Descriptions of Courses

Graduate

HSS610 Introduction to Digital Humanities and Computational Social Sciences
This course is designed to introduce basic methodologies and fundamental intellectual aims of interdisciplinary research to be carried out in the Graduate School of Digital Humanities and Computational Social Sciences. Research design and methodologies of all three tracks (DH, CSS, LPS) will be discussed.

HSS611 Programming for the Humanities and Social Sciences
In this course, students develop the coding abilities and computational thinking capabilities required for research in the digital humanities and computational social sciences. Students use R and Python to collaborate on team projects to find solutions to various issues in the humanities and social sciences.

HSS510 Natural Language Processing for the Humanities and Social Sciences
This course aims to learn and practice natural language processing methods related to digital humanities and computational social sciences. Specifically, this class examines which texts to select and analyze, and investigate which specific language processing models are used in the humanities and social sciences.

HSS511 Data Science for the Humanities and Social Sciences
This course aims to learn and practice the entire process from data collection, pre-processing, and visualization, which are essential for digital humanities and computational social science research. Specifically, students will learn social media data collection and web scraping methodology, and go through the entire process of the data analysis using clustering and machine learning models.

HSS512 Experimental Methods for Humanities and Social Sciences
The aim of this course is to provide an overview of different experimental methods used in humanities and social science research and to give an understanding of the basic principles of experimental research and its strengths and limitations. Students will learn how to design and undertake experiments and how to analyze and interpret experimental data. Students will take part in tutorial and lab sessions and a research project, in addition to attending lectures.

HSS513 Theory and Practice of Statistics for the Humanities and Social Sciences
In this course, students will develop a understanding of descriptive and inferential statistical methods used in humanities and social sciences research. The topics covered will include basic inferential statistics (e.g., ANOVA, regression) and more advanced methods such as mixed effects models. Students will learn to perform these analyses using R in tutorial sessions.

HSS550 Data Science, Language and Culture
By analyzing language based on big data and AI, the course is designed to assist students to better understand the relationship between language and culture and learn relevant theories. In addition, students will be able to learn how various sociocultural factors are expressed in language from a sociolinguistic perspective. Students will conduct research projects using real big data to deepen students' understanding and analysis skills.

HSS551 Narratology and Big Data
In this course, students understand general theories of narratology and verify these through analytical methods used in data science. By collecting and analyzing narrative texts such as novels, films, and TV series, as well as derivative data such as comments, news articles and critics on those

texts, students will familiarize themselves with major issues in narratology and try to develop new story creation technologies.

HSS552 Special Topics in Digital Humanities
This course provides students with more advanced training in quantitative methods of digital humanities based on understanding of fundamental aims and theories of humanities research. Students will critically engage with key debates and concepts in the field and gain hands-on experience using data.

HSS553 Human-Computer Communication
This course aims to improve understanding of the dynamic interactions between humans and technology. Specifically, this course discusses how computer- mediation and human-computer interaction affect how people communicate in various settings. Lastly, we discuss the future of human communication.

HSS554 Energy and Environmental Data in the Computational Social Sciences
Recently, various energy and environmental data is collected according to the deployment of sensors. This course aims to recent studies using the big data and learn about relevant theories as the accessibility and applicability of the data is enhanced. Also, students will learn how to analyze the actual energy and environmental big data through hands on exercises and enhance analysis capacity.

HSS555 Recent Trends in Computational Social Sciences
This class examines how significant research questions in traditional social sciences are being readdressed through the computational social science methodology. Also, we discuss which theoretical advances have been made through computational social science methodology and develop student's future research plan.

HSS556 Cognitive Science and Applications
This course is designed to understand the various dimensions of cognition investigated through interdisciplinary research methods in philosophy, psychology, neuroscience, artificial intelligence, and linguistics. Fundamental and theoretical issues in cognitive science would be applied to deal with the feasible way of developing intellectually creative objects.

HSS960 M.S. Thesis Research
Students select topics for their M.S. thesis under the supervision of their advisors, and proceed to conduct research on an independent thesis project. Students are required to submit a draft or a finalized version of their M.S. thesis afterwards.

HSS966 M.S. Seminar
Domestic and international experts and researchers are invited to give talks on various topics and future directions in the Digital Humanities and Computational Social Sciences, followed by a free discussion session with students and other participants.