

Course Descriptions

□ Minor Program

CTP201 Introduction to Culture Technology 3:0:3(6)

This course introduces the fundamental concepts of culture technology, and deals with the theory and the practice of the “digitization” of our life and culture. Scientific, technical, and industrial aspects of culture technology is also discussed.

CTP321 Introduction to Visual Content Technology 3:0:3(6)

This course covers the theories and practices for representing, generating, and modifying digital visual content such as photographs and 3D graphics content. Students will learn representing and processing digital images through various data structures and data processing techniques, and subsequently study 3D graphics theories and practice them via programming assignments.

CTP371 Contents Planning and Storytelling 3:0:3(6)

This course is designed to study characteristics of the cultural industry and understand the pre-production, production and post-production of cultural contents. Students can understand basic principles of storytelling and practice the planning of cultural contents.

CTP403 Art and Science Interaction 3:0:3(6)

‘Hybrid’ or ‘Fusion’ is one of the keywords that represent the complex phenomena of modern society, especially of accelerating evolution in science and technology. Among the wide spectrum of fusion ‘movements’, we would like to focus on the fusion between art and science, as it is regarded as the most fundamental from the academical perspective. This course is concerned with the theory, history and practices of the fusion between art and science. It will open with the historical developments and proceed to the contemporary case studies, thereby establishing the framework for the fusion. Students – regardless of their background – will learn new ways of thinking, problem solving, and problem formulation throughout this course.

CTP404 Make Things 1:6:3(6)

The goal of the course is to develop the fundamentals, digital and interaction approaches, which is a new era in the age of IoT (Internet of Things). Students will learn basic techniques of analysis and synthesis using experimental digital design tools.

CTP441 Game Design

In order to complete successful games development, collaboration between many different areas is a prerequisite. Well-balanced contribution from various disciplines is such an important factor in the field. Ideas from various fields have infinite potential to trigger innovative thinking for current and future game media. This course will provide innovative ideas and insights from various disciplines for future game media. During this course, various types of game design will be assigned.

CTP442 Visual Information Processing 3:0:3(6)

This course is designed for students to understand the basic principles of visual information processing of the human visual system and learn the ways to overcome the limitations of the current vision algorithms or systems by applying the computational vision model. In particular, it introduces the mechanisms of the visual information processing as comprehensive multi-interdisciplinary knowledge of vision science, neuroscience and visual computing. In addition, it provides basis for students to carry out further research by applying computational approach as a framework of integrated modules handling shapes, color, motion, depth, etc. to mimic the mechanism of human visual system.

CTP452 Digital Performance Planning and Design 3:0:3(6)

This course aims to provide a comprehensive understanding of digital performance planning and design as well as diverse methods and practical knowledge of performance making while exploring the interconnections between planning and design. Through the writing-up of an actual performance plan and field visits, this course enables students to develop capabilities as performance planners. Furthermore, from the viewpoint of digital scenography, this course attempts to build a systemic understanding of the design of stage, moving image, costume, sound, and lighting as well as choreography and movement composition.

CTP471 Social Networks Analysis 3:0:3(6)

In this course, sociological theories and methodological bases of social networks analysis are discussed. Students review and understand social networks analyses in the fields of sociology, computer science, and physics. Students are expected to design and conduct a social network research for a final team project.

CTP472 Social Media and Culture 3:0:3(6)

This course will investigate social media from a cultural perspective through reviewing seminal literature and conducting hands-on experience with real data. We will focus primarily on digitally-logged propagation events in social media to understand how people, through different cultural contexts, generate and consume information. This class is open to advanced undergraduates and graduate students with either technical or non-technical backgrounds.

HSS324 Science Fiction Cinema 3:0:3(6)

This class will introduce students to the importance of science fiction films. Through close analysis of the visual style, themes and subtext of key films from the historical development of the science fiction genre, students will gain an understanding of how film makers use their visions of the future to comment on contemporary society and culture. Students will learn how to study and appreciate films from different national cinemas, and will gain a richer sense of how science and technology have changed film.

HSS337 New Media and Communication 3:0:3(6)

This course provides guidance on introduction to new media and communication in the context of the complex interactions of culture and technology. This course offers both theoretical approaches and case studies of these interactions from diverse domains, including new media, linguistics, information technology etc. This course will help students to understand relationship between new media and communication effectively.

CS472 Human-Computer Interaction 3:1:3(0)

As an HCI course for Computer Science students, this course pursues the following three goals: 1) introduction to the basic concepts, theories, and methods for HCI studies, 2) introduction to the wide range of interfaces from mobile interfaces to brain-computer interfaces, and 3) providing hands-on experience of realizing ubicomp user interfaces. Major chapters from the main textbook and several selected chapters from other supplementary textbooks will serve the first two goals. For the third goal, students will propose and conduct a term project, which will be supported by lab sessions on basic electronics and interface techniques.