

# **IT212T**

## **Broadcast Graphics**

### **[Onsite]**

**Course Description:**

Principles of type design, image manipulation and communication are applied in the creation of models and motion graphics for the broadcast industry.

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

Prerequisites: IT209T 3D Modeling or VC210T Modeling in 3D, IT210T Visual Design Theory or VC100T Introduction to Design

**Credit hours: 4**

**Contact hours: 60 (36 Theory Hours, 24 Lab Hours)**

## Syllabus: Broadcast Graphics

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Instructor: _____
Office hours: _____
Class hours: _____

### Major Instructional Areas

1. Overview of media production
2. Introduction to After Effects
3. Compositing and masking
4. Media animation in 3ds Max
5. Rendering
6. Integrating footage
7. Advanced topics
8. Camera matching
9. Demo reel/portfolio project

### Course Objectives

1. Identify the elements of the production workflow relating to media animation and motion graphics in film and broadcast.
2. Demonstrate the use of Adobe After Effects in a production environment.
3. Demonstrate the use of 3ds Max in a production environment.
4. Create a broadcast commercial or a motion-graphics sequence for the student 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 motion graphics sequence.
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 constructing models with the appropriate software.
6. Demonstrates creative thinking and imaginative use of computer software.

## Course Outline

Note: All graded activities, except the Project, are listed below in the pattern of <Unit Number>.<Assignment Number>. For example, Lab 1.1 refers to the 1st lab activity in Unit 1.

Unit	Activities
1– Overview of Media Production	<ul style="list-style-type: none"> <li>• Content Covered:               <ul style="list-style-type: none"> <li><i>Media Graphic Production 2nd Custom Ed.:</i> <ul style="list-style-type: none"> <li>○ Chapter 1, “The Production Process”</li> <li>○ Chapter 2, “The Role of Compositing”</li> <li>○ Chapter 3, “Real-World Case Study”</li> </ul> </li> </ul> </li> <li>• Labs: 1.1</li> </ul>
2– Introduction to After Effects	<ul style="list-style-type: none"> <li>• Read from <i>Media Graphic Production 2nd Custom Ed.:</i> <ul style="list-style-type: none"> <li>○ Chapter 4, “Compositing in After Effects”</li> <li>○ Chapter 5, “The Timeline and Layers”</li> </ul> </li> </ul>

Unit	Activities
	<ul style="list-style-type: none"> <li>○ Chapter 6, “Playback, Previews, and RAM”</li> <li>● Labs: 2.1</li> <li>● Quizzes: 2.1</li> </ul>
3—Compositing and Masking	<ul style="list-style-type: none"> <li>● Read from <i>Media Graphic Production 2nd Custom Ed.:</i> <ul style="list-style-type: none"> <li>○ Chapter 7, “Selections and Mask Essentials”</li> </ul> </li> <li>● Labs: 3.1</li> </ul>
4— Media Animation	<ul style="list-style-type: none"> <li>● Read from <i>Media Graphic Production 2nd Custom Ed.:</i> <ul style="list-style-type: none"> <li>○ Chapter 8, “The Millennium”</li> <li>○ Chapter 9, “Project 1: Part 1”</li> <li>○ Chapter 10, “Project 1: Part 2”</li> </ul> </li> <li>● Labs: 4.1</li> <li>● Quizzes: 4.1</li> </ul>
5— 3D Logo Animation	<ul style="list-style-type: none"> <li>● Read from <i>Media Graphic Production 2nd Custom Ed.:</i> <ul style="list-style-type: none"> <li>○ Chapter 11, “Project 1: Part 3”</li> </ul> </li> <li>● Labs: 5.1</li> </ul>
6— Rendering for Compositing	<ul style="list-style-type: none"> <li>● Read from <i>Media Graphic Production 2nd Custom Ed.:</i> <ul style="list-style-type: none"> <li>○ Chapter 12, “Rendering Project 1 for Compositing”</li> <li>○ Chapter 13, “Render Elements”</li> </ul> </li> <li>● Labs: 6.1</li> <li>● Quizzes: 6.1</li> </ul>
7— Integrating Footage	<ul style="list-style-type: none"> <li>● Read from <i>Media Graphic Production 2nd Custom Ed.:</i> <ul style="list-style-type: none"> <li>○ Chapter 14, “Color Correction”</li> <li>○ Chapter 15, “The Camera and Optics”</li> </ul> </li> </ul>

Unit	Activities
	<ul style="list-style-type: none"> <li>• Labs: 7.1</li> </ul>
8– Advanced Topics	<ul style="list-style-type: none"> <li>• Read from <i>Media Graphic Production 2nd Custom Ed.:</i> <ul style="list-style-type: none"> <li>○ Chapter 16, “32-bit HDR Compositing”</li> <li>○ Chapter 17, “Light”</li> </ul> </li> <li>• Labs: 8.1</li> <li>• Quizzes: 8.1</li> </ul>
9– Camera Matching	<ul style="list-style-type: none"> <li>• Read from <i>Lab Projects to Accompany Media Graphic Production 2nd Custom Ed.:</i> <ul style="list-style-type: none"> <li>○ Chapter 10</li> </ul> </li> <li>• Labs: 9.1</li> </ul>
10– Final Project	<ul style="list-style-type: none"> <li>• Course Review</li> <li>• Quizzes: 10.1</li> <li>• Final Project</li> </ul>
11– Final Project	<ul style="list-style-type: none"> <li>• Final Project</li> <li>• Final Project Presentation</li> </ul>

## Instructional Methods

This Broadcast Graphics curriculum promotes a variety of teaching strategies that support the outcomes described in the course objectives. This course builds on previous courses while laying the foundation for following courses as you pursue your degree. While your instructor will be fully prepared for each class session with lesson plans, course materials, notes, and resources (which will be available to you), the real responsibility for learning is yours. You must come to each class session prepared by reading the assigned textbook chapters and by having completed the lab exercises. Lab exercises may require time outside of class to complete, so you should schedule time each week to ensure you have adequate time.

The 10 class sessions have both a theory and a laboratory segment. Your progress will be regularly assessed and you will be regularly updated on your progress. If you ever have any questions, ask your instructor.

Graded assessments include:

- Quizzes
- Labs
- Final project (a demo reel/portfolio, which is a major element in securing work in the multimedia field)
- Final Project Presentation

## Instructional Materials and References

### Student Textbook Package

- Boardman, Ted, Antony Bolante, John P. Chismar, Mark Christiansen, and Kim Lee. *Media Graphic Production 2<sup>nd</sup> Custom Edition*. Indianapolis: Pearson Custom Publishing, 2008.
- Bonney, Sean, et al. *Lab Projects to Accompany Media Graphic Production*, Indianapolis: Pearson Custom Publishing, 2008.
- Lab Projects to Accompany Media Graphic Production DVD, Indianapolis: Pearson Custom Publishing, 2008.

### Equipment and Tools

The theory portion of this course should be taught in a classroom. The classroom should have the following:

- Projection system
- Tables, chairs, and a whiteboard
- Instructor node with the following configuration:
  - Desktop computer with Windows XP SP2 or Vista OS
  - Pentium IV or higher processor
  - DVD-ROM drive
  - LAN connection
- 3ds Max and After Effects software installed and properly configured, as well as the Boris Continuum 3 plug-in for After Effects installed. It can be found on the *Lab Projects to Accompany Media Graphic Production lab book DVD*, in the "Trial Software" folder.

The laboratory portion of this course must be taught in a standard computer lab, and should have the following:

- Local area network (LAN)
- Desktop computer with Windows XP SP2 or Windows Vista operating system
- Pentium IV or higher processor
- DVD-ROM drive
- 3ds Max and After Effects software installed and properly configured, as well as the Boris Continuum 3 plug-in for After Effects installed. It can be found on the *Lab Projects to Accompany Media Graphic Production lab book DVD*, in the “Trial Software” folder.

## References

### ITT Tech Virtual Library

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

#### Books

You may click “Books” or use the “Search” function on the home page to find the following books.

ITT Tech Virtual Library> Main Menu> Books> Books24x7

- Harrington, Richard, Rachel Max, and [Marcus Geduld](#). *After Effects on the Spot—Time-Saving Tips & Shortcuts From the Pros*. San Francisco: CMP Books, 2004.
- [Meyer](#), Trish, and Chris Meyer. *Creating Motion Graphics with After Effects Volume 1: The Essentials, 2nd Edition*. San Francisco: CMP Books, 2002.

- [Meyer](#), Trish, and Chris Meyer. *After Effects in Production: A Companion for Creating Motion Graphics*. San Francisco: CMP Books, 2002.

### Periodicals

You may click “Periodicals” or use the “Search” function on the home page to find the following periodicals.

ITT Tech Virtual Library> Main Menu> Periodicals> Proquest> Publications

- Computer Graphics World
- DV Magazine

### 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: the CG Artist’s Homepage  
<http://www.3dtotal.com>  
Galleries, tutorials, forums, and job board for CG artists
- CG Channel  
<http://www.cgchannel.com>  
Forum for individual or corporate demo reels, discussion and job board for CG artists
- 3DM3 Computer Graphics Source  
<http://www.3dm3.com>  
Worldwide community of digital artists with tutorials, videos, galleries
- Society of Digital Artists  
<http://www.cgsociety.org>  
Membership site for the CGSociety, includes Wiki, newsletter
- Autodesk: Area Support Forums  
<http://area.autodesk.com/>  
News, software trials, tutorials, discussions from software vendor Autodesk
- Adobe Forums  
<http://www.adobe.com/support/forums/index.html>

News, tutorials, and user-to-user forums from Adobe (After Effects forum is specifically useful for this course)

- Creative Cow.Net  
<http://forums.creativecow.net/>  
 A peer-to-peer support community for media production professionals, includes Adobe After Effects forums

All links to Web references outside of the ITT Tech Virtual Library 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	25%
Labs	35%
Final Project	35%
Final Project Presentation	5%
<b>Total</b>	<b>100%</b>

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)*