2.5 cm.' Below the text, there are three diagrams: a 3D perspective view of a shoe vamp, a 2D technical drawing of the vamp pattern with symmetry lines and points, and a yellow 3D model of the vamp.

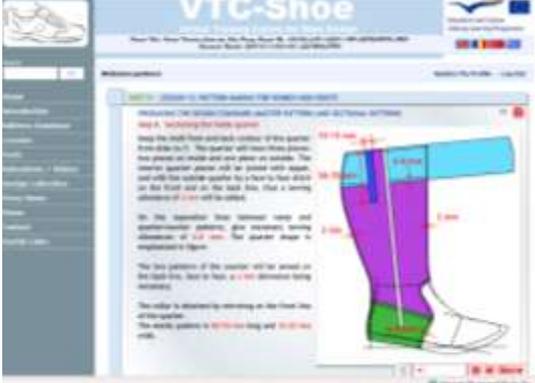
8. Pattern Making for Loafers	
Objective of Lesson	Target
<p>A low step-in shoe is called Loafer and it is characterized by the fact that no laces or other systems for setting up on foot are used. Designing this type of shoe requires special attention to the topline of the uppers that has to be according to the usability of the footwear. Elastic tape could be used and the patterns for uppers have to be designed taking the presence of this functional element into consideration.</p>	<p><b>Learner will be able to:</b></p> <ul style="list-style-type: none"> <li>• present principles and concepts of pattern making for loafers</li> <li>• draw the outline of sectional patterns</li> <li>• obtain design standard for loafers</li> <li>• make and modify the working patterns</li> <li>• maintain accurate records, documents, sketches, samples, drawings sheets, working progress files</li> </ul>
	

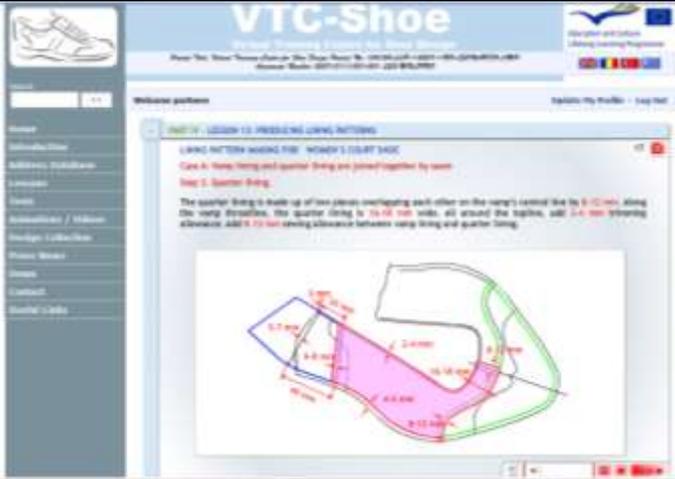
<b>9. Pattern Making for Trainer/ Sport Shoe</b>	
<b>Objective of Lesson</b>	<b>Target</b>
<p>The constructive characteristics of this type of leisure/sport footwear lie in the uppers style as being the same for men, women and children. The uppers can be made from different types or combination of materials. They could have following patterns: split toe cap, outside counter, back tab facing, front facing and side flash (side stripe).</p>	<ul style="list-style-type: none"> <li>• present principles and concepts of pattern making for trainer/sport shoe</li> <li>• draw the outline of sectional patterns</li> <li>• obtain design standard for trainer/sport shoe</li> <li>• make and modify the working patterns</li> <li>• maintain accurate records, documents, sketches, samples, drawings sheets, working progress files</li> </ul>
	

10. Pattern Making for Women's Sandals	
<b>Objective of Lesson</b>	<b>Target</b>
<p>The most common method for sandal's pattern making is by drawing the design lines and the sectional patterns directly on last. The 3D model is translated into the 2D standard forme and the working patterns are obtained.</p>	<p><b>Learner will be able to:</b></p> <ul style="list-style-type: none"> <li>• present principles and concepts of pattern making for sandals</li> <li>• draw the outline of sectional patterns</li> <li>• obtain design standard for sandals</li> <li>• make and modify the working patterns</li> <li>• maintain accurate records, documents, sketches, samples, drawings sheets, working progress files</li> </ul>
	

## 11. Pattern Making for Children's Boots

<p><b>Objective of Lesson</b></p>	<p><b>Target</b></p>																
<p>This type of footwear should be produced on a last specially designed for a boot. For designing boots or high boots, we will use the mean forme of the last registered in the reference system. A standard design (master pattern) is constructed based on the same principles as described in lesson 4.4. The pattern making for boots is based both on the mean forme and on a geometrical construction, where some specific dimensions about heights and girths measured on leg should be taken from sizing tables</p>	<p><b>Learner will be able to:</b></p> <ul style="list-style-type: none"> <li>• present principles and concepts of pattern making for boots</li> <li>• draw the outline of sectional patterns</li> <li>• obtain design standard for boots</li> <li>• make and modify the working patterns</li> <li>• maintain accurate records, documents, sketches, samples, drawings sheets, working progress files</li> </ul>																
 <p>The screenshot shows a web browser window with the URL 'http://www.vtc-shoe.com'. The page title is 'Lecture 11 - Pattern making for children's boots'. The main content area contains the following text:</p> <p><b>Introduction: design requirements for the shape and dimensions</b></p> <p>The model of boot intended to be designed within this lesson has quarter gaiters over the instep. It is a shoe-top style of booting with collar and front facing. The leather has a half cut. When making the patterns, proceed as for Gaiter shoe where the wing difference is the length of the quarter.</p> <p>Producing patterns for boots is similar for children and for adults, the difference being related with the measurement of their feet as explained in lesson 4.4 (index 46.2). The measurements for last part's length and for ankle girths have different values for children, women and men, and in the same section, you can find sizes of boots.</p> <table border="1"> <thead> <tr> <th>Gender</th> <th>Orange last (internal length)</th> <th>Orange last (heel length)</th> <th>Adult last (heel length)</th> </tr> </thead> <tbody> <tr> <td>Children</td> <td>22</td> <td>28 cm</td> <td>130 mm</td> </tr> <tr> <td>Women</td> <td>27</td> <td>33 cm</td> <td>135 mm</td> </tr> <tr> <td>Men</td> <td>32</td> <td>38 cm</td> <td>140 mm</td> </tr> </tbody> </table> <p>On the right side of the page, there is an image of a red and tan children's boot with laces. Below the image, there is a small diagram showing the pattern layout for the boot.</p>		Gender	Orange last (internal length)	Orange last (heel length)	Adult last (heel length)	Children	22	28 cm	130 mm	Women	27	33 cm	135 mm	Men	32	38 cm	140 mm
Gender	Orange last (internal length)	Orange last (heel length)	Adult last (heel length)														
Children	22	28 cm	130 mm														
Women	27	33 cm	135 mm														
Men	32	38 cm	140 mm														

<b>12. Pattern Making for Women's High Boots</b>	
<b>Objective of Lesson</b>	<b>Target</b>
<p>This type of footwear should be produced on a last specially designed for a high boot. For designing high boots, we will use the mean forme of the last registered in the reference system. A standard design (master pattern) is constructed on the same principles as described in lesson 4.4. The pattern making for high boots is based both on the mean forme and on a geometrical construction, where some specific dimensions about heights and girths measured on leg should be taken from sizing tables.</p>	<p><b>Learner will be able to:</b></p> <ul style="list-style-type: none"> <li>• present principles and concepts of pattern making for high boots</li> <li>• draw the outline of sectional patterns</li> <li>• obtain design standard for high boots</li> <li>• make and modify the working patterns</li> <li>• maintain accurate records, documents, sketches, samples, drawings sheets, working progress files</li> </ul>
	

13. Producing Lining Patterns	
<p><b>Objective of Lesson</b></p> <p>This unit presents different ways of making patterns of lining for classic types of footwear (Court shoe, Derby shoe, Oxford shoe).</p> <p>At the base of lining pattern making lies the upper's standard design having only the lasting allowance, without folding or sewing allowances.</p> <p>There are two types: joined linings by seam and free linings. Also, the linings could be from leather or from fabrics.</p>	<p><b>Target</b></p> <p><b>Learner will be able to:</b></p> <ul style="list-style-type: none"> <li>• present the role of lining</li> <li>• produce lining patterns for Court shoe, and for Derby/ Oxford shoe</li> </ul>
	

### 14. Elements for Designing Bottom Components

Objective of Lesson	Target
<p>The basic construction grid for designing bottom components is presented in this unit. Practical exercises demonstrate the principles for designing main components of the bottom</p>	<p><b>Learner will be able to:</b></p> <ul style="list-style-type: none"> <li>• construct a grid for designing bottom components</li> <li>• design bottom components: insole, rigid insole backer, shank, bottom filling, insole cover, sole.</li> </ul>

## 4. HOW TO USE TESTS?

VTC-Shoe consists of tests which give self evaluation chance to the trainee. Each test is designed according to the targets of each lesson and both the trainer and trainee can choose a test knowing that it is about the lesson title it has.

Trainers can apply tests before the training for motivation or after the training for evaluation. If VTC-Shoe is used individually, trainee can use it for self evaluation.

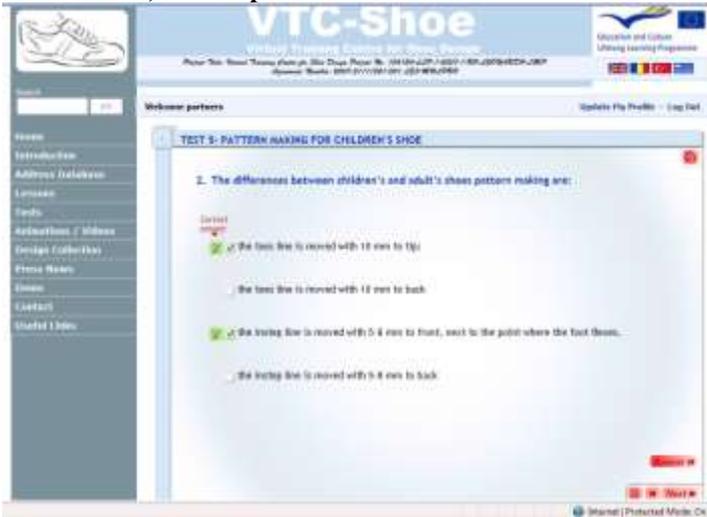
Tests are designed in an interactive way so that trainee can see the right or wrong answer. It is noted that any question can have more than one right answer depending on the lesson content and the targeted learning skills.



The screenshot shows the VTC-Shoe web application interface. At the top, there is a header with the VTC-Shoe logo, contact information, and the European Union flag. Below the header, there is a navigation menu on the left side with options like Home, Introduction, Address Database, Lesson, Tests, Introduction / Admin, Design Collection, Price News, News, Contact, and Useful Links. The main content area displays a list of tests under the heading "TESTS". The tests are listed as follows:

- TEST 01: HOW TO PRODUCE THE HEAN FORME
- TEST 02: HOW TO PRODUCE A STRICH STANGARD (MASTER PATTERNS)
- TEST 03: PATTERN MAKING FOR WOMEN'S COURT SHOE
- TEST 04: PATTERN MAKING FOR MEN'S CASUAL SHOE (D'FOUR, BERRY)
- TEST 05: PATTERN MAKING FOR CHILDREN'S SHOE
- TEST 06: PATTERN MAKING FOR LOAFERS
- TEST 07: PATTERN MAKING FOR TRAINER/ SPORT SHOE
- TEST 08: PATTERN MAKING FOR CHILDREN'S BOOT
- TEST 09: PRODUCING LIPING PATTERN
- TEST 10: ELEMENTS FOR DESIGNING BOTTOM COMPONENTS

## a) Example of correct answer



The screenshot shows the VTC-Shoe website interface. The main content area displays a question titled "TEST 5- PATTERN MAKING FOR CHILDREN'S SHOE". The question asks for differences between children's and adult shoe pattern making. The correct answer is shown with green checkmarks:

- ✓ The last line is moved with 18 mm to top
- The last line is moved with 18 mm to back
- ✓ The last line is moved with 5-8 mm to front, next to the point where the foot flows...
- The last line is moved with 5-8 mm to back

Navigation buttons like "Previous" and "Next" are visible at the bottom right of the question area.

## b) Example of incorrect answer



The screenshot shows the VTC-Shoe website interface. The main content area displays a question titled "TEST 5- PATTERN MAKING FOR CHILDREN'S SHOE". The question asks for fastening systems for children's footwear. The incorrect answer is shown with green checkmarks:

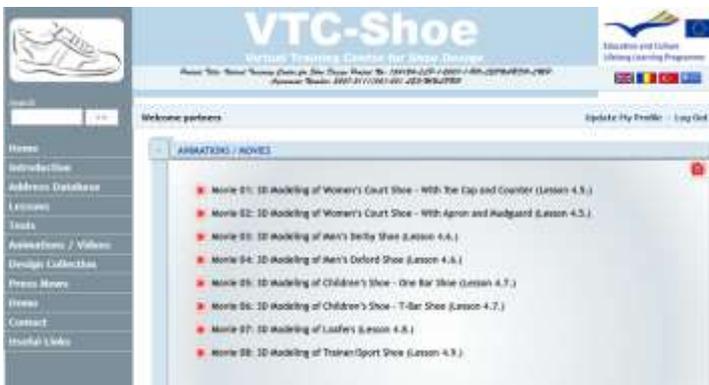
- ✓ Buttons
- ✓ Straps and buckles
- ✓ Velcro

The question text above the answers reads: "4. The children's footwear requires good quality fastening systems such as:". Navigation buttons like "Previous" and "Next" are visible at the bottom right of the question area.

## 5. HOW TO USE ANIMATIONS / VIDEOS?

VTC-Shoe has a list of animations and videos ordered according to the lesson with which it is related. That means each video or animation is related with a lesson.

Trainee or trainer can choose a video and use it independently just to see the practice the lesson has. It can also be used during training as a step of the lesson it is related with. The best is to use each video or animation during training. If necessary, it can be also used independently by using Animations /Videos button. Each video also has “replay” device so that trainers or trainees can replay the videos or animations when necessary.



The screenshot shows the VTC-Shoe website interface. The header includes the VTC-Shoe logo and the European Union flag. The main content area displays a list of 3D modeling movies, each with a red play button icon and a lesson reference.

Movie ID	3D Modeling of	Lesson Reference
Movie 01	3D Modeling of Women's Court Shoe - With the Cap and Counter	Lesson 4.3.
Movie 02	3D Modeling of Women's Court Shoe - With Apron and Wedge	Lesson 4.5.
Movie 03	3D Modeling of Men's Derby Shoe	Lesson 4.6.
Movie 04	3D Modeling of Men's Deford Shoe	Lesson 4.6.
Movie 05	3D Modeling of Children's Shoe - One Bar Shoe	Lesson 4.7.
Movie 06	3D Modeling of Children's Shoe - T-Bar Shoe	Lesson 4.7.
Movie 07	3D Modeling of Ladies Shoe	Lesson 4.8.
Movie 08	3D Modeling of Trainer/Sport Shoe	Lesson 4.9.

# 6. DESIGN COLLECTION

This section is about the stages of design collection and how to develop a design concept into practice. The sample designs in this section are from the project assignments. Trainers can use this section and develop their own design collection. It is recommended that each trainer should have a design collection, a selection of which can be used for exhibitions or training sessions.

