ÓBUDA UNIVERSITY Bánki Donát, Faculty of Mechanical and Safety Engineering	Department of Machine Construction and Safety Techniques			
Name and code of the course:	**Computer Systems for Product Engineering (BGBRST3NEC)** Credits *: 2* **2015/2016 Fall**			
Courses:	**Mechatronical Engineering**			
Responsible Lecturer:	**György Gyurecz**	Lecturers:	**György Gyurecz**	
Pre-Courses:	**Géprajz, Gépelemek**			
Hours/weeks	Lectures:**1**	Practicies:**3**	Laboratory: **0**	Consultation: **0**
Method of Controls (s,v,f):	**test**			

<table>
<tr><td colspan="2" align="center">Teaching material</td></tr>
<tr><td colspan="2">Aims: The aim of the course is to provide students with a general overview and practice of the form feature based parametric design.</td></tr>
<tr><td colspan="2" align="center">SYLLABUS</td></tr>
<tr><td align="center">Weeks</td><td></td></tr>
<tr><td align="center">1.</td><td>Introduction. Creating a Project.</td></tr>
<tr><td align="center">2.</td><td>Create a Sketch, Constraints, Extruding, Editing Profiles, Work Planes.</td></tr>
<tr><td align="center">3.</td><td>Solid Bodies, Centerlines, Revolve a Feature, Projecting Geometry, Extruding to a Plane.</td></tr>
<tr><td align="center">4.</td><td>Mirroring Features, Circular Feature Array, Rectangular Feature Array.</td></tr>
<tr><td align="center">5.</td><td>Creating Holes, Placing Holes, Creating Hole Patterns, Threaded Holes.</td></tr>
<tr><td align="center">6.</td><td>Using the Shell Command, 2D Splines, Constraining Splines.</td></tr>
<tr><td align="center">7.</td><td>Sweep, Sweep Path and Guide Rail, Sweep Path and Guide Surface.</td></tr>
<tr><td align="center">8.</td><td>Introduction to 3D Sketches, 3D Splines and Coils.</td></tr>
<tr><td align="center">9.</td><td>Lofts, Loft Conditions, Lofts with Rails, Rails on Cylindrical Lofts.</td></tr>
<tr><td align="center">10.</td><td>Parameters, Linking Excel Spreadsheets.</td></tr>
<tr><td align="center">11.</td><td>Importing Points, The Bend Part Command, Bending Conical and Loft Parts</td></tr>
<tr><td align="center">12.</td><td>Assemblies. Creating and Editing Derived Parts, Degrees of Freedom, Driving Constraints.</td></tr>
<tr><td align="center">13.</td><td>Drawing Views, Drawing Projects, Bill of Materials, Parts Lists, Editing Parts List, Balloons.</td></tr>
<tr><td align="center">14.</td><td>TEST</td></tr>
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Validity of the semester and method of creating the semester mark:

The semester can be valid with as minimum as 50% of the test:

50% - 60%	*failed*
60% - 70%	*satisfactory*
70% - 80%	*medium*
80% - 90%	*good*
90% - 100%	*excellent*

Literature:
- Lecture notes
- G. Renner: CAD technologies (BME, 2007)

Budapest, 2015-06-04

György Gyurecz

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Responsible Lecturer