



The University of Southern Queensland

## Course specification

The current and official versions of the course specifications are available on the web at  
<<http://www.usq.edu.au/coursespecification/current>>.  
Please consult the web for updates that may occur during the year.

### Description: Animation Production 2

Subject	Cat-nbr	Class	Term	Mode	Units	Campus
MEA	3001	91307	2, 2009	ONC	1.00	Toowoomba

<b>Academic group:</b>	FOART
<b>Academic org:</b>	FOA005
<b>Student contribution band:</b>	1
<b>ASCED code:</b>	100701

### STAFFING

Examiner: Matthew Nielsen  
Moderator: Leonie Jones

### REQUISITES

Pre-requisite: MEA2004

### RATIONALE

This course uses a guided studio approach in a close analysis of the practical production skills and techniques in 3D modelling and animation.

### SYNOPSIS

This course includes an advanced study in digital character animation and production. Students will complete a combination of exercises and individual projects.

### OBJECTIVES

On completion of this course students will be able to:

1. visualise, sketch, construct, and sculpt a 3D character model using: polygonal-mesh, curved surface, and NURB surface techniques;
2. visualise, sketch, construct, and assign an envelope model to a skeleton for complex 3D character model;
3. visualise and implement deformation of a character model object using lattices, sculpt objects, and clusters;
4. visualise and specify the animation of the articulated chain of a skeleton using conventional key framing, forward kinematics, and inverse kinematics;
5. visualise, plan and execute the application of colour, shading, transparency, reflectivity, and a 2D texture map to the material properties of a 3D character;
6. demonstrate an understanding of plan, specify, and execute the file associations required to save an animated scene;

7. demonstrate an understanding of selecting and employ techniques of lighting in the digital 3D environment, including light selection, shadows, and reflections;
8. demonstrate an understanding of animating cameras and lighting through the use of scripted controls and camera techniques, including lens selection, pans, dollying, zooming, tilting, and tracking;
9. demonstrate an understanding of experiment with keyframe, curve/path animation, inverse kinematics, skeletal deformation, and morphing techniques and compare the resulting products;
10. demonstrate an understanding of select and employ the principles of character animation that create realistic movement and actions, anticipation, weight, rhythm, timing and motivation;
11. demonstrate an understanding of experiment with a scripting language to automate and enhance work flow.

## TOPICS

	Description	Weighting (%)
1.	Keyframing and the graph editing, Sculpting a surface, path animation	20.00
2.	Shading surfaces; Cameras and lighting	20.00
3.	Skinning, blend shapes and influence objects	20.00
4.	Simple walk and lip-synch	20.00
5.	MEL [Maya Embedded Language] scripting	20.00

## TEXT and MATERIALS required to be PURCHASED or ACCESSED

ALL textbooks and materials are available for purchase from USQ BOOKSHOP (unless otherwise stated). Orders may be placed via secure internet, free fax 1800642453, phone 07 46312742 (within Australia), or mail. Overseas students should fax +61 7 46311743, or phone +61 7 46312742. For costs, further details, and internet ordering, use the 'Textbook Search' facility at <http://bookshop.usq.edu.au> click 'Semester', then enter your 'Course Code' (no spaces).

For this course, students are required to purchase an External 7200 rpm Hard Drive with Firewire. This hardware will be necessary for use over the duration of the three years of the degree course.

## REFERENCE MATERIALS

Reference materials are materials that, if accessed by students, may improve their knowledge and understanding of the material in the course and enrich their learning experience.

A current reference list will be supplied by the Lecturer

## STUDENT WORKLOAD REQUIREMENTS

ACTIVITY	HOURS
Directed Study	50.00
Lectures	13.00
Private Study	76.00
Tutorials	26.00

## ASSESSMENT DETAILS

Description	Marks out of	Wtg (%)	Due date	Objectives assessed	Graduate skill	Level assessed
PROJ 1: PORTFOLIO OF EXERCISES	100.00	40.00	11 Sep 2009 (see note 1)	1, 2, 3, 4, 5, 6, 7, 8		
PROJ 2: PORTFOLIO OF EXERCISES	100.00	60.00	30 Oct 2009 (see note 2)	All		

### NOTES

1. Students will be advised of the assessment due dates during the first week of classes for this course. This assessment item is aligned with Objectives 1 - 8.
2. This assessment item is aligned with Objectives 1-11.

## IMPORTANT ASSESSMENT INFORMATION

- 1 Attendance requirements:  
It is the student's responsibility to attend and participate appropriately in all activities (such as lectures, tutorials, laboratories and practical work) scheduled for them, and to study all material provided to them or required to be accessed by them to maximise their chance of meeting the objectives of the course and to be informed of course-related activities and administration. For this course, normal class attendance consists of one 4 hour combined lecture/tutorial per week.
- 2 Requirements for students to complete each assessment item satisfactorily:  
To successfully complete an individual assessment item, a student must achieve at least 50% of the marks or a grade of at least C-. This statement must be read in conjunction with Statement 4 below.
- 3 Penalties for late submission of required work:  
If students submit assignments after the due date without extenuating circumstances and without prior approval, then a penalty of a maximum of 5% of the assigned mark may apply for each working day late, up to a maximum of 10 working days, at which time a mark of zero can be recorded for that assignment.
- 4 Requirements for student to be awarded a passing grade in the course:  
To be assured of receiving a passing grade, a student must achieve at least 50% of the total weighted marks available for the course.
- 5 Method used to combine assessment results to attain final grade:  
The final grades for students will be assigned on the basis of the aggregate of the weighted marks obtained for each of the summative assessment items in the course.
- 6 Examination information:

- There is no exam for this course.
- 7 Examination period when Deferred/Supplementary examinations will be held:  
Given the details under (6) above, there are no deferred exams for this course. However, if any deferred/makeup work is granted, it would have to be submitted by a date set by the examiner.
  - 8 University Regulations:  
Students should read USQ Regulations 5.1 Definitions, 5.6 Assessment, and 5.10 Academic Misconduct for further information and to avoid actions which might contravene University Regulations. These regulations can be found at the URL  
<http://www.usq.edu.au/corporateservices/calendar/part5.htm>

## **ASSESSMENT NOTES**

- 9 (a) The due date for an assignment is the date by which a student must lodge the assignment at the USQ. (b) All Faculty of Arts assignments must be lodged in the Faculty Assessment Centre on the Ground Floor of Q Block no later than 12 noon on the due date. (c) In the event that a due date for an assignment falls on a local public holiday in their area, such as a Show holiday, the due date for the assignment will be the next day. Students are to note on the assignment cover the date of the public holiday for the examiner's convenience. (d). Students must retain a copy of each item submitted for assessment. This must be despatched to USQ within 24 hours if requested by the Examiner. (e) In accordance with University's Assignment Extension Policy (Regulation 5.6.1), the examiner of a course may grant an extension of the due date of an assignment in extenuating circumstances such as documented ill-health. (f) Students who have undertaken all of the required assessments in the course but who have failed to meet some of the specified objectives of the course within the normally prescribed time may be awarded the temporary grade: IM (Incomplete-Makeup). An IM grade will only be awarded when, in the opinion of the examiner, a student will be able to achieve the remaining objectives of the course after a period of non-directed personal study. (g) Students who, for medical, family/personal, or employment-related reasons, are unable to complete an assignment or sit for an examination at the scheduled time, may apply to defer an assessment in the course. Such a request must be accompanied by appropriate supporting documentation. One of the following temporary grades may be awarded: IDS (Incomplete - Deferred Examination; IDM (Incomplete Deferred Make-up); IDB (Incomplete - Both Deferred Examination and Deferred Make-up).
- 10 Students are strongly advised to maintain regular contact with their supervisor.