Óbuda University Kandó Kálmán Faculty of Electrical Engineering		Department of Instrumentation ans Automation		
Subject name and code: Object Oriented Methodology KMVOM1ABNE Credits: 4				
Specializations: all, free-choice subject				
Subject leader:	Dr. Schuster György	Teachers :	Dr. Schuster György	
Prerequisites: none				
Lectures:	**Theory: 2**	**Seminar.: 0**	**Lab. Exec.: 0**	**Consultations: 0**
demands :	Semester mark			

Education material

Aim of education: Students should be familiar with the basics of that object-oriented methodology and be able to solve simple problems in basic C ++ and Python. The subject provides a basis for other subjects using the OOP methodology

Topics:	**Week:**	
Methodological overview and new features of OOP. Areas of application of OOP.	**1.**	
Inheritance problems in C ++ through a sample.	**2.**	
Constructor, destructor example. Dynamic objects.	**3.**	
Content relation 7-segment display example.	**4.**	
Virtual function. Button example. Late binding.	**5.**	
Operator overloading. Example of complex arithmetic and example of spatial rotation.	**6.**	
this is an example of a double-chained list that implicitly shows.	**7.**	
Static data members and methods. Reference type variables.	**8.**	
Copy constructor. Error handling.	**9.**	
The Python object is oriented. Python basics.	**10.**	
Create your own objects, oscilloscope, pointing instrument.	**11.**	
Use of factory modules, FFT, serial port, TCP / IP.	**12.**	
Creating event management objects. Program generators.	**13.**	
Test work	**14.**	

Demand of the semester

The semester ends with a mid-year ticket. At the end of the semester, students write an 20-question electronic test. The test questions contain 3 answers, one of which is correct. A condition for a sufficient grade is the correct answer to 4 questions. The scores increase in direct proportion to the increase in the score

Literature:

Obligatory: Materials issued by the instructor
Recommended: Bjarne Stroustrup: C ++ (free download pdf)