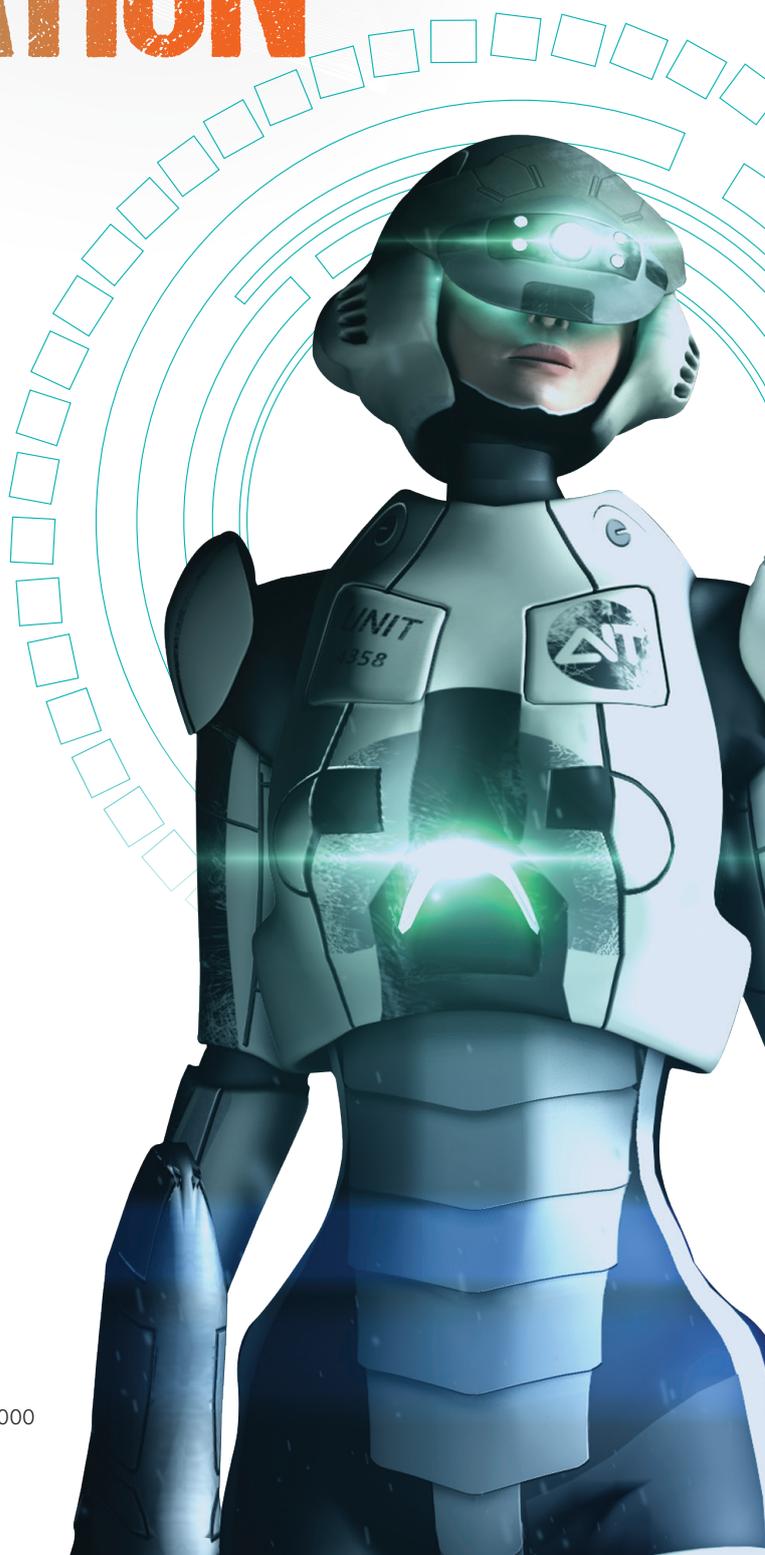




BACHELOR OF 3D ANIMATION

SUBJECT LIST



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Student Work: Andrei Ardamil (Front Cover)

YEAR 1			
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TRIMESTER 2	Game Scripting OR Concept Design	3D Animation Mechanics	3D Rigging
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EXIT: BACHELOR OF 3D ANIMATION			



YEAR 1

START DATES:

February, May, or September

TRIMESTER 1 – SUBJECTS

3D Character Lab

(AMA1003)

Industry Production Subject

In this practical subject students will learn the entire 3D workflow (pipeline) required to create their own uniquely designed 3D characters. The areas covered will include props and background development, using industry standard 3D software, 3D interface navigation, fundamental 3D theory, character design, modelling, texturing, lighting, skinning, camera animation and rendering. These skills will provide a firm foundation for creating 3D objects and characters. Students will also be introduced to essential skills required for professional practice, including project management, presentation skills, naming conventions and file management.

Screen Evolution

(MDA1014)

Foundational Theory

In this subject, students will be introduced to film and digital language through an exploration of the fundamental themes, concepts and principles that apply to film and animation. During the subject, students focus on film history, genre, style, mood and context, and will also learn about foundational animation techniques, like stop motion and illustration with movement. Additionally, reflection and research skills will be developed, as well as the impact of technology on the moving image.

Visual Storytelling

(MDA1011)

Key Knowledge/Skill Building

In this subject students will apply visual storytelling design and composition methods such as script writing, drawing, storyboard, animatic and camera composition conventions to visualise and prepare stories for production. Scene structures and character development will be introduced and application of planning principles to several forms of media such as animation and film will be considered. This subject will assist students to develop organisational and creative skills while utilising presentation techniques and responding to feedback.

TRIMESTER 2 – SUBJECTS

Game Scripting

(GAM1009)

Key Knowledge/Skill Building (Elective)

Students who choose this elective will be introduced to the core concepts and fundamentals of games scripting. This will involve acquiring fundamental knowledge of game-specific programming languages, understanding data types and how to manipulate them with functions and variables using those languages, and an understanding of scripting game logic. This subject should enable the building of game functionality to create games within the game engine and is an essential skill for game designers to master. The subject overall will require problem-solving skills, debugging, professional communication, peer evaluation, iteration, and application of feedback.

Concept Design

(AMA1020)

Key Knowledge/Skill Building (Elective)

Shape your course with a Concept Design elective and develop the skills involved in the creation of characters and environments for animation worlds. The backgrounds and objects that provide the setting for animated action require careful artistic treatment and have a significant influence on the look and feel of animated films. Character design also requires specific skills in creating expression, implying the history and culture of characters and suggesting traits and attributes. Students will design and refine environments and characters, costumes and props as they explore the finer details of animated worlds. This subject will also develop skills related to creative thinking, professional communication, research, plot analysis and the ability to communicate stories through concepts.

3D Animation Mechanics

(AMA1013)

Key Knowledge/Skill Building

In this subject, students will expand on their existing 3D skills and extend these to animation. The principles of animation will be applied to 3D characters, props, accessories and background assets, using advanced 3D industry standard software. Fundamental animation theory and techniques will be explored and applied, so that students can create convincing body mechanics and engaging, stylised performances. Time management and communication skills will also be developed as students learn to balance workload with due dates of deliverables and present their work for feedback.

TRIMESTER 2 – SUBJECTS *(contin'd)*

3D Rigging (AMA1033)

Key Knowledge/Skill Building

In this subject, students will learn what it takes to bring 3D models to life, utilising the fundamental theories and practises of animation rigging to create a skeleton for organic and hard surface models. Students will apply controllers to the skeleton to create an animation-ready rig that could be applied in interactive or cinematic media. Students will use problem solving and planning skills, and will demonstrate communication skills in presenting their work.

respond with variations of style and genre, and modifications in response to peer and professional feedback.

Mood, environment and context will also be considered when developing the character design. The subject will also involve aspects of planning, professional communication, problem-solving, conflict resolution and self-reflection.

TRIMESTER 3 – SUBJECTS

Game Development Lab (GAM1103)

Industry Production Subject (Elective)

The Game Development Lab is an elective consisting of project based learning, in which students design a range of 3D assets and integrate them into a game engine. The project will be planned and implemented in response to a brief and will involve identifying game development team roles and 3D sculpting of models using industry standard 3D modelling software. Models will be textured, then undergo optimisation and retopology to ensure their effective operation in a game engine environment where introductory level game engine programming will be applied. Students will utilise a production cycle, responding to a brief and modifying assets through multiple iterations in response to testing and peer review. Ethical considerations will be taken into account and applied to the design of game assets. The subject will engage students in collaboration, planning, and project management. It will include agile methodology, presentation and professional communication skills, and response to feedback on industry standards.

Performance Animation Lab (AMA1102)

Industry Production Subject (Elective)

Animation requires an understanding of acting technique for the effective application of gesture, posture, facial expressions and voice intonation. This elective subject introduces performance concepts and provides guidance in applying acting techniques to animated characters. Students will research and analyse animated characters in terms of movement, unique characteristics, vocal and visual style. They will study advanced 2D character design and develop a character through the production cycle to completion. This will include advanced storyboard and animatic production. The character will be developed according to a series of briefs, requiring students to



YEAR 2

START DATES:

February, May, or September

TRIMESTER 4 – SUBJECTS

Sound Design (MDA2010)

Advanced Knowledge/Skill Building

In this subject students will be introduced to the creative and technical aspects of sound in digital media. Students will record sound, process sounds, and implement a variety of sounds in a range of contexts. Students will learn to apply sound design principles which enhance and compliment communication, meaning and emotion in their works. The skills developed in this subject can be applied to film, animation or games and will enable students to create dynamic and engaging soundtracks in a variety of genres. Content will include sound editing tools, techniques, selection of appropriate musical scores, location recording procedures, sound processing and noise reduction, compression and reverberation, and sound production workflow. Students will be required to reflect on their work and make improvements in response to feedback. Teamwork and time management, copyright and legal considerations and critical listening skills will be included.

3D Asset Development (AMA2013)

Advanced Knowledge/Skill Building

In this subject, students will develop advanced techniques in 3D asset creation for games. They will build on previous learning in the process of 3D sculpting to create high-quality details and contours in objects and characters. Advanced polygon optimisation techniques will also be explained as students apply ideal methods of creating low polygon models suitable for games. Advanced 3D modelling, rigging and surfacing skills will be developed and refined to create more sophisticated assets, which will be implemented in real-time. Skills in photogrammetry will also be explored as real-life objects are converted to 3D models ready for implementation in games. On completion of this subject, students will have produced portfolio pieces consisting of complex 3D game models that demonstrate the confidence and competence of industry-standard workflow for creating 3D assets for games. Subject content will also include drawing, providing and responding to feedback, peer review, research and following a brief.

Level Design (GAM1000)

Advanced Knowledge/Skill Building (Elective)

This practical elective subject introduces the foundational skills and concepts required for game level design. During the subject, students will learn about the principles of level design, progression and gameplay, as well as exploring the elements required to create effective environmental narratives. The skills of iterative design, responding to a brief, and reflecting and adapting after feedback will all be focused on as students follow an industry-standard production process, and construct a high fidelity game level using pre-built assets.

Screenwriting (MDA1015)

Advanced Knowledge/Skill Building (Elective)

This elective subject provides an introduction to script and screenwriting for film and animation. During the subject, students will explore the theories and principles of narrative construction and expand the ability to produce sequential art, develop characters, subtext, scenes and screenplays. There will be a focus on plot development, creative writing and visual illustration, as well as how to apply film language in the creation of mood, tension, pacing and drama. Additionally, students will learn how to seek feedback, reflect and adapt during the screenwriting process.

Concept Design (AMA1020)

Advanced Knowledge/Skill Building (Elective)

In this elective subject, students can develop the skills involved in the creation of characters and environments for animated worlds. The backgrounds and objects that provide the setting for animated action require careful artistic treatment and have a significant influence on the look and feel of animated films. Character design also requires specific skills in creating expression, implying the history and culture of characters and suggesting traits and attributes. Students will design and refine environments and characters, costumes and props as they explore the finer details of animated worlds. This subject will also develop skills related to creative thinking, professional communication, research, plot analysis and the ability to communicate stories through concepts.

TRIMESTER 5 – SUBJECTS

VFX for Film (FLM2030)

Advanced Knowledge/Skill Building

In this subject students cover the foundational skills required to create visual effects using industry standard software. Students will respond to a brief in order to composite multiple images and add visual effects to live action shots. They will acquire skills including multipass CGI compositing, colour grading/correction, rotoscoping, tracking, keying, and compositing operations to create a complete shot from multiple source elements. Scholarly evidence and research findings are drawn upon to support students' knowledge of the discipline. The range of skills will also include planning, research, reflection, editing, creative thinking and reinforcement of the production cycle.

Technical Art (GAM2015)

Advanced Knowledge/Skill Building

In this subject students will acquire advanced design skills in a game engine environment. Fine control of visual elements will be covered, enabling the creation of complex organic forms such as hair and fur, rippling water, cloth and foliage, creating advanced shaders and scripting VFX. Particle effects will be explored to enable the creation of objects such as smoke, rain and fire, and may include photogrammetry to capture real world objects in digital 3D form. Students will apply problem solving skills and manage a project as they integrate complex technical processes into a game design pipeline.

Culture and Creativity (MDA2029)

Analysis/Reflection Theory

The interface between creative arts and culture will be examined in this subject, as theories of genre, communication, cultural reference and semiotics are applied to a selection of prominent examples taken from historical and contemporary sources. Students will encounter the theoretical underpinning of creative arts practice and will critique works by evaluating their contents through the lens of a range of theoretical perspectives. Social, political and ideological considerations will be discussed and applied to case studies of creative arts in a variety of forms including film, animation, games and social media. Students will research and analyse audience behaviours and demographics, explore examples of significant directors, designers and artists, providing critique of their work and drawing comparisons to other artists and movements. Academic writing skills will be developed as students engage in meaningful discussion of contemporary art and media as it applies to culture and creativity, and conversely, the effects of culture on creative media. They will research matters that are of importance to their ethical perspective and artistic preferences. They will use critical thinking skills to present, debate and argue positions regarding social analysis and ideology.

TRIMESTER 6 – SUBJECTS

Cinematic Animation Lab (GAM2203)

Industry Production Subject (Elective)

This elective practical subject will guide students through the advanced implementation of game art in a game engine. It will include pre-built assets, facial animation, facial rigging, motion capture, voice recording and animation for cut scenes. Students will develop pre-production elements such as staging, beats and layout. A cinematics sequencer track will be implemented, and students will learn to post produce their games by refining sound, lighting, colour correction and general editing and clean-up of cinematic game elements. This process will involve iterative development, consultation and responding to feedback. Teamwork and collaboration will be required, and problem solving, critical analysis and project management skills will be utilised by the game team.

Creature Animation Lab (AMA2202)

Industry Production Subject (Elective)

This elective subject will involve the design and animation of creatures. It will explore the unique requirements of animation techniques for various animal motions. Content will include analysis and practical application of animal animation techniques (e.g. animating four-legged animals, birds, sea animals, and snakes). Students will collaborate and adapt as they research, review and design creatures together. Students will create a small piece of animation taking into consideration shot framing, composition and timing, and final assembly. They will develop creative thinking, interpersonal skills, and conflict resolution, they will reflect on their own work and respond to feedback.

Student Work: Fernanda Campos



YEAR 3

START DATES:

February, May, or September

TRIMESTER 7 – SUBJECTS

Professional Freelancing (MDA3011)

Business Management Theory

Freelancing has become one of the major forms of employment in the areas of media and games. This subject will provide valuable information on how to manage as an independent entrepreneur in the creative industries. The focus will be on legal requirements, finance and monetisation, types of business models, documentation and admin, budgeting, pitching and promotional skills. Examples of successful freelance artists will be examined, and students will research industry and analyse their findings to identify likely areas of opportunity within their field. They will learn about networking, professional communication, planning and presentation skills.

Emerging Insights (MDA3010)

Deep Knowledge/Skill Building

In this subject students will immerse themselves in the future of the creative media industry. They will research and report on new and emerging technologies, their potential applications and benefits, and will provide an overview of their capacity to change the nature of the media or games industries. They will investigate contemporary theories and processes and consider how they may shape the next generation. Students will also trial new and current technologies to arrive at findings on how they could be implemented to produce media, or modify working practices. This subject will also involve market analysis to predict trends and directions in the marketplace, which will assist students in planning their future creative and career directions in media and games. Their research will include hands on experience of technologies to explore their potential uses in the context of games, film and animation. Students will analyse and evaluate the feasibility and costs associated with the use of these technologies. They will develop skills required to maintain knowledge currency, through experimentation, analysis, industry networking, professional communication, presentation and reporting.

Virtual Production Lab (MDA3301)

Industry Production Subject

The emerging field of virtual production enables realistic combinations of objects, characters and environments to produce composite images. In this subject virtual production technologies and techniques will be studied in detail as students engage with the blending of virtual environments with live action images. The subject will cover virtual environments, virtual props and assets, background projections using green screen or live projection, integration of live action images with virtual elements through camera tracking, matching sound, lighting and colour. Facial motion capture and the use of digital doubles using 3D modelling and animation will be introduced, and the animation and surfacing of 3D creatures and other assets will be enhanced by incorporating particle effects such as explosions, fire, smoke and rain. Advanced game engine functions will be used to composite image elements and animate components to produce realistic virtual multilevel images. Students will utilise creative thinking, problem solving skills, collaboration and teamwork, self-reflection and response to feedback.

TRIMESTER 8 – SUBJECTS

Forge 1 (PRO3001)

Industry Production Subject

Forge 1 is part one of a subject that runs across two terms, where students will learn to operate in a professional team, under workplace-like pressure, applying their knowledge, skills and aptitudes to complete a project to contemporary industry standards. In Forge 1, the focus will be on researching client needs and preparing a range of pre-production material required for the development of an industry project. Planning and project management skills will be sharpened, and pre-visualisation of narrative content will be developed to deliver comprehensive planning materials for a substantial production that will be completed in Forge 2 in the final term of study.

TRIMESTER 8 – SUBJECTS (contin'd)

The Professional Internship Program (PRO3005)

Elective

The Professional Internship Program aligns students with professional industry organisations where they will work to develop relevant skills oriented to their chosen careers. The elective program aims to enhance the contextual capabilities, skills and knowledge students have developed throughout their course. It will provide an opportunity for students to apply what they know, be mentored, receive feedback and seek opportunities for development in a real-world setting, as well as be exposed to emerging trends and technology that impact their industry. This program can only be undertaken in the final term of the associated qualification. Prior to commencement of the internship, AIT will determine a suitable placement company based on the student's individual needs, to ensure their supervision, safety and wellbeing are adequate.

Professional Project (PRO3004)

Elective

This is an elective subject which does not require students to attend class. While support and feedback will be provided, this subject is undertaken off campus and requires students to work with minimal academic interaction. It may be completed independently or in collaboration with peers. In this subject, students complete an industry project of their choosing, related to their area of study. The project will be conceived and developed for a relevant contextual setting, and be presented as a proposal of a specific task, or solution to a problem or opportunity faced by an organisation or industry. The subject is an opportunity for students to develop and demonstrate self-regulated, independent research and study skills, time and project management and professional communication.

Industry Launchpad (PRO3003)

Deep Knowledge/Skill Building

This subject helps students search for and prepare themselves for employment. It provides guidelines for how to prepare effective resources for enhancing their prospects in finding employment. Students will be introduced to interview techniques and personal branding through the development of a professional internet and social media presence. They will also learn how to produce effective presentations of their high-quality work, targeted at employers.

TRIMESTER 9 – SUBJECTS

Forge 2 (PRO3002)

Industry Production Subject

Forge 2 is part two of a subject that runs across two terms, where students will learn to operate in a professional team, under workplace-like pressure, applying their knowledge, skills and attitudes to complete a project to contemporary industry standards. During Forge 2, students will focus on developing an industry project, based on the pre-production elements that were completed during the Forge 1 subject. The production, to be completed in teams, will be developed in a double subject and presented to industry representatives at the completion of the project. A key aim of the subject is to develop the student's speed and efficiency in a collaborative work environment. The process of brief, plan, execute, present and reflect will help students become accustomed to project-based work. The subject also challenges students to innovate, to learn from both success and failure, to "know themselves", and to learn how to work with others. Students will be mentored, critiqued and assessed during this process, with industry experts providing feedback on project outcomes.





ACADEMIC CALENDAR



VISIT OUR WEBSITE

Student Work: Xue Lei

DIPLOMA OF 3D ANIMATION
CRICOS CODE: 109420H

ASSOCIATE DEGREE IN 3D ANIMATION
CRICOS CODE: 109419A

BACHELOR OF 3D ANIMATION
CRICOS CODE: 109418B

COURSE ID: CRS1401237

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