ANIMATION TECHNIQUES
IFSA-Butler Reimagining Europe Semester Program in Prague

Suggested U.S. semester credit hours: 4 credits
Contact hours: 60
Course level: 200
IFSA-Butler course code: CME280-15
Course length: Semester
Delivery method: Face to face
Language of Instruction: English

COURSE DESCRIPTION
This course aims to develop students’ skills and understanding in a variety of interactive animation techniques for use in art and design. In this advisors students should explore the concepts of animation and how it can be applied in different contexts. Students should work with 2D and 3D software to produce digital animation work. Imagination and creativity should be balanced alongside the technical requirements of being able to work effectively in these areas. Work produced will be used to develop a virtual environment, locating students’ exploratory work within contemporary practice.

STUDENT LEARNING OBJECTIVES
Students who successfully complete this course will:

- Understand interactive animation concepts
- Be able to use 2D digital animation techniques for interactivity
- Be able to produce 3D animation work
- Be able to present outcomes to industry standards
- Strengthen critical thinking skills
- Become familiar with resources available for further research on animation techniques
- Make cognitive connections between learning in this course and other learning experiences in the IFSA-Butler Reimagining Europe Semester Program in Prague
COURSE DELIVERY

Students are expected to read or view resources in advance and be prepared to actively discuss them in class. In each meeting, the instructor will overview the topic and then facilitate a group discussion, drawing out relevant themes, following up on specific lines of inquiry, and prompting students’ thoughtful engagement with the topic. Students are encouraged to bring their prior learning experiences into class discussions and to make cognitive connections between this course and others in the IFSA-Butler Reimagining Europe Semester Program in Prague whenever possible. Theories of experiential learning and integrative learning therefore undergird the dynamic learning environment of this course.

This course utilizes an interactive approach to teaching that focuses on the individual student’s needs. This approach to teaching and learning aims to foster a challenging but caring environment that allows students to explore, create, and test themselves and their ideas in a safe place.

COURSE SCHEDULE

<table>
<thead>
<tr>
<th>Weeks</th>
<th>Content Delivery</th>
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<tbody>
<tr>
<td>1 - 3</td>
<td>2D - Introduction, exercises, narrative structure; 3D - Introduction to 3Ds Max · UI overview · Scene setup: units, controls, layers · Creating primitive geometry · Positioning objects, axis constraints, snap tool · Polygonal modelling: Edit Poly, Edit Mesh · Sub-selection methods: vertex, edge, polygon, element</td>
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<tr>
<td>4 - 5</td>
<td>2D - Assets Managed (Environment Design, Character Study) 3D - Modifiers and parametric modelling · Instancing and referencing · Boolean operations · Modelling using splines · Extrude, shell, slice, mirror…</td>
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<tr>
<td>5 - 9</td>
<td>2D - Animation Keys (Extremes), Environment 3D - Animation principles and tools · Track bar and key frames · Graph editors · Hierarchy links · Inverse kinematics</td>
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<tr>
<td>9 - 13</td>
<td>Development of Animations; Cameras, lights, and materials</td>
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<tr>
<td>14 - 15</td>
<td>2D - Scripting, sounds and artbook development completion 3D - Rendering and post production, Finalization of 3D animation</td>
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EVALUATION METHODS

The course instructor will determine specific assignments (including paper topics), projects, and exams for the course. Your work on individual assignments and projects will be guided by grading rubrics provided by the course instructor. Your final grade in the course will be arrived at through assessment methods determined by the course instructor and according to the percentages attached to each assignment and exam by the course instructor. Participation will constitute a determined percentage of your grade. Participation includes attendance, preparation, engagement in discussion, civility, and respect.

<table>
<thead>
<tr>
<th>Assignment Number</th>
<th>Type of Assignment</th>
<th>Description and Areas Assessed</th>
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<tbody>
<tr>
<td>1</td>
<td>Creation and Production of a 2D/Interactive animation</td>
<td>Material covered during weeks 1-14 (week 15 reserved for presentations)</td>
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<tr>
<td>2</td>
<td>Creation and Production of a 3D Animation</td>
<td>Material covered during weeks 1-14 (week 15 reserved for presentations)</td>
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Timely Submissions
Assignments submitted after the deadline will be accepted at the discretion of the course instructor and generally only in the event of a documented illness or emergency.

READING LIST


Muybridge, Eadweard: The Human Figure in Motion, Dover Publications Inc, 1955.


Animation World Network: http://www.awn.com/
ACADEMIC INTEGRITY

Any academic endeavor must be based upon a foundation of honesty and integrity. Students are expected to abide by principles of academic integrity and must be willing to bear individual responsibility for their work while studying abroad. Any academic work (written or otherwise) submitted to fulfill an academic requirement must represent a student’s original work. Any act of academic misconduct, such as cheating, fabrication, forgery, plagiarism, or facilitating academic dishonesty, will subject a student to disciplinary action.

IFSA-Butler takes academic integrity very seriously. Students must not accept outside assistance without permission from the instructor. Additionally, students must document all sources according to the instructions of the professor. Should your instructor suspect you of plagiarism, cheating, or other forms of academic dishonesty, you may receive a failing grade for the course and disciplinary action may result. The incident will be reported to the IFSA-Butler resident director as well as your home institution.