



Art 307: Interaction Design: Syllabus

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Office Hours | by appointment only (through email).

|| Course Description

This course will focus on the development of meaningful interactions between people and technology, particularly through screen-based interfaces. Interaction design is a relatively new discipline that has emerged from the broader concerns with user experience in the tech industry. Students will develop skills in planning and producing engaging user experiences.

|| Course Meetings

Mon/Wed 12:20 PM - 02:50 PM

@ Recitation Hall Room 203, Mac LAB

@ SAB Room 208, IxD LAB

*First Week Remotely online

Zoom Meeting: Feb 7th & 9th

No meeting on

Spring Break: March 28th & 30th

There will be formats in:

Regular classes/Presentation:

This is the majority of the course, and we will have regular class meetings with related materials and use some of the classes for your project presentation.

Discussion/DeskCritics:

This will be mostly the meetings with individuals to have in-depth conversations about the development of your assignments/projects.

Work-in-Class Session:

There will be some working time for you to use the class hours to develop/produce your projects

Office Hours:

Please send me an **email** for arranging the appointment. It can be either a virtual Zoom meeting or an in-person meeting depending on the case.

|| COVID-19 Condition

Thank you all for your understanding and tolerance in such a difficult situation. No one signed up for this, so let's work it out together to go through such an unexpected situation. And I would like you to try to understand from both faculty and students' point of view if there is any imperfection in the coming future. We cannot predict the future, but we can make it better for our present.

Besides the course, if you're having trouble, please talk to someone. I'm available of course, but you should also be aware that the University is offering support via the [Center for Counseling & Student Development](#) at (302) 831-2141 or (302) 831-1001 for after-hours emergencies. You can also contact Student Health Service at (302) 831-2226 or University Police at (302) 831-UDPD."

|| Mask Guidance & Covid-19 guidelines

The Safety of Our Learning Environment

Student learning can only occur when students and their instructors feel safe, respected, and supported by each other. To ensure that our learning environment is as safe as possible, and In keeping with CDC guidelines to slow the transmission of COVID-19 and the University of Delaware's Return to Campus Guidelines (Health and Safety Section), we will adhere to the practice of wearing face masks and cleaning your seat and desk area at the beginning of class.

In the Mac Lab:

Must wear a cloth mask that covers your nose and mouth

Must not eat or drink in class

Upon entering the classroom, wipe down your seat and desk area

As necessary, the University may announce modifications to these practices. In that event, these guidelines will be updated to reflect those modifications.

*****Vaccinated:**

Wear a mask at all times.

*****Not fully vaccinated:**

Wear a mask at all times and, when possible, physically distance at least 3 feet from others.

|| Covid-19 Classroom guidelines

In the Mac Lab:

1. Before students use a piece of shared equipment, students should wash their hands with soap and water for **20 seconds** or use hand sanitizer.
 2. Students should wipe off the equipment with a sanitizing wipe **before and after** using the equipment.
 3. Seats will be assigned to individuals for the semester.
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|| Course Philosophy and Objectives

Unlike the regular Interaction Design Course focusing only on the interaction/interface design of Web/App application, this course intends to broaden the horizon and definition of interaction design by introducing the current interaction design development closely related to technology. It is time for us to blend and merge the disciplines between art, design, and technology. I believe designers in your generation should essentially have a broader vision and courage to experiment/embrace new technology. It is not only to challenge yourselves/society but also to further define what is "interaction".

With the rapid developments in technology nowadays, it has a huge influence on our daily lives, as well as in the creative industry. It is inevitable that new technology is going to be one of the mediums in generating art and design which is a desperate need currently. Through this class, the students will have not only the essential theories but also basic skills on how to think/utilize/integrate with emerging technology in their creative works. The course will emphasize the current hot topics related to computational technology, such as Generative Art/Music, Creative Coding, VR/AR (Virtual Reality/ Augmented Reality), Machine Learning/Artificial Intelligence from different aspects but specifically focusing on the impact and implementation in the creative industry (Art and Design).

Creative Coding

Creative coding is the major topic emphasizing in this course. In this digital era, people cannot live without computational technology, and it is the same applied in the creative industry. However, we have treated the computational technology as a machine only helping us producing the final outcomes as a CAD (Computer-Aided Design) process after the design has fixed, such as rendering for a long time. It is time to make changes. Computers should be involved in the design process as a creative tool for artists and designers' to generate their creativity alongside. Using the advantage and power of computational technology, the artists and designers design the logic behind the algorithms to produce various interesting outcomes in a short period of time. The computer will no longer be just a cold machine solving the hard-core mathematics problems for scientist, but a useful creative tool for artists/designers to generate interesting and beautiful visual and audio. Working with digital technology, such as algorithms, AR/VR, and machine learning, a new definition of Aesthetics may arouse and influence the way how general public sense and look at current digital art and design projects.

Technology Reflection

It is easy for the general public to think of a technology issue falling into a scientific genre, but it should not be the case. Utilizing technology is not only about the parameters, the algorithms, the formula, the mechanism, but it can also be simply related to social and humanity discussions. For example, "Is AI going to take my job in the future?", "How are we going to sense the "real" sense in our lives?", "What does it even mean about "Reality under the technology of virtual reality?", "What is the new role for artists/designers working in a Mixed Reality environment? Are you getting closer or farther with your relationships within the hologram projection? How do we entertain ourselves with technology? All these are questions related to emerging technology now or in the future. The class will give the students some articles to read and some space to re-think from their perspective of how technology has socially/philosophically influenced our lives. What can an artist/designer do to improve our life quality with the assistance of technology? And do you want to embrace technology or not?

** Highly encourage students to explore new method and techniques beyond the skills and knowledge taught in class and discover their own thinking outside the box.

|| Course Structure

The course will fall into the below 5 main topics to gradually get you to acknowledge the idea of technological application in the creative industry. The idea is to inspire you in those fields of research and make you eager to explore this brand-new world. The 5 major topics are:

- Generative Art/Design***
- Bio-Art/ Bio-inspired Design***
- AI (Artificial Intelligence)/ML (Machine Learning)***
- Interaction Design/AR/VR/MR***
- Speculative Design***

The course will simply split into 2 parts in terms of structure, which are technical classes and theoretical seminars. However, these 2 parts must and have to highly connect/interweaving with each other. The course will not only train you with programming skills but also your brain with critical thinking. In the beginning of the course, the students will pick up hands-on techniques by several technical classes to get familiar with the practical implementation and conceptual idea of creative coding. Meanwhile, related papers and articles will be provided to students for social/philosophical discussion under the topics of emerging technologies. After gaining sufficient skills and knowledge along with several small project assignments, the students will form in groups to develop projects related to any social problems they're interested in the context of technology development.

Therefore, the course structure here can also be separated into 3 major parts as a flowing process: Individual training, thinking, testing.

- 1. Training:**
Through a couple of technical classes, it is not only to know how to write creative scripts but also understand the concept and logic behind the algorithm scripts.
- 2. Thinking:**
By raising the questions/problems and finding the possible answers/solution for it under the content of society and technology, it is to reflect/rethink the role and position of technology in society. And how can we use technology to benefits the world?
- 3. Testing:**
After having the proper skills and reflecting ideas, the goal is to merge the practical coding skills and critical thinking into a project as proof and demonstration of the concept.

|| Course Schedule (will be modified accordingly)

This is a tentative schedule. Updates and revisions will be posted via Canvas.

#Week	Month	Date	Title	Brief
01	FEB (02)	07	Introduction	Class overall introduction
		09	Generative Art Design	
02		14	Basic Coding	Processing 2D(Geo)
		16	Basic Coding	Processing 2D(Condition)
03		21	Bio-Art/Design	
		23	Basic Coding	Processing 2D(For-loop)
04		28	Basic Coding	Processing 2D(Function + UI)
	MAR (03)	02	AI (Artificial Intelligence)	

05		07		1 review	Processing 2D
			09	Basic Coding	Processing 3D
06		14		Interaction/VR/AR	
			16	Basic AR	SparkAR (Basic)
07		21		Basic AR	SparkAR (Tracking)
			23	Basic AR	SparkAR (Tracking)
08		28		-Spring Break	
			30	-Spring Break	

09	APR (04)	04		Basic AR	SparkAR (Sum)
			06	*Work in Class	SparkAR
10		11		2 review	SparkAR
			13	Speculative Design	
11		18		Visual Coding [Visual]	Cables.gl
			20	Visual Coding [Visual]	Cables.gl
12		25		Visual Coding [Visual]	Cables.gl
			27	Visual Coding [Visual]	Cables.gl

13	MAY (05)	02		Visual Coding [Visual]	Cables.gl
			04	Visual Coding [Visual]	Cables.gl
14		09		*Work in Class	Final Project
			11	*Work in Class	Final Project
15		16		Final Presentation	Final Project

|| Project Schedule & Point Value

This is a tentative schedule. Updates and revisions will be posted through emails. Projects will not be accepted after due dates. Failure to turn-in a Project will result in zero points for that Project.

Small Practices

# Topic	Tentative Due Date	Point Value	Intention
1 2D graphics (GEO)	2/16	20	Programming/Processing
2 2D graphics (Condition)	2/28	20	Programming/Processing
3 FaceTattoo (PostMalone)	3/23	20	SparkAR

Big Project

# Topic	Tentative Due Date	Point Value	Intention
1 MovingPoster	3/7	50	Programming/Processing
2 AR you ready	4/11	50	Programming/Processing
3 Whatever (Final)	5/16	100	Mixed mediums

***It might have minor changes in the future according to the schedule. And there will be some work-in-class assignments along with the practice. Total Points Possible for Projects: **260**

|| Digital Tools & Software

Processing (<https://processing.org/>)

Spark AR Studio (<https://sparkar.facebook.com/ar-studio/>)

Cables.gl [<http://cables.gl/>]

|| Supporting Readings

This class will consist of lecture, discussion, and physical capture, modeling and outputting. And a certain amount of related reading materials will be hand out for study. I expect you to give the same energy to reading and discussion that you give to your digital work.

"Cyber Reader: Critical Writings for the Digital Era", edited by Neil Spiller.

"The Inevitable: Understanding the 12 Technological Forces That Will Shape Our Future" by Kevin Kelly.

"Signs of Life - Bio Art and Beyond", edited by Eduardo Kac.

|| Assignment Evaluation

The evaluation of your assignments' scores will be based on

1. Timeliness of project submission
2. The percentage of the skills you applied in your project
3. The creativity of your projects
4. Your oral presentations (including Q&A)
5. The aesthetics of presentation slides.

On a 50-point (100%) scale, the rubric is:

45-50 points (90-100%)

- submitted on time.
- excellent execution and application of 90% of the skills taught in class.
- great oral and visual presentation.

40-44 points (80-89%)

- submitted on time.
- good execution and application of 80% of the skills taught in class.
- good oral and visual presentation.

30-39 points (60-79%)

- submitted on time.
 - acceptable execution and application of 60% of the skills taught in class.
 - acceptable oral and visual presentation.
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|| Attendance

Do not to miss class and do not be late to class. If you do, you are responsible for asking your fellow classmates about what you missed and check the video record on Canvas to catch up with the class. Please send me an email and provide your notes as proof for the excused absences. For example, you are not allowed to have any absences without a written excuse from Student Health Services or a doctor. Unexcused absences will automatically reduce your final grade. Total Points Possible for Attendance: **100**.

|| Participation

You are required to actively participate in every class period. Your level of participation in every class meeting will be evaluated. Total Points Possible for Participation: **100**.

|| Contact

E-mail is the best way to get in touch with me, and it is how I will contact you. You are required to check your email a minimum of 12 hours prior to the next class period.

|| Classroom

Class sessions will be held remotely on Zoom.

|| Course Format

Students are required to be self-motivated and to actively participate in the course both inside and outside of class. If there is anything that is interfering with your ability to perform what is required in this class, it is your responsibility to speak with me so that accommodations can be discussed.

|| Course Website

Canvas will be the course website for this course. It will be used for the distribution of assignments, course schedule, posting announcements, weblinks, and grades. Bookmark this website and check it often. I will also send you information via email, so please also pay attention to the announcements, documents, and assignments send out to your Udel email.

|| Maintaining your digital files & Backing up your work

You are required to keep your files for this course on an external hard drive and regularly back up this drive to prevent loss of data if your drive malfunctions. Files left on any computer in the classroom may be deleted at any time, for any reason. Late or missing submissions due to lost files will receive "0" points.

|| Documentation of Art & Design Projects from ALL CORE classes for CORE REVIEW:

It is essential that you document all of your work from all of your CORE classes. You will need high quality (clear, color-balanced, high resolution) images of your art and design assignments for the required CORE Review. It is highly recommended that, in addition to storage on your computer, that you store these images on a back-up drive and in some form of cloud storage. The submission of images of your work from your CORE classes is a requirement of CORE Review, which is a requirement to advance in the department to complete your BA or BFA degree. It is also an important professional practice. NOTE: Required for all CORE classes.

|| Final Grade Evaluation

The final grade shows your overall performance including assignments' scores, attendance, and participation (in-class performance) throughout the whole semester. Final letter grades will be determined according to the University of Delaware's Official Grade Scale.

Rubric

A

- completion of all assignments
- evidence of care and creative solutions in the finished work
- assignments are executed well and apply 80% - 100% of the skills taught in class.
- attentiveness during class and openness to criticism

B

- completion of all assignments
- evidence of effort given to finished work
- assignments apply 60% - 79% of the skills taught in class.
- attentiveness during class

C

- missing completion of one assignment
- absence of more than three classes
- evidence of effort given to finished work
- assignments apply less than 60% of the skills taught in class.
- leaves class early and/or arrives late at times

D

- missing more than one assignment
- absent more than four classes
- lack of effort given to finished work
- leaves class early and/or arrives late on a regular basis

F

- has fallen significantly short of above requirements, or basic competence, or both

|| Field Trips (not applied at this moment):

Academic field trips are an important—and enjoyable—element of education. They often significantly enhance the content of a course by providing a type of information hard to convey in the classroom. Site visits to museums, galleries, contemporary art centers, design studios, and advertising agencies help to contextualize and enhance understandings of contemporary and historical practice. Students are strongly encouraged to attend.

|| Statement on Attending Visiting Artists, Designers, Critics, and Curators Lectures and Gallery Exhibits (not applied at this moment):

Art Majors are expected to attend all Visiting Artist Lectures in the Department of Art & Design during the semester. In addition, students are expected to see all the art exhibitions in the department's galleries. As a part of this course, you are asked to bring a sketchbook and take notes. Engaging in dialogue with our guests by asking questions is highly recommended.

|| Academic Honesty

All students must be honest and forthright in their academic studies. To falsify the results of one's research, to steal the words or ideas of another, to cheat on an assignment, or to allow or assist another in committing these acts corrupts the educational process. Students are expected to do their own work and neither give nor receive unauthorized assistance.

“Any violation of this standard must be reported to the Office of Student Conduct. The faculty member, in consultation with a representative from the Office of Student Conduct, will decide under which option the incident is best filed and what specific academic penalty should be applied.”
<http://www1.udel.edu/stuguide/17-18/code.html#honesty>

|| Inclusion of Diverse Learning Needs

Any student who thinks they may need an accommodation based on a disability should contact the Office of Disability Support Services (DSS) office as soon as possible. The DSS office is located at 240 Academy Street, Alison Hall Suite 130, Phone: 302- 831-4643, fax: 302-831- 3261, DSS Website (<http://www.udel.edu/DSS/>). You may contact DSS at dssoffice@udel.edu

|| Harassment and Discrimination

The University of Delaware works to promote an academic and work environment that is free from all forms of discrimination, including harassment. As a member of the community, your rights, resource and responsibilities are reflected in the non-discrimination and sexual misconduct policies. Please familiarize yourself with these policies at <http://www.udel.edu/oei> . You can report any concerns to the University's Office of Equity & Inclusion, at 305 Hullihen Hall, (302) 831-8063 or you can report anonymously through UD Police (302) 831-2222 or the EthicsPoint Compliance Hotline at <http://www1.udel.edu/compliance>. You can also report any violation of UD policy on harassment, discrimination, or abuse of any person at this site: <http://sites.udel.edu/sexualmisconduct/how-to-report/>

|| Title IX Statement

The University of Delaware does not discriminate on the basis of race, color, national origin, sex, disability, religion, age, veteran status, gender identity or expression, or sexual orientation, or any other characteristic protected by applicable law in its employment, educational programs and activities, admissions policies, and scholarship and loan programs as required by Title IX of the Educational Amendments of 1972, the Americans with Disabilities Act of 1990, Section 504 of the Rehabilitation Act of 1973, Title VII of the Civil Rights Act of 1964, and other applicable statutes and University policies. The University of Delaware also prohibits unlawful harassment including sexual harassment and sexual violence. For inquiries or complaints related to Title IX, Section 504 of the Rehabilitation Act of 1973 and/or the Americans with Disabilities Act, and Title VII and age discrimination please contact:

Susan L. Groff, Ed. D.
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OR contact the U.S. Department of Education – Office for Civil Rights
(<https://wdcrobcolp01.ed.gov/CFAPPS/OCR/contactus.cfm>).