Course Syllabus

1. **Program of Study**   Bachelor of Arts (Animation Production)
    Faculty/Institute/College   Mahidol University International College

2. **Course Code** ICAM 302   **Course Title**   3D Animation I

3. **Number of Credits**   4 (Lecture/Lab) (0-8)

4. **Prerequisite***(s)*   ICAM 204

5. **Type of Course**   Required for Animation Production

6. **Trimester / Academic Year**   First Trimester / Year III

7. **Course Description**
    Foundation skills for 3D computer animation; developing a working knowledge of the underlying process of 3D animation; polygonal modeling techniques, NURBS, procedural and raster image mapping, lighting, camera, shader and rendering methods, hierarchical linking, "keyframe animation", and pre-production fundamentals.

8. **Course Objective***(s)*
    After completing this course, students will be able to:
    1. model and rig simple models;
    2. apply textures and deformations to simple models;
    3. animate a scene using keyframe;
    4. light and render scenes.

9. **Course Outline**

Week	Topic		Instructor
	Lab	Hour	
1	Introduction to 3D computer animation: exploring Maya interface	8	
2	Primitive polygonal modeling	8	
3	Patch modeling	8	
4	Subdivision geometry and UV preparation	8	
5	Transformation and deformation	8	
6	"Key frame animation"	8	
7	Camera tool and techniques	8	
8	Shading lighting and rendering	8	
9	Final project design I : character modeling	8	

10	Final project design II: animation	8	
11	Final project design III: lighting and rendering	8	
12	Final project presentation and evaluation	8	
	Total	96	

10. Teaching Method(*s*)
Practice and discussion

11. Teaching Media
Computers and handouts

12. Measurement and evaluation of student achievement
Assessment is made from the criteria of A, B+, B, C+, C, D+ and D

13. Course evaluation
Weekly assignments   50%
Final assignment   50%

14. Reference(*s*)
Choi, J. (2004). *Maya Character Animation*. Sybex Inc; Book&Dvdrm.

Demers, O. (2001). *Digital Texturing and Painting.* New Riders Press; Bk&CD-Rom.

Brin, J. (2000). *Digital Lighting and Rendering,* New Riders Press.

15. Instructor(*s*)
TBA

16. Course Coordinator
Prof. Charles Harpole