

## **N238 2D ANIMATION**

**Department of Human-Centered Computing, Media Arts and Science Program  
Indiana University School of Informatics and Computing, Indianapolis  
Fall 2019**

*Section No.:* 13989 *Credit Hours:* 3  
*Time:* Thursday, 12:00-2:40pm  
*Location:* IT 255, Informatics & Communications Technology Complex  
535 West Michigan Street, Indianapolis, IN 46202 [\[map\]](#)  
*First Class:*  
*Instructor:* Izzy Brown, BS in Media Arts & Animation, Lecturer  
*Office Hours:* TBA  
*Office:* TBA  
*Phone:* 502-262-7153 (Cell)  
*Email:* IzzyRae2D@gmail.com  
*Website:* TBA

### **COURSE DESCRIPTION**

An introductory course to the foundation techniques of two dimensional animation applied in digital media. The course will cover the classic 12 principles of animation, life observation, and practice work to prepare students to be able to create a variety of animations including but not limited to entertainment, commercial, gaming, and educational purposes.

### **Required Text:**

*The Animator's Survival Kit*  
Richard Williams  
Publisher: Faber & Faber; 1st edition (January 7, 2002)  
ISBN-10: 0571202284; ISBN-13: 978-0571202287

### **Supplementary Text:**

*The Illusion of Life: Disney Animation*  
Frank Thomas, Ollie Johnston,  
Publisher: Disney Editions; 1st edition (October, 1005)  
ISBN-10: 0786860707; ISBN-13: 978-0786860708

*Acting for Animators*  
Ed Hooks  
Publisher: Disney Editions; Revised (October, 1005)  
ISBN-10: 0325005080X; ISBN-13: 978-0325005805

## Teaching and Learning Methods

The course structure is composed of the following;

- Lectures/Labs
  - This activity will be a majority of the class time. IT include the critical review of contemporary media planning as appropriate to class. Use of the software packages to implement concepts into practice for each project. Each lecture will focus on a specific principle of animation building on top of each other.
- Projects:
  - Weekly projects will have students put new knowledge into practical usage.
  - Students MUST have their work completed weekly for credit in this class.
  - Students will be given a week after critique to improve on their work.

### Learning Outcomes:

Upon completion of this course, the student will	*RBT	IUPUI+	PLO's	Assessment
<i>1. Composite and package animation for audience.</i>	3,6	<i>P3.2; P4.1; P4.2; P3.4</i>	<i>2,6,8,10</i>	<i>Weekly Assignments, Milestones,</i>
<i>2. Learn the basic of creating believable and lively movements in frame by frame animation.</i>	1,2,4	<i>P2.2; P3.1, P2.1; P3.4</i>	<i>1,3,10</i>	<i>Weekly Assignments</i>
<i>3. Develop production and portfolio quality animation exercises.</i>	4,5	<i>P4.1; P4.2; P3.4</i>	<i>6,7</i>	<i>Weekly Assignments Milestones, Final Presentation</i>
<i>4. Create and deliver proficient, engaging, and clean animation.</i>	2,4	<i>P1.4, P1.2; P2.2, P1.3; P3.4</i>	<i>6,7</i>	<i>Weekly Assignments,</i>
<i>5. Apply advanced techniques to animation such as animation smears, overlapping animation, and layered animation.</i>	3,4	<i>P2.2; P3.4</i>	<i>6,7</i>	<i>Weekly Assignments Milestones, Final Presentation</i>
<i>6. Consider weekly, impact of role, document impact on project, critical communication of role with team.</i>	4,5	<i>P1.4, P1.2; P4.4; P3.4</i>		<i>Weekly Assignments</i>

\*RBT: Revised Bloom's Taxonomy: 1. Remembering, 2. Understanding, 3. Applying, 4. Analyzing, 5. Evaluating, 6. Creating

<b><i>Media Arts and Science B.S. Program-level Learning Outcomes</i></b>	<b><i>+Profiles of Learning for Undergraduate Success (PLUS)</i></b>
1. Understand digital media and its effective use as a form of communication.	<b>P1.1 Communicator</b> – Evaluates Information
2. Communicate ideas effectively in written, oral, and visual form to a range of audiences.	<b>P1.4 Communicator</b> – Conveys Ideas Effectively <b>P1.2 Communicator</b> – Listen Actively* <b>P3.2 Innovator</b> – Creates/Designs**
3. Work effectively as a member of a team to achieve a common goal.	<b>P2.2 Problem Solver</b> – Collaborates <b>P1.3 Communicator</b> – Builds Relationships*
4. Analyze a problem, identify and evaluate alternatives, and plan an appropriate solution.	<b>P2.1 Problem Solver</b> – Thinks Critically <b>P3.1 Innovator</b> – Investigates*
5. Evaluate media from multiple perspectives using the theories, concepts, and language of digital media with an appreciation for the history, theory, and traditions of digital media.	<b>P2.3 Problem Solver</b> – Analyzes, Synthesizes, and Evaluates
6. Demonstrate mastery of the concepts, techniques, and tools in one or more digital media specialties.	<b>P2.4 Problem Solver</b> – Perseveres <b>P3.2 Innovator</b> – Creates/Designs*
7. Develop professional quality digital media productions by promptly applying knowledge and skills including best practices and standards.	<b>P3.2 Innovator</b> – Creates/Designs <b>P3.3 Innovator</b> – Confronts Challenges*
8. Explain the impact of digital media on individuals, organizations, and society.	<b>P4.4 Community Contributor</b> – Anticipates Consequences <b>P4.1 Community Contributor</b> – Builds Community*
9. Acknowledge diverse opinions regarding professional, ethical, legal, and social issues with a global perspective.	<b>P4.3 Community Contributor</b> – Behaves Ethically <b>P4.2 Community Contributor</b> – Respectfully Engages Own and Other Cultures*
10. Plan for continuing professional development with an appreciation of the need for lifelong learning.	<b>P3.4 Innovator</b> – Makes Decisions

## **EXPECTATIONS, GUIDELINES, AND POLICIES**

### **Attendance:**

For success in this class students are expected to attend each class session. Missed classes are only allowed if notice is given 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.

### **Incomplete:**

The instructor may assign an Incomplete (I) grade only if at least 75% of the required coursework has been completed at passing quality and holding you to previously established time limits would result in unjust hardship to you. All unfinished work must be completed by the date set by the instructor. Left unchanged, an Incomplete automatically becomes an F after one year. <http://registrar.iupui.edu/incomp.html>

### **Deliverables:**

You are responsible for completing each deliverable (e.g., assignment, quiz) by its deadline and submitting it by the specified method. Deadlines are outlined in the syllabus or in supplementary documents accessible through OnCourse. Should you miss a class, you are still responsible for completing the deliverable and for finding out what was covered in class, including any new or modified deliverable. In fairness to the instructor and students who completed their work on time, no grade will be given on a deliverable, if it is submitted late, the material will still be reviewed and/or critiqued.

### **Exams/quizzes:**

There are no exams or quizzes

### **Lab assignments:**

Class tutorials and demos must be completed along with the instructor. Failure to do so can result in a detrimental effect on overall quality of work and trend in lower scores.

### **Class assignments:**

Class assignments/projects must be finished and handed in on time. If you can't get in an assignment before class, email it to me, and upload and message it via OnCourse.

Students are expected to achieve exemplary results in all assignments, expected to lead in class critique, and to participate in assisting others and critiquing their work in the class.

Final projects will not be accepted late.

### **Grading Information:**

- Projects, papers, Class Participation determine grades weekly

- Professionalism is graded over the entirety of the course and includes participation (attitude, in-class critiques and questions, on-time deliverable(s). presentation quality)
- Grades will be returned along with critique no later than 2 weeks after assignment turn in.

## **WEEKLY SCHEDULE**

### **Week 1**

Introduction to class: syllabus

View prior class projects

LECTURE – Introduction to Principles of Animation

LAB – Demonstration of Basic Tools of Flash

### **Week 2**

LECTURE – Review of Principles of Animation & Flash Layout

LAB – Demonstration of Basic Tools of Flash

ASSIGNMENT – Self Portrait

Create a 1280x1280 Flash Document (Action 3.0) with each frame dedicated to a single portrait of yourself drawn in 5 different art styles. This is design for you to get used to Adobe Flash/Animate's drawing tools and layout.

### **Week 3**

LECTURE – Squash & Stretch, Arcs, Timing, Slow-In & Slow out

LAB – Animating a bouncing sphere.

ASSIGNMENT - Squash & Stretch

Create a 1280x720 Flash/Animate document that contains 5 animated spheres on their own layer, each ball represents different weight and hardness.

### **Week 4**

LECTURE – Follow Through and Overlapping Action.

LAB - Adding a Tail to ball

ASSIGNMENT – Arcs & Follow Through

Create a 1280x720 Flash/Animate document that demonstrates bouncing decay and overlapping action.

### **Week 5**

LECTURE – Straight Ahead & Pose to Pose, Anticipation

LAB - Demonstrate basic Storyboards techniques and acting.

ASSIGNMENT – Straight Ahead + Pose to Pose

Using the Flash/Animate document provided, complete the animation using both the straight ahead and pose to pose methods.

### **Week 6**

LECTURE – Motion Graphics (Appeal Recap)

LAB - Flash Type, Symbols, and Tweens  
 ASSIGNMENT –

Create a 1280x720 Flash/Animate document that uses a typeface font to demonstrate what the word means.

### **Week 7**

LECTURE – Character Design for Animation (Solid Drawing, Appeal)

LAB - Character Design Demo

ASSIGNMENT – Character Design

Create a Character model reference sheet of the character you will be animating for the rest of the class. With limited text, and illustration to explain any information about the character. The sheet will require;

5 Pose Turn Table - 3/4 View, Side View, Front & Back, 1 3/4 View Breakdown

5 Facial Expressions (with entire head drawn)

Phonemes (Mouth only is allowed)

4 Unique elements of the character defined.

### **Week 8 & 9**

LAB - Walk Cycle, Exporting Video Game Sprites

ASSIGNMENT – Character Walk Cycle

Create a 1280x720 flash file that contains a 16 frame rough walk cycle. This shouldn't be final art, this should be exclusively sketches with focus on acting and proportions.

### **Week 10 & 11**

LECTURE – Character Emotional Animation, Psychology of the face, Anatomy, Emotions and Physiology

LAB -Lip Syncing

ASSIGNMENT Lip Syncing

Record yourself mouthing a selected piece of audio of 6 seconds of length or more.

Create a 1280x720 Flash File of your character or yourself reflecting the source footage you recorded.

### **Week 12**

LECTURE – Rendering, Compositing, Staging, & After Effects

LAB - Compositing

ASSIGNMENT Compositing

Rendering out the previous project, composite a new background, restage and publish as finish piece.

**Week 13 - 16**

LECTURE – Review the Principles, Pipe-lines.

LAB - Final Animation

ASSIGNMENT - FINAL

Using all the skills you have learn, you will create an small and short animation that demonstrates your understanding. There will also be an Essay explaining how your animation demonstrates your understanding.

**Grading Information:****Weekly Assignments**

All assignments are to be delivered in a folder with your name, class , and week titled.

Each weekly assignment is worth 50 points each.

Weekly assignments will consist of an exercise to practice one of 12 principles of animation, or render

**Presentation Topic** – This is your presentation on any given topic related to animation, rigging, or motion capture. You must show your tests, research, and successful implementation of research in an effective presentation. 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.

**Assignments**

	<b>Due Date</b>	<b>Assignment</b>	<b>Points</b>
Assignment 1	Week 3	Solid Drawing / Portrait	100
Assignment 2	Week 4	Squash & Stretch	100
Assignment 3	Week 5	Arcs & Follow Through	100
Assignment 4	Week 6	Straight Ahead + Pose to Pose	100
Assignment 5	Week 7	Kinetic Type	100
Assignment 6	Week 8	Character Design Model Sheet	200
Assignment 7	Week 10	Lip Sync	100

Assignment 8	Week 12	Walk Cycle	100
Assignment 9	Week 13	Overlapping Action	100
Assignment 10	Week 14	Pre-Production	100
Assignment 11	Week 15	Production	100
Assignment 12	Week 16	Essay	100
<b>Final</b>	Week 16	Present Final Animation	300

### Grading Scale:

A+	97 – 100	Outstanding achievement, given at the instructor's discretion
A	93 – 100	Excellent achievement
A–	90 – 92.99	Very good performance and quality of work
B+	87 – 89.99	Good performance and quality of work
B	83 – 86.99	Modestly acceptable performance and quality of work
B–	80 – 82.99	Marginal acceptable performance and quality of work
C+	77 – 79.99	Minimally acceptable work (Core course must be repeated for credit)
C	73 – 76.99	Unacceptable work (Core course must be repeated for credit)
C–	70 – 72.99	Unacceptable work (Course must be repeated for credit)
D+	67 – 69.99	Unacceptable work (Course must be repeated for credit)
D	63 – 66.99	Unacceptable work (Course must be repeated for credit)
D–	60 – 62.99	Unacceptable work (Course must be repeated for credit)
F	Below 60	Unacceptable work (Course must be repeated for credit)

No credits toward major, minor, or certificate requirements are granted for a grade below B–.

### Late Work:

Class assignments must be finished and ready for critique at the beginning of the class date it's due. Will only accept late work a week past due.

Final projects will not be accepted late.

### 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.

## CODE OF CONDUCT

All students should aspire to the highest standards of academic integrity. Using another student's work on an assignment, cheating on a test, not quoting or citing references correctly, or any other form of dishonesty or plagiarism shall result in a grade of zero on the item and possibly an F in the course. Incidences of academic misconduct shall be referred to the Department Chair and repeated violations shall result in dismissal from the program.

All students are responsible for reading, understanding, and applying the *Code of Student Rights, Responsibilities and Conduct* and in particular the section on academic misconduct. Refer to *The Code > Responsibilities > Academic Misconduct* at <http://www.indiana.edu/~code/>. All students must also successfully complete the Indiana University Department of Education "How to Recognize Plagiarism" Tutorial and Test. <https://www.indiana.edu/~istd> You must document the difference between your writing and that of others. Use quotation marks in addition to a citation, page number, and reference whenever writing someone else's words (e.g., following the *Publication Manual of the American Psychological Association*). To detect plagiarism instructors apply a range of methods, including Turnitin.com. <http://www.ulib.iupui.edu/libinfo/turnitin>

### Academic Misconduct:

1. **Cheating:** <sup>[L]</sup><sub>SEP</sub> Cheating is considered to be an attempt to use or provide unauthorized assistance, materials, information, or study aids in any form and in any academic exercise or environment.
  - a. A student must not use external assistance on any "in-class" or "take-home" examination, unless the instructor specifically has authorized external assistance. This prohibition includes, but is not limited to, the use of tutors, books, notes, calculators, computers, and wireless communication devices.
  - b. A student must not use another person as a substitute in the taking of an examination or quiz, nor allow other persons to conduct research or to prepare work, without advanced authorization from the instructor to whom the work is being submitted.
  - c. A student must not use materials from a commercial term paper company, files of papers prepared by other persons, or submit documents found on the Internet.
  - d. A student must not collaborate with other persons on a particular project and submit a copy of a written report that is represented explicitly or implicitly as the student's individual work.
  - e. A student must not use any unauthorized assistance in a laboratory, at a computer terminal, or on fieldwork.
  - f. A student must not steal examinations or other course materials, including but not limited to, physical copies and photographic or electronic images.
  - g. A student must not submit substantial portions of the same academic work for credit or honors more than once without permission of the instructor or program to whom the work is being submitted.
  - h. A student must not, without authorization, alter a grade or score in any way, nor alter answers on a returned exam or assignment for credit.

2. **Fabrication:** A student must not falsify or invent any information or data in an academic exercise including, but not limited to, records or reports, laboratory results, and citation to the sources of information.
3. **Plagiarism:** Plagiarism is defined as presenting someone else's work, including the work of other students, as one's own. Any ideas or materials taken from another source for either written or oral use must be fully acknowledged, unless the information is common knowledge. What is considered "common knowledge" may differ from course to course.
  - a. A student must not adopt or reproduce ideas, opinions, theories, formulas, graphics, or pictures of another person without acknowledgment.
  - b. A student must give credit to the originality of others and acknowledge indebtedness whenever:<sup>SEP</sup>
    1. directly quoting another person's actual words, whether oral or written;
    2. using another person's ideas, opinions, or theories;
    3. paraphrasing the words, ideas, opinions, or theories of others, whether oral or written;
    4. borrowing facts, statistics, or illustrative material; or
    5. offering materials assembled or collected by others in the form of projects or collections without acknowledgment
4. **Interference:**<sup>SEP</sup> A student must not steal, change, destroy, or impede another student's work, nor should the student unjustly attempt, through a bribe, a promise of favors or threats, to affect any student's grade or the evaluation of academic performance. Impeding another student's work includes, but is not limited to, the theft, defacement, or mutilation of resources so as to deprive others of the information they contain.
5. **Violation of Course Rules:**<sup>SEP</sup> A student must not violate course rules established by a department, the course syllabus, verbal or written instructions, or the course materials that are rationally related to the content of the course or to the enhancement of the learning process in the course.
6. **Facilitating Academic Dishonesty:**<sup>SEP</sup> A student must not intentionally or knowingly help or attempt to help another student to commit an act of academic misconduct, nor allow another student to use his or her work or resources to commit an act of misconduct.

## OTHER POLICIES

1. **Right to revise:** The instructor reserves the right to make changes to this syllabus as necessary and, in such an event, will notify students of the changes immediately.
2. **IUPUI course policies:** A number of campus policies governing IUPUI courses may be found at the following link: [http://registrar.iupui.edu/course\\_policies.html](http://registrar.iupui.edu/course_policies.html)
3. **Classroom civility:** To maintain an effective and inclusive learning environment, it is important to be an attentive and respectful participant in lectures, discussions, group work, and other classroom exercises. Thus, unnecessary disruptions should be avoided, such as ringing cell phones engagement in private conversations and other unrelated activities. Cell phones, media players, or any noisy devices should be turned off during

a class. Texting, surfing the Internet, and posting to Facebook or Twitter during class are generally not permitted. Laptop use may be permitted if it is used for taking notes or conducting class activities. Students should check with the instructor about permissible devices in class. IUPUI nurtures and promotes “a campus climate that seeks, values, and cultivates diversity in all of its forms and that provides conditions necessary for all campus community members to feel welcomed, supported, included, and valued” (IUPUI Strategic Initiative 9). IUPUI prohibits “discrimination against anyone for reasons of race, color, religion, national origin, sex, sexual orientation, marital status, age, disability, or [veteran] status” (Office of Equal Opportunity). Profanity or derogatory comments about the instructor, fellow students, invited speakers or other classroom visitors, or any members of the campus community shall not be tolerated. A violation of this rule shall result in a warning and, if the offense continues, possible disciplinary action.

4. **Bringing children to class:** To ensure an effective learning environment, children are not permitted to attend class with their parents, guardians, or childcare providers.
5. **Course Evaluations:** Course evaluations provide vital information for improving the quality of courses and programs. Students are urged to complete one course and instructor evaluation for each section in which they are enrolled at the School of Informatics and Computing with the following three exceptions: (a) The student has withdrawn from the course; (b) fewer than five students are enrolled in the section (in which case anonymity is impossible); and (c) the section is a laboratory that must be taken with a course having a different section number. Course evaluations are completed at <https://soic.iupui.edu/app/course-eval/>. Course evaluations are open from the eleventh week. Course evaluations are anonymous, which means that no one can view the name of the student completing the evaluation. In addition, no one can view the evaluation itself until after the instructor has submitted the final grades for the course. In small sections, demographic information should be left blank, if it could be used to identify the student.
6. **Communication:** For classroom-based courses, instructor or teaching assistant should respond to emails by the end of the next class or, for online courses, within two Indiana University working days, which excludes weekends and holidays. The instructor should provide weekly office hours or accept appointments for face-to-face, telephone, or teleconferenced meetings, and announce periods of extended absence in advance.
7. **Email:** Indiana University uses your IU email account as an official means of communication, and students should check it daily for pertinent information. Although you may have your IU email forwarded to an outside email account, please email faculty and staff from your IU email account.
8. **Disabilities Policy:** In compliance with the Americans with Disabilities Act (ADA), all qualified students enrolled in this course are entitled to reasonable accommodations. Please notify the instructor during the first week of class of accommodations needed for the course. Students requiring accommodations because of a disability must register with Adaptive Educational Services (AES) and complete the appropriate AES-issued before receiving accommodations. The AES office is located at UC 100, Taylor Hall (Email:

[aes@iupui.edu](mailto:aes@iupui.edu), Tel. 317 274-3241). Visit <http://aes.iupui.edu> for more information.

9. **Administrative Withdrawal:** A basic requirement of this course is that students participate in all class discussions and conscientiously complete all required course activities and/or assignments. If a student is unable to attend, participate in, or complete an assignment on time, it is the student's responsibility to inform the instructor. If a student misses more than half of the required activities within the first 25% of the course without contacting the instructor, the student may be administratively withdrawn from this course. Administrative withdrawal may have academic, financial, and financial aid implications. Administrative withdrawal will take place after the full refund period, and a student who has been administratively withdrawn from a course is ineligible for a tuition refund. Contact the instructor with questions concerning administrative withdrawal.
10. **Emergency Preparedness:** Safety on campus is everyone's responsibility. Know what to do in an emergency so that you can protect yourself and others. For specific information, visit the emergency management website. <http://protect.iu.edu/emergency>
11. **Student Advocate:** The Student Advocate provides assistance to students with personal, financial, and academic issues. The Student Advocate Office is located in the Campus Center, Suite 350. The Student Advocate may also be contacted by phone at 317 274-4431 or by email at [studvoc@iupui.edu](mailto:studvoc@iupui.edu). For more information visit <http://studentaffairs.iupui.edu/advocate>.
12. **Counseling and Psychological Services (CAPS):** Students seeking counseling or other psychological services should contact the CAPS office by phone at 274-2548 or email at [capsindy@iupui.edu](mailto:capsindy@iupui.edu). For more information visit <http://life.iupui.edu/caps/>.

## MISSION STATEMENT

The Mission of IUPUI is to provide for its constituents excellence in

- Teaching and Learning;
- Research, Scholarship, and Creative Activity; and
- 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.