N504 Advanced Interactive Design Applications
Spring 2014
Section | 16194, IT 255, 3 CR
Lecturer/Media Arts and Science/http://www.oncourse.iu.edu

Section No.: 13995  Credit Hours: 3
Time: Thursdays 6:00–8:40 pm
Location: IT 255, Informatics & Communications Technology Complex
535 West Michigan Street, Indianapolis, IN 46202 [map]
First Class: January 14, 2014
Website: https://oncourse.iu.edu/portal/site/FA13-IN-NEWM-N342-25708

Instructor: Zebulun M. Wood, MS in Technology, Lecturer
Office Hours: M, Th, 2-5, and/or by Appointment
Office: IT 463, Informatics & Communications Technology Complex
535 West Michigan Street, Indianapolis, IN 46202 [map]
Phone: 317-278-4140 (Office),
Email: zwood@iupui.edu
Website: http://www.indianauploaded.org (personal_affiliate)

The Mission of IUPUI is to provide for its constituents excellence in
  ● Teaching and Learning
  ● Research, Scholarship, and Creative Activity
  ● Civic Engagement
With each of these core activities characterized by
  ● Collaboration within and across disciplines and with the community
  ● A commitment to ensuring diversity, and
  ● Pursuit of best practices

IUPUI’s mission is derived from and aligned with the principal components – Communities of Learning, Responsibilities of Excellence, Accountability and Best Practices – of Indiana University’s Strategic Directions Charter.

Statement of Values

IUPUI values the commitment of students to learning; of faculty to the highest standards of teaching, scholarship, and service; and of staff to the highest standards of service. IUPUI recognizes students as partners in learning. IUPUI values the opportunities afforded by its location in Indiana’s capital city and is committed to serving the needs of its community. Thus, IUPUI students, faculty, and staff are involved in the community; both to provide educational programs and patient care and to apply learning to community needs through service. As a leader in fostering collaborative relationships, IUPUI values collegiality, cooperation, creativity, innovation, and entrepreneurship as well as honesty, integrity, and support for open inquiry and dissemination of findings.
IUPUI is committed to the personal and professional development of its students, faculty, and staff and to continuous improvement of its programs and services.

**Required Text:**

There are no required texts for this course.

Digital Tutors is highly recommended.

**Equipment needed:**

- Notebook
- Portable Hard Drive (250mb or higher) [flash drives not recommended]
- Drop Box Account [http://www.dropbox.com/]

**Course Description:**

Incorporates advanced organic modeling, sculpting, articulation [rigging and animation] and rendering of characters, creatures, and plants for computer generated images for distributed industry applications. Course will also cover CGI actor and environmental object integration for film and entertainment through the use of realistic lighting and compositing techniques.

**Course Outcomes:**

Students will develop 3 photorealistic objects, and display them appropriately for their intended industry. 1 will be a believable human another a believable creature, the third object is anything the student wishes. Students will concept their proposals using traditional conceptual art techniques and reference gathered from real world.

**Core Competencies:**

- Students will have the ability to develop, discuss, and implement from preproduction, to production, to post production of organic creatures and characters for film, video-game, or augmented-reality industry use.
- Students will have the skills to model, texture, articulate, and render for low resolution or high resolution dependent industries.
- Students will set-up creatures and characters for animation for film quality animation
- Students will create at minimum of a posed, and articulated moment of the creature/character for display in turntable for a production reel
- Students will learn entire production pipeline for using characters within a full 3D film composite production or fully CG production
- Students will have two complete ready-for-animation projects in the forms of a human, and a creature inspired from life.
Software used:

- Autodesk Maya 2014
- Zbrush 4r6 or higher
- MARI
- Adobe Production Suite

Expectations/Guidelines/Policies:

- **Attendance** For success in this class I expect students to attend each class session. I will only allow missed classes if you give me notice a full week in advance. This class has a stringent attendance policy of 1 dropped letter grade for each 2 classes missed. I will take attendance at the beginning of each class.

- **Exams/quizzes** - There are no exams or quizzes

- **Homework Assignments** I WILL require homework exercises following tutorials or in class demo each week. I expect these to be completed by the next class.

- **Class Assignments** Class tutorials and demos must be completed with the instructor. Failure to do so can result in a detrimental effect on effort and class participation scores.

- Class assignments/projects are expected to be finished and handed in on time. If you can’t get in an assignment before class, email it to me.

- Final projects will not be accepted late.

**Date for each class meeting:**

- Specific pre-class readings
- Specific subject matter/topics covered
- Goals and objectives of each class period

**Assessment - Each Class will access**

- Oral presentation - Being involved in class lectures/demos
- Writing skills
- Critical thinking
- Application of knowledge
- Intellectual depth, breadth, and adaptiveness
- Understanding of society and culture
- Values and ethics

**Grading Information:**

- Weekly Assignments
All assignments are to be delivered in a folder with your name, class #, and week # titled, if the assignment is Maya based; with Maya project folders, and will be evaluated through Oncourse within the week.

Each weekly assignment is worth 50 points each.

Weekly assignments will consist of certain body parts and beginning to develop an appreciation of how the body works and moves. Students will learn to see, be patient, and develop a strong sense of foundations in proportion and anatomy.

- **Milestone # 1** is a preliminary check on character modeling and anatomical foundation and understanding on Organic character sculpting inside of Zbrush. Worth 100 pts

- **Milestone # 2** is a secondary check on character sculpture and anatomical believability and understanding on Organic character modeling inside of Zbrush. Worth 100 pts

- **Milestone # 3** is a tertiary check on character articulation and rigging capabilities based anatomical foundation, also checked will be displacement and/or normal map success Worth 100 pts

- **Final Project Milestone** is a final assessment of your ability to understand and implement the practices learned each week and is worth 300 points.
  - 100 points towards model, level detail, and quality
  - 100 zBrush Vector Displacement Implementation back into Maya.
  - 100 points the Pose, animation, render and display of final product

- **Professionalism (100 pts)**

  Professionalism is the highest quality a student of industry can gain and respect. We are all adults, the following are areas in which we will earn or lower your grade over the 11 weeks of class.

  - Attitude (be excited)
  - Tardiness
  - Contributing and requesting of Critiques in class
  - Deliverables (turning in what is asked for, the way its asked for)
  - Effort
  - Looking and smelling the part
  - Presentation Quality
  - Teamwork (Are you contributing effectively? Socially?)
  - Timeliness (time spent on projects versus peers)
  - Time tracking (What are you worth? How long are you taking?)
<table>
<thead>
<tr>
<th>Due Date</th>
<th>Assignment</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment #1</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>Assignment #2</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>Assignment #3</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td><strong>Milestone #1</strong></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Assignment #5</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>Assignment #6</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>Assignment #7</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>Assignment #8</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td><strong>Milestone #2</strong></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Assignment #9</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>Assignment #10</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>Assignment #10</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td><strong>Milestone #3</strong></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td><strong>FINAL</strong></td>
<td></td>
<td>300</td>
</tr>
<tr>
<td><strong>Professionalism</strong></td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

**Grading scale**

93% - 100%  A  
90% - 92.9%  A-  
88% - 89.9%  B+  
83% - 87.9%  B  
80% - 82.9%  B-  
78% - 79.9%  C+  
73% - 77.9%  C  
70% - 72.9%  C-
68% - 69.9%  D+
63% - 67.9%  D
60% - 62.9%  D-
Below 59%    F

Grading Standards

A – Outstanding, high quality work.
A fully completed project that demonstrates mastery of skills.
Projects that display creative and sometimes innovative work.
The students created many sketches and investigated several options before choosing one.
Combinations of color schemes, space, and page layout were used effectively and chosen carefully.

B – Good to very good work.
The student completed the components of the project, but neglected to experiment with additional or more challenging technical approaches.
The work demonstrates good abilities in the respective new media applications, but may lack depth and level of skill.
Space was filled adequately and a few combinations of design were tried.
The project could be lacking in areas of design, planning, or technical approach.

C – Average work.
The work demonstrates average skills in depth, design, and application.
No more than what was required of the course was completed.
The work is possibly incomplete in parts or used the wrong file extension on handed in projects.

D – Below average work.
The work is largely incomplete and displays a lack of effort.
Very little time was put into the software and thusly resulted in poor quality work.
The files handed in had errors or were unable to be downloaded.

F – Failure to complete the objectives of the course.

I - Incomplete
Students are expected to complete their work in the allotted time of this session.
However, because of unforeseen hardships students may not be able to complete the project in the time established for completion of his/her work. To receive a grade of Incomplete you must have 75% of the course work completed at a passing level.

Other Policies
**Academic Dishonesty**
Using another student’s work on a project, assignment, or any other form of dishonesty will result in a grade of zero and possibly an “F” in the course and will be referred to the Dean of Students.

All students in New Media should aspire to high standards of academic honesty. This class encourages cooperation and the exchange of ideas. However, students are expected to do their own work.

**Plagiarism:** (adapted from the definition by the School of Liberal Arts)

Plagiarism is the use of the work of others without properly crediting the actual source of the ideas, words, sentences, paragraphs, entire articles, music or pictures. Using other students’ work (with or without their permission) is still plagiarism if you don’t indicate who initially did the work. Plagiarism, a form of cheating, is a serious offense and will be severely punished. When an instructor suspects plagiarism, he/she will inform the student of the charge; the student has the right to respond to the allegations. Students whose work appears to be plagiarized may be asked to produce earlier drafts of the work. Students should, for this reason and as a protection in cases of lost papers, diskettes, retain rough drafts, notes and other work products for 2 or 3 weeks after the end of each semester. The penalties for plagiarism include reprimands, being failed for a particular exam, paper, project or the entire course, disciplinary probation, or dismissal. Faculty, after consulting with their chair and/or the dean must notify students in writing of their decision. Students have the right to appeal such decisions by the submitting a petition.

**Late Work:**

Class assignments are expected to be finished and handed in on time. Late assignments will have a letter grade deduction after each class day not completed. If you cannot present on a specific day I need to know at least a week in advance so we can schedule for another time.

Final projects will not be accepted late.

*All students are responsible for reading the code of student rights, Responsibilities, and Conduct of IUPUI*

**Liability warning:**

Students are held accountable for lost items when they are logged into their computer account. Please log off each and every time you leave the lab.
Your student ID and password are private! Under no circumstance are you to give them out to anyone. If another person uses your ID or password you will be held personally responsible for any and all activity on your computer account. If plagiarism is involved you run the risk of being dismissed from the school. If a computer or software is damaged you are responsible for repair.

“Children are not permitted to attend class with parents, guardians, or childcare providers. This conduct has the effect of unreasonably interfering with an individual’s work or academic performance creating an offensive learning environment.

“A student must not violate course rules as contained in a course syllabus, which are rationally related to the content of the course or to the enhancement of the learning process in the course.”  

[Code of Student Rights, Responsibilities, and Conduct, page 29]

Administrative Withdrawal:
A basic requirement of this course is that you will participate in class and conscientiously complete writing, reading, lab, and project assignments. Keep in touch with me if you are unable to attend class or complete an assignment on time.

If you miss more than half of our class meetings within the first four weeks of the semester without contacting me, you will be administratively withdrawn from this section. Out class meets once/twice [*] per week; thus, if you miss two/four [*] or more classes in the first four weeks, you may be withdrawn.

Administrative withdrawal will take place after the full refund period, and if you are administratively withdrawn from the course you will not be eligible for a tuition refund. If you have any questions about the administrative withdrawal policy at any point during the semester, please contact me.