Computer Aided Design in garment industry

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Enterprise efficiency of garment industry nowadays is determined by the availability of high-quality hardware and software, allowing flexibility of technological processes, automation and interaction of production units. First of all - these are computer-aided design systems (or CAD) and modern technological equipment based on computer technology. Since modern garment industry, regardless its form of ownership and production is focused on the use of information technology, the study of this course is relevant.

However, no matter how carefully designed and technologically implemented the software is, much will depend on the experts in the field. Developing and functioning of the existing garment production, integrated on the basis of computer technology requires professionals who can work with a standard set of subsystems of garment CAD. Therefore, the aim of this course is to train professionals in educational institutions competent in this area.

Currently, it is very difficult for any specialist of garment industry as well as designer, and technologist to find high-paying job with no skills in CAD. For future specialists of garment production to be in demand in the labor market, they should be skilled and integrate the knowledge obtained, they just need to know how to navigate the basic theoretical issues of the use of information technologies in the light industry. It is the task of this course, the solution of which has a practical application in the future career of students of educational institutions of modern light industry.

The e-learning course is designed for students majoring "Designing and technology of garments" correspondent higher education for in-depth study of discipline "CAD in the industry." It can also be used to enhance the professional development of teachers and garment industry of vocational and specialized secondary education.

The program of the course includes 18 topics:

1. CAD software.
2. Types and interaction of CAD garment industry at different stages of the product life cycle.
3. Interactive Graphics CAD.
4. Databases as a basis for CAD.
5. Structure of the CAD clothing.
6. Classification of CAD garment industry.
7. CAD art modeling.
8. The system of automated design preparation of production.
9. Computer-aided design of patterns, their grading and layout.
10. The automated system of technological preparation of production.
11. CAD process of manufacture sequence.
12. CAD and analysis of technological schemes of sewing threads.
13. Technical support of CAD model preparation for the production launch.

14. Technical support of CAD cutting production.
15. Review of modern CAD for clothing.
16. Problems of selection of CAD for particular garment production.
17. An integrated CAD for clothes. CALS - technologies.
18. Prospects for the development of CAD clothing.

For each topic, the learner is given a short video lecture lasting from 8 to 10 minutes, textual material and on-line test.

A pilot version of the course includes topics 7, 11 and 13.

Courses are available on the educational portal EI "VSTU» (http://sdo.vstu.by/login/index.php).

To access to the pilot course must submit a request to the address UNITE.VSTU@mail.ru.

ДИСТАНЦИОННОЕ ОБУЧЕНИЕ

СОВРЕМЕННЫЕ СИСТЕМЫ АВТОМАТИЗИРОВАННОГО ПРОЕКТИРОВАНИЯ В ШВЕЙНОЙ ОТРАСЛИ

ДЛЯ ПОЛУЧЕНИЯ БЕСПЛАТНОГО ДОСТУПА К МАТЕРИАЛАМ ПИЛОТНОГО КУРСА НЕОБХОДИМО НАПРАВИТЬ ЗАЯВКУ НА АДРЕС **unite.vstu@mail.ru**, УКАЗАВ СЛЕДУЮЩИЕ ДАННЫЕ:

1. ФАМИЛИЯ, ИМЯ, ОТЧЕСТВО
2. МЕСТО РАБОТЫ
3. ДОЛЖНОСТЬ
4. КОНТАКТНЫЙ ТЕЛЕФОН
5. АДРЕС ЭЛЕКТРОННОЙ ПОЧТЫ
6. НАИМЕНОВАНИЕ ЗАИНТЕРЕСОВАВШЕГО КУРСА

ПРОГРАММА КУРСА:

1. Программное обеспечение САПР.
2. Виды и взаимодействие САПР швейной отрасли на различных стадиях жизненного цикла продукции.
3. Интерактивная графика САПР.
4. Базы данных как основа САПР.
5. Структура САПР одежды.
6. Классификация САПР швейной отрасли.
7. Система автоматизированного художественного проектирования модели.*
8. Система автоматизированной конструкторской подготовки производства.
9. Автоматизированное проектирование лекал, их градация и раскладка.
10. Система автоматизированной технологической подготовки производства.
11. Автоматизация проектирования технологической последовательности изготовления изделия.*
12. Автоматизация проектирования и анализа технологических схем швейных потоков.
13. Техническое обеспечение САПР подготовки моделей к запуску в производство.*
14. Техническое обеспечение САПР раскройного производства.
15. Обзор рынка современных САПР одежды.
16. Проблемы выбора САПР для конкретного швейного производства.
17. Интегрированная система автоматизированного проектирования одежды. CALS – технологии.
18. Перспективы развития САПР одежды.

* - темы, доступные в пилотных курсах

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