3D Animation & Visual Effects

Bachelor of Art and Design

Course Components

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Year One

Foundational Components

Foundation 3D — Animation, and Rigging: 3D1G01A
Credits: 20

This component is designed to provide students with basic skills to enable the operation of contemporary 3D packages to produce simple digital rigs and animations. It also provides an enhanced understanding of the common vocabulary used in various areas of visual effects and enhances analysis, observation and appraisal skills.

Foundation 3D — Modelling, Surfacing, Lighting and Visual Effects: 3D1G02A
Credits: 20

The aim of this component is to provide students with skills to enable the operation of contemporary 3D tool sets to produce simple digital models, textured surfaces and scene lighting. Observation skills are enhanced as is knowledge and ability to apply design theory to the development of digital assets.

Traditional Art and Design for 3D and Visual Effects: 3D1G03
Credits: 15

The purpose of the component is to provide students with the ability to create traditional art assets to fulfil another individual's brief. Skills developed include the production of assets exhibiting effective use of theory and concepts and observation skills in the identification of art and design theories present in art works.

Digital Art I: 3D1G04
Credits: 15

The aim of this component is to provide students with skills and abilities using digital tools to create art assets to meet another person's vision and idea. The ability to identify and analyse the theories and concepts exhibited in digital art assets and the ability to design and develop digital art assets exhibiting effective use of design and art theory are enhanced in this component.

Digital Art II: 3D1G05
Credits: 15

The purpose of this component is to provide students with skills and abilities in operating tools to create 3D digital art assets to meet the predefined vision of another creative person. It also enhances the student's ability to justify and defend their art and design decisions, the ability to critique art assets from multiple perspectives and enhance skills and knowledge in digital compositing.

3D Modelling: 3D1G06A
Credits: 15

This component enables students to build 3D models fit for production purpose and to give students skills and knowledge to facilitate further study. The component also enhances existing critical thinking knowledge and abilities, existing creative thinking knowledge and abilities, increases commercial acumen and enhance existing investigatory skills.

3D Rendering: 3D1G07A
Credits: 15

The objective of this component is to prove students with skills and knowledge in rendering and lighting 3D objects and scenes. It teaches enhanced observation and examination skills and knowledge in technical problem-solving further enhancing design and development capabilities in rendering, surfacing and visual effects.

Foundation Mini-Project: 3D1G08A — Credits: 10

The aim of this component is to provide students with explicit subject synthesis by drawing many aspects of study into a project that will enhance a student's ability to produce test and revise their art assets. This component advances knowledge and skills in the development of aesthetically pleasing assets and enhances ability to polish art assets.

Design Principles and Practice I: 3D1G09
Credits: 15

This component enables students to utilise the principles of design for the purpose of analysis and critique. The component also enhances critical thinking, debate and considerations for historical influences on modern day productions and develops observation skills.

Year Two

General Studies

Pre production: 3D2G01
Credits: 10

This component develops knowledge and skills in effective pre production techniques that will facilitate planning, producing and editing in motion picture production. It examines the role of pre production in production pipelines delivering knowledge and skills in the area of storyboard development and theoretical knowledge of cinematic elements.

Video Productions: 3D2G02
Credits: 10

The aim of this component is to provide knowledge and skills in the ability to observe film footage and determine the cinematography elements contained. This includes knowledge regarding the preparation work required for principle photography in a video production and knowledge of sound recording requirements and its associated problems.

3D Scripting: 3D2G04A
Credits: 10

The purpose of the component is to provide students with the technical skills and knowledge in scripting for production optimization and enhancement. Students will enhance their abilities in testing, examination, diagnostic analysis, and observation delivering enhanced ability to evaluate visual effects solutions.

Design Principles and Practice II: 3D2G05
Credits: 15

The aim of this component is to enhance existing design theory knowledge to enable the student to justify their own design decisions for different projects. The enhanced critical thinking knowledge and skills provide the necessary platform for students to attack and defend ideas, concepts and theories.

Industry Procedures and Practice I: 3D2G06
Credits: 15

The objective of this component is to enable students to develop investigatory skills. Lessons will enhance their understanding of the influence of various visual effects and special effects concepts by considering the historic and contemporary use of these methods. Students will gain project management knowledge for the purpose of managing visual effects projects.

Animation Elective

Workflow and Principles: 3D2A01A — Credits: 15

This component introduces students to animation principles and enables students to animate using widely accepted animation theory. Students will select the appropriate animation principle to realise a visual narrative, produce and polish animations and improve their observation skills.

Mechanics Expressions and Gestures: 3D2A01B
Credits: 20

The aim of this component is to enable students to exercise enhanced testing, examination, diagnostic, and observation skills. Students will acquire enhanced ability to defend and justify their decision-making. Students practice character animation and enhance their skills and knowledge of animation, develop a visual investigatory method to enhance observation and analysis skills and deconstruct and interpret human behaviour.

Non Verbal Communication: 3D2A01C — Credits: 20

The learning outcome of this component is to enable students to observe, analyse and deconstruct physics properties of reference footage. Students interpret a visual narrative to construct a resulting animation. The enhanced critical thinking knowledge and skills provide the necessary platform for students to attack and defend animation ideas, concepts and theories.

Mini-Project: 3D2AT01A
Credits: 15

Students gain subject synthesis in this component by utilising knowledge acquired in other earlier components to produce a mini-project. The components provides a platform for experimentation with art and design concepts. It allows students further refinement of the ability to test and revise their ideas, concepts and solutions, polish and create aesthetically pleasing art assets.

Rigging: 3D2AT02A
Credits: 10

The aim of this component is to enhance the student's awareness of physics and physics-like behaviours with observation and simulation utilizing 3D rigging tools. Lessons enhance the student's observation skills by deconstructing and reverse engineering solutions from reference footage. The component enhances student's ability to optimise their production workflows and enhance the student's ability to justify and defend their decisions.

Technical Director Elective

Modelling II: 3D2T01A
Credits: 20

The objective of this component is to enhance existing modelling knowledge and skills with iterative study and experimentation employing various techniques. Students improve observation and investigatory skills by deconstructing references. Students improve analytical skills through the application of diagnostic and problem solving skills to tools used to produce 3D assets.

Rendering II: 3D2T01B
Credits: 20

This component is designed to enhance knowledge and skills from prior learning in rendering enabling the student to produce production quality assets. Observation and evaluation skills are enhanced by analysing and deconstructing reference. Students Improve diagnostic and problem solving skills through project-based learning.

Compositing: 3D2T01C
Credits: 15

The aim of this component is to provide students with knowledge and skills in 2D compositing to manipulate live-action film and video. Learning outcomes include enhanced evaluation, testing, diagnostics and problem-solving skills, enhanced abilities to continuously test and revise a solution and enhanced ability to defend decisions.

Mini-Project: 3D2AT01A
Credits: 15

Students gain subject synthesis in this component by utilising knowledge acquired in other earlier components to produce a mini-project. The components provides a platform for experimentation with art and design concepts. It allows students further refinement of the ability to test and revise their ideas, concepts and solutions, polish and create aesthetically pleasing art assets.

Rigging: 3D2AT02A
Credits: 10

The aim of this component is to enhance the student's awareness of physics and physics-like behaviours with observation and simulation utilizing 3D rigging tools. Lessons enhance the student's observation skills by deconstructing and reverse engineering solutions from reference footage. The component enhances student's ability to optimise their production workflows and enhance the student's ability to justify and defend their decisions.

Visual Effects Elective

Motion Design Animation: 3D2V01 — Credits: 20

This component provides students with the skills, knowledge and creative techniques required to solve motion design problems. Students enhance their evaluation, diagnosis and problem solving skills. Project based learning enhances observation, critical thinking and evaluation skills providing the necessary platform for students to attack and defend design ideas, concepts and theories.

Motion Design Production Techniques: 3D2V02 Credits: 10

The aim of this component is to provide students with skills and knowledge to effectively solve production problems and enhance existing solutions. Production techniques investigated in this component enhanced evaluation, diagnostics and problem solving skills.

Visual Effects 2D Compositing: 3D2V03 — Credits: 15

This component provides students with knowledge and skills in 2D compositing to manipulate live-action film and video assets. Lessons provide enhanced evaluation, testing, diagnostics and problem-solving skills developing enhanced abilities to continuously test and revise a solution and the enhanced ability to defend decisions.

Visual Effects 3D Compositing: 3D2V04 — Credits: 20

The aim of this component is to enable students to gain advanced knowledge and skills in compositing CGI elements in a 3D compositing environment to produce a compelling visual effects shot using a combination of 3D CGI elements and live action, moving images. Students enhance existing evaluation, testing and problem solving skills.

Visual Effects Compositing Production Techniques: 3D2V05 — Credits: 15

This component further advances the students ability to evaluate visual effects solutions, enhances the ability to defend and justify their decision-making and improves their observation skills. Students develop enhanced testing, diagnostics and problem-solving skills and enhanced abilities to continuously test and revise a solution.

Year Three

Animation Elective

Advanced Creature Animation: 3D3A01 — Crerdits: 20

The aim of this component is to enhance student knowledge and skills in animation with further practice while building capability, knowledge and skills in creature animation. It is also designed to enhance student critiquing skills, promote subject synthesis by drawing on the influences of many subjects to inform associated animations, enhance observation and evaluation skills by deconstructing behaviour and enhance the students' knowledge and skills in animation.

Technical Director Elective

Advanced 3D Technical Studies (Dynamics): 3D3T0 Credits: 20

This component's aim is to enhance and improve knowledge and skills from previous learned materials enabling the student to produce assets for productions. Students also enhance preparation and planning skills and knowledge, project management skills, knowledge and execution abilities and theoretical art and design knowledge applied to simulations. Students apply investigatory skills and approaches, enhance their awareness of physics and physics-like behaviours with observation and simulation and enhance their understanding of physics as applied to visual effects footage.

Visual Effects Elective

Advanced Visual Effects Compositing: 3D3V01 Credits: 20

This component is designed to cater for emerging technologies for visual effects and/or motion design. The current trend would be for stereoscopic compositing; however, this could cater for high-speed and non-standard filming rates, or holographic techniques. Students enhance knowledge and skills to use advanced and emerging technologies, enhanced skills in design and production and enhanced problem solving and investigatory skills. This component is a venue to synthesise subject matter from a variety of areas to provoke interest.

Production Components

Team Production I: 3D3G01 Credits: 40

The component aims to promote the production of theoretically grounded, aesthetically pleasing, technically sound 3D live-integration visual effects production, appropriately supporting and enhancing an associated narrative structure, using industry procedures, practices and tools.

Team Production II: 3D3G02
Credits: 45

The component aims to promote the production of theoretically grounded, aesthetically pleasing, technically sound 3D CGI production, appropriately supporting and enhancing an associated narrative structure, using industry procedures, practices and tools.

Advanced Individual Production: 3D3G03
Credits: 20

The aim of the component is to enable the development of key attitudes of continuous learning, adaptability, forward thinking and industry preparation, by allowing the student to create a specialist individual production in their area of specialisation and interest.

Industry Procedures and Practice II: 3D3G04
Credits: 15

The intent of this component is to provide students with current best practices in project management as a foundation to be able to project manage team productions and enhances the student's commercial awareness by providing a mechanism to improve project workflow and management. Lessons are designed to enable students to utilise inquiry methods for continuously improving individual performance during productions and enhance the student's ability to conduct scholarly investigations by continuously improving the investigation method.