

COURSE TITLE:**OBJECT ORIENTED PROGRAMMING**

Institute / Division;

Institute of Applied Computer Science

Number of course hours:

60

Course duration:

2 semesters

ECTS credits

4

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 and 2nd year students of computer science

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