

**Section 1. Proposal Information**

**Course Developer:**

*Merrick Simms*

Date: *11/21/13*

Catalog year to take effect :

2013-2014 \_\_

2014-2015 \_X\_

**Revision in credits**

**/Contact Hours**

**Type of Proposal**

Revised course

199 Special Studies

299 Trends

**Type of Course:**

Lower Division Collegiate (transfer)

Professional/Technical (program requires)

Professional/Technical (stand-alone)

Developmental, numbered below 100

**Rationale:**

**How does this proposal further the goals of the program or department?**

*Increasing the contact hours will further the goals of the department by providing students an opportunity to further refine their skills and techniques using, Maya, an industry standard 3D animation software application. This course is a project based hands-on course where students must complete projects in a timely manner. Having additional time to design and develop their project storyboards and concepts maps will allow student to be more creative and competitive in the job market. Being able to complete projects will also increase their confidence, and competence by allowing them to demonstrate their mastery of industry standard 3D animation software.*

**What evidence supports this proposal?**

*This course meets for one hour and fifty minutes twice a week. The industry standard software used for this course is expensive, complex and has a very steep learning curve. The software is only available in one classroom/lab on campus, which is also used to teach a number of other Media Arts courses. As such access outside of normal class meeting times is severely restricted. Increasing the contact hours will allow students, who are currently struggling to complete their assignments and final animation projects, additional time to complete their assignments in class and on time.*

**(New courses) How do you know there is a demand for this course?**

**PREVIOUS Catalog/Course Information:**

Course Number: **FA222** Course Title in Banner: **Computer Animation 2** (30 characters maximum)

Full Course Title in print catalog: **FA222 Computer Animation 2**

Prerequisites: **FA221** Co-requisites:

Grade Option:  Graded (with P/NP option)  Pass/No Pass only

|  |  |  |  |
| --- | --- | --- | --- |
| **Number / Type Credits** | **Term Minimum Contact** | **Term Maximum Contact** | **11-Week Term Contact** |
| 2 Lecture | 20 hours (lecture credits x 10) | 24 hours (lecture credits x 12) | 22 hours (lecture credits x 11) |
| 1 Lec/Lab | 20 hours (lec-lab credits x 20) | 24 hours (lec-lab credits x 24) | 22 hours (lec-lab credits x 22) |
| Lab | hours (lab credits x 30) | hours (lab credits x 36) | hours (lab credits x 33) |
| 3 **Total credits (sum)** | 40 **Total hours (sum)** | 48 **Total hours (sum)** | 44 **Total hours (sum)** |

**What will change in this course as a result of changing the credits?**

Course Description  Course Outline  Contact Hours

Course Outcomes  Other (explain):

**Section 2. Proposed Course Outline** (A general statement of course content that informs class syllabus construction.)

Course Number: **FA222** Course Title for Banner: **Computer Animation 2** (30 characters maximum)

Full Course Title for print catalog: **FA222 Computer Animation 2**

Prerequisites: **FA221** Co-requisites:

Grade Option:  Graded (with P/NP option)  Pass/No Pass only

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Number / Type Credits** | | **Term Minimum Contact** | **Term Maximum Contact** | **11-Week Term Contact** |
| 2 Lecture | | 20 hours (lecture credits x 10) | 24 hours (lecture credits x 12) | 22 hours (lecture credits x 11) |
| 2 Lec/Lab | | 40 hours (lec-lab credits x 20) | 48 hours (lec-lab credits x 24) | 44 hours (lec-lab credits x 22) |
| Lab | | hours (lab credits x 30) | hours (lab credits x 36) | hours (lab credits x 33) |
| 4 **Total credits (sum)** | | 60 **Total hours (sum)** | 72 **Total hours (sum)** | 66 **Total hours (sum)** |
| **Original Course Description:** | | | | |
| *A comprehensive exploration of three-dimensional computer animation arts: Three-dimensional space and form, character model creation, texturing, rigging, lighting, scene composition, animation and rendering strategies.* | | | | |

|  |  |
| --- | --- |
| **New Course Description (300 character limit):** | |
|  | |
| **Original Course Outcomes and Proficiencies** | **Assessments Used** |
| What did the student ***know,*** what could the student ***do*** at the end of the course***,*** or what ***attitudes*** related to the subject would the student hold?  **Upon successful completion of this course, the student:** | What evidence did you gather that students have achieved course outcomes? (assessment tools include departmental tests, written products, portfolios, juried performances, quizzes and exams, or alternative assessments such as qualitative studies, capstone projects, external reviewers, etc.)  **How each outcome was assessed:** |
| A. *Define and apply the general principles and demonstrate an understanding of the technical aspects of 3-D object modeling, texturing and lighting* | A. *Completion of a series of project-focused lessons.*  *Exams and quizzes* |
| B. *Define and apply the general principles and demonstrate an understanding of the technical aspects of scene composition and animation.* | B. *Completion of a series of project-focused lessons.*  *Exams and quizzes* |
| C. *Define and apply the general principles and demonstrate an understanding of the technical aspects of render types and rendering strategies.* | C. *Completion of a series of project-focused lessons.*  *Exams and quizzes.* |
| D. *Create, render and animate a 3D character walk-cycle sequence.* | D. *Successful completion of a capstone project* |
| E. | E. |
| **New Course Outcomes and Proficiencies** | **Assessments Planned** |
| What will the student ***know*** or ***be able to do*** at the end of the course***,*** or what ***attitudes*** related to the subject will the student hold?  **Upon successful completion of this course, the student will:** | What evidence will you have that students have achieved course outcomes? (assessment tools may include departmental tests, written products, portfolios, juried performances, quizzes and exams, or alternative assessments such as qualitative studies, capstone projects, external reviewers, etc.)  **How each outcome will be assessed:** |
| A. | A. |
| B. | B. |
| C. | C. |
| D. | D. |
| E. | E. |

**Original Course Content by Major Topics**

What topics were originally presented? What were the main activities of the course? What were the central themes?

***Computer Animation 2 Course Outline***

*Modeling Polygons*

*How to model using polygons*

*Working with procedural modeling attributes*

*Texturing Polygons*

*Apply and project textures*

*Animating a texture*

*Rendering Polygons*

*Rendering a region*

*How to set up the Interactive Photorealistic Renderer*

*Set up and Animation of Polygons*

*How to create blend shapes*

*Use Set Driven Keys*

*Animating Polygons*

*Defining a motion path*

*How to keyframe secondary animation*

*Rigid Bodies*

*How to create Passive and Active Rigid Bodies*

*How to create dynamics simulations*

*Modeling NURBS*

*Working with curves and surfaces*

*Using curves to generate surfaces*

*Texturing NURBS*

*Project a texture using a projection node*

*Place textures and prevent sliding*

*Convert a projection into a texture*

*Rendering Types*

*Rendering using Mental Ray*

*Rendering using Maya Vector*

*Rendering using Maya Hardware*

*Skeleton*

*Create skeleton chains*

*Navigating skeleton hierarchies*

*Skinning*

*Explore various skinning types*

*Binding a character to its skeleton*

*IK handles*

*Adding single chain ik handles*

*Use point, orient and parent constraints*

*Rigging*

*Organize the rig’s hierarchy*

*Convert NURBS to Polygons*

*Create a character node for keyframing*

*Animation*

*Animate the character’s legs and arms*

*Create a cycle using the Graph Editor*

**New Course Content by Major Topics**

What topics will be presented? What are the main activities of the course? What are the central themes?

(See sample at <http://www.lanecc.edu/cops/format3.htm>.)

In addition to the original course content the following will be presented as well:

* *Multi-core processing power and new multi-machine server-farm architectures*
* *Advanced animation pipeline strategies and* iterative design techniques
* High-performance computing (HPC) capabilities

**Section 3. Curriculum Equity** (<http://www.lanecc.edu/cops/curric.htm>)

To promote an environment where all learners are encouraged to develop their full potential, this course will support Lane’s Curriculum Equity policy in the following way(s)

*Typically our art form plays to an audience that is by nature culturally and ethnically diverse. As such we routinely explore issues of difference, gender bias and power and privilege in the media and the arts.*

**Section 4. Required Signatures**

**Library Impact Statement**

Under accreditation standards, Library consultation is essential for new programs, new courses and for substantively revised courses when the revisions entail any change in library use.

**What assignments will require the use of library and information resources?**

*Any assignment presents an opportunity for students, who seek a deeper understanding, to use the many resources the library has to offer.*

Each academic area has a Liaison Librarian (<http://www.lanecc.edu/library/liaison.htm>) to help faculty identify materials to be ordered to support the curriculum. Make an appointment with the designated librarian to discuss the library needs of your course at least a week ahead of the deadline for submission.

**To be completed by Liaison Librarian:**

Library resources are adequate to support this proposal.

Additional resources are needed but can be obtained from current funds.

Significant additional Library funds/resources are required to support this proposal.

Liaison Librarian Date

**Divisional Approvals**

**Human, Physical, and Financial Resources (select one):**

Additional instructional costs (staff, materials, services or facilities) will be incurred to offer this course. Source of funding: **ICP Funds**

No additional instructional resources (staff, materials, services or facilities) are needed to offer this course.  
Explain:

**Divisional Recommendation (select one):**

The Division Chair and Administrative Assistant have reviewed this course proposal and kept a copy for divisional files.

Faculty review of this course was completed within the division on      (date).

New course outlines have been prepared for the Divisional binder containing all current course outlines.

Office Administrator Date

**Fees (select one):**

We have completed a fee request form to be submitted to ASA upon course approval.

No special fees will be required for this course.

**Required Certifications:**

We have developed minimum course certification standards for this course to be filed with ASA to allow compliance with the faculty contract.

We have completed faculty certification form(s)  
(http://www.lanecc.edu/cops/faccertf.pdf )  
for this course to be filed with ASA and Human Resources so RIF grid information will be updated.

**Divisional Recommendation (select one):**

Pass  Do Not Pass

Academic Dean Date

**College Approval**

     

Curriculum Committee Chair Date Executive Dean for Academic Affairs Date

Curriculum Approval Committee hearing:       \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date Vice President for Academic & Date

Student Affairs