UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

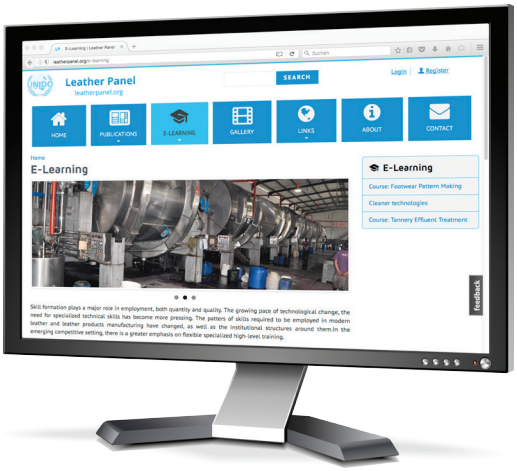
UNIDO's E-Learning Courses

Offering new training opportunities to people around the world

Building on the success of the footwear pattern engineering course

Using Innovation to Improve and Increase Learning Efficiency

UNIDO has developed innovative e-learning training materials that can be used in different regions around the world. These materials build on animated visual training tools and are available for users on www.leatherpanel.org. Training tools are suitable for both classroom (face-to-face) teaching and self-learning.



UNIDO's Footwear Pattern Engineering E-Learning Course

Globalization of the footwear industry and advances in IT have enabled UNIDO to develop a course that makes learning flexible, interactive, specialized and more effective.

The huge rise in footwear production over recent years has led to a demand for new skilled technicians and operators. By providing the content online, UNIDO is helping trainers and trainees to keep up-to-date with the skills and knowledge necessary for footwear pattern engineering.

What is the course and how does it work?

- The course is divided into several modules, providing a step by step approach to shoe making and pattern design.
- Each module comprises different lessons and tests using visual, textual and audio aid elements and simple interactive and appealing methods and exercises.
- The modules explain the course methodology and provide theoretical knowledge and related skills.
- All modules are comprehensive. There is therefore no need for the trainee to rely on other sources for relevant information or for skill development (e.g. in pattern drawing and cutting).
- Each lesson includes a test to ensure that the trainee has fully understood the content.

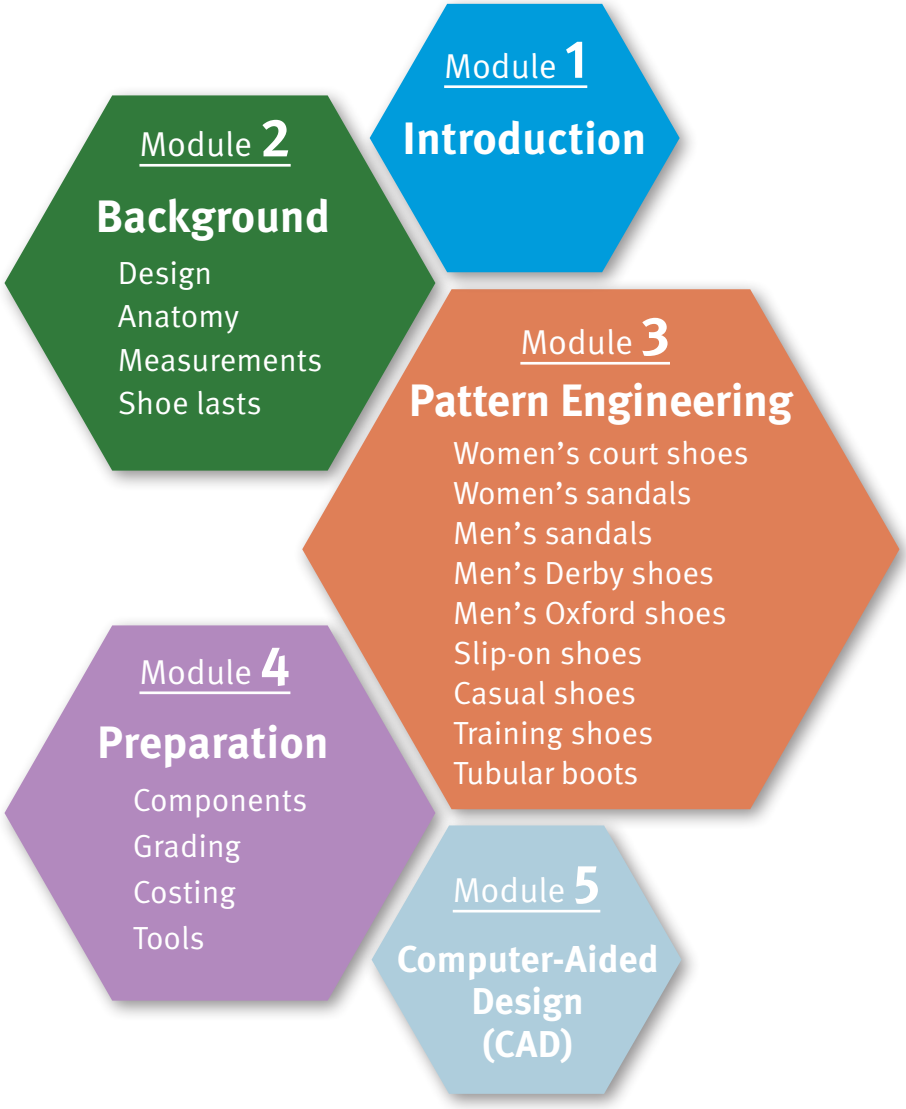
Footwear Design Modules

Module 1: Introduction:
Lessons feature an overview of the training course "Footwear Pattern Engineering" and a guide explaining how to use the e-learning materials.

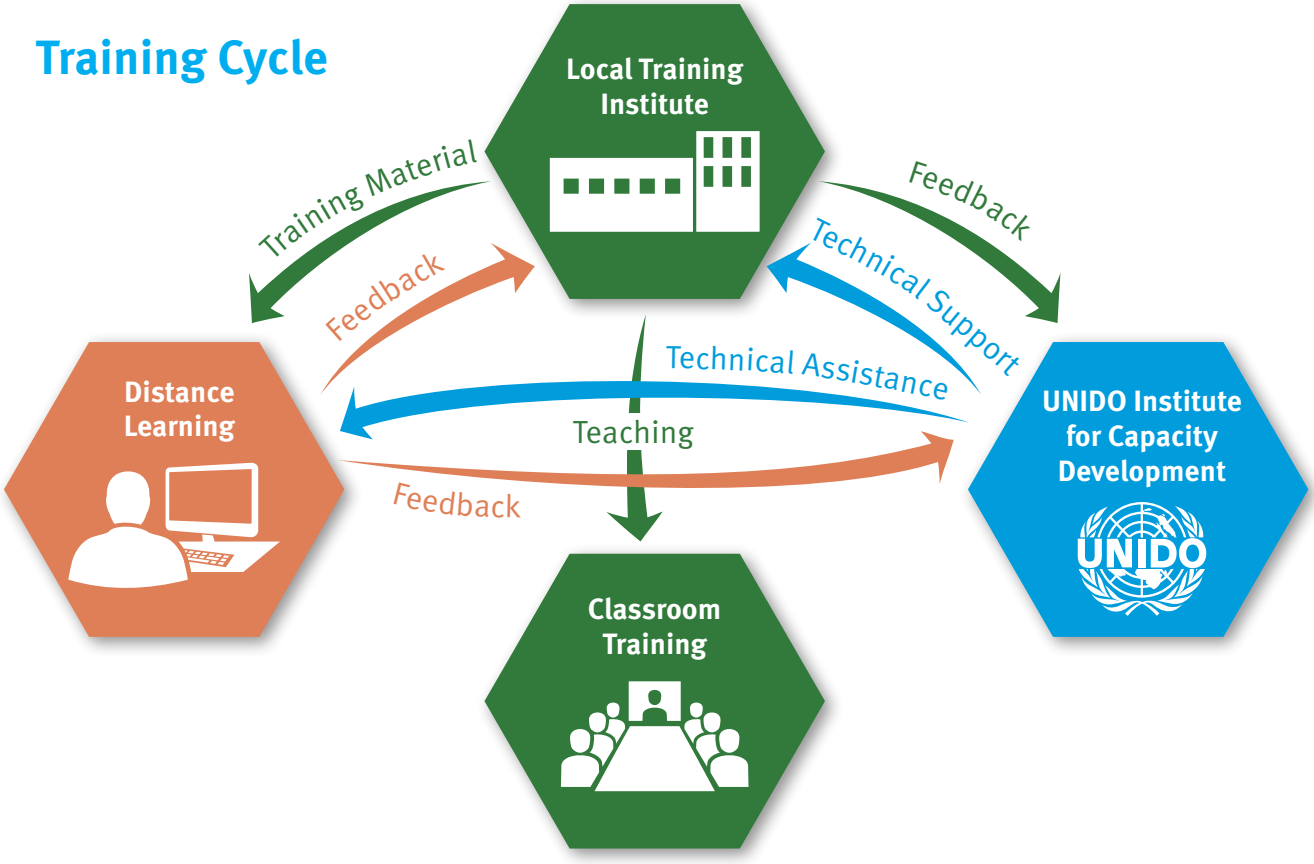
Module 2: Background - Fashion, Foot Anatomy, Shoe Lasts:
Lessons and tests cover shoe fashion, foot anatomy and measurement, shoe lasts and shoe last forms.

Module 3: Footwear Pattern Engineering:
Lessons feature 10 designs which identify a wide range of market requirements, fashion themes, constructions, and manufacturing processes. The list of lessons and tests are illustrated in the diagram opposite.

Module 4: Preparation module:
Lessons cover shoe components and pattern grading.



Training Cycle

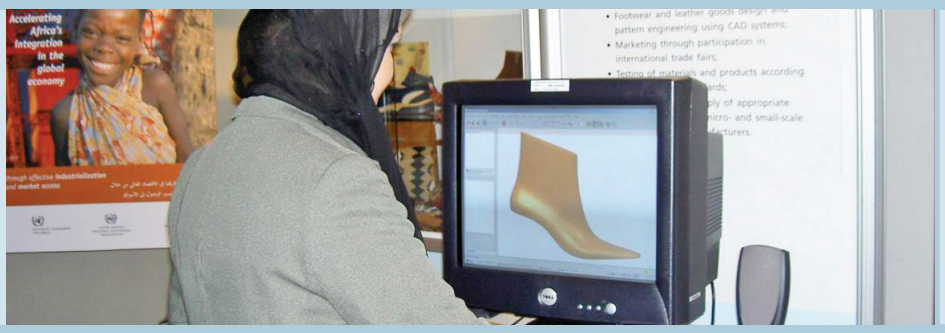


What are the advantages of UNIDO's e-learning courses?

- **Costs and time effective:** E-learning reduces time away from the workplace, and eliminates the need for travel or classroom-based learning.
- **Job opportunities:** UNIDO's e-learning courses equip trainees with the skills necessary to thrive in today's fast-changing and competitive workplace and open up a range of new employment opportunities.
- **Wider outreach:** Different audiences who may be unable to follow training in conventional institutions can participate in e-learning courses.
- **Flexibility:** UNIDO's courses can be tailored to meet the needs of different countries and institutions. Students can access materials at all times and can proceed though training at their own pace.
- **High-level remote support:** Pre-prepared lessons help local trainers to administer high quality training by providing remote support from experienced trainers and experts.
- **More international collaboration:** UNIDO's e-learning courses facilitate and encourage greater collaboration between technologists, designers, production managers etc. and foreign companies.
- **Lifelong learning:** Suitable for refresher training.
- **Reduces the carbon footprint:** Less need for printing, thus saving natural resources and minimizing waste disposal.

Proven success in the Tanzanian leather shoe industry

In 2014, UNIDO chose Tanzania to test a new e-learning training programme designed to help footwear producers develop their technical skills, with the long-term objective of developing the country's leather sector.

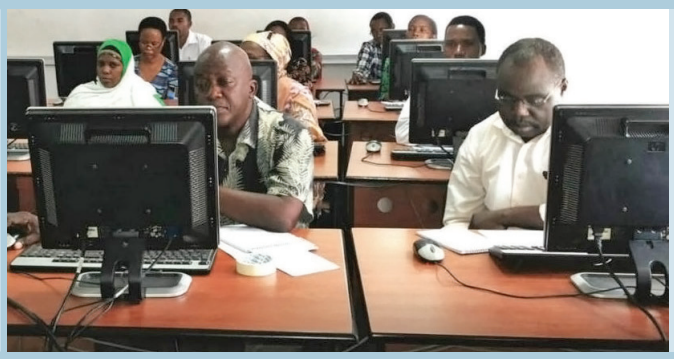


CAD application for footwear design.

Working together with the Leather Association of Tanzania and the Dar es Salaam Institute of Technology (DIT), Mwanza Campus, UNIDO used new technologies such as visual animated training tools to improve and increase learning efficiency and to enhance technology transfer.

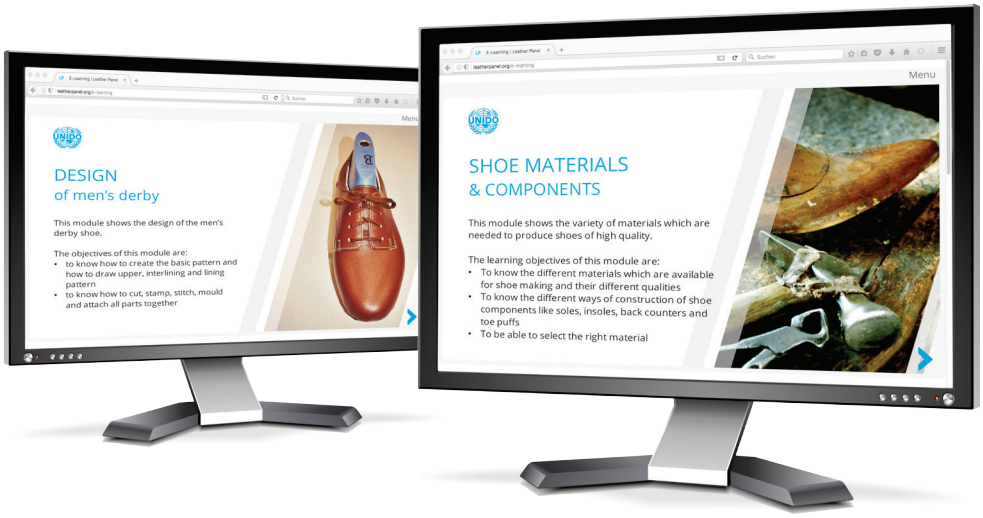
The new e-learning materials were tested by launching a course on footwear pattern engineering at the DIT, Mwanza Campus, which was complemented by practical hands-on training. Several more virtual training courses were subsequently conducted in other provinces across Tanzania.

The pilot project has been a great success and has given the shoe industry in Tanzania a new lease of life.



Trainees at the DIT Mwanza Campus in Arusha, Tanzania, during the e-learning course.

Tomorrow's technical, environmental, safety and ethical problems cannot be solved by experts trained with yesterday's methodology and methods.



Through its e-learning training programmes, UNIDO is ready to help build up new generations of technicians and experts in various sectors in developing countries.

For more information about UNIDO's Footwear Pattern Engineering e-learning and other courses, please contact agribusiness@unido.org

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