

Óbudai University			Institute of Mechatronics and Vehicle Engineering	
Donát Bánki Faculty of Mechanical and Safety Engineering			Engineering	
Course name and Neptun-code: Informatics II. BGRIA2ENND, BGRIA2KTNC			Credits: 3	
<i>Full time, 2nd Semester of the Academic year 2015/16.</i>				
Faculties in which the subject is taught: BSc in Mechatronics				
Supervised by: Tóthné Dr. Laufer Edit				
Prerequisites conditions: (Neptun Codes)			Informatics I. BGRIA1ENND	
Lessons per week:	Theory: 2	Practice (in Auditorium): 0	Lab: 0	Consultation:
Exam type (s,v,f):	v			
The Syllabus				
Aim: Developing algorithmic thinking, introducing the basic tools of programming, which are needed during engineering work. The acquisition of basic algorithms and data structures.				
Schedule				
Weeks	Topics			
1.	The aim and tools of computer programming. Structured programming. Event-driven programming.			
2.	Basic data structures and their operations. (integers, real, boolean). Conditional statement.			
3.	Loops. Array data structure. Graphics.			
4.	Elementary programming items. Sort and search algorithms.			
5.	Character and string type.			
6.	File management.			
7.	Test paper I.			
8.	Holiday			
9.	Object oriented programming (inheritance, encapsulation)			
10.	Object oriented programming (polymorphism, static and virtual methods)			
11.	OOP case studies			
12.	Relational database management			
13.	SQL basics			
14.	Test paper II.			
Requirements				
Weeks	Test papers			
8	Test paper I.			
14	Test paper II.			
<i>The evaluation criterias</i>				
The participation is governed by TVSZ III.23.§ (1)-(4).				
All main areas of the course are evaluated by test papers. The course is to be considered successfully executed and a signature is obtained if and only if both test papers are written.				
Based on the Study Regulations III.6.(4), the student receive offered grade if he/she has written both test papers with grades higher than 3.				
All matters which are not covered in this document, the Study and Examination Rules and the provisions of the Study Regulations, valid at Óbuda University, prevails.				
The semester closing method (method of examination: written, oral, testing, etc.).				
Written exam				
Literature: lecture notes				
Quality Assurance:				