

Application for a New Course v10.5

Course ID <i>Subject and Number</i>	DET 320
Date APPROVED	
Date DENIED	

I. Systems and Catalog Information Complete each item.

1	Course Developer	Brian G. Burton
2	Course Teacher	Richard Tanner
3	Course Title	Advanced 3D Modeling
4	Course Abbreviation (if title is over 30 characters)	Adv 3D Modeling
5	College	COBA
6	Department	SITC
7	Number of Credit Hours	3
8	Is the course Fixed Credit or Variable Credit?	Fixed
9	Is the course repeatable?	No
10	Maximum number of times course may be repeated	
11	Maximum number of hours credit	
12	Explanation for variable credit	
13a	Course contact hours - LEC	3
13b	Course contact hours - Lab	0
13c	Course contact hours -	3

	Practicum	
13d	Course contact hours - Seminar	
13e	Course contact hours - Studio	
13f	Course contact hours - Online	
13g	Course contact hours - Colloquium	
13h	Course contact hours – Field Experience	
13j	Course contact hours - Internship	
13k	Course contact hours - Research	
13m	Course contact hours - Workshop	
13n	Course contact hours – Other (specify)	
14	Instructor Workload	
15	Grade Mode (check all appropriate):	☒ Standard ☒ Credit/No Credit (undergrad only)
16	Maximum Enrollment	15
17	Catalog Description (50 words or less)	Advanced concepts of 3D art and visualization. Students will learn to use 3D computer graphics software to produce 3D character models and corresponding skeletal structures for use in animation, game engines, and film media.
18	List any prerequisites (course/s, test scores, class standing, major, etc.)	DET 220 : Intro to 3D Modeling

19	List any co-requisites	
20	If the course is cross listed, specify the Course ID(s) MUST have signature in Section V off all Department Chairs	
21	Does this course have any special student costs? Yes/No <i>Attach a <u>completed</u> "Request to Add or Change Course Fees" form. Describe in section IV-F.</i>	No
22a	How often will it be offered? Fall	
22b	How often will it be offered? Spring	X
22c	How often will it be offered? Summer	
23	Frequency? All, odd, or even years?	Demand
24	First semester this course will be offered <i>New courses may not be taught under their approved course ID until they appear in the catalog, therefore, no earlier than the coming fall.</i>	Spring 2017
25	List course/s that should be deleted, include the last semester for course/s being deleted <i>A course cannot be deleted when it is a requirement in a degree plan in any department.</i>	
26	Is this course required for a degree/s? Yes/No <i>If "Yes," attach a revised degree plan(s) reflecting the placement of the new course.</i>	No
27	Should the addition of this course be retroactively applied	No

	to the degree plan it supports? Yes/no and explain	
28	Has this course been offered as a Special Topics course? Yes/No <i>If "Yes," specify the Course ID and enrollment for each term it was taught.</i> <i>(Note: New courses are NOT required to be taught as Special Topics courses prior to being approved. However, courses may be taught once as Special Topics before it is proposed. See the Course Descriptions section of the Catalog for details.)</i>	Yes Spring 2016, 9 students
29	List any courses in which content overlaps the proposed course. (Course ID and Name) <i>Attach statement from instructor/dept chair of existing course justifying the new offering in Section IV-D.</i>	

II. Curriculum

1	Degree Plan Explanation of how this course affects degree requirements.	This course teaches valuable skills need by a large number of DET majors and minors.
2	Justification State the justification for adding this course to the current curriculum. Represent the need.	Being able to create 3D models is a critical skill needed game development and 3D animation.

III. Course Design

1. Audience and Course Goal

1	Describe the intended audience, including prerequisite skills.	This course is designed to teach advanced skills need by students entering game
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		development and animation. Students should be very familiar with 3D modeling concepts taught in Intro to 3D Modeling.
2	State the overarching course goal(s) in performance terms.	To provide advanced training in the development of 3D modeling. These skills apply to game development, animation, and additive manufacturing (3D printing).

2. Competencies and Measurements

	Competency	Measurement	Assignment
1	Create and edit 3D character models from referenced concept art	Grading rubric for 3D Modeling Projects	Assignment 1 -4
2	Create a virtual skeleton to correspond with your 3D character, and associate the character model and skeleton through rigging and skinning so that animations applied to the skeleton control the character model	Grading Rubric for 3D Animation & Rigging	Mid-Term Project
3	Use 2D graphics editing programs in conjunction with 3D modeling software programs to create and apply wrapped bitmap textures to your 3D character and other basic 3D models	Grading rubric for 3D Modeling Projects	Assignment 8 & 9
4	Animate completed 3D character models within a larger scene to convey a narrative	Grading Rubric for 3D Animation & Rigging	Final Project

3. Text and Resources

1. Give the full publication information of the textbook/s and other required resources and outside readings.

Introducing Autodesk Maya 2015: Autodesk Official Press, 1st Edition. Dariush Derakhshani.
ISBN: 978-1118862841

2. For **combined undergraduate/graduate** courses, make two lists:
- full publication information; label **Undergraduate**.
 - full publication information; label **Graduate**. Indicate number of pages required.

IV. Supporting Documentation

Supporting documents must accompany proposal prior to preliminary approval by chair and dean.

1	Library — Submit new course application and syllabus to the Dean of the Library. Consult with the director and establish a deadline for completion of the library report. Attach the signed copy of the Library report.
2	Instructional Design — The application and syllabus must be reviewed by the Adams Center. Attach a copy of the Adams Center Review Letter.
3	Content Overlap — Include one document for each course you listed in Section I-I. Attach statement from instructor/dept chair of existing course justifying the new offering.
4	Departmental Resources — List the resources that support the course and are available only through the department, if applicable. Attach the list of the holdings and the location/s.
5	Resources — List resources (other than library or departmental resources) that are needed to support this course (computers, lab equipment, other technology, etc.). Attach a complete list of all items and indicate possible sources or estimated cost of each. List the sources of any needed funds.
6	Expenses — List additional expenses needed to implement this course (full-time or part-time faculty, graduate or lab assistants, student employees, travel, special student costs, room renovation, storage facility, etc.). Attach a complete list of all items, the estimated cost of each and the source of the funds.
7	Justification — Attach all documents referred to in Section II-2
8	Syllabus — Attach the syllabus for the course based upon the anticipated first-semester offering.

	9	Provide documentation for all additional attachments here
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V. Preliminary Approvals

All supporting documentation has been assembled and attached to this application. I believe this course is ready to be presented to appropriate councils. We have a plan to fund this new course.

Course Number and Name Advanced 3D Modeling

Primary Department

Brian Culp

Department Chair
Dean of the College

3/2/16
Date

Brian Culp

3/2/16
Date

Cross-listing Department *Add more lines if multiple departments are cross-listing*

Department Chair
Dean of the College

Date

Date

Cross-listing Department *Add more lines if multiple departments are cross-listing*

Department Chair
Dean of the College

Date

Date

VI. Actions *Place all actions on one page.*

Course ID: _____

Course Title: Advanced 3D Modeling

1. College Academic Council: (for all courses)

Note: Insert additional lines for College Academic Council action for each college involved in cross-listed courses.

Approved ☒ Denied ☐

Samuel Parker
College Dean or Director

Date

3-1-16

Approved ☐ Denied ☐

College Dean or Director

Date

2. Graduate Council: (for graduate level courses)

Approved ☐ Denied ☐

Dean of Graduate School

Date

3. Teacher Education Council: (when applicable)

Approved ☐ Denied ☐

TEC Chair

Date

4. University General Education Council: (when applicable)

Approved _____ Denied _____
Provost's designee Date

5. University Undergraduate Academic Council: (*undergraduate level courses*)

Approved _____ Denied _____
Vice Provost Date

6. Academic Provost: (for all courses)

Approved _____ Denied _____
Provost Date

7. President of the University: (for all courses)

Approved _____ Denied _____
President Date

Attach notes, comments, or conditions from appropriate councils:

ABILENE CHRISTIAN UNIVERSITY

LIBRARY

MEMORANDUM

DATE: March 2, 2016
TO: Dr. Brian Burton
FROM: Mark McCallon, Associate Dean for Library Information Services
RE: Course Application – Advanced 3D Modeling

After reviewing the course proposal and course syllabus, the library can adequately support the proposed course. Please contact Mark McCallon (mccallonm@acu.edu) , Librarian Liaison to the College of Business Administration, if additional library resources are needed for the course. Thank you for allowing us to review the course application and syllabus.

Tuesday, February 23, 2016

Abilene Christian University

Re: DET 340 Application

Dear Rich,

The Adams Center for Teaching and Learning has completed the review DET 340: Advanced 3D Modeling. The syllabus was reviewed based on the ACU Syllabus Guidelines. The syllabus proposed meets or exceeds most of the expectations described in these guidelines.

Please address the following before submitting the syllabus to the Academic Council.

- Please add the ACU Mission Statement to the syllabus.
- Clearly indicate the number of credit hours to be earned by completing this course.
- Please identify the intended audience for this course.
- Please indicate which assignments will be used to measure each of the course competencies.

There is no need to return the syllabus to the Adams Center for further review. Of course, if you would like to discuss this suggestion or any other aspect of your syllabus or instructional strategies, please contact me and we will schedule a time as soon as possible. We are here to serve you as you help prepare students for Christian service and leadership throughout the world.

Grace and Peace,

A handwritten signature in black ink, appearing to read "David Christianson". The signature is fluid and cursive, with the first name "David" and last name "Christianson" clearly distinguishable.

David Christianson
Instructional Designer
Adams Center for Teaching and Learning
Abilene Christian University

ACU COLLEGE OF BUSINESS ADMINISTRATION
COURSE SYLLABUS
ADVANCED 3D MODELING (DET 320)
SECTION 1
SPRING 2016



Instructor: Rich Tanner
Phone: 210-259-7049
Email: rwt07a@acu.edu

Office Hours: TBA
Office: None
Classroom: Mabee Business (COBA) 302

"To glorify God by creating a distinctively Christian environment in which excellent teaching, combined with scholarship, promotes the intellectual, personal, and spiritual growth of business students, and educates them for Christian service and leadership throughout the world."

The COBA Mission Statement

Course Description

Advanced 3D Modeling (Credit Hours: 3), Spring, Introduction to advanced concepts of 3D art and visualization. Students will learn to use 3D computer graphics software to produce 3D character models and corresponding animatable skeletal structures for use in animation, game engines, and film media. Students will also be introduced to basic character and model texturing to enhance the detail and design of their 3D animated characters. Prerequisite: DET 220: Introduction to 3D Modeling.

ACU Mission & Promise:

The mission of ACU is to educate students for Christian service and leadership throughout the world. ACU promises to be a vibrant, innovative, Christ-centered community that engages students in authentic spiritual and intellectual growth, equipping them to make a real difference in the world.

Intended Audience:

Advanced 3D Modeling is intended for those who have experience in developing 3D models. Prior completion of Introduction to 3D Modeling is expected.

Contribution of Course to Overall Business Perspective

This course provides an introduction to the topic of developing 3D digital characters for use in animation, games, simulations, and video/film. In taking a 3D character from idea to hand drawn concept art and through to a fully rigged and animatable 3D character asset, students will learn 3D digital workflow, develop spatial awareness, and develop an understanding of how 3D digital character creation fits into a larger production.

Contribution of Course to the Development of Communication Skills:

This course is structured to develop written, oral, and visual communication skills. Group projects are designed to provide real-life experiences in group interaction by using effective communications to produce professional business outcomes. Assignments of oral reports will lead to proficiency in common business communication skills and emphasize the importance of faithful commitment and participation in group activities. The nature of 3D projects will lead to awareness of visual communication and story progression via movement, lighting, and virtual physicality.

Contribution of Course to Christian Service and Leadership

Abilene Christian University is a vibrant, innovative, Christ-centered community that engages students in authentic spiritual and intellectual growth, equipping them to make a real difference in the world. An education for Christian service and leadership means learning to deal successfully with people and to use skills, technology and opportunities to help promote full lives for ourselves and others. In this class, we study some of the basic issues in

the use and understanding of how people use and communicate with and through technology. In doing so, we will learn how individuals leading Christ-centered lives can effectively use their knowledge and skills to foster the well-being of others as inspired by our faith.

"Now it is required that those who have been given a trust must prove faithful." 1 Corinthians 4:2

Goals for Student Competency

In *Advanced 3D Modeling*, you will learn many of the basic tools and theories that are used in professional and educational contexts in the development of 3D characters for animation, film, video games, simulation, and other media. You will develop basic competency in Maya, a 3D modeling software package, and learn to leverage that competency toward the completion of a large 3D project, to be presented at the finish of the semester.

	Competency	Measurement	Assignment
1	Create and edit 3D character models from referenced concept art	Grading rubric for 3D Modeling Projects	Assignment 1 -4
2	Create a virtual skeleton to correspond with your 3D character, and associate the character model and skeleton through rigging and skinning so that animations applied to the skeleton control the character model	Grading Rubric for 3D Animation & Rigging	Mid-Term Project
3	Use 2D graphics editing programs in conjunction with 3D modeling software programs to create and apply wrapped bitmap textures to your 3D character and other basic 3D models	Grading rubric for 3D Modeling Projects	Assignment 8 & 9
4	Animate completed 3D character models within a larger scene to convey a narrative	Grading Rubric for 3D Animation & Rigging	Final Project

Format

Course material will be delivered primarily online through a mix of standard lecture presentations, reading and homework assignments and short video tutorials. The online materials will be augmented by monthly lab sessions, intended to provide hands-on experience and instruction, group discussions, and project presentations.

Labs are scheduled to occur one Saturday per month of the current semester. The lab dates and times will be posted on the class website. Attendance in the lab sessions is mandatory and vital to your success within the class. You will be notified in advance of any class time or location changes.

Prerequisites

You need a working familiarity with personal computers, including operating system procedures, file creation and transfer, and graphic software such as paint or Photoshop. An existing understanding of Maya (through *DET 220: Introduction to 3D Modeling*) or other 3D modeling software package is recommended.

Course Requirements

You will be required to submit all homework assignments, meaningfully participate in online discussions throughout the semester, attend and participate in monthly Saturday lab sessions, and present a final comprehensive project at the end of the semester.

Course Web Site

Almost all of the information pertaining to this course is available online through Canvas. You will find class notes, handouts, electronic resources, assignments, and many other materials at this location.

Homework Assignments

Because of the nature of this course, students cannot expect to do well without regular practice. Consequently, homework will be assigned on a regular basis. You are encouraged to complete all assigned work and to seek help outside of class if you need it. I can always be reached via email (and text for shorter questions and answers) and will strive to provide a response within a day of your contact. You are also encouraged to seek help from, and provide help to, your fellow classmates.

Homework will be assigned weekly. Unless otherwise specified, homework assignments are due by noon on Monday. **No late assignments will be accepted.**

Mid-Term Project

You will be required to complete a mid-term project, which will be an ongoing project throughout the first half of the semester. This project will be demonstrated through video tutorials and in-class instruction. All students will follow along with the lengthy and ongoing project as instruction commences, and will be turning in their partially completed files each week, with the files expected to show appropriate progression each week. Students who fall behind in this project may be severely hampered in the rest of this course, as the mid-term project will include most of the course instruction and hands-on learning.

Term Project

You will be required to complete and present a final project demonstrating the cumulative goals of the course (listed above). Given the variety of applications a 3D model or scene could be used for, the format of your final project is open for discussion and approval. Possible project formats include a short animated film of your animated 3D character, or a demonstration of a 3D game level containing your fully animated 3D character models.

Class Participation

You should be prepared at all times to participate in classroom discussion. Creative thinking, insightful questions, and demonstrated enthusiasm for the material will be reflected in your final grade through the class participation component. Good attendance, while important, is not the sole factor for evaluating class participation. The instructor will assign half of the class participation grade. You will supply the other half in the form of a self-evaluation. Class participation does not mean class monopolization. Students who are consistently off topic or monopolize the conversation will be counted off on their class participation grade.

Grade Composition

Your grade will be computed on the following basis (*TENTATIVE*):

Activity	Value	Completion or Due Date
Assignment 1	50	January 25 th
Assignment 2	50	February 1 st
Assignment 3	50	February 8 th
Assignment 4	50	February 15 th
Assignment 5	50	February 22 nd
Assignment 6 – Mid Term Project	200	February 29 th
Assignment 7	100	March 7 th
Assignment 8	50	March 28 th
Assignment 9	50	April 4 th
Assignment 10	50	April 11 th
Assignment 11	50	April 18 th
Assignment 12	50	April 25 th
Final Project Presentation	200	April 30 th (Saturday)
Class Participation/Attendance	400	Throughout semester

Grading System

Each activity (exam, homework assignment, quiz, etc.) will be graded on the basis of 100%. The grading system for the course is given in the following table.

Letter Grade	Semester Combined Average
A	90 or above
B	80 – 89.9
C	70 – 79.9
D	60 – 69.9
F	Below 60

There is no pre-established quota of As, Bs, Cs, etc. for this class. You will receive the grade that you earn, no more and no less. I do not give grades. You earn them.

Attendance Policy

Because we will meet only a total of five times throughout the semester, your attendance in those meetings is vitally important. In business environments, employees who are often absent from, or tardy to, work do not enjoy long-term employment, regular pay increases, or good professional reputations. In this class you will be learning to solve problems similar to those you will encounter in professional settings, and the consistency with which you attend class reflects your commitment to the training necessary to pursue a business career. **Because the pace of this course is quite rapid, you cannot expect to do well if you frequently miss class.** You are late to class if you arrive five minutes after the scheduled start time. Every three late arrivals will be counted as one absence.

If you plan to miss class to participate in a University-sponsored activity, you must provide your instructor a written notice signed by your sponsor seven (7) days in advance. These are approved absences that are not counted toward your absence accumulation. Absences due to illness with a doctor's signed excuse will also not be counted.

In any case, you will still be responsible for all notes and information missed as the result of your absence. Your instructor will not hand out course materials more than once, so you should plan to obtain them elsewhere. As noted above, homework assignments, as well as many of the class notes, will be available via the Internet.

Academic Integrity

Honor Code

ACU College of Business Administration

Objective

COBA faculty, staff and students will strive to proclaim in their lives competence, character and community. In joining COBA, students, faculty, and staff covenant to abide by the following ethical principles.

Competence

To lead and serve well requires competence. And to become competent requires diligence and hard work. We owe it to all who have prepared the way and who will follow in our footsteps, to be good stewards of opportunities and resources. Thus, in all you do: set priorities, seek excellence and professionalism in your work, satisfy requirements, and take responsibility for your learning and performance. You cannot build competence if you lie, cheat, steal, or tolerate those who do.

Character

A reputation of good character is built slowly through testing, yet can be destroyed in an instant by compromise or careless work, just as it can through injustice. Guard your character; it is worth more than a grade or promotion. "A good name is more desirable than great riches; to be esteemed is better than silver or gold" (Proverbs 22:1). You cannot build character if you lie, cheat, steal, or tolerate those who do.

Community

A spirit of fellowship and mutual encouragement holds each community member accountable. Accountability leads to a healthy community through adequate preparations for the tasks at hand, respectful truthfulness in all situations, and adding value to the tasks at hand. As a community, we must hold each other accountable to the principles of competence, character, and community. You cannot build community if you lie, cheat, steal, or tolerate those who do.

We support ACU's Academic Integrity Policy

(www.acu.edu/campusoffices/studentlife/documents/Acad_Integ_Policy_Fa.pdf). This important policy offers

examples of academic infractions and a process for assigning consequences and voicing appeals. Ignorance of this policy is never an excuse. Individual instructors will define course specific definitions, however, in general you should avoid:

Plagiarism - Copying or even paraphrasing words or ideas from another source (including current or past students) without giving adequate credit.

Lying - Inventing data or sources or making false attributions about the origin of material or offering a deceptive reason for an absence or delay in the completion of academic work.

Cheating - Facilitating or participating in any process that circumvents the intent of any exam, test, quiz, paper, or assignment.

Any dishonest act observed or reported will be investigated and if proven, be reported in administrative offices and records, and may be subject to any or all of the following outcomes based on severity:

A zero for the assigned work

A failing grade for the course

Dismissal from the university

*Ratified by Faculty:
11/18/2004*

Classroom Management

In order to maintain decorum and to optimize the learning environment for all members of the class, certain classroom management policies must be adhered to:

- If you sleep in class/lab you will be asked to leave and you will be counted absent.
- If you walk out of class/lab without returning, you will be counted absent (obviously, exceptions will be made if you become ill or have made a prior arrangement with the instructor).
- Disruptive behavior will not be tolerated. This includes playing games, writing email, engaging in instant messaging, or similar activities on the computer terminal during lab periods. If you disrupt the class, you will be asked to leave and will be counted absent.

Communications

To facilitate consistency in communications of courses requirements, assignments, and general information, and to make the course as paperless as possible, your instructor will regularly communicate with you via email using your ACU email address. You are encouraged to check your ACU email everyday for messages from your instructor. In addition, announcements and course materials will be posted to the course web site (Blackboard) on a regular basis, and you are also encouraged to check that facility often.

Students with Disabilities

Abilene Christian University is committed to providing a learning atmosphere that reasonably accommodates qualified persons with disabilities. If you feel you have a disability that may impair your capacity to successfully complete this course, please contact the Director of Disability Services (674-2667) in Alpha Academic Services. Student Disability Services assists students with disabilities in obtaining appropriate academic accommodations.

Text and Supplements

We will not have an assigned textbook for this course. Instruction will be through video tutorials, assigned online readings, in-class projects and demonstrations, and guided self-learning, as prompted by the instructor.

Recommended:

Additional instruction is available for the software used in this course through Lynda.com. Use the quick link (<http://acu.edu/lynda>), which automatically makes sure you are logged in to MyACU before redirecting to the site

Additional Readings: To be assigned throughout the semester