

**Course Outline – 2009/2010 Academic Year  
IAT 343-3: Animation  
School of Interactive Arts and Technology**

**Instructor:** Steve DiPaola

**Location:** SFU Surrey, Room 3310

**Prerequisite:** Minimum of 24 credits including MATH 130 or MACM 101 or MATH 151 or equivalent. Students with credit for IAT 241 or IART 219, IART 220 and IART 221 may not take this course for further credit.

**Course Description:**

An introduction to techniques for 3D computer animation such as keyframing, performance animation, procedural methods, motion capture and simulation. The course also includes an overview of storyboarding, scene composition, lighting and sound track generation. The course will explore current research topics in computer animation such as facial animation, behavioral animation, artificial life and interactive systems.

**Delivery Method:** Lecture & Studio

**Learning Activities:**

Web Presentations: 1 hour

Classroom Sessions: 1.5 hours

Studio Sessions: 1.5 hours

Online Conferencing: 1 hour

Assignments: 2.5 hours

Total Hours: 7.5 hours

**Evaluation:**

Online Portfolio (Individual): 30%

Final Project (Team): 35%

Final Exam (Individual): 20%

Class Participation/Essay/Quizzes (Individual): 15%

**Texts, Resources & Materials:**

**Required:**

"The Art of 3-D Computer Animation and Effects" (2009) by Isaac Victor Kerlow; 4th Edition; Wiley; ISBN-13 978-0470084908

**Recommended:**

"Learning Autodesk Maya 2008" (2007) by Autodesk Maya Press; Sybex; ISBN-10 1897177380

**Note:** These outlines are drafts and are subject to change.

**Reference:**

“Computer Animation: Algorithms & Techniques” by Rick Parent

“Digital Modeling of Material Appearance” by Julie Dorsey, Holly Rushmeier and Francois Sillion

“Character Animation: 2D Skills for Better 3D” by Steve Roberts

“The Art and Science of Digital Compositing: Techniques for Visual Effects, Animation and Motion Graphics” by Ron Brinkmann

“CG 101: A Computer Graphics Industry Reference” by Terrence Masson

“Digital Lighting and Rendering” by Jeremy Birn

“Digital Character Animation” by George Maestri

“Game Character Development with Maya” by Anthony Ward

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