1.	Course Details	
1.	Course code	*ARK N09*
2.	Course title	*Archaeology and Ancient History: Digital Archaeology, GIS in Archaeology*
3.	Cycle and code for the depth of study relative to the degree requirements	*Second A1N, requiring only first-cycle courses for admission*
4.	Higher education credits	*15*
5.	Details of approval of course	*Approved by the pro-dean for first-cycle studies at the Faculties of Humanities and Theology 15 February 2012*
6.	Details of changes approved	

2	General Information	
1.	Field(s) (if applicable)	*Archaeology and Ancient History specialising in Archaeology, Historical Archaeology, Classical Archaeology and Ancient History or Historical Osteology.*
2.	Subject (if applicable)	
3.	Type of course and its place in the educational system	*The course is offered as a free-standing course. It can normally be included as part of a first- or second-cycle degree.*
4.	Language of instruction	*English*

3.	Learning Outcomes	
		On completion of the course the students shall
1.	Knowledge and understanding	• *be able to demonstrate thorough knowledge of the use of GIS in archaeology and its technology and applications in a broad sense in order to model, simulate, visualise and communicate archaeological data and interpretations* • *be able to make clear and communicate in speech, images and writing how this research field enlarges our knowledge of human beings and their historical context*
2.	Competence and skills	• *be able to independently complete projects using GIS* • *be able to use both hardware and software for digitalisation, data collection, analysis, modelling and visualisation* • *be able to contribute to and design the development of ICT*
3.	Judgement and approach	• *be able to offer plausible interpretations of data from a critical scholarly perspective.*

4.	Course Content	
1.	Brief description of the	*The course focuses on technologies for collecting two- and*

	course and its content including details of any sub-divisions	*three-dimensional spatial data theoretically and practically. Students acquire knowledge of and apply digitalisation, GPS, total station, photogrammetry for GIS and are introduced to how these techniques can be linked to other archaeological prospecting tools such as magnetometers and georadar. CAD technology is also introduced. The tuition in database management comprises theory and practical applications of relational databases.* *Furthermore, the course introduces the cartographical principles for analysing and communicating spatial data, global and national coordinate systems for locations and how this information can be adapted from one system to another. The principles for digital representation of geography in terms of vectors (points, lines, polygons) and raster graphics are introduced, including the packaging of these in file structures. The use of GIS in archaeological investigations and the principles for modelling the stratification of layers are introduced. Landscape analysis is based on a wealth of data, such as the cultural heritage information system (FMIS), digital elevation models, quaternary biology, historical maps (which need to be applied to present-day geography (rectified)), so skills in statistical data analysis are required. Analysis is concerned with spatial patterns, visibility, networks, simulation of land and resource use, the search for settlements (predictive modelling), etc.*

5.	**Teaching and Assessment**	
1.	Teaching methods employed including details of any compulsory components	*Teaching consists of exercises, lectures, seminars and study visits. Some of the seminars are compulsory and assessed. All course components except lectures are compulsory.*
2.	Examination details	*The assessment is based on an oral or written exam at the end of the course and on home assignments, essays and seminar activities.*
3.	Restrictions regarding the number of examination occasions (if applicable)	

6.	**Grades**	
1.	Scale of Grades	*The grades awarded are A, B, C, D, E or Fail. The highest grade is A and the lowest passing grade is E. The grade for a non-passing result is Fail.*
2.	Grading of the	

	complete course	
3.	Modules and variations in grading (if applicable)	

7.	**Admission Requirements**	
1.	Specific admission requirements	*To be admitted to the course students must have passed one of the courses ARK K01, ARK K04, AKS K04, ARK H04, HOS K04 or the equivalent.*

8.	**Literature**	
1.	Required reading	*For reading lists and other relevant educational materials see appendix (ces).*

9.	**Further Information**	
1.	*The credits allocated for course content that in whole or in part is commensurate with another course can only be credited once for a degree. For further details see the current registration information and other relevant documentation.*	
2.	*The course is offered at the Department of Archaeology and Ancient History, Lund University.*	
3.	*Title in Swedish: Arkeologi och antikens historia: Digital arkeologi, GIS i arkeologi.*	