Request for Undergraduate Course Addition

1. Prepare one paper copy and obtain signatures from the Department Chair/Division Head, Registrar and College Dean.
2. Submit the form to your College Curriculum Committee.
3. After obtaining the signature of the College Curriculum Chair, send the paper copy to the current University Curriculum Committee Chair.
4. Send an identical (sans signatures) ELECTRONIC COPY and all supporting documentation in a single PDF file (PDF Portfolio recommended) to UCC chair.

College: Science  Department/Division: Computer & Information Technology  Alpha Designator/Number: CIT 446
Contact Person: Brian M. Morgan  Phone: x66469

NEW COURSE DATA:

Course Title: 3D Modeling and Animation  (Limit of 30 characters & spaces.)
Alpha Designator/Number: CIT 446

General Education Designator(s) (check all that apply): □ CT □ INTL □ MC □ Core II (Core II type: )
Note: Applications for Gen Ed attributes must be attached. http://www.marshall.edu/wpmu/pumed/core-ii-courses-info/

Catalog Description (Limit of 30 words):
Covers 3D modeling to create environments and character animation. Explores 3D forms within sculpture, architecture, animation and games. Includes development of simplifications, abstractions and hyper-realities for gaming.

Co-requisite(s):  First Term to be Offered: Spring 2017
Prerequisite(s): CIT360 Credit Hours: 3
Grading Mode: Graded: ☑ Credit/No Credit: ☐

Course(s) being deleted in place of this addition (must submit course deletion form):

CHECKLIST/REQUIREMENTS

1. After completing this two page form in its entirety, include a complete syllabus and route through the departments/committees below.
2. A complete syllabus can be from when this course was previously taught as a special topics course or by creating a new, intended syllabus to use with the course. The sample syllabus must at a minimum address the following areas:
   a. COURSE OBJECTIVES, COURSE OUTLINE, SAMPLE TEXT(S) WITH AUTHOR(S) AND PUBLICATION DATE, INSTRUCTIONAL METHODS (Lecture, Lab, Internship, Practicum, etc.), and EVALUATION METHODS (Unit/Chapter, Midterm, Final, Projects, etc.)
3. If this course will replace a course that is required by another department, please send a memo to the affected department and include it with this packet, as well as, the response received from the affected department.
4. If this course will be similar in title or content to another department’s courses, please send a memo to the affected department and include it with this packet, as well as, the response received from the affected department.

SIGNATURES: (If disapproved at any level, do not sign. Return to previous signer.)

Department Chair/Division Head:  Date: 1/18/16
Registrar:  Date: 2/6/16
College Dean:  Date: 2/24/16
College Curriculum Chair:  Date: 3/3/16
General Education Council Chair *:  Date: 3/6/16
University Curriculum Committee Chair:  Date: 
Faculty Senate Chair:  Date: 
VP Academic Affairs/VP Health Science  Date: 

* - Signature necessary only if course is to be Core Curriculum Course

University Curriculum Committee – Course Addition Form
Revised 04/6/2012
Request for Undergraduate Course Addition - Page 2
Additional Information Required for Undergraduate Course Addition

College: Science  Department/Division: Computer & Information Technology  Alpha Designator/Number: CIT 446

Provide complete information regarding the new course addition for each topic listed below. Before routing this form, a complete syllabus also must be attached addressing the items listed on the first page of this form.

1. Identify by name the faculty in your department/division who may teach this course.
   
   Brian Morgan, David Cartwright

2. If your department/division requires additional faculty, equipment, or specialized materials, attach an estimation of money and time required to secure these items.
   
   N/A

3. If this course will be required by a department/division other than your own, identify by name.
   
   N/A, but open to anyone

4. If there are any agreements required to provide clinical experience, attach details and signed agreements.
   
   N/A

5. If library resources are deemed inadequate, attach a plan to overcome this. The plan must include the cost as stated by the Dean of Libraries.
   
   Resources are adequate.

6. EQUIPMENT/SUPPLIES NEEDED TO TEACH THIS COURSE (this does not refer to additional equipment/supplies that need to be purchased; simply what materials are needed in order to teach this course successfully.):
   
   Blackboard, departmental web server (have in place)

7. ADDITIONAL GRADUATE REQUIREMENTS IF LISTED AS AN UNDERGRADUATE OR GRADUATE COURSE (please also submit to Graduate Council course addition for 5xx graduate component):
   
   N/A

8. PROVIDE A COMPLETE BIBLIOGRAPHY INCLUDING ALL PUBLICATIONS RESEARCHED TO CREATE THIS COURSE AND WHAT PUBLICATIONS MAY BE BENEFICIAL TO STUDENTS TAKING THIS COURSE (separate page).
CIT446: Bibliography


CIT446: 3D Modeling and Animation
Sample Course Syllabus

Instructor : Brian M. Morgan
Office : Morrow 114
Phone Number : (304) 696-6469
Fax Number : (304) 696-6533
Office Hours : MWF: 8:30a – 10:30a
Other times by appointment ONLY
If you need to find me, search for me along with the hash tag #IST263 on Twitter as I will update my whereabouts and what we cover this semester: http://www.twitter.com/brianmmorgan/

E-Mail : brian.morgan@marshall.edu

University Policies : By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy by visiting http://www.marshall.edu/academic-affairs/policies/
Academic Dishonesty / Excused Absence Policy for Undergraduates / Computing Services Acceptable Use / Inclement Weather / Dead Week / Students with Disabilities / Academic Forgiveness / Academic Probation and Suspension / Academic Rights and Responsibilities of Students / Affirmative Action / Sexual Harassment

Textbook:
The following textbook is required for the course:


Computer Requirements:
Supplemental materials can be found contained within the Blackboard Learn environment (http://www.marshall.edu/muonline/). I will be sending class announcements, updates, etc. using your Blackboard account (will discuss during the first lecture). Access to a web browser is required, as is Adobe Acrobat Reader (http://get.adobe.com/reader/), Blender, and Maya.

Course Description:
Covers 3D modeling to create environments and character animation. Explores 3D forms within sculpture, architecture, animation and games. Includes development of simplifications, abstractions and hyper-realities for gaming.

Credit:
The course is three (3) credit hours. It includes classroom lectures, exams, homework assignments, and a semester project. Students will participate in various aspects of projects that illustrate the implementation of concepts in general applications.

Pre/co-requisites:
IST360

Desired Objectives/Outcomes:
By the end of this course, you should be able to:

| Course Student Learning Outcomes | How Practiced in this Course | How Assessed in this Course |
| Students will be familiar with a typical work-flow for creating 3D art assets in a modern game engine. | In-class examples, discussions | Course Project |
| Students will learn the types of animations needed for games, limitations of animations, and difference between animations and film. | In-class examples, discussions | Course Project |
| Students will gain understanding of techniques and technical specifications of common high quality assets used in games. | In-class examples, discussions | Course Project |
| Students will gain knowledge of what is required of a contemporary video game artist | In-class examples, discussions. | Course Project |
| Students will gain knowledge of a 3D modeling program such as Maya or Blender. | In-class examples, discussions. | Course Project |

**Instruction method:**
There will be 3 contact hours of classroom lecture per week. Projects covering major topics are part of the course. Students may work on their assignments/projects in University computing facilities or from their place of residence with an Internet connection.

**Evaluation method:**
Evaluation of student's performance will be based on the quality and thoroughness of your performance on course projects. There are no exams in this course.

**Grading Policy:**

Projects 75%
Larger Scale Semester Project 25%

**Assessment of Projects:**
The grading of all course projects will take into account:

1. Although the most important attribute of an assignment is correctness, grading will take into consideration efficiency, documentation, etc.

2. Although interactions with other students are encouraged, you must compose your own answers, unless otherwise noted.

Individuals who utilize other people's thoughts or ideas must provide appropriate references to said resources, including any and all web resources consulted. Failure to provide such documentation will result in a failing grade for the assignment, and may result in a failing grade for the course.

Final letter grades are determined based on the following grading scale:
The instructor reserves the right to change these values depending on the overall class performance and/or extenuating circumstances.

**Additional Policy Statements:**

**My Academic Dishonesty Policy:** Academic Dishonesty is defined as any act of a dishonorable nature which gives the student engaged in it an unfair advantage over others engaged in the same or similar course of study and which, if known to the classroom instructor in such course of study, would be prohibited. Academic Dishonesty will not be tolerated as these actions are fundamentally opposed to "assuring the integrity of the curriculum through the maintenance of rigorous standards and high expectations for student learning and performance" as described in Marshall University's Statement of Philosophy.

If you are found cheating on projects or plagiarizing answers from the Internet or other sources (among other things), there will be no second chance. Your penalty is that you will receive a failing grade for the course. In those cases in which the offense is particularly flagrant or where there are other aggravating circumstances, additional, non-academic, sanctions may be pursued through the Office of Judicial Affairs. Notice of an act of academic dishonesty will be reported to the Department Chair, Dean of the College of Science, and to the Office of Academic Affairs. Please refer to the Marshall University Undergraduate Catalog for a full definition of academic dishonesty.

**Assignments/Projects:** The course includes a number of assessment projects. All assessments are due **BY THE BEGINNING OF CLASS** on their due date and must be submitted through the Blackboard Assignments Tool. **NO LATE ASSIGNMENTS WILL BE ACCEPTED.** Please do not procrastinate in working on your assignments or trying to submit through Blackboard as many others have done in the past. If you wait until the last night to start on the project or the last minute to submit, chances are, you will fail.

**Exams:** There are no exams for this class this semester.

**Make-up Exams and Late Penalty:** N/A.

**Attendance Statement:** As with previous semesters, I am NOT making class attendance mandatory. However, I will keep a record of who is attending and who is not. **If you miss class,** it is your responsibility to catch up on the material missed, and it will **not** be my responsibility to catch you up on material missed during office hours, or re-lecture to you.

**Withdrawal Policy:** The University withdrawal policy is followed in this course. The last day to drop an individual course for the Fall Semester is October 30, 2015.

**University Holidays:** The class is officially dismissed on the following dates:

- Fall Break/Thanksgiving: November 24, 2015
- November 26, 2015

**Topics and Methodology:**
The following outline delineates the tentative class schedule with topics to be addressed during the course. Please note this is a tentative schedule and it may change upon class progress:
<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Overview of Course and Syllabus, Semester Project Introduction, introduction to Blackboard (if needed), 3D modeling/animation software</td>
</tr>
<tr>
<td>2</td>
<td>Blender Interface</td>
</tr>
<tr>
<td>3</td>
<td>Blender Interface</td>
</tr>
<tr>
<td>4</td>
<td>Navigation</td>
</tr>
<tr>
<td>5</td>
<td>Creating and Editing Objects</td>
</tr>
<tr>
<td>6</td>
<td>Creating and Editing Objects</td>
</tr>
<tr>
<td>7</td>
<td>Materials, Textures</td>
</tr>
<tr>
<td>8</td>
<td>Lighting and Cameras</td>
</tr>
<tr>
<td>9</td>
<td>Rendering and Ray Tracing</td>
</tr>
<tr>
<td>10</td>
<td>Animation Basics</td>
</tr>
<tr>
<td>11</td>
<td>3D Text, Smoke</td>
</tr>
<tr>
<td>12</td>
<td>Particle Systems</td>
</tr>
<tr>
<td>13</td>
<td>Armatures</td>
</tr>
<tr>
<td>14</td>
<td>Blender Game Engine</td>
</tr>
<tr>
<td>15</td>
<td>Project Q&amp;A</td>
</tr>
</tbody>
</table>

For each topic discussed in the textbook, specific experience of other students and the instructor will be discussed to enhance the characteristics involved. Hands-on projects for the course will be based on creating web sites and web applications for either real-world or fictitious needs. Additional material may also be covered in the class.

Every student is responsible for all materials presented in class, including lectures, notes, and handouts. In case you are not present for a class, if you have an excused absence, you should contact me to receive information about the material presented in that class. Class attendance is very important.

**Effort Required:**
As a 400-level course, a considerable amount of work and research effort is required of the student. For every one hour in class, the student is expected to put in an effort of at least 2-3 hours outside the class for studying and completing assignments and projects. Upon background and preparedness, some students may have to put in additional effort. **PLEASE DO NOT PROCRASTINATE.** Procrastination and the placing of blame on other factors than yourself have become very large problems in my classes. Prioritize, schedule, and take responsibility for your actions and you should do very well in this class.

**Communication:**
The Discussion Tool within Blackboard and E-mail sent to your MU e-mail address will be used to make any general announcements, last minute changes, etc. It is recommended that you monitor your messages at least once a day.