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 II. 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

Online or written exam, depending on the pandemic situation.
The material of the exam coincides with that of the actual running course.

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, The MIT Press (downloadable)

Recommended:

Others: