

EMERGING TECH. STUDIO

INFO:

Course number:
ART 4392 -003 –E.T.S.
ART 5355 – 001 – Research in VC

Instructor
Gregory Scott Cook

Location:
FAB 368

Contact:
gregory.cook@uta.edu - office telephone: 817.272.2891

Date and time:
F 8:00am-1:50pm

Office and office hours:
FAB 283; MW 10-11am and by appointment

Faculty Profile:
<https://www.uta.edu/profiles/gregory%20-cook>

CLASS DESCRIPTION

Exploration into the variable and flexible use of “emerging technology” in an arts/design practice, with an emphasis on hands-on demonstration, and thorough examination of the theoretical and practical underpinnings of this use.

COURSE OBJECTIVE

This course is meant to serve as an entry to high-level understanding and incorporation into a studio-practice of tools and technologies that could be considered under the umbrella term “emerging technology” – this includes programming for generative/parametric design, file design/construction/prep for laser-cutter/engraver, FDM & SLA 3D printing, and CNC routing. This class is devoted not only to forming a functional understanding of how to use these tools, but also to the independent development of high-level projects that target a student's specific interests and conceptual drive while engaging with new and exciting tools/skills/opportunities.

The secondary goal is for students to begin thinking beyond the artboard and to solve problems interactively and intuitively through independent research and study.

In addition to studio projects, you will be introduced to a variety of artists and makers whose work is relevant to the course, and to other efforts that might merit further investigation.

DESCRIPTION OF INSTRUCTIONAL METHODS

The structure of the class includes lectures, demonstrations, group discussion, individual and group critiques and in/outside class studio activities.

Projects will be assigned and will be due on scheduled dates. Each project will include an introduction to the specifics of what is expected and what concepts we are covering. At the completion of assigned projects, a critique/class review will take place. Grades will be presented after each project and at the conclusion of the semester (if you happen to be gone on the day that I hand back grades make sure that you request your project evaluation sheet). Please review the grading criteria and course requirements information.

During the semester if you have any questions please contact me by e-mail, during class, or by appointment.

STUDENT LEARNING OUTCOMES

The student will:

1. Learn the fundamental concepts of utilizing emerging technology as part of a studio/design practice.
2. Engage in physical production by constructing tangible objects from digital sources using complex machines.
3. Synthesize complex projects that exhibit complete construction, conceptual weight, and an understanding of the end-user/viewer experience.
4. Examine the potential of the iterative design process/design praxis and “creative strategy” in developing complex digital/physical objects/experiences.
5. Learn to transfer/share knowledge gained into their community, upholding the reciprocation of knowledge that lies at the core of digital fabrication/“making”
6. Demonstrate a deeper awareness of software/tools and design knowledge/thinking relevant to visual communication/Studio Arts practice.
7. Demonstrate a more complete understanding of the processes of digital fabrication, extending to its effect on traditional systems of both learning and production.

PROJECT ACTIVITY

1. Comprehensive Class Blog/Journaling (must be maintained for all projects and must involve initial analysis activities, project updates, observations, and self-evaluation of the student's process).
2. Programmatic Patterning and Generative Design project.
3. Living Hinge/Container project.
4. 3Dimensional Parametric/Generative design project.
5. Extension of an Object project.
6. Mid-term Project (self-conceptualized)
7. Final Project (self-conceptualized)

(* projects could be added/changed as the semester progresses.)

Each project will be graded as a whole. Weekly assignments used to develop each project will also be graded and successful completion (or not completing) each assignment will have a large effect on the individual project the assignment is associated with, as well as the total class participation grade.

MATERIALS

Not having the proper materials for class counts as an absence.

- + **Digital file storage device (Flash drive; with student's name – just for THIS class).**
- + **Processing 3.0.**
- + **Adobe Photoshop / Illustrator.**
- + **Autodesk membership (free for students)**
- + **OpenSCAD, Fusion360**

+General Supplies

graph paper	binder (for handouts/notes)
pencils, pens, eraser	ruler and digital calipers
drawing supplies (colored pencils, pens, etc.)	tracing paper adhesive
notebook/sketchbook	Mobile computer (if available)

CLASS POLICIES

ATTENDANCE

Attendance is required and will be recorded daily.

Roll call will be announced at the start of class. Students have to physically be in the room to verbally respond for attendance to count. If you are not present at the time of roll call, you will be counted as absent/tardy (simply having your belongings in the room does not count).

Students are expected to attend all scheduled classes, labs, and events as instructed. You are encouraged to inform the instructor of the reason of your absence (if possible, to do so before the start of the class to be missed).

Students who miss class due to emergency, family issues or sickness should provide correspondence from their health care providers, their doctor, or the Office of Student Affairs at UTA. It is the student's responsibility to keep all correspondence until the end of the term and to provide a copy to the instructor. Determination of excused or unexcused is at the discretion of the instructor.

Examples of unexcused occurrences may include but not limited to: car trouble, traffic, parking problems, job conflicts, baby and/or pet sitter scheduling, club activities, non-emergency weather, printing problems, project mounting problems, weddings, sickness without documentation, vacations, email problems, other class conflicts, etc.

It will be the student's responsibility to acquire missed assignments, information, etc. from the teacher or classmates upon any given day of absence.

Unexcused absences over 1 will result in a reduction of your final class grade by 15%. With each additional unexcused absence, the final class grade will drop an additional 15%.

A tardy is any unexcused class time between 1-15 minutes. Where after you will be counted as absent. This includes being late to class, late from class breaks, or leaving early.

One tardy is equal to a quarter day's unexcused absence (.25). Therefore, 4 tardies is equal to 1 unexcused absence.

Total amount of points allowed before affecting grade is 1.75 points.

At The University of Texas at Arlington, taking attendance is not required but attendance is a critical indicator in student success. Each faculty member is free to develop his or her own methods of evaluating students' academic performance, which includes establishing course-specific policies on attendance. As the instructor of this section, I have established the attendance policy as detailed above. However, while UT Arlington does not require instructors to take attendance in their courses, the U.S. Department of Education requires that the University have a mechanism in place to mark when Federal Student Aid recipients "begin attendance in a course." UT Arlington instructors will report when students begin attendance in a course as part of the final grading process. Specifically, when assigning a student a grade of F, faculty report the last date a student attended their class based on evidence such as a test, participation in a class project or presentation, or an engagement online via Blackboard. This date is reported to the Department of Education for federal financial aid recipients.

COMPUTER ROOM

All students are required to log-off the classroom computers at the end of class.

Internet and cellphone use not directly related to the progress of classroom objectives are to be reserved for outside of class time and/or during breaks. This includes, but not limited to, Instant Messaging, Facebook, Gaming, Email, and others.

Food and drinks are not permitted in the computer room. Violation of these rules may result in grade reduction.

EMAIL COMMUNICATION

Due to the high volume of email our faculty and the art office receive, an important message may be missed or a response to your email may take time. If your email has not been responded to within three days, please contact the instructor or stop by the office in person. In addition, weekend email messages may not be received until the following week.

UNIVERSITY POLICIES

DROP POLICY

Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. Students will not be automatically dropped for non-attendance. Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://www.uta.edu/aao/fao/>).

ELECTRONIC COMMUNICATION

UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

ACADEMIC INTEGRITY

Academic Integrity: Students enrolled all UT Arlington courses are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

UT Arlington faculty members may employ the Honor Code in their courses by having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University. Additional information is available at <https://www.uta.edu/conduct/>.

DISABILITY ACCOMMODATIONS

UT Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including *The Americans with Disabilities Act (ADA)*, *The Americans with Disabilities Amendments Act (ADAAA)*, and *Section 504 of the Rehabilitation Act*. All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of disability. Students are responsible for providing the instructor with official notification in the form of a **letter certified** by the Office for Students with Disabilities (OSD). Only those students who have officially documented a need for an accommodation will have their request honored. Students experiencing a range of conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to learning may seek services and/or accommodations by contacting:

The Office for Students with Disabilities, (OSD) www.uta.edu/disability or calling 817-272-3364. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability.

Counseling and Psychological Services, (CAPS) www.uta.edu/caps/ or calling 817-272-3671 is also available to all students to help increase their understanding of personal issues, address mental and behavioral health problems and make positive changes in their lives.

NON-DISCRIMINATION POLICY

The University of Texas at Arlington does not discriminate on the basis of race, color, national origin, religion, age, gender, sexual orientation, disabilities, genetic information, and/or veteran status in its educational programs or activities it operates. For more information, visit uta.edu/eos.

TITLE IX POLICY

The University of Texas at Arlington ("University") is committed to maintaining a learning and working environment that is free from discrimination based on sex in accordance with Title IX of the Higher Education Amendments of 1972 (Title IX), which prohibits discrimination on the basis of sex in educational programs or activities; Title VII of the Civil Rights Act of 1964 (Title VII), which prohibits sex discrimination in employment; and the Campus Sexual Violence Elimination Act (SaVE Act). Sexual misconduct is a form of sex discrimination and will not be tolerated. For information regarding Title IX, visit www.uta.edu/titleIX or contact Ms. Jean Hood, Vice President and Title IX Coordinator at (817) 272-7091 or jmhood@uta.edu.

CAMPUS CARRY

Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes as prohibited. Under the new law, openly carrying handguns is not allowed on college campuses. For more information, visit <http://www.uta.edu/news/info/campus-carry/>

STUDENT SUPPORT SERVICES AVAILABLE

UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at www.uta.edu/universitycollege/resources/index.php

STUDENT FEEDBACK SURVEY

At the end of each term, students enrolled in classes categorized as lecture, seminar, or laboratory shall be directed to complete a Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit www.uta.edu/sfs.

STUDENT GRIEVANCE PROCEDURES

1. Contact faculty member in writing (not email) to set up a meeting. The office staff can help accommodate that communication FAB 335.
2. If after the meeting the problem is not resolved, both faculty and student attend a meeting with the department chair together to resolve the issue.
3. If at that point the problem is not resolved it will reviewed by the Departments Grievance Committee.
4. All resolutions will adhere to university policies

FINAL REVIEW WEEK

for semester-long courses, a period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

FINAL PROJECTS

There will be research problems during Final Review Week.

EMERGENCY EXIT PROCEDURES

Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit, which is located to your left when exiting the room, down the hall before turning the corner. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist handicapped individuals.

PROJECT POLICIES

GRADING

The goal of this class is for you to improve. There is not a set goal-post that you are to achieve to get an A. Rather, I want you to show a commitment to becoming a better creative maker and to see improvement over the course of the semester. To get an C (an average grade) for the course you should be putting in *at least* 5-9 hours a week to the homework assignments, complete all assignments on time, participate in critiques and discussion. For a B or A, you will need to additionally show willingness to take risks with your work and try new things enthusiastically, be an active and unsolicited part of all discussions and critiques, and take assignments beyond the minimum requirements.

Final grades will be assigned under the following criteria:

Class participation:	25%	Homework:	25%
Journaling/blog:	10%	Final portfolio:	40%

A+ 97-100	Excellent. The depth of research, amount of growth and personal involvement exceeds expectations of a student at this level. These students have excellent attendance, participation, work habits and produce exceptional work.
A 94-96	
A- 90-93	
B+ 87-89	Good. Students consistently show strong work habits, comprehension, craftsmanship and growth. Assignments are on time and meet expectations with only minor improvements possible. Attendance and participation are good.
B 84-86	
B- 80-83	
C+ 77-79	
C 74-76	Average. Students earn their grade by consistently doing adequate work. Assignments are on time and meet most expectations. However, good attendance, participation and work ethic are required in addition to meeting all of the stipulations of assignments.
C- 70-73	
D+ 67-69	
D 64-66	
D- 60-63	Poor. Students do not maintain expected standards in work quality, attendance or class responsibility. Work is incomplete and/or directions not followed. Much improvement is necessary.

F 0-60 Fail. Student's work is consistently inadequate and they fail to meet the general expectations of the class, ie. assignments not turned in on due date, directions not followed, craftsmanship shows lack of effort or understanding.

PROJECT GRADES

Projects, exercises and assignments will be graded accordingly with points.

Performance percentages (%) will be calculated from the student's total earned points of the project to the project's total available points.

All grade performance percentages will be rounded to the nearest tenth (00.1%).

150 pts.	project points
118 pts.	student's earned points
78.333%	performance percentage
78.3%=C+	final earned grade, rounded

FINAL GRADES AND ASSESSMENT

Your final grade will be made up of total earned points divided by total available points.

If additional activities are added and become part of the final grade, the instructor will provide the value of the activity in relation to the final grade.

To receive a final grade, all projects, exercises and assignments should be completed & handed in on time within the semester.

Students are expected to keep track of their performance throughout the semester and seek guidance from available sources (including the instructor) if their performance drops below satisfactory levels.

GRADE GRIEVANCES

Any appeal of a grade in this course must follow the procedures and deadlines for grade-related grievances as published in the current undergraduate / graduate catalog. See the following link http://web.uta.edu/catalog/content/general/academic_regulations.aspx#19

LATE WORK

All work is to be turned in before or on time. Consistent late work will only be accepted at the instructor's discretion.

Work turned in tardy (24 hours from due time) will receive an automatic -10% reduction on the project grade.

All other late work (over 24 hours) will not be accepted and will be recorded as a zero.

INCOMPLETE WORK

Any project or assignment not meeting minimum requirements will be considered incomplete and will not be accepted nor evaluated.

REWORKING OF PROJECTS

Students are encouraged to enhance their work even after it is completed and graded. The refined work on projects will improve their book (portfolio). Reworked projects will not be part (or have an affect) on the student's final grade.

EXPECTATIONS FOR OUT-OF-CLASS STUDY

Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend at least an additional 9 hours per week of their own time in course-related activities, including reading required materials, completing assignments, preparing for exams, etc.

EFFORT POLICY

Unprepared, late to class, and/or non-participating students will receive a reduced project grade when applicable.

EVALUATION CRITERIA GUIDE

1 DESIGN COMPOSITION

Understands and uses design, color and compositional strategies.

- A. Highly refined use of design theory and compositional strategies.
- B. Good use of design and compositional concepts.
- C. Acceptable use of design and compositional concepts.
- D. A number of problems in the design and composition of completed project.
- F. Numerous problems in the use of design and compositional strategies.

2 IDEA DEVELOPMENT

Level of cognition and risk-taking used to construct successful solutions that are both creative and original.

- A. Completed project reflects a high level of thinking and solution development. The idea captures the nature of problem assigned and powerfully communicates it visually. Memorable ideas. High level of creativity and originality are used as part of the solution. May have taken some risks that paid off.
- B. Effective solution to assigned problem. Ideas are engaging. Tried unusual combinations or changes on several ideas during development. Made connections to previous knowledge that demonstrated problem solving skills.
- C. The idea solves the assigned problem. May need development to be more effective.
- D. Attempts have been made to develop effective solutions but the ideas fall short to be engaging.
- F. Significant problems in development of ideas for the project have occurred.

3 PROBLEM COMPLETION

Completion of problem as outlined in instructor handout and presentations. Satisfied audience.

- A. The student has completed the assignment and has accomplished all aspects of the problem at a high level. The student expanded the solution(s) of assignment after satisfying the initial brief. Problem exceeds audience's needs/expectations.
- B. The problem has been completed and the student has presented solutions that satisfy a high percentage of the assigned problem. Problem satisfies audience's needs/ expectations at a high level.
- C. The project has been completed but the student may have missed a number of details related to the successful completion of the project. Problem satisfies audience's needs/expectations.
- D. Numerous aspects of the completed project do not satisfy the objectives of the assigned problem. May have missed audience's concerns
- F. There was a major disregard for assigned project and/or little attention made to audience .

4 CRAFTSMANSHIP & SKILL

Implements technical skills in the completion of the assignment and its final presentation.

- A. Finished project is completed and presented with a high degree of technical skill. It is very neat, clean, and has a professional quality. Certain level of difficulty challenged.
- B. Good quality in technique. Has a level of applied technical skill.
- C. Average technical quality. Refinement would be required to advance the presentation level of the completed project.
- D. Numerous technical issues need to be improved.
- F. Very little evidence of technical care in the development of the project.

5 EFFORT/DIFFICULTY

- A. Student exhibited effort beyond expectations. Challenged themselves with the highest degree of difficulty. Sought out complex techniques and artistic details.
- B. Student exhibited excellent effort and complexity in work.
- C. Met minimum expectations in effort/difficulty. Sought out simplistic and/or average solutions.
- D. Below expectations. Could have tried harder.
- F. Very little evidence of any effort/difficulty.

6 WORK METHOD & RESEARCH

Daily preparation for studio class including: staying on task, bringing appropriate art materials to class, and participating in class discussion and project critiques. Preliminary research that leads to the development of an assigned problem as requested by the instructor.

A. Student is always ready for studio with materials out and in use. A "sketchaholic". Is willing to discuss their work with fellow students in formal and informal settings. Very open to constructive criticism. All research requested was completed at a very thorough level. Shows time and effort and involved at a high level.

B. Student is consistently prepared for studio and many times will contribute verbally in critiques. Good research quality, has a broad range of materials and resources.

C. Student is inconsistent in preparation for studio and class participation. Needs to improve on class interaction. May be lacking in quality and quantity. More time required to examine project possibilities.

D. Student is rarely prepared for studio. Excuses used frequently. Weak examples and lack of evidence of project research.

F. Very little evidence of student interest in studio and/or quality work.

