Course Information

ARTS 3340.001

The Art of Tinkering

Fall 2016

Professor Contact Information

Val Curry
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Office: Visual Art Studio AS 1.106
Office hours: Tuesday's 1:30-4:30

Course Pre-requisites, Co-requisites, and/or Other Restrictions

ARTS 1316 or ARTS 2316 or ARTS 2350 or ARTS 2380 or ARTS 2381

Course Description

'The Art of Tinkering: Creating at the intersection of Art, Science and Technology'.
Modeled after the programming success of San Francisco's renown ' Tinkering Studio Program' at the 'Exploratorium', this course will explore the many creative 'High-Low'outlets of 'Makers' and 'Producers' who defy traditional categories of the arts, science and technology for those overlapping intersections where 'anything' can happen. From hacking the system to aesthetic revelations through deconstructing and repurposing materials, processes and systems in innovative, 'disruptive' ways, this hands on studio course will explore the physical and mental challenges of learning how to change the world in small but significant, creative ways. We will incorporate material modeling and fabrication, arduinos and hand think experimental enterprising ways.

Student Learning Objectives/Outcomes

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1. Students will gain knowledge of the history the Exploratorium Museum and its cultural and educational relevance to the interdisciplinary field of Art, Science and Technology

2. Students will engage in the research and creative production of mechanical and electro-mechanical devices that emphasize aesthetic design principles.

3. Students will develop the confidence and technique to safely utilize both traditional as well as digital fabrication tools.

4. Students will be able to develop effective strategies of Problem Solving and Critical Thinking that may be applied to mechanical and aesthetic decisions.

Suggested Textbooks and Materials
The Art of Tinkering

Related Books (available in my office for reference. Books may not be borrowed)

The Way Things Work
The Way Nature Works
Introductory Applied Physics
Wake Up Your Creative Genius
Knowledge Book
Basic Machines and How They Work
The Charcoal Foundry
The Metal Lathe
Hot Wiring Your Creative Process
Machinery's Handbook

Suggested Course Website 's

http://www.exploratorium.edu/
http://www.tested.com/
https://dallasmakerspace.org/
http://www.props.eric-hart.com/resources/the-100-best-sites-for-the-prop-maker/
https://www.youtube.com/channel/UCbNvfx3rYYxEopnRGxfu53Q (Joseph's Machines)
https://www.youtube.com/user/everyframeapainting

Assignments & Academic Calendar

August

August 23rd	Intro and class overview
August 30th	Lecture: Time and Motion Maker in the Field: Arthur Ganson Project: 3D Scanning and CAD
September 6th	Lecture: Problem Solving and Problem Seeking Maker in the Field: Tom Sachs Project: Tools – Techniques and safety Student Presentations Due: Animated CAD model
September 13th	Visiting Artist: Doug Land Student Presentations Due: Woodworking Project

September 20th	Visiting Artist: Darcy Neal Arduino Workshop Two Person Groups will be assigned on this day
September 27th	Lecture: Cultivating Creativity Project: Molding and Casting Student Presentations Due: Fasteners and Adhesives First draft of sketches for Rube Goldberg Machine Due
October 4th	Final Drawings and Diagrams for Rube Goldberg Machines Student Presentations Due: Mold and Cast of object
October 11th	In class build of machines
October 18th	In class build of machines
October 25th	Visiting Artist: Spencer Brown Pearn Student Presentations of progress
November 1st	In class build of machines
November 8th	In class build of machines
November 15th	In class build of machines
November 22nd	No class/ Fall Break
November 29th	In Class Final run of Collaborative Rube Goldberg Machine Visiting Artist: Robert Reedy will Judge and award prizes Install Machine prior to the December 2nd Art Festival
December 6th	Finalize documentation of the project in the form of Print on Demand book or Video
December 13th	Presentation of books and/or videos are due as Final Project Grade

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Grading Policy

Mini Projects/Presentations

1. CAD Model = 8% of total grade
2. Woodworking = 8 of total grade
3. Mold making and casting = 8% of total grade
4. Adhesives and Fasteners = 8% of total grade
5. Documentation = 18% of total grade

Major Project

1. Rube Goldberg Machine = 50% of total grade
    a. Each two person group will ideate and develop to conclusion 7 *transitions* that will then be connected to the other sections of groups in the class. (A *transition* will be defined in class)

Grading Criteria

1. **Objective = 40%**
    a. **Does the student address the objectives of the problem in an effective way with material and concept?**
    b. **What references were applicable?**
    c. **Has one applied the previous assignment experiences to the present work?**
    d. **Did the student use their resources effectively?**
    e. **Did the student show improvement from conception to final?**
2. **Creativity = 30%**
    a. **How original, experimental and imaginative is the idea/concept of the work?**
    b. **Does the student acknowledge the stylistic confluences by generating an original application?**
    c. **Does the solution suggest prospects for future development?**
    d. **Is there an element of risk involved? Did the student push the limits?**
3. **Quality = 30%**
    a. **How much time did the student put into the work?**
    b. **How much research went into the work?**
    c. **Did the student follow through and finish the work with a satisfactory conclusion and was it on time?**
    d. **Does the student answer the questionnaire in a complete and substantive way?**
    e. **How effectively did the student work with their partner on applicable group projects?**

Course & Instructor Policies

No make up or late work unless pre-approved by the instructor
Attendance and class participation are built into the Documentation portion of the overall grade.

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

"As a Comet, I pledge honesty, integrity, and service in all that I do."

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.

Please go to http://go.utdallas.edu/syllabus-policies for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.