UAB
Universitat Autònoma de Barcelona

2022/2023

Heritage, Technology and Digital Humanities

Code: 44248
ECTS Credits: 6

Degree	Type	Year	Semester
4317127 Digital Humanities and Heritage	OB	0	1

Contact

Name: Ramón Valdes Gazquez

Email: ramon.valdes.gazquez@uab.cat

Use of Languages

Principal working language: spanish (spa)

Other comments on languages

Reference and basic literature mostly in english. Some complementary lectures can be in catalan

Teachers

David Jorge Casacuberta Sevilla

Ramón Valdes Gazquez

Jordi Roquer Gonzalez

Jordi Vallverdú Segura

Prerequisites

To attend these studies, the general prerequisites of the MA degree on Humanities and Digital Heritage are necessary. In general, the student should have already some studies at BA-level on Humanities and / or Social Sciences disciplines. The course can also be useful to computer science graduates who want to specialize in the use of digital technologies in the field of Humanities and cultural studies, although they do not have previous experience on Humanities nor Cultural studies. Familiarity, at use level, with computers and standard office software is required. Although not mandatory, prior training, at a basic level, in the use of computerized databases, computer-assisted cartography, digital photography and statistics is recommended.

The basic and reference bibliography is in English, as well as the software to be used. Knowledge of English at the level of specialized reading is therefore recommended.

Objectives and Contextualisation

The main objective is to train students in the uses of computer and computing technology in disciplines such as philosophy, linguistics, art, literature, history, anthropology and other social sciences. In this way, the advantages obtained by digitizing historical, humanistic and cultural information and the necessary requirements to successfully apply computer tools in the analysis, management and transfer of cultural and humanistic content are pointed out. Theoretical aspects are discussed - how the theories, techniques and technologies of information transform the scientific activity of those disciplines - and practical, - how computer technology enables new ways of disseminating and investigating this knowledge and of interacting with society. In this module, a general introduction to the Master's subjects and a general presentation of the

various technologies applicable to the acquisition, processing, analysis and communication of humanistic and cultural data are carried out, so that students can understand their diversity, and the relationships between all of them. Digital Humanities are defined as a particular discipline and their history and basic principles are analyzed, as well as aspects of professional development that involve technological capabilities added to classical humanistic training, without losing sight of ethical and deontological aspects, are discussed and evaluated.

Competences

- Act in a creative and original way with solidarity and spirit of scientific collaboration.
- Analyse and extract relevant scientific information from documents and historical, artistic and literary digitized materials.
- Critically analyse a particular scientific problem based on specific documentation.
- Design extended reality systems for use in social and humanistic studies and cultural projects.
- Ensure value and quality, self-discipline, rigour and responsibility in scientific work and dissemination.
- Evaluate the possibilities offered by technology in the production of new forms of cultural, social and humanistic creation and co-creation.
- Incorporate educational methodologies for communication and learning of the content of the projects related to digital humanities and heritage.
- Incorporate the use of computer technology in the communication and transmission of culture to specialist and non-specialist audiences and evaluate the results.
- Knowledge and understanding that provide a basis or opportunity for originality in developing and / or applying ideas, often in a research context.
- Recognise and use the appropriate computer tools for the acquisition, digitization, indexing and processing of documents and historical, artistic and literary materials.
- Recognise and value the social consequences of the work carried out, taking into account the diversity of human communities in questions of gender, identity and multiculturality.
- Recognise the main challenges in the area of study of digital humanities and heritage.
- Students can communicate their conclusions and the knowledge and rationale underpinning these to specialist and non-specialist audiences clearly and unambiguously.
- That students are able to integrate knowledge and handle complexity and formulate judgments based on information that was incomplete or limited, include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgments.
- That students have the learning skills that enable them to continue studying in a way that will be largely self-directed or autonomous.
- That the students can apply their knowledge and their ability to solve problems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study.
- Work in interdisciplinary teams.

Learning Outcomes

1. Analyse the general principles of technologies for the data management by means of relevant case studies.
2. Analyse the general principles of technologies for the digitization of documents and cultural elements by means of relevant case studies.
3. Apply criteria of scientific rigour in the production of academic and professional work.
4. Apply ethical aspects in the analysis of cultural needs for a broad range of audiences.
5. Describe the use of multimedia technologies using relevant case studies.
6. Describe the use of technologies of person-computer interaction through relevant case studies in humanities and cultural studies.
7. Evaluate the analytical focuses based on artificial intelligence from the point of view of quantity, novelty and usefulness of the obtained information.
8. Evaluate the real possibilities of reaching the public through cultural action.
9. Evaluate the results of computer technology from the point of view of quantity, novelty and usefulness of the information that can be obtained.
10. Examine the possibilities offered by computer tools that allow collaboration in cultural creativity.
11. Form part of multidisciplinary working teams in which computer technology and computation are central.

12. Identify areas of application of computerised data analysis in the fields of humanities and cultural studies.
13. Identify areas of application of digitization and computer vision in the fields of humanities and cultural studies.
14. Identify areas of application of person-computer interaction in the fields of humanities and cultural studies.
15. Identify the current state of professional development of computer applications in humanities and heritage.
16. Implement an educational focus in a digital cultural project.
17. Include proposals and reflections of work carried out linked to the perspectives of: gender, universal accessibility, multiculturality and intergenerationality.
18. Incorporate ethical aspects in cultural projects and respect for different opinions and way of being and doing things.
19. Interpret approaches based on artificial intelligence in philosophy, art and social sciences.
20. Knowledge and understanding that provide a basis or opportunity for originality in developing and / or applying ideas, often in a research context.
21. Make innovations incorporating creativity and originality in humanistic and cultural studies with a clear commitment to quality.
22. Propose innovative and competitive ideas based on knowledge acquired in fields which are not directly related a priori .
23. Review the general foundations of virtual, augmented and mixed technologies using relevant case studies.
24. Students can communicate their conclusions and the knowledge and rationale underpinning these to specialist and non-specialist audiences clearly and unambiguously.
25. Summarise advanced knowledge existing in the field.
26. That students are able to integrate knowledge and handle complexity and formulate judgments based on information that was incomplete or limited, include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgments.
27. That students have the learning skills that enable them to continue studying in a way that will be largely self-directed or autonomous.
28. That the students can apply their knowledge and their ability to solve problems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study.

Content

INTRODUCTION TO DIGITAL HUMANITIES

THEORY, TECHNIQUE AND TECHNOLOGY IN THE ACQUISITION OF HUMANISTIC AND CULTURAL DATA

THEORY, TECHNIQUE AND TECHNOLOGY FOR THE PROCESSING OF HUMANISTIC AND CULTURAL INFORMATION

THEORY, TECHNIQUE AND TECHNOLOGY FOR ACCESS TO INFORMATION AND HUMANISTIC AND CULTURAL KNOWLEDGE (Virtual and Extended Realities).

DIGITAL TEXTUALITIES

CREATION AND DIGITIZATION. Information Technologies in the artistic world. The example of music

ARTIFICIAL INTELLIGENCE AND HUMANITIES

RESPONSIBLE TECHNOLOGIES. ETHICS AND DEONTOLOGY. GOOD PRACTICE CODES

DIGITAL HUMANISTS. PROFESSIONALIZATION

- Debate on Humanities and Science

- Case study: Digital Heritage

- Case study: "Textual" digital humanities experience

Methodology

Guided activities: theoretical classes with an explanation of computer techniques and their theoretical and methodological foundations. Seminars of critical discussion of specialized texts

Supervised activities: Presentation of computer equipment. Practices with these equipments. Individualized tutorials to monitor the activities and work entrusted. and to apply the knowledge and skills acquired in the final work of the module.

Autonomous activities: search for documentation, elaboration of databases, exercises of application of the studied analysis techniques, reading of texts, writing of works.

Problem-based learning

Case-based learning

Classroom practicak work

seminars

workshops

debates

Elaboration of works

Personal study

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Explaining digital technologies	36	1.44	2, 3, 4, 12, 15, 17, 26, 24, 27, 23, 25, 20, 7, 9
Type: Supervised			
Practical work with computer hardware and software	25	1	5, 17, 21, 22, 28, 27, 20, 9, 8
Type: Autonomous			
Reading specialized literature and reference work	81	3.24	1, 3, 4, 6, 5, 12, 16, 17, 19, 26, 27, 23, 25, 20, 7, 8

Assessment

Individual test on the topics explained in class (30%).

Reports and written work (individually or in groups). They can be a prospective study that assesses the need to apply any digital technology in the field of humanities or cultural heritage studies, a critical bibliographic study on computer methodology and its theoretical implications, where a practical application of one of the techniques explained with students' own data (25% of the final grade).

Written summaries of the practical sessions, emphasizing the positive and negative aspects of the techniques and methods explained (25% of the final grade).

Critical commentary of specialized texts, from the bibliography that will be suggested at the beginning of the course (25% of the final note).

Class participation (face-to-face or online), attendance at tutorials (face-to-face or online). 10% of the final grade.

Participation in conferences scheduled for the coordination of the master's degree and other complementary activities (10%).

At the time of carrying out / delivering each assessable activity, the teacher will inform (Moodle, SIA) of the procedure and date of review of the grades.

The student will receive the grade of Not assessable as long as he / she has not taken the individual test on the topics explained in class and has not delivered more than 50% of the summaries of the practical sessions and text comments.

In the event that the student commits any irregularity that could lead to a significant variation in the grade of an assessment act, this assessment act will be graded with 0, regardless of the disciplinary process that may be instructed. In the event of several irregularities in the evaluation acts of the same subject, the final grade for this subject will be 0.

In the event that the tests cannot be done in person, their format will be adapted (maintaining their weighting) to the possibilities offered by the UAB's virtual tools. Homework, activities and class participation will be done through forums, wikis and / or exercise discussions through Moodle, Teams, etc. The teacher will ensure that the student can access it or offer alternative means, which are available to them.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Conference attendance and complementary activities	10%	4	0.16	2, 1, 3, 4, 6, 5, 10, 12, 13, 14, 15, 16, 17, 21, 19, 22, 26, 28, 24, 27, 23, 25, 20, 7, 9, 8
Individual test on subjects presented during guided lectures (written or oral presentation)	30%	4	0.16	2, 1, 3, 4, 6, 5, 10, 12, 14, 15, 16, 17, 21, 19, 22, 26, 28, 24, 27, 23, 25, 20, 7, 9, 8
Lesson attendance and active participation	10%	0	0	2, 1, 3, 4, 6, 5, 10, 12, 13, 14, 15, 16, 17, 21, 11, 19, 22, 26, 28, 24, 27, 23, 25, 20, 7, 9, 8
Presentation of repports and written essais	25%	0	0	2, 1, 3, 4, 6, 5, 10, 12, 13, 14, 15, 16, 17, 18, 21, 19, 22, 26, 28, 24, 27, 23, 25, 20, 7, 9, 8
Written comments of specialized literature	25%	0	0	2, 1, 3, 4, 6, 5, 10, 12, 13, 14, 15, 16, 17, 21, 19, 22, 26, 28, 24, 27, 23, 25, 20, 7, 9, 8

Bibliography

Terras y Vanhoutte. Defining Digital HUmanities: A Reader. 2013. Ashgate

Hai-Jew Data Analytics in Digital Humanities. Springer 2017

Barceló, J.A. Computational Intelligence in Archaeology (2009)

Nyhan y Flimm Computation and the Humanities. Springer 2018

Stanco y Battiato Digital Imaging for Cultural Heritage Preservation. CRC Press 2017

Ch'nh y Gaffney Visual Heritage in the Digital Age. Springer 2017

Giannini y Bowen, Museums and Digital Culture. Springer 2019

Berry y Fagerjord. Digital Humanities: Knowledge and Critique in a Digital Age (MIT Press)

Hossaini y Blankenberg, Manual of Digital Museum Planing (2017). Rowman y Littlefield

Mintz y Thomas The Virtual and the Real: Media in the Museum. 1998

Cameron y Kenderdine, Theorizing Digital Cultural Heritage: A critical Discourse (2004)

Bermúdez-Sabel y Gonzalez. Humanidades Digitales: Hacia la Edad Media. 2018, De Gruyter

Vinck, Humanidades Digitales. Gedisa (2018)

Romero Frias y Sanchez Gonzalez Ciencias Sociales y Humanidades Digitales. Sociedad Latina de comunicación. La Laguna (Tenerife). 2014

Cortina y Serra. Humanidad: desafíos éticos de las tecnologies emergentes. Eiunsa Ed.

Galina Russell. Humanidades Digitales: Recepción, Crítica e Institucionalización. Bonilla Artigas Editores

Galina Rusell et al. Humanidades Digitales: Lengua, Texto, Patrimonio y Datos. Bonilla Artigas Editores

Galina Rusell et al. Edición, Literatura y Arte. Bonilla Artigas Editores

Parry. Recoding the Museum. Digital Heritage and the Technologies of Change. 2007. Routledge

Benardou, Champion, Dallas, Hughes. Cultural Heritage Infrastructures in Digital Humanities. 2017. Routledge

Software

No special software required.