

Óbuda University John von Neumann Faculty of Informatics				Institute of Software Engineering	
Name and code: Software design and Development II. (Exam) (NIXSF2EBNE)				Credits: 6	
Computer Science BSc				Daytime 2020/21 year I. semester	
Subject lecturers: Dr. László Csink					
Prerequisites: (with code)		Software design and development I (NIXSF1EBNE)			
Weekly hours:		Lecture: 0	Seminar: 0	Lab. hours: 0	Consultation: 0
Way of assessment:		Examination			
Course description					
Goal: Based on SWDD I, the goal is to deepen theoretical and practical knowledge in software design and development.					
Course description: Programming paradigms. Inheritance. Method hiding. Polymorphism. Abstract classes and interfaces. Iterators. Components. Operator overloading. Exceptions. Generic classes. Advanced sorting. Dynamic arrays. Lists. Queue and stack. Binary search tree. Red and black tree. B-tree. Heaps. Directed and undirected graphs. Trees. Spanning trees. Kruskal and Prim algorithm. Connected components. Search for a path in the graph. Hashing. Maximal flow.					

Lecture schedule		
Education week	Topic	
Midterm requirements		
Midterm Test Scheduling		
Education week	Topic	
Midterm grade calculation methods		
Method of replacement		
Type of exam		
Written exam, only for those who have the signature (both midterm tests better than 50 %, possibly by retake, and successful home project, and attendance).		
Exam grade calculation methods		
	Achieved result	Grade
	89-100%	excellent (5)
	76-88%	good (4)
	63-75%	average (3)
	51-62%	satisfactory (2)
	0-50%	failed (1)
References		
Obligatory:		
Thomas H. Cormen, Charles E. Leiserson, Ronald L. Rivest, Clifford Stein: Introduction to Algorithms, Second Edition, The MIT Press (downloadable)		
Recommended:		
Others:		