

COURSE DESCRIPTIONS 科目簡介

COURSES FOR 4-YEAR UNDERGRADUATE PROGRAMMES

ADA1001 2D Animation (3 credits)

This course is an introduction to the various elements of 2D traditional and digital animation. Through individual and group assignments, students will explore various tools and techniques while developing their skills of styles, concepts and have better understanding of the possibilities of animation. This course will also experiment with the use of interactive text, vector and bitmap graphics, photography, sound and video as it relates to 2D animation.

ADA1002 Art History: An Introduction (3 credits)

The course provides a historical survey of artists, artistic styles and artistic movements from Ancient times to the present day. Relatively more time will be devoted to the fine arts (for example, painting, printmaking, and sculpture) and to the development of art after the Middle Ages. Although the course focuses on Western art, the instructor is free to intersperse the survey with chapters on Chinese and Asian art.

ADA1003 Computer Graphics (3 credits)

This course is designed to introduce the production of computer graphics as they apply to arts and design from studio perspective. Both technical and aesthetic issues will be addressed. Aesthetic issues will encompass concepts, composition, appreciation and historical context. Technical topics will include raster and vector imaging, scanning, retouching, printing, animated graphics, and other related topics. The Adobe CC software package will be used to illustrate the principles and techniques, and to produce the projects.

ADA1004 Introduction to Moving Images (3 credits)

This course introduces studies of moving images as an interdisciplinary subject grounded in film history, updated by computer technology in the 21st century. The course will first focus on a brief history of moving images, covering its phases from pre-photographic optical effects to the institutionalised form of cinema. The second part will cover key elements and tools needed to grasp film as a creative and communicative medium. Students must consider (and assess) ways in which cinema makes sense to audiences, practitioners and theorists. The last part of this course engages students with a broad-based sense of contemporary moving images via intersections between film art and digital technologies. Students will learn the fundamental theories of media technology empowered for creative and artistic ends.

ADA2001 History of Animation (3 credits)

This course introduces students to the history of animation, and to the ways animation forms and styles have developed over time. The course covers animation from its prehistory, before the invention of film, to the present day, including both traditional hand-drawn animation and digital animation.

ADA2002 3D Animation Workshop (3 credits) (recoded from ADA3001 from 2019-20) (Prerequisite: ADA2003 Digital Modeling and Rendering)

This course will present the fundamental concepts, issues and techniques of three-dimensional computer animation. Students are required to not only be able to navigate the software interface to create animated sequence, but also to create expressive motion. In the course, students will observe and analyse motion and explore different animation techniques in order to create believable, expressive motion. Animation, because of its time consuming nature, requires planning and organisation. The course will explore the world of 3D

computer animation from initial concept to final production. It introduces the language, principles, aesthetics and 3D tools used in the creation of animation within the context of art and design. The Autodesk Maya software package will be used to illustrate the principles and techniques dealt with.

ADA2003 Digital Modeling and Rendering (3 credits)

This course will present the fundamental concepts, issues and techniques of three-dimensional computer modeling and rendering. Both technical and aesthetic issues will be addressed throughout the course. Aesthetic issues will encompass concept, composition, light and color, framing and historical context. Technical topics will include: coordinate systems, transformations, primitives, patches, polygons, NURBS surfaces, hierarchical grouping, lighting, rendering, and texture mapping. The Autodesk Maya software package will be used to illustrate the principles and techniques, and to produce the projects.

ADA2004 Motion Graphics (3 credits)

This course will explore the design requirements for professional quality broadcast graphics and title design for animation and multimedia projects. Using combinations of still images, graphics, video footages and audio sound tracks, we will examine the relationships of motion, pacing, textures, transitions, design and composition in space and time. Emphasis will be placed on compositing techniques, design concepts, art direction, aesthetics and the overall style of professional motion graphics productions. Asset management, aspect ratios, resolutions, interpolation algorithms, colour depth and image stabilisation techniques are also addressed. The Adobe CC software package will be used to illustrate the principles and techniques, and to produce the projects.

ADA2005 AI and Storytelling (from 2026-27)/ New Media Storytelling (in 2025-26 or before) (3 credits)

Storytelling is an essential part of new media and AI-driven cultural production. This course introduces to students characteristics and techniques of new media and AI storytelling, helps students to gain hands-on experience in producing multimedia artifacts using generative tools, and investigates social and ethical issues involved in new media and AI storytelling.

ADA2006 Storytelling and Storyboarding (3 credits)

Storytelling and Storyboarding is an essential part of new media production. This course introduces to students characteristics and techniques of creative storytelling, helps students to gain hands-on experience in producing multimedia artifacts, and develop different formats of storyboards that will best serve the intended media. Students will learn to translate concepts such as shot types, continuity, pacing, transitions and sequencing into a visual narrative. Exploration of cinematic vocabulary and storyboard technique in the creation of both personal and professional expression are emphasised.

ADA2007 Experimental Animation (3 credits)

This course approaches animation from an artistic, individualized point of view. It offers an opportunity for students to experiment with different styles and techniques of animation while addressing fundamental problems such as rhythm, timing, and sound. Emphasis is on conceptual idea and development, abstract and material processes, and encourage students to discover and explore methods of visual expression in animation. Through individual and group assignments, students will explore various tools and techniques while developing their skills of styles, concepts and have better understanding of the possibilities of animation. The course is organized to maximize hands-on experience and will include screening, in-class critiques, exercises, and work sessions. The critiques will be run as seminar-style discussions, while all students could participate in the critiques and discussions of each student's work.

ADA2008 An Introduction to Arts and Technology (3 credits)

Artists have always used technology as new ways to express themselves and art and technology have become more and more intertwined over time. Since 1900, many contemporary artists adopted new types of media and technology to create their works. The growing influence of technology is a creative force.

This course will explore the relationship of art and technology through the study of art history from modern art to mixed-media art, net art, digital art, computer animation, computer-generated imagery (CGI), interactive installation, robotic art and so forth.

Different artists and their applications of different technologies will be studied to explore their relationship to transforming culture and society. Students will gain broader understanding and critical awareness of different concepts and developments of art and technology from early experiments by futurists and constructivists to most recent practices like interactive games and expanded reality experiments with wearable and portable media.

ADA3001 3D Character Animation Workshop (3 credits) (recoded from ADA2002 from 2019-20)

This course deals with advanced issues of 3-D computer animation. The subject will stress professional techniques and workflow methodology to maximise students' realisation of their ideas and concepts. Students will develop highly accurate timing, to achieve their individual style of animation. The subject should improve students' insight into what makes an animation succeed, whether it is computer generated or not. It should also improve students' abilities to themselves produce successful 3-D computer animation. The Autodesk Maya, Adobe CC software packages and Advanced Skeleton Plugin will be used as an example and to produce the project.

In the workshop, students are expected to conduct themselves as professionals. Moreover, they are expected to be considerate and helpful peers to their classmates, to share knowledge, to be attentive and to provide thoughtful commentary during critiques, to participate heart and soul, to present work in progress professionally, and to turn in the project on time and in a professional manner.

ADA3002 Concepts of Expanded Reality (3 credits)

This course offers an introduction to some of the main theoretical issues occasioned by the technologies of virtual and augmented reality. Issues to be addressed include: What is virtual reality? How does one engage with such a reality? What technologies are used in 'building' a virtual or augmented reality? And what are the ethical questions that such 'worlds' pose?

ADA3003 Cultural and Creative Industries: Principles and Practices (3 credits) (deleted from 2023-24)

Development of cultural and creative industries is key to the growth of the contemporary knowledge-based economy. This course introduces the principles of the cultural and creative industries and covers the work of creative industries practitioners who explore the expression of culture and creativity for artistic gains.

ADA3004 Interactive Art (3 credits)

This course introduces students to the concept, history, and techniques of interactivity in art and design, with an emphasis on interactive designs in computer animations. The course will explore the participatory and performative nature of interactive art and designs from various perspectives, including media studies and human-computer interaction studies.

ADA3005 Photography Theory (3 credits) (deleted from 2025-26)

This course offers an introduction to some of the main theoretical issues that photography occasions. The medium of photography will be addressed from philosophical, technological, and art-historical perspectives. A special attention will be given to the analogue-digital transformation of photography, and the implications that this might have with respect to the epistemology of photography (how photographs provide knowledge), and photography's artistic capacities.

ADA3006 Sound Design (3 credits)

Animation means 'giving life to,' which is augmented by sound design and its integration with images. This course will enlighten students to discover the power acoustics have on human experience and creative process. Students will learn how to imagine, create and notate soundscapes.

ADA3007 Non-fiction Video (3 credits) (deleted from 2023-24)

Non-fiction video encompasses a wide range of genres and serves many different purposes. It is not limited to the forms of documentary we see on TV. This type of video-making raises important questions having to do with the nature of images, their intended impact on society, perception, cognition, truth, and story-telling techniques. It is especially important during the digital era nowadays, the usage of digital imaging has penetrated our ordinary life and an enormous number of non-fiction visual materials were produced daily. Drawing on cinematic examples from diverse national contexts, especially videos from East Asia, this course foregrounds the formal complexities of contemporary non-fiction video in order to explore their theoretical as well as ethical, social, and political implications. Particular emphasis will be paid to new media and the online content that these media facilitate.

ADA3008 Gamers and Game Markets (3 credits)

Video games were a niche entertainment genre three decades ago. It rapidly grew into an enormous popular cultural and media market that is only rivaled by a few established ones such as television. While current observers recognize the business, cultural, and social significance of game markets, few except scholars specializing in game studies have a holistic understanding of them. At first glance, games may look like other creative media products. However, their industries, product content, and users considerably differ from the counterparts of most creative media markets. Examples include the thoroughly interactive product-user relations, strange and varied (but lucrative) derivative markets such as gold farming and gamestreaming, and the sociality among users. This course will offer students specialized knowledge of the game markets while also approaching them in a holistic, critical, global, interdisciplinary, and historically informed manner.

ADA3009 Dynamic Visualisation (from 2026-27)/ Visual Programming (in 2025-26) (3 credits) (from 2025-26)

This course aims at exposing students to the possibility of interacting within digital arts by exploring both history, practice of generative art, and computational creativity. It starts with an overview of programming interactive computer graphics and drawing algorithms. A goal of this course is to enhance students to understand and develop practical skills in producing artworks by using programming as an artistic medium.

ADA3010 Virtual Studio Production (3 credits) (from 2026-27)

This course introduces students to the principles and practices of virtual production using real time rendering engine. It focuses on the integration of filmmaking, real-time 3D environments, virtual cameras, lighting, and studio workflow for screen-based media production. Students will learn how virtual production transforms pre-production, production, and post-production processes by enabling real-time visualisation, in-camera

effects, and collaborative digital workflows. Through practical exercises and project-based learning, students will develop skills in planning, designing, and producing scenes in a virtual studio environment.

ADA4001 Capstone Project (6 credits)

The Capstone Project requires the planning and execution of an animation or digital arts project; for example, a short animation film, a simple video game, or a multimedia installation that makes use of new media . The precise nature of the project will be determined by the student in consultation with his or her supervisor(s). Animation projects are recommended to be 1–4 minutes in length. For digital arts projects, please consult the Capstone Handbook and your advisor for further clarifications. Group projects are permitted with up to four students per group.

ADA4002 Digital Art Installation (3 credits)

This course is an introduction to the history, concepts, and issues of installation of digital art. It will explore the uses of digital art in a variety of contexts, including theatres, musical, exhibition spaces such as museums, trade fairs, and various types of entertainment centres. Students will explore various modes of human-machinery interaction, including input-systems (e.g. sensors, motion capture, etc), output-systems (projection, sounds, etc), and hybrid reality where live actions of humans are mixed with digital elements.

ADA4003 Game Design (3 credits)

This course is designed to teach students the process of computer game design. It will focus on the practical aspects of game design, but will also introduce students to the history of games, especially board and card games, and the theoretical basis for gameplay in general. Students will learn to develop game ideas, create design documents, create basic computer games using popular design tools, collect player feedback, and revise their game designs.

ADA4004 Production Design (3 credits)

Production design translates written words for the screen, creating visual effects for narratives. This course introduces to students basic elements of production design and train students on how to use appropriate techniques to design.

ADA4005 Virtual Reality (VR) / Augmented Reality (AR) Workshop (3 credits)

This course offers a production-based introduction to the principles of virtual and augmented reality. The course is a combination of lectures and lab-based exercises, where the fundamentals of VR /AR technology is described and practiced. During the course, students will, as a project, design a basic Virtual Reality application.

ADA4006 Visual Effects Workshop (3 credits)

This course focuses on the overall workflow of digital visual effects productions, explores different visual effects and dynamics systems, and introduces the basic principles behind each process among the spectrum of digital visual effects that are being practiced in the current animation and digital arts industry. Hands-on experience is provided in the workshops in order to assist students in expanding their visual vocabularies. An industrial standard 3D software package will be used to illustrate the principles and techniques dealt with.

ADA4007 Advanced Interactive Art (3 credits)

(Prerequisite: ADA3004 Interactive Art)

This course delves into the advanced theories and practices of interactive arts, exploring the intersection of technology, creativity, and user experience. Students will engage with cuttingedge interactive technologies and methodologies to create dynamic art installations,

performances, and digital experiences.

ADA4008 Internship (3 credits) (from 2026-27)

This course is an internship programme involving collaboration with an organisation utilising animation, digital interactive, art, design or other creative field. The course is structured with strong emphases on both practice and research. Throughout the course of placement, students will acquire administrative and practical experiences in animation, game design, app development, film production, motion capture, projection mapping or similar area of art and design, and this will in turn provide an opportunity to think critically about and to apply different theoretical approaches to various issues related to art and design specifically related to communicating with an outside audience. Each student is required to conduct a research project related to an animation, digital interactive, art or design organisation.

The course provides solid training in various skills associated with art and design for entertainment media through direct contact with an organisation and work related tasks, reporting to a supervisor and following through with projects to their completion or handing off to a team member.

Progress and findings of the project will be documented and presented as a written paper at the end of the course.

ADA4009 Performance with Digital Characters: Motion Capture Workshop (3 credits) (from 2026-27)

(Prerequisite: ADA2003 Digital Modeling and Rendering or equivalent)

This course introduces the creation and application of motion capture technology in animation and film production, exploring both aesthetic concepts and professional studio practices. Students will gain a strong foundation in computer graphics while developing skills across three key areas: (1) the 3D basics of character modeling and rigging for motion capture, (2) the technical processes of preparing capture spaces, operating equipment, and managing production workflows, and (3) the artistic and leadership skills required to direct performers, choreograph stunts, and guide a motion capture crew.

Through hands-on exercises and integrated projects, students will learn to capture live performance, process motion data, and combine it with animation and simulation in 3D environments. Emphasis will be placed on both the technical precision and the creative expression that motion capture brings to character performance, preparing students to bridge the gap between live acting and digital storytelling in animation, game design and film production. Students will develop processes that can be included into Capstone projects of live performances, short films or game levels.