DH-401

Digital musicology

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Cursus	Sem.	Type
Digital Humanities	MA2, MA4,	Obl.
UNIL - Autres facultés	E	Opt.

Language of teaching	English
Credits	5
Session	Summer
Semester	Spring
Exam	During the semester
Workload	150h
Weeks	14
Hours	**5 weekly**
Courses	3 weekly
Project	2 weekly
Number of positions	

Summary

This course will introduce students to the broad range of topics in digital musicology as well as essential theoretical approaches and methods. In the practical part, students will carry out a small course project on their own.

Content

Digital Musicology (DM) is a vibrant field that covers the study of a wide variety of musical forms across cultures and historical traditions (e.g., from Gregorian chant up to present-day Jazz, Pop or Indian music), using analytical and corpus-based computational methods. DM involves bridging various sub-disciplines, such as historical musicology, music cognition, music theory, and music aesthetics.

I. Fundamental musicological concepts and methods

- Core research questions in DM
- Types of music-related data, corpora and their representation, forms of transmission
- Cultures, histories, geographies, & networks
- Music aesthetics

II. Music theory, cognition, and modelling

- The acoustical foundation: Tuning systems, scales, sonorities, technologies
- Tonal Pitch Space
- Statistical properties of melody, harmony, rhythm, and meter
- Musical expectancy and predictive processing
- Models of syntactic structure
- Corpus research & style analysis

Learning Prerequisites

Required courses

Required course (obligatory):

- Foundations of algebra, statistics and data analysis
- Basic programming (e.g. Python, Julia)

Recommended courses

Recommended background:

- Introduction to music theory and analysis

Important concepts to start the course

Prior knowledge of music theory (harmony & counterpoint) is desirable, but the class can be completed without.
A good start for a background in basic music theoretical concepts is Gauldin, R. (1997). *Harmonic practice in tonal music*. Boosey & Hawkes; or: Laitz, S.G. (2003). The complete musician: an integrated approach to tonal harmony, analysis, and listening. Oxford University Press.

Learning Outcomes

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

- Distinguish the core concepts used in digital music research
- Explore and orient him-/herself in the multidisciplinary field and identify important research questions and methods
- Analyze databases containing musical and contextual data (e.g. harmonic corpora, melodic corpora, Montreux archive, concert programs, etc.)
- Develop and test hypotheses about musical structures (e.g. melody, harmony, meter) and implement these analyses

Teaching methods

The course consists of 2 hours of lectures per week that will cover concepts and methods. An additional 2 hours per week are dedicated to a class project tackling a chosen DM research question.

Expected student activities

Students are expected to attend the class regularly and actively contribute to the project section. Students are also required to fulfill the reading assignments.

Assessment methods

The theoretical part will be evaluated with an oral exam at the end of the semester, and the practical part based on the student's class project.

Supervision

Office hours	Yes
Assistants	Yes
Forum	Yes