Study programmes: PhD studies - Informatics

Course name: P470 - Databases – advanced concepts

Lecturers: Gordana Pavlović-Lažetić and other lecturers of the Department of Informatics and Computer Science

Status: Optional

ECTS: 9

Attendance prerequisites: No prerequisites

Course aims: Make students capable of developing and applying research and professional accomplishments in the filed of databases as well as for creative work in related fields.

Course outcome: Students are capable of further specialization in the database field and of doing research and profssional work.

Course content:

- Relational database management systems: integrity, concurrency, protection (authorization and views), recovery, physical model, optimization, standards
- Nonrelational data models - hierarchical, network, EER, logical (deductive), functional, fuzzy relational, object, object-relational
- Object-oriented (OO) databases and OO database management systems
- Native XML databases
- Spatial, textual and multimedia databases
- Temporal databases
- Decision support databases

Literature:

1. C.J.Date, An Introduction to Database Systems, Addison-Wesley, (8 ed.) 2004
2. Ramakrishnan Raghu, Gehrke Johannes, Database Management Systems, McGraw-Hill Companies, 2003
3. изабрани радови

(наставник може изабрати другу одговарајућу актуелну литературу)

Number of hours: 10	**Lectures: 4**	**Tutorials: -**	**Laboratory: -**	**Research: 6**

Teaching and learning methods: Frontal / Individual / Lectures / Exercises

Assessment (maximal 100 points)

Course assignments	**points**	**Final exam**	**points**
Lectures	50	Written exam	-
Exercises / Tutorials	-	Oral exam	50 (project work)
Colloquia	-	Written-oral exam	-
Essay / Project	-		