IT311P
Animation II
[Onsite]

Course Description:

This course is a continuation of Animation I. Students will be introduced to methods of integrating lighting, texture mapping, rendering and the finer details of motion graphics to create 3D computer animated solutions. Techniques of concept development, story boarding, project planning and script writing will be applied during the creative process of generating a computer-animated sequence.

Prerequisite(s) and/or Corequisite(s):

Prerequisites: IT309P Animation I

Credit hours: 4

Contact hours: 66 (46 Theory Hours, 20 Lab Hours)

Where Does This Course Belong?

How does this course relate to the program? Take a look!

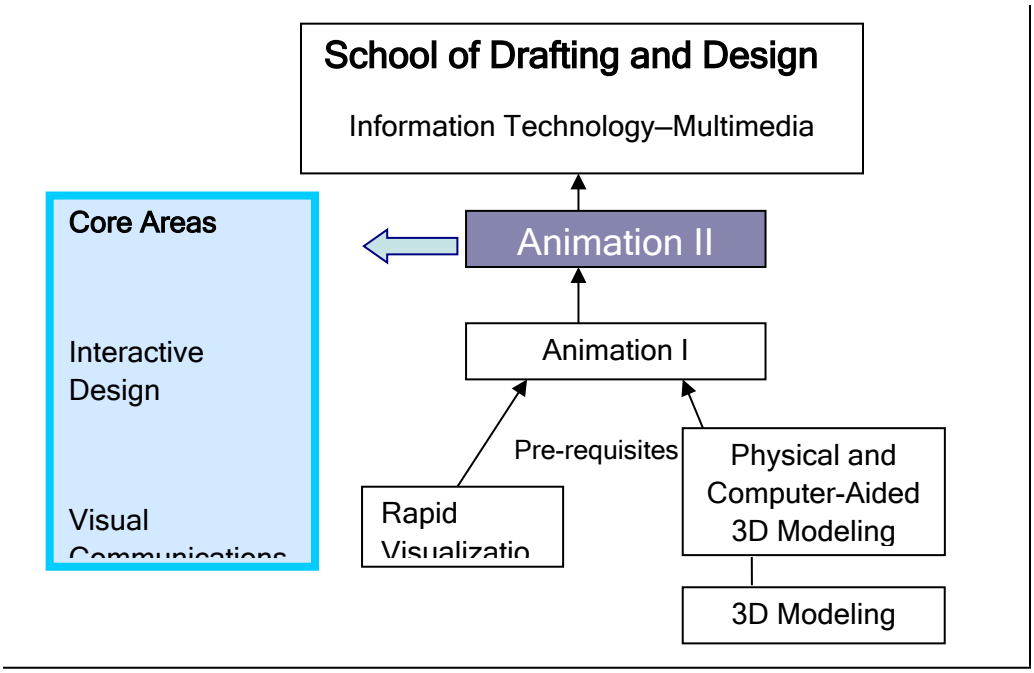
Animation II is a course required to earn an associate's degree in the Information Technology–Multimedia and Visual Communications programs.

The Multimedia program at ITT Tech will help prepare graduates to find entry-level jobs in the information/interaction design fields. The Multimedia program is designed for individuals concerned with envisioning creative ways of communicating ideas and concepts through electronic media. The program emphasizes creativity, visualization, and critical thinking to generate technologically appropriate and aesthetically pleasing solutions for communications.

The goal of the program is to help students acquire the necessary skills to enter the workplace and be versatile members of the team designing and producing traditional or electronic media for communication.

The Visual Communications program can help graduates prepare to perform tasks associated with designing and creating interactive multimedia communications and print communications. Graduates of this program may pursue careers in a variety of entry-level positions involving the design and production of digital media, print media, and a variety of applications used in corporate and public communications.

The following course sequence provides an overview of how Animation II fits in the program.



Note: Refer to the catalog for the state-specific course information.

Syllabus: Animation II

Instructor:	_____
Office hours:	_____
Class hours:	_____

Major Instructional Areas

1. Different types of animation
2. Introduction to character animation
3. Basic features of Autodesk 3ds Max 2012
4. Primitives
5. Spline modeling techniques
6. Polygon modeling techniques
7. Basic techniques and principles of animation

8. Rigging and skinning techniques
9. Human walk cycle
10. Facial animation in Autodesk 3ds Max
11. Demo reel/portfolio development

Course Objectives

1. Analyze the basics of character animation.
2. Demonstrate basic understanding of and familiarity with features of the 3ds Max 2012 interface.
3. Create standard and extended primitives for 3D models.
4. Use various tools and techniques available in 3ds Max to create and manipulate splines.
5. Demonstrate basic skills of creating and manipulating polygon models.
6. Use different animation techniques to create movement in a scene.
7. Analyze various principles of animation.
8. Create a 3ds Max bone rig for a 3D character model.
9. Create walk cycles, add weight, and apply the principles of animation to a character.
10. Use body mechanisms and facial animation techniques for a character in 3ds Max.
11. Develop a complete character animation in 3ds Max for the demo reel/portfolio.

SCANS Objectives

SCANS is an acronym for Secretary's Commission on Achieving Necessary Skills. The committee, created by the National Secretary of Labor in the early 1990s, created a list of skills and competencies that the committee feels are necessary for employees to function in a high-tech job market.

1. Interpret and creatively communicate written information in a 3D design, model, or animation rendering.
2. Successfully participate as a contributing member of a team.

3. Apply the specific technology of a software program to communication of design ideas.
4. Demonstrate problem-solving skills by choosing an appropriate solution to a problem.
5. Evaluate methods of animation with the appropriate software.
6. Demonstrate creative thinking and imaginative use of computer software.

Course Outline

Note: All graded activities, except the Project and Final Exam, are listed below in the pattern of <Unit Number>.<Assignment Number>. For example, Labs: 3.1 refers to the 1st lab activity in Unit 3.

Unit	Activities
1–Introduction to Character Animation and Autodesk 3ds Max	Content covered: *Character Animation: A Tutorial Approach:* o Chapter 1, “Introduction to Character Animation” o Chapter 2, “Introduction to 3ds Max 2012” Labs: 1.1
2–Standard and Extended Primitives	Read from *Character Animation: A Tutorial Approach:* o Chapter 3, “Primitives” Labs: 2.1
3–Splines and Extended Splines	Read from *Character Animation: A Tutorial Approach:* o Chapter 4, “Splines and Extended Splines” Labs: 3.1 Quizzes: 3.1
4–Polygon Modeling	Read from *Character Animation: A Tutorial Approach:* o Chapter 5, “Polygon Modeling” Labs: 4.1
5–Basics of Animation	Read from *Character Animation: A Tutorial Approach:* o Chapter 6, “Basics of Animation” Labs: 5.1

Unit	Activities
	Quizzes: 5.1
6–Principles of Animation	Read from *Character Animation: A Tutorial Approach:* o Chapter 7, “Principles of Animation” Labs: 6.1
7–Rigging and Working with Bones	Read from *Character Animation: A Tutorial Approach:* o Chapter 8, “Rigging” Labs: 7.1 Quizzes: 7.1
8–Human Walk Cycle	Read from *Character Animation: A Tutorial Approach:* o Chapter 9, “The Walk Cycle” Labs: 8.1
9–Body Mechanisms and Facial Animation	Read from *Character Animation: A Tutorial Approach:* o Chapter 10, “Body Mechanism” o Chapter 11, “Facial Expressions” Labs: 9.1 Quizzes: 9.1
10–Project	Project (Start)
11–Course Review and Final Exam	Project (Submit–Portfolio) Final Exam

Instructional Methods

The Animation II course is designed to promote teaching strategies that support the outcomes described in the course objectives. Your instructor will use a variety of instructional methods to facilitate your learning inside and outside the classroom. The course is composed of both theory and laboratory components. Your progress will be assessed regularly.

The skills and concepts taught in Animation II are fundamental to success in all future multimedia-based courses within your program in the School of Drafting and Design. It is therefore imperative for you to come to each class session prepared by having read the assigned textbook chapters. You must complete all quizzes and laboratory assignments to

ensure full comprehension of the subject matter. A final project requires you to prepare a demo reel/portfolio, which is a major element in securing work in the multimedia field. A final exam will be given at the end of the course to assess your understanding of the content.

Instructional Materials and References

Student Textbook Package

- Tickoo, Sham. *Character Animation: A Tutorial Approach. Schererville, IN: CADCIM Technologies, 2011.*

References

ITT Tech Virtual Library

Log on to the ITT Tech Virtual Library at http://library.itt-tech.edu/ to access online books, journals, and other reference resources selected to support ITT Tech curricula.

Books

You may click “Books” from the Main Menu or use the “Library Catalog” on the home page to find the following books.

- Books> Books24x7
  - Connell, Ellery. *3D for Graphic Designers. Alameda, CA: Sybex, 2011.*
  - Daniele, Todd. *Poly-Modeling with 3ds Max: Thinking Outside of the Box. Burlington, MA: Focal Press 2009.*
  - Derakhshani, Randi, L., and Dariush Derakhshani. *Introducing Autodesk 3ds Max 2011: Autodesk Official Training Guide. Alameda, CA: Sybex 2010.*
  - Ghinea, Gheorghita, and Sherry Y. Chen, eds. *Digital Multimedia Perception and Design. Hershey, PA: Idea Group Publishing, 2006.*
  - Murdock, Kelly L. *3ds Max 2011 Bible. Indianapolis: John Wiley & Sons, 2010.*

Other References

The following resources may be found **outside** of the ITT Tech Virtual Library, whether online or in hard copy.

Web sites

- 3D Total: http://www.3dtotal.com/

Galleries, tutorials, forums, and textures for CG artists

- Area: Digital Entertainment and Visualization Community: http://area.autodesk.com/
  Tutorials, tips, downloads, blogs, and job board related to digital art using Autodesk products
- Autodesk: Education Community: http://students.autodesk.com
  Licensed software for students and faculties from Autodesk
- Autodesk Students (Facebook page):
  https://www.facebook.com/Autodeskedcommunity?sk=app_180884248665675

Over 35 products available for free download right from the Facebook page

- Autodesk (YouTube channel): http://www.youtube.com/user/Autodesk
  Videos, comments, and more related to Autodesk and its products
- CG Channel: http://www.cgchannel.com
  Daily news, tutorials, galleries, community forums, and forums for individual and corporate demo reels
- Online Tutorials: A collection of CG tutorials on the web
  - Pixel2Life: http://www.pixel2life.com
  - CG Tutorials: http://www.cgtutorials.com
  - Tutorial Sphere: http://www.tutorialsphere.com
  - Tuts Buzz: http://www.tutsbuzz.com
- ScriptSpot: http://www.scriptspot.com/
  A community for downloading and sharing Max or SketchUp scripts
- CGSociety: http://www.cgsociety.org
  Membership site for the CGSociety with member area, portfolios, workshops, CG competitions, discussion forums, and job board

All links to web references are always subject to change without prior notice.

Course Evaluation and Grading

Evaluation Criteria Table

The final grades will be based on the following categories:

CATEGORY	WEIGHT
Quizzes	20%
Labs	35%
Project	30%
Final Exam	15%
Total	**100%**

Note: Students are responsible for abiding by the Plagiarism Policy.

Grade Conversion Table

The final grades will be calculated from the percentages earned in the course, as follows:

A	90-100%	4.0
B+	85-89%	3.5
B	80-84%	3.0
C+	75-79%	2.5
C	70-74%	2.0
D+	65-69%	1.5
D	60-64%	1.0
F	<60%	0.0

(End of Syllabus)

