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**Improvement of Product Development Studies
in Serbia and Bosnia and Herzegovina**



<http://iproduct.masfak.ni.ac.rs>
iproduct@masfak.ni.ac.rs



**Slovak University of Technology
STU**

**WP 5.1
Quality control and monitoring
Peer review of UNIKG curriculums**

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This peer review is under WP 5.1 where STU as a consultant provides evaluation of curriculums modernization which took place in partner university UNIKG.

I. Basics of the 3D modeling in CAD software systems

The main objective of the course is indeed formulated in a rather general, but despite this fact it can be considered correct and enough comprehensible. The Course is focused on issues of processing sketches - sketches generation capability is indeed important, but not decisive when working with CAD higher level systems, especially if it is assumed in the modeling wireframe and surface representation of object. The curriculum is suitably focused to use the CATIA CAD system, the question is, which modules of this system has the student to master. At the level of higher education should be appropriate to the emphasis was mainly on module GSD. Of course prerequisite is that the student will be able to master the work with Part design module. We recommend that under these small remarks will be made supplements or little changes to course content so that it will more concretely define its content.

II. Machine parts calculation by using of modern software

Basically course curriculum assumed that students will master the calculation of spur gears, bevel gears and worm gears. Furthermore, they also have to handle the problem of shafts, bolt connections and roller bearings load capacity calculations. The text of curriculum course is not clear whether it is intended to the calculation of selected parts of the machine or on a static load or also (which would be highly desirable) on the dynamic operating conditions, i.e. to the fatigue damages. For such a complex subject is perceived, the content appears to be intended number of lessons to be insufficient. Student there should handle the issue of standardized calculations by European standards, but also strength simulation analysis on virtual models (DMU) or by using of the finite element method. Since it is in the subject *Machine parts calculation by using of modern software*, it would be useful if there instead of INVENTOR software will be used also CATIA system, respectively for the fatigue calculations e.g. ANSYS system.