

### **MAA 601** Special Topics

It's a theme-based course, covering the topics of animation and new media arts. Lecturers are the experts from digital contents field, each addressing a specific topic relevant to the course.

### **MAA 602** Research Methods

This course introduces various studies to make a systematic, controlled, empirical, and critical investigation of natural phenomena by making definition or research hypotheses. Students are guided to become familiar with the various research methods that may be applied to topics of research.

### **MAA 610** Experimental Animation Research and Practice

This course will explore the spirit and development of experimental animation in depth, and takes various forms of experimental animation as examples to introduce behind-the-scenes skills and aesthetic styles of experimental animation. The course covers a variety of experimental animation works and practice exercises, including paper-cutting animation, motion graphics, sand animation, paint-on-glass animation, live character animation, physical object animation, abstract animation, and digital animation.

### **MAA 611** Animation Music Research

This course aims to help students understand the importance of the music in animation. Through watching animation and analyzing the music, students realize how good music may affect animation, and then create animation with well-composed music.

### **MAA 618** Animation Aesthetics

Based on aesthetics, this course makes studies on the contents, styles, visual language, technology, and overall presentation of animation. Students will learn how to deconstruct and analyze animation, enhance their theoretic foundation and aesthetic training, as well as broaden their visions for developing a career as animation producers in the future.

### **MAA 619** Digital Sound Effect Practice and Research

This course aims to help students understand the sound effect in animation. Through watching animation and analyzing the sound effect of animation music, students will realize how to make proper sound effect for animation.

### **MAA 651** Studies on User Interface

Human Interface is one major factor to determine the success of a program. The course makes case study on existing programs, discussing their interface design problems and solutions. This course begins with introduction to Human Interface, and then gives training on how to discover hidden problems and figure out solutions. At the end, each student is expected to design a visionary human interface.

### **MAA 652** Research on Digital Art and Aesthetics

The course leads students to study and make research on the aesthetics of digital art. It covers:

1. Discussion on digital art commentary.
2. Discussion on the concepts and methods of Digital Art creation.
3. Requirement of a project proposal on Digital Art.
4. Application of interactive programs and sensor devices to Digital Art creation.
5. Actual practice and discussion.

### **MAA 653** Internet Programming

Internet programming languages are the foundation to realize a variety of web applications. This course covers:

A. Instructions of Internet programming languages; B. Execution of order architecture, selection of architecture, and repetition of architecture; C. Architecture of memory processing, and; D. File databases. It endows students with the ability to write network programming language application systems and become providers of computer application systems.

### **MAA 654** Video Art

Through literature study and discussion, this course guides students to understand the history and different styles of Video Art. It puts equal emphasis on artworks analysis and actual practice to develop students' artistic concept and capability for making video creation. This course is designed to integrate the basic skills of shooting techniques, non-linear editing, and artistic style presentation, and further inspire students to incorporate their humanistic cultivation and contemporary video artistic concepts into their own creation.

### **MAA 655** Electronic Media Installation Art

This course guides students to understand the principles of electronic medium, interactive installation, and other related knowledge. During class discussion, students are encouraged to raise creative ideas and discuss how to integrate program design into interactive installation. This course aims to combine the foundation of formatives, multi-media, power electronic, interactive installation technology, and program control, in order to help students to apply their artistic concept to the realm of electronic media and installation art.

### **MAA 656** Game Development Programming ( I )

This course leads students to realize the constructions, syntaxes and skills of “Scripting language” via example interpretation. Students are trained to apply varied physical behaviors to establish interactive game based on mobile device via practical operation. The contents include: 1. Scripting structure of Android 2.0; 2. Signal processing; 3. Sensor processing; 4. Game Physics.

### **MAA 657** Music-Inspired Design Research

This course aims to discover how and what music can inspire innovative design. It’s involved three basic questions: Can music inspire design creativity? If so, how? and what can music inspire? No requirements of students’ background in either music or design, but desires.

### **MAA 658** Interactive Sound Research

This course will introduce students to the fundamentals of digital audio design and provide them with the basic tools to use the technology appropriately, creatively, and effectively. The Topics include (1) Max/MSP; (2) Pure Data; (3) DSP; (4) Audio and Visual interaction; (5) Audio and movement interaction; (6) Midi interface; (7) Sound specialization

### **MAA 659** Qualitative Research

This course will introduce the foundation of qualitative research and clarify the theoretical distinction between quantitative and qualitative research. It introduces various examples of qualitative research, enabling students to understand the theory and practice of qualitative research methodology. This course will focus on research methods in the field of arts and humanities such as participant observation, in-depth interviews, and ethnography, etc. Students will have to complete a pilot study for their future research.

### **MAA 660** Interactive Installation Art Project

Students are guided to apply space and interactive programs into their art projects. The course covers:

1. Discussion on language and aesthetics of interactive installation arts.
2. Discussion on concepts and strategies of interactive projects.
3. Guidance to apply programs and sensors to interactive art installation.
4. Each student is required to propose a final case study related to Net Art and make discussion.

### **MAA 661** Net Art Project

Leading students to explore and create real time interactive net art project through Internet.

The course objectives are:

1. Discussion on Net Art.
2. Discussion on Net Art strategy and idea.
3. Guidance for students to apply interactive programming, sensors and internet devices with Net Art.
4. Requirement for students to propose a final case study related to Net Art and make discussion.

### **MAA 662** Computer Language in Internet-Multimedia

Computer Language in Internet-Multimedia is an important tool of digital-art creation. This course covers:

- a. interdiction to Pure Data
- b. input and output interface design
- c. sound processing, graph processing
- d. image and interactive-device processing
- e. Internet-Multimedia

Students are trained to develop the ability of programming for multimedia -application and to become multimedia-application providers in Internet.

### **MAA 663** New Media Art Project

This course is designed to enable students to appreciate the humanistic cognition and its relation to New Media Art. This course takes a heuristic approach to inspire students to explore contemporary art, and the interrelation among culture, humanities and society. The content of this course incorporates a range of artistic thinking from the contemporary artists, the contemporary trends and their mutuality with New Media Art. Via diverse discussions, the course will stimulate student's inspiration to combine humanistic spirit and New Media Art and further incorporate their insight into contemporary art creation.

### **MAA 664** New Media Art and Creative Strategies

This course will enable students to understand New Media Art forms, their creative strategies, and the development trend of contemporary New Media Art. Through a range of creative inspirational training, discussions and art practices, the course will stimulate students to propose their own artistic concepts and come out with their own integration with New Media Art. The object of this course is to combine creativity with New Media technology, program design and artistic concepts in order for students to use digital technologies to make artistic presentation, mixed with humanistic concerns.

### **MAA 665** Game Development Programming ( II )

This course leads students to realize the constructions, syntaxes and skills of "Programming language" via example interpretation. It guides students to apply varied physical behaviors to establish interactive game based on multiuser network via practical operation. The contents include: 1. Programming structure of Visual C++; 2. Object oriented programming; 3. Socket service; 4. Artificial Intelligence.

### **MAA 666** Multimedia Music Research

This course aims to develop students' ability to use fundamental digital software to compose music. Music theories, computer music and different digital music composition software will be introduced and elaborated during this semester. The goal is to help animation-majored students understand composers' language and successfully collage their own music for their animation works.

### **MAA 667** Interactive Audio and Image Design

This course will introduce students to the fundamentals of digital audio design and provide them with the basic tools to use the technology appropriately, creatively, and effectively. The Topics include (1) Max/MSP; (2) Pure Data; (3) DSP; (4) Audio and Visual interaction; (5) Audio and movement interaction; (6) Midi interface; (7) Sound specialization

### **MAA 668** Internet Technology and Application

It introduces the client-server information service methods of the World Wide Web (WWW), and explores the programs and network information technologies.

### **MAA 669** Game Design Research

The course aims to guide students to understand the philosophy and structure of games by literature review and research. Applying basic philosophy of game design to produce new concepts towards different fields of industry and culture, enabling different message and knowledge to directly communicate through gaming. Human interface and game interactivity are the topics to be focused in this course.

### **MAA 670** Animation Applied in Interactive Performance Project

Animation has become the most important presentation media for various kinds of performance, not only because of its wide application in most multidisciplinary projects but also the unique visual impact resulted from the combination of animation and interactive programming. The course covers:

1. Introduction and discussion on how it has been applied by various performing teams.
2. Requirement for students to propose a research topic on interactive performance and make discussion.
3. Guidance for students to learn more about multidisciplinary art, improving their skills and vision.

### **MAA 701** Academic and Professional English in New Media and Animation Arts

Students are guided to develop the capability in studying English literature on multimedia or animation arts, and acquire following knowledge and skills:

- (1) Special terms of multimedia/animation;
- (2) Basic format of technology research paper, composed of abstract, introduction, method explanation, research result and discussion;
- (3) Capability to grasp the messages conveyed by the author of the document studied.

### **MAA 707** Studies on Animated Film

This course will train students' appreciation of animated films and their analytical abilities, and thereby allow them to be able to carry out in-depth study of the development, aesthetic styles, and creative content of foreign and domestic animation works.

### **MAA 712** Project Management & International Marketing

This course aims to explore the role of animation projects' producer. Students are trained to manage an animation project for promoting animation works on both domestic and international markets.

### **MAA 751** Literature Review

Thesis is the final showcase for students to complete their Master's Degree program, literature review then becomes an important training before the final showcase. The course would train students from different fields such as Internet Media, Digital Art, Animation, and Game Design to read important literature, thus allowing them to think and decide on how to make a good thesis.

### **MAA 752** New Media and Live Art

Through the integration of New Media and Live Art forms, this course will guide students to understand the significance of New Media Art, the content of Live Art, and the essential elements that form the two together in order for them to establish new routes for contemporary art practice. The content includes: 1. forms and the presentation of New Media; 2. significance and the connotation of body; 3. philosophy and factors of Conceptual Art; 4. perception and experience of Live Art; 5. study and application of interdisciplinary practice.

### **MAA 753** Open Source Software Programming

This course leads students to realize the constructions, syntaxes and skills of "Open Source Software" via example interpretation. It guides students to apply varied I/O devices to establish Human-Computer Interface centered on people via practical operation. The contents include: 1. Open Source Software introduction; 2. Event processing; 3. Device application; 4. Feedback processing.

### **MAA 754** Game Proposal

The gaming industry has become the largest sector of the digital content industry. The important factors in its success lie in game creativity and rich interaction. The content of this course covers game concepts, functions, picture description and market analysis through the reading of literature, communication and discussion, to stimulate game creativity. After rationalization, this is then combined with practical considerations. Brief report writing abilities, and project planning management are also important items of training in this course.

### **MAA 755** Interdisciplinary Art Project

This course trains students from different fields such as multimedia, theater art, and dance performance to understand the theories and thoughts of multidisciplinary project. The course objectives are:

1. Interdisciplinary art projects on multimedia art.
2. Interdisciplinary art projects on dance.
3. Interdisciplinary art projects on theater stage and lightings.
4. Final project proposal and discussion.
5. Final public presentation and seminars

### **MAA 756** Web Planning and Practice

The course provides students with the opportunity to complete an interactive website. This course uses, A. Formulation, publishing and review of a business proposal; B. Special topic production; C. Testing and amending works, in order to enable the students taking the course to gain a complete experience of building an interactive website.

### **MAA 757** Studies on Digital Content Industry

The digital content industry is a key national industry, and there is a serious shortage of talent. This course takes the digital content industry as its scope, provides an understanding of national policies, the state of the industry, and its problems, and then carries out discussion and research on a case by case basis. The goal is to narrow the cognitive discrepancy between academia and the industry, and to develop the R & D manpower needed by the industry.

### **MAA 758** Research on Web Application

Internet has totally changed the lifestyle of human being and it even turns out to be the most effective media. The course aims to make research on internet applications like Facebook, Youtube, and other thesis studies then seeks to create new strategies for internet application after brainstorming in class.

### **MAA 759** Interactive Digital Performance Project

Interactive digital media is now widely used in a variety of cross-domain creative work, and has become one of the important forms of expression in contemporary times. This course covers: 1. Introduction to relevant foreign and domestic interactive performance groups. 2. Study of the creative proposal approach to allow students to explore interactive performances. 3. Carrying out the proposal and discussion of works. 4. Publicly published and discussed.

### **MAA 760** Project Training and Internship

This course aims to train students to have a complete practical proposal, planning, implementation and application ability through actual practice and field work. Course design is for groups to first form groups to discuss topics, for cooperation with relevant institutions outside the school, to conduct practical research work. Finally, each student's complete description of what they have gained from the study is submitted in the form of a report.

### **MAA 761** New Media Art International Exchanges and Planning

New Media Art exhibitions, festivals, and competitions have already become very popular all over the world. Many major universities abroad provide new media art courses as well.

The course objectives are:

1. To introduce International New Media Art and its current progress.
2. To introduce related New Media Art programs and activities.
3. To make effective use of the resources and platform of NTUA to make it as a platform for international communication.
4. To guide students to make the proposals for participation in international exhibition or other international exchange activities.

### **MAA 762** Trend of Contemporary Art

This course will enable students to appreciate the humanistic cognition and the creative forms of Contemporary Art. Via analysis of various artworks and demonstrations of different artist's practice. The course will thus explore the interrelationship of contemporary art, culture trends and society. The aim for this course is to articulate students' philosophical foundation of a combination of their creative thinking, trends of time, humanistic thinking and art mediums. This course will then employ diverse discussions to inspire students to integrate humanistic awareness, together with different artistic forms and apply them into life and artistic fields.

### **MAA 763** Interactive Programming Design

This course leads students to realize the constructions, syntaxes and skills of "Scripting language" via example interpretation. It guides students to apply varied media to establish Human-Computer Interface based on internet via practical operation. The contents include:

1. Scripting structure of Processing;
2. Object oriented program;
3. Internet resources;
4. Media application;
5. Data processing.

## **MAA 764** Interactive Web Site Design

An ability in interactive website design is the foundation for the realization of various website applications. This course discusses existing interactive website forms (blogs, Internet shopping stores...) and guides students to make actual practice to further develop concepts and produce practical future interactive websites.