MODELLO D (inglese)	**A.Y. 2018/2019**
General Information	
Academic subject	**Information Systems**
Degree course	MSc in Computer Science (LM18)
Curriculum	Multimediality and Innovation in Digital Communication
ECTS credits	6
Compulsory attendance	No, but attendance is strongly recommended
Language	English

Subject teacher	Name Surname	Mail address	SSD
	Francesca Alessandra LISI	FrancescaAlessandra.Lisi@uniba.it	INF/01

ECTS credits details	Nro of credits	Discipline	SSD
Type T1	4	Computer Science	INF/01
Type T3	2	Computer Science	INF/01

Class schedule	
Period	I semester
Year	II year
Type of class	Lectures and practical project work

Time management	
Hours (total, including individual study)	118
Hours of lectures	32
Hours of practical project work	50

Academic calendar	
Class begins	September 24th, 2018
Class ends	January 11st, 2019

Syllabus	
Prerequisites/requirements	Database Systems Information Theory Artificial Intelligence
Expected learning outcomes (according to Dublin Descriptors)	*Knowledge and understanding* Learners for this class will acquire an in-depth knowledge and understanding of advanced concepts in modern Information Systems (IS), ranging from techniques for integrating information to techniques for ensuring the security of information. The class will give attendants a solid foundation for understanding the state-of-the-art research literature of the field. Moreover, the students attending the class will have an opportunity for practicing the English language by learning how to understand and possibly write complex scientific texts on the topics illustrated during the lectures. *Applying knowledge and understanding* Learners for this class will be able to: - apply the acquired competence in the field of IS to address problems related to the conceptual modelling of data, to the integration of information, to the security and the ethics of information, even in new, non-familiar or interdisciplinary contexts;

	- exploit the techniques presented during the lectures in order to develop and evaluate advanced information systems that require the management and integration of information, also at the meta-level; - apply their own competences to identify effective solutions to complex problems involving the integration and the security of information, and to justify, support and argue their choices. *Making informed judgements and choices* Learners for this class will be able to: - make their own assessment and define a critical judgment, and support it within the team during the practical project work; - integrate necessary knowledge in an autonomous way as well as manage the complexity resulting from the limited or incomplete information available; - make decisions and identify solutions in the field of IS by taking into account the social and ethical implications and the professional responsibilities that they imply. *Communicating knowledge and understanding* Learners for this class will be able to: - choose the appropriate form and means of communication for the interlocutors, both specialists and non-specialists; - communicate effectively information, ideas, problems and solutions related to the field of IS. *Lifelong learning skills* Learners for this class will be able to: - develop a high level of autonomy in acquiring new concepts of IS; - keep up-to-date with the evolution of the field of IS by accessing bibliographic sources in either Italian or English; - pursue their own training course by undertaking high-level studies.
Contents	The class will cover different aspects of modern IS, such as: • Conceptual data modeling • Information integration • Information security • Information ethics As special cases of information systems, the class will consider intelligent information systems and geographic information systems. From the application viewpoint a particular emphasis will be given to issues related to the public sector information.
Course program	
Bibliography	Borgida et al. (Eds). Conceptual Modeling: Foundations and Applications. Springer, 2009. ISBN: 978-3-642-02462-7. Elmastri & Navathe. Fundamentals of Database Systems (VII ed.). Pearson Higher Education 2016. ISBN: 978-0133970777. Chomicki, Jan, Saake, Gunter (Eds.) Logics for databases and information systems. Kluwer Academic Publishers, 1998. Himma, Kenneth E.; and Tavani, Herman T. (eds.) (2008). "The Handbook of Information and Computer Ethics", New Jersey: John Wiley and Sons, Inc
Notes	Integration with material prepared by the teacher, with research articles, and with official guidelines.
Teaching methods	Lectures with the support of slides, and practical project work on a case study.

Assessment methods	The assessment is carried out during the exam sessions at the end of the class. The exam consists of an oral test with discussion of the practical project work. While the project work can be carried out in groups of maximum three students, the discussion is individual and does not exceed 45 minutes.
Evaluation criteria	During the exam the student will have to demonstrate: - to have acquired knowledge of the theoretical, methodological and practical aspects of IS discussed during the lectures, and to have thoroughly understood them; - to have gained competence in the application of the acquired knowledge in IS in order to identify effective solutions to the problems encountered during the practical project work; - to be able to adequately justify the project choices, by supporting them with critical arguments and with remarks about potential socio-ethical implications and professional responsibilities; - to know how to communicate clearly and comprehensively; - to have reached a high level of autonomy, through the clear indication of his/her own contribution to the project work when it has been developed by a team. The exam score is expressed over a 30-point scale. The exam is passed with a minimum score of 18/30. The score is determined by taking into account the following requirements concerning the solutions proposed in the practical project work: 1) correctness of the solutions; 2) completeness of the solutions; 3) coherence of the solutions; 4) degree of formalization for the description of the solutions; 5) degree of innovation of the solutions. To pass the exam, the student should be able to propose solutions that satisfy at least the first requirement. Students able to deliver a project work satisfying the requirements 2) -5) get higher scores.
Further information	