

KNOWLEDGE ALLIANCE
ICT IN TEXTILE AND CLOTHING HIGHER EDUCATION AND
BUSINESS

**Syllabus: FLAT KNITTING MACHINE PROGRAMMING FOR KNIT
FABRIC AND 2D SHAPED FABRIC**

Total: 20 hours

**Methodologies, process and approaches for developing a new knitted
prototyping model. Analysis of knitted structures (3 hours)**

The course starts with methodologies for developing a new knitted prototyping model: how to pick a structure, shape construction, material choosing, achieving the dimensions. The approaches in the analysis of real knitted structures and their parameters are presented. Techniques for shaping construction and dimension control are considered.

Knitwear programming techniques (10 hours)

In the topic various programming techniques with one of the most popular software Karl Mayer Stoll (Germany) are presented: manual shaping and sizing; shape editors, modules, pattern software intuitive futures; auto-create software; multicolor patterns (jacquard, intarsia, inverse plating, plating, ikat and etc).

Approaches for 2D patterns creation (2 hours)

The topic covers the modern approaches for 2D pattern creation. The aim is to summarize the steps in the programming process of 2D patterns by presenting examples.

Knitting process parameters programming (4 hours)

In the topic the different knitting parameters, controlling by the knitting machine, are considered. Programming the machine controls in the software is

presented. Optimizing the knitting process for single pattern is also described. All steps of the programming process are shown with examples.