Washtenaw Community College Comprehensive Report

ANI 250 Organic Modeling and Rigging
Effective Term: Winter 2020

Course Cover
Division: Business and Computer Technologies
Department: Digital Media Arts (new)
Discipline: Animation
Course Number: 250
Org Number: 14500
Full Course Title: Organic Modeling and Rigging
Transcript Title: Organic Modeling and Rigging
Is Consultation with other department(s) required: No
Publish in the Following: College Catalog , Time Schedule , Web Page
Reason for Submission: Course Change
Change Information:
    Consultation with all departments affected by this course is required.
    Pre-requisite, co-requisite, or enrollment restrictions
Rationale: ANI 250 is currently listed as a co-requisite for ANI 230. The basic certificate requires ANI 230, but not 250, which is a requirement for the advanced certificates. This is causing enrollment problems for the students who wish to pursue the base certificate and not proceed further.
Proposed Start Semester: Fall 2019
Course Description: In this course, students will use advanced modeling and setup tools to create advanced organic models. Students will rig, texture, bind, and animate characters using a variety of industry-standard techniques. Advanced NURBS modeling and dynamic rigid body animation will also be explored. The title of this course was previously 3D Animation II.

Course Credit Hours
Variable hours: No
Credits: 4
Lecture Hours: Instructor: 60 **Student:** 60
Lab: Instructor: 0 **Student:** 0
Clinical: Instructor: 0 **Student:** 0
Other: Instructor: 30 **Student:** 30

Total Contact Hours: Instructor: 90 **Student:** 90
Repeatable for Credit: NO
Grading Methods: Letter Grades
Audit
Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing
College-level Reading & Writing

College-Level Math

Requisites
Prerequisite
ANI 145 minimum grade "C"

and
Prerequisite
ANI 150 minimum grade "C"
and

General Education

General Education Area 7 - Computer and Information Literacy
Assoc in Arts - Comp Lit
Assoc in Applied Sci - Comp Lit
Assoc in Science - Comp Lit

Request Course Transfer
Proposed For:

Student Learning Outcomes

1. Create rigid body animations using a dynamics engine.
   Assessment 1
   Assessment Tool: Portfolio evaluation
   Assessment Date: Winter 2022
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All
   Number students to be assessed: All
   How the assessment will be scored: Departmentally-developed rubric
   Standard of success to be used for this assessment: 70% of students will score an average of 70% or better
   Who will score and analyze the data: Department faculty

2. Create advanced NURBS organic models.
   Assessment 1
   Assessment Tool: Portfolio evaluation
   Assessment Date: Winter 2022
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All
   Number students to be assessed: All
   How the assessment will be scored: Departmentally-developed rubric
   Standard of success to be used for this assessment: 70% of students will score an average of 70% or higher
   Who will score and analyze the data: Department faculty

3. Model, rig, texture, and bind a character.
   Assessment 1
   Assessment Tool: Portfolio review
   Assessment Date: Winter 2022
   Assessment Cycle: Every Three Years
   Course section(s)/other population: All
   Number students to be assessed: All
   How the assessment will be scored: Departmentally-developed rubric
   Standard of success to be used for this assessment: 70% of students will score an average of 70% or higher
   Who will score and analyze the data: Department faculty
   Assessment 2
   Assessment Tool: Outcome-related questions on common written final exam
   Assessment Date: Winter 2022

Assessment Cycle: Every Three Years
Course section(s)/other population: All
Number students to be assessed: All
How the assessment will be scored: Answer key
Standard of success to be used for this assessment: 70% of students will score an average of 70% or better on the outcome-related exam questions
Who will score and analyze the data: Department faculty

Course Objectives

1. Demonstrate skills in soft and rigid body dynamics.
2. Bake dynamically generated animations.
3. Construct scene with Maya dynamics, employing principles of Maya physics.
4. UV map a complex organic model using a variety of mapping techniques.
5. Create advanced texture maps for organic objects, including normal maps, color maps, and specular maps.
6. Produce accurate measured organic model using NURBS patch modeling.
7. Optimize NURBS surfaces for efficient rendering.
8. Create character model with optimized polygon construction.
9. Articulate decision making process for polygon topology, reduction, edge flow, and optimization.
10. Create scene and apply keyframes to objects to generation animated motion.
11. Rig using joints, control objects, and scripts where appropriate.
12. Bind skins to skeletons accurately using a variety of tools.
13. Recognize and describe the main structural features of the human body.

New Resources for Course

Course Textbooks/Resources

Textbooks
Manuals
Periodicals
Software

Equipment/Facilities

Level III classroom

Reviewer	Action	Date
Faculty Preparer:		
Randy Van Wagnen	*Faculty Preparer*	*Aug 05, 2019*
Department Chair/Area Director:		
Ingrid Ankerson	*Recommend Approval*	*Aug 07, 2019*
Dean:		
Eva Samulski	*Recommend Approval*	*Aug 08, 2019*
Curriculum Committee Chair:		
Lisa Veasey	*Recommend Approval*	*Sep 19, 2019*
Assessment Committee Chair:		
Shawn Deron	*Recommend Approval*	*Oct 10, 2019*
Vice President for Instruction:		
Kimberly Hurns	*Approve*	*Oct 14, 2019*