

# DD 442

# VISUAL FX

College of Art+Design  
NJIT

SPRING 2025

W:600PM – 850 PM

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Office Hours  
By Appointment

## DESCRIPTION

The course will introduce students to the language and conventions of manipulating tools and to utilize techniques to develop and create visual effects for film, video games, interactive media and/or animation.

## OBJECTIVES

This course is meant to provide students with exposure to VFX development & storytelling with VFX. Students will practice industry level techniques to create special FX with 2d, 3d, AI and/or Video techniques. Students will obtain skills with conceptualization and animation with both environment and special FX. Obtain the ability to finalize a project from beginning to end with strong and also subtle visual storytelling components.

## INSTRUCTOR EXPECTATIONS

At all classes you are expected to bring new computer models, renderings, and hand drawings (sketches) relevant to the project in progress. You are expected to work each and every day on the projects assigned. If for any reason you doubt your ability to do so you should seriously consider whether you belong in this studio. While this course introduces and uses several software packages, you should not rely on this course to teach them to you. Make use of all available resources to learn the software, books, online help, instructors and fellow students. You are accountable for technical and creative process for this class.

## CLASS POLICIES

Assignments.

Assignments are due at the beginning of class. Assignments that are not finished will not be accepted or graded. Late work will be graded down one letter grade for every class late. All preliminary and final work must be uploaded to Class Google Drive and KEPLER for presentations and grading.

Academic Warning.

Students who do not complete and submit assignments on time and to a satisfactory standard will fail the class. It is the student responsibility to obtain missed assignments from other classmates and make up work in time for the next class.

## RECOMMENDED BIBLIOGRAPHY

Class Policies.

Cell phones, and non-course related internet usage will not be used during class.

Autodesk Maya documents: <https://help.autodesk.com/view/MAYAUL/2025/ENU/>  
Autodesk Maya 2025 Basics Guide by Kelly L. Murdok

## GRADING

The following factors will be considered when assigning your grade.

### **A. Ability to intellectually engage the material investigated in the course.**

Students are to thoughtfully engage the material presented in readings, presentations and discussions. Responses to questions should be directly and thoughtful related to topics investigated in the assignment.

### **B. Communication.**

The ability to communicate ideas and concepts to others. This includes written, verbal, and visual communication skills. Outside critics will be brought in at the end of some projects to review your work in an open forum environment. These presentations should be considered “client presentations” and should be presented with a level of professionalism consistent with your work.

### **C. Independent thinking.**

Independent thinking will be evaluated and will be based on the ideas and thoughts developed on an independent basis by the student. Depth of creative thought is primary to the independent thinking evaluation. Independent thinking must be clearly demonstrated in all aspects of the course including verbal participation in the classroom.

### **D. Professional Attitude.**

Students are to express and articulate clearly their view toward the topics in this course in a method reflects the quality of a professional in the field of design. It is the ethical responsibility of the student to support the learning community in this course in a positive and constructive manner.

Professional attitude includes the ability to receive and give critical feedback, respond to challenging situations with a positive attitude, and support an excellent working studio environment are all essential to receiving high marks in professional attitude evaluations.

### **Grade breakdown.**

10% Class Participation

90% Projects 1, 2, 3, 4, 5 (18% each)

A/4.0 (superior) B+/3.5 (excellent) B/3.0 (very good) C+/2.5 (good) C/2.0 (acceptable) D/1.0 (minimum) F/0.0 (inadequate).

## PDF+CRITIQUE

All projects are accompanied by prepared, well designed PDF and presentation to the class. Each grade will be based on final images (50%) and PDF and presentation (50%)

## **ATTENDANCE, ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES**

IF YOU ARE SICK, PLEASE STAY HOME. Student is responsible for letting instructor know of their absence and making up the work. Absences for illness in order to be excused MUST be accompanied by documentation from professional medical personnel who are NOT members of your family. Since religious holidays are known in advance, students who expect to be absent due to religious holidays must notify their instructor by the second week of class.

Students with either freshman or sophomore standing also have an attendance requirement overlaid on the grading criteria. No more than three unexcused absences are permitted without a grade reduction. Each unexcused absence above the three (starting with the fourth) will result in a grade reduction of .5 for the semester. In other words, four absences would result in a maximum grade of B+ (assuming everything done is of "A" quality), five absences would result in a maximum grade of "B", six in a maximum grade of "C+", etc. Students do NOT receive extensions for submission of work due to any unexcused absences. Acceptance of late work is at the discretion of the individual instructor.

NJIT and instructors will endeavor to make any accommodations required and necessary for the success of students with disabilities. However, in order to receive accommodations disabilities MUST be documented with the NJIT Disability Office AND notification of request for accommodation must be made to the instructor by the second week of class. No accommodations can be granted "after the fact" unless due to a situation (injury/illness/etc.) that occurs or is documented during the semester. In those instances accommodations will commence upon notification or observation of the disability.

## **PROJECT 1 CONCEPTUALIZE A DYNAMICAL EFFECT**

### **Goal:**

Practice using the fundamentals of visual story telling to conceptualize a special effect of your own choice. Conceptualize your own VFX. Create a mood/inspiration board and a short storyboard with a sequence of key frames depicting some kind of effect in motion. Use color. Keep it simple. This is your first assignment so don't get super ambitious.

### **Task:**

Create a short storyboard demonstrating your visual effects that you chose. You can conceptualize anything you want relating to dynamics like for example fluids, particles, waves, field physics or anything you see fit. Be the best possible VFX director that you can be. Try to add "soul" and meaning to your VFX concepts and/or storyboards.

### **Delivery:**

VFX Concept boards PDF  
+Presentation

### **Tools:**

Any tools you want. (Photoshop, Procreate, Maya, Embergen, UE5, etc.)

### **Dates:**

Final Presentations: 01/29/29

## **PROJECT 2 CREATE A DYNAMICAL EFFECT!**

### **Goals:**

Use your concept boards or VFX storyboards from your last project loosely and create an animation sequence based off of your concepts. Create a .mp4 as the final deliverable. Has to be 16:9 aspect ratio but can be 24, 29.97, 30 or 60 fps.

### **Task:**

Create a dynamical animation based off of the concepts from Project 1. The Special FX have to be dynamic in the sense that they have to move and cannot be static. The VFX can be 2D, 3D, Video/Composited, AI generated, and beyond. The choice is yours. Treat this deliverable as an opportunity to explore different tools and techniques. Develop new abilities and during production through exploration. Keep an open mind to new possibilities along the way.

### **Delivery:**

1 .mp4 with the finalized VFX animation sequence.

3-7 Pre-production, production screen shots and final stills + Presentation

### **Tools:**

PureRef, Maya, Zbrush, After Effects, EmberGen, Rebelle, etc.

### **Dates:**

Assigned: 02/05/25

Final Presentations: 02/19/25

## **PROJECT 3 ELEMENTAL FATE**

### **Goals:**

Choose a random element from the Wheel of Fate(Spin a digital wheel and get randomly assigned an element to use as inspiration for your VFX deliverable. The elements are Fire, Water, Air, Earth, and Mystery. The Mystery element means you have to make up a new effect that represents some 5th element. Can be Aether or Spirit or Alien Plasma or whatever you see fit.

### **Task:**

Use 3D tools to create an animation of a moving element based on what you picked blindly from a hat. Learn to block out your elemental VFX with storytelling details. Achieve organization during the blocking stage. Create the animated element using multiple layers preferably a combination of 2d, 3d and video. Use AI if you feel like it makes sense to use it. But most importantly use storytelling with your detail. Create a rendered scene and composition. Deliver it as a 16:9 aspect ratio 1920x1080 .mp4

### **Delivery:**

1 .mp4 animation.

4-8 shots of pre-production, production and post animation.

PDF+Presentation

### **Tools:**

Maya, Zbrush, Substance, After Effects, EmberGen, Marvelous, UE5, Houdini, Rebelle, Ziva, or any other software of your choice.

### **Examples:**

Videocopilot.net

<https://www.videocopilot.net/tutorials/>

Avatar Element animation by Jared Koh

<https://youtu.be/T5vdPy7nbRQ?si=HgZmSo4VHkmWcdGS>

### **Dates:**

Assigned: 02/26/25

Final Presentations: 03/12/25

## **PROJECT 4 STORYTELLING THROUGH CHARACTER FX**

### **Goals:**

Create some kind of animated character effects that have strong story telling features. This could be cloth, hair, superpowers, tech fx, or whatever you see fit. Needs to be conceptualized and animated.

### **Task:**

Learn how to create character fx also known as CFX in the industry. Use "Eye Protein" as Guillermo del Toro likes to say, as opposed to Eye Candy. Create visual story telling that nutrients the whole of the story with details such as tones and colors, with the different types of effects and animation that you create. You can use 2d, 3d, AI and/or video.

### **Delivery:**

1 .mp4 high quality CFX animation.  
4-8 shots of pre-production, production and final animation.  
PDF+Presentation

### **Tools:**

Maya, After Effects, EmberGen, Marvelous, UE5, Houdini, Rebelle, Ziva, etc.

### **Dates:**

Assigned: 03/19/25  
Final Presentations: 04/09/25

## **PROJECT 5 COLLABORATIVE VFX!**

### **Goals**

Create a cinematic scene with high-end, industry quality VFX. Can be Character VFX or Environment based VFX or a mix of both. Looking for industry level quality.

### **Task:**

Create a high quality scene. Treat this deliverable as if it is for a prestigious client. You can use 3d simulations, live action video, virtual production, mega scans, green screens, or whatever you want to make a visually compelling scene. This should be your best work yet!

### **Delivery:**

1 high quality motion pictures sequence in .mp4 format at 16:9 aspect ratio in HD

4-8 shots of pre-production, production and final scene/scenes.  
PDF+Presentation

### **Tools:**

Maya, etc.

### **Dates:**

04/09/25  
04/30/25

