

DH-405

Foundations of digital humanities

Kaplan Frédéric

Cursus	Sem.	Type
Digital Humanities	MA1, MA3	Obl.

Language of teaching	English
Credits	6
Session	Winter
Semester	Fall
Exam	During the semester
Workload	180h
Weeks	14
Hours	6 weekly
Courses	4 weekly
TP	2 weekly
Number of positions	

Summary

This course gives an introduction to the fundamental concepts and methods of the Digital Humanities, both from a theoretical and applied point of view. The course introduces the Digital Humanities circle of processing and interpretation, from data acquisition to new understandings.

Content

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Week 1

Introduction to the course and Digital Humanities, structure of the course

Week 2

Introduction to the DH circle of processing and interpretation (acquisition, processing, analysis, visualisation, UX, interpretation). From data acquisition to new understandings.

Part I : Pipelines**Week 3**

Pipeline for Written documents (Printed and Handwritten). Transcription, Named Entities, Semantic modelling, Topic and Document modelling.

Week 4

Pipeline for Maps. Vectorization. Alignment. Homologous Points.

Week 5

Pipeline for Artworks photographs. Segmentation. Features detection. Detail search.

Week 6

Pipeline for 3D spaces. Photogrammetry. Diachronic realignment.

Part II : Algorithms**Week 7**

Algorithms for Document processing : Document analysis and Deep learning methods

Week 8

Algorithms for Knowledge modelling : Semantic web, ontologies, graph database, homologous points, disambiguation.

Week 9

Algorithms for Generative models and simulation : Rule-based inference, Deep learning based generation

Part III : Platform management**Week 10**

Data Management : Computing infrastructure, Data Management models, Sustainability. Apps. Example of Wikipedia and Europeana.

Week 11

User Management : Representation, Rights, Traceability, Vandalism, Motivation, Negotiation spaces

Week 12

Bot Management : Versioning. Open source repositories.

Learning Prerequisites

Required courses

Basic math

One programming course

Learning Outcomes

By the end of the course, the student must be able to:

- Explain the great transformations of Human and Social sciences
- Synthesize the contents of several articles
- Compare different types of research
- Identify the main trends of the domain

Transversal skills

- Take account of the social and human dimensions of the engineering profession.
- Summarize an article or a technical report.
- Demonstrate the capacity for critical thinking

Teaching methods

Lectures, exercises

Assessment methods

Collective Project