

SOME ASPECTS of the distance COURSE «Engineering and computer graphics» in «ELECTRONICS»

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For training of highly skilled specialist in area of electronics the special importance has an increase of efficiency and effectiveness of educational process. Therefore at development distance course the «Engineering and computer graphics» (ECG) basic principles of the distance learning and its professional orientation were taken into account.

For approbation of distance teaching basics was chosen testing tool software MyTestX [1], where in agreement with the discipline working educational program were developed 3 modules for the current testing and 1 module for the final testing. The further use and modernization of these basics formed during 2 years with full – time and part – time modes study students of directions «Micro - and - nanoelectronics» and «Electronic systems». It is possible to optimize the shape and ways of representing the time required to carry out testing.

As a full-fledged realization of the course the open code source tool Moodle [2] has been chosen, which has a wide range of communications and supports the export operation to the MyTestX. On the developed ICG working program basis the structure and content of the distance course were realized. Each training module includes lecture material, practical and laboratory work, tests, list of self made works, training materials, etc.

The lecture material, guidelines available in html, and in pdf format. Also in the training materials posted video tutorials on using

the recommended CAD software, such as Компас 3D [3], Splan [4], P-CAD [5], MS Visio [6].

Practical individual students work involves two graphic tasks on create of electronic products design documentation - circuit diagram (Splan) and general arrangement drawings (Compass 3D). For less complex practical work includes the creation of structural and functional circuit drawings, flowchart drawings, PCB layout drawings, and computer networks drawing, 3D - models, etc.

Approbation of the course with part – time modes study students in the "Electronics" shows the high level of interest, enhance the mastery degree of the material and increases their compliance to study the disciplines of professional direction.

References:

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Електронні засоби та дистанційні технології для навчання протягом життя: тези доповідей ІХ Міжнародної науково-методичної конференції, м. Суми, 14–15 листопада 2013 р. / Відп. за вип. В.В. Божкова. - Суми: СумДУ, 2013. - С. 36-37.