COURSE TITLE:	**OBJECT ORIENTED PROGRAMMING**
Institute / Division;	Institute of Applied Computer Science
Number of course hours:	60
Course duration:	1 semester
ECTS credits	5
Course description:	Advantages of object oriented analysis and design. Object oriented strategies and programming languages. Fundamentals of object oriented programming: classes, objects, class members. Using constructors and destructors. Basic notions and concepts: abstraction, encapsulation, inheritance, polymorphism. Virtual and pure virtual class members, abstract classes. Multiple and multigenerational inheritance. Overloading of operators. Working with templates. Container classes as example of practical using of templates. Elements of software engineering: design and using of UML diagrams and design patterns.
Literature:	G. Booch, The UML User Guide, Addison-Wesley; ISBN 0-201-57168-4 C. Kak Object Oriented Programming, Jon Wiley & Sons, New York 2003 J. Keogh, M. Giannini OOP Demystified, McGraw-Hill Professional, ISBN 0-07-225363-0 T. Budd, Introduction to Object-Oriented Programming, Addison-Wesley, 1991
Course type:	lectures + projects
Assessment method:	Attendance, final project and test
Primary target group:	1st year students of MSc course in "Computer Aided Design in Mechanical Engineering"
Lecturer:	Grzegorz Filo, PhD
Contact person:	Grzegorz Filo, PhD; phone: +48 12 628 33 35, e-mail: filo@mech.pk.edu.pl
Deadline for application:	May 31