STRUCTURE OF A SINGLE STUDY PROGRAM FOR SOFTWARE ENGINEERING, SECOND CYCLE OF STUDIES WITH 60 ECTS

Ninth semester		
	Title of the subject	Credits ECTS
1	Advanced Software Engineering	6
2	Research Techniques and Academic Writing	6
3	Modeling and simulations	6
	Elective courses (2 of 4):	
	Information theory with cryptography	6
	Machine learning	6
	Processing natural languages	6
	Data Warehouses	6

Literature	
Subject	Literature
Advanced Software Engineering	***Software Engineering, 9th,*** Ian Sommerville, Addison Wesley, 2010.
Research Techniques and Academic Writing	***Research Methodology: A Step-byStep Guide for Beginners, third edition,*** R. Kumar, Sage Publications, 2010 ***Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, third edition,*** J.W. Creswell, Sage Publications, 2008 ***Teaching academic writing: A Toolkit for higher education***, C. Coffin, Routledge, 2002
Modeling and simulations	***Modeling, Identification and Simulation of Dynamical Systems,*** P.P.J. van den Bosch, A.C. van der Klauw, CRC Press, 1994
Information theory with cryptography	***Entropy and Information Theory,*** R.M.Gray, Springer-Verlag New York, 2013 ***Elements of Information Theory,*** T.M.Cover, J.A.Thomas, John Wiley and Sons, 2006 ***Understanding Cryptography: A Textbook for Students and Practitioners,*** C. Paar, J. Pelzl, Springer, 2010

Machine learning	***Machine Learning in Action,*** Peter Harrington, Manning Publications, 2012 ***Python Machine Learning,*** Sebastian Raschka, Packt Publishing, 2015
Processing natural languages	***Speech and Language Processing,*** Jurafsky D., Martin J.H., Prentice Hall (2ed), 2008 ***Grammar of the Macedonian literary language (part 1), Blaze Koneski, 1952*** ***Grammar of the Macedonian literary language (part 2), Blaze Koneski, 1954***
Data Warehouses	***The Data Warehouse Toolkit,*** Ralph Kimball, Wiley, 2013 ***Agile Data Warehouse,*** Lawrence Corr, Decision One, 2011