

Environmental Design 101: The Design Process

Tuesday/Thursday 3:55-5:10, Auditorium, Langford B, Spring 2010

Professor Rodney Hill

Office Hours: 10:00 – 11:00 T/R & 11:00-12:00 M/W – Room 103 Langford A

Justin Curtsinger-Teaching Assistant

Office hours: 11:00 – 12:00 T/R 4th Floor Langford A

For questions about attendance, assignments and grades use: Ends101@gmail.com

A. COURSE DESCRIPTION

Fundamental innovative design processes, issues and theories relevant to design resolution and the creation of new ideas; Creative thought processes from the formation of ideas through incubation to final product and future impact on the physical environment and society.

B. INTRODUCTION

The course will cover creativity concepts, problem-solving skills, systems and futures theory. All assignments will require the individual to produce knowledge rather than reproduce knowledge.

C. COURSE OBJECTIVES

This course will introduce the student to the concepts of basic problem solving and encourage each student to think holistically and reach his or her creative potential. The student will be made aware of cultural differences and similarities in problem solving. The student will be made aware of how future influences and future theory will possibly affect career choices in a global context.

D. PERFORMANCE EVALUATION

The grades for this class are determined using a point scale:

| | | |
|-----------------|---|---|
| 90 – 100 Points | = | A |
| 80 – 89 Points | = | B |
| 70 – 79 Points | = | C |
| 60 – 69 Points | = | D |
| Below 60 Points | = | F |

| | |
|-------------------------|--|
| Soft Innovation: | 10 points |
| Creativity Assignments: | 15 points per assignment (total of 4 assignments) |
| Final Examinations: | 10 points (for individual grade) and 10 points (for group grade) |
| Class participation | 10 points |

CHEATING: Students caught cheating will earn an 'F' for the semester. See TAMU Rules and Regulations for specific details.

E. SUGGESTED READING

Adams, *Conceptual Blockbusting*
Sommer, *Personal Space*
Hall, *Beyond Culture*

Herrmann, *The Creative Brain*
Kersey, *Please Understand Me*
DeBono, *Serious Creativity*

F. TENTATIVE COURSE SCHEDULE

The following schedule outlines the course lecture topics and assignments. Any assignment turned in late, after the end of the class period, up to one week from due date, will be docked a letter grade. Documentation will be required for medical extensions and University Excused Absences. **NO CREDIT will be given for projects turned in over three days late.** All documentation and inquiries should be directed to Justin Curtsinger.

| <u>DATE:</u> | <u>DAY:</u> | <u>LECTURE TOPIC:</u> | <u>ASSIGNMENT:</u> |
|--------------|-------------|--|--|
| Jan. 19 | T | Introduction – Intuition and Flow – Rodney Hill | Non-Disclosure Form assigned |
| Jan. 21 | R | Technology Licensing Office/Patent Searches (Required information on all assignments) – Darrell Kuhn | Personality Tests assigned Non-Disclosure Form due |
| Jan. 26 | T | Problem Solving with Divergent Thinking-Blake Godkin | Personality Tests due |
| Jan. 28 | R | Problem Solving with Convergent Thinking – Blake Godkin | 1 Soft Innovation due |
| Feb. 2 | T | Social Entrepreneur-Dean Jorge Vanegas | |
| Feb. 4 | R | Creative Thinking-Rodney Hill | 1 Soft Innovation due |
| Feb. 8 | M | | Presentation #1 due at midnight |
| Feb. 9 | T | Presentation #1 | |
| Feb. 11 | R | Presentation #1 | 1 Soft Innovation due |
| Feb. 16 | T | Sustainable Competitive Advantage and Entrepreneurship – Franz Erhardt | |
| Feb. 18 | R | Future/Production of Knowledge – Rodney Hill | 1 Soft Innovation due Feb. 22-Ideas Challenge workshop |
| Feb. 23 | T | Entrepreneur, Starting your own business directly out of the university – Guy Diedrich Yes | |
| Feb. 25 | R | Personal Space and Involvements – Rodney Hill | |
| March. 1 | M | Post Social Entrepreneur | Presentation #2 due at midnight Ideas Challenge workshop |
| March. 2 | T | Brian Massey-conversion scientist | |
| March. 4 | R | Presentation #2 | 1 Soft Innovation due March 8-Ideas Challenge Workshop |
| March. 9 | T | Presentation #2 | |
| March. 11 | R | Humor and Creativity – Rodney Hill | 1 Soft Innovation due |
| March. 23 | T | Entrepreneur, Starting your own business directly out of | |

| <u>DATE:</u> | <u>DAY:</u> | <u>LECTURE TOPIC:</u> | <u>ASSIGNMENT:</u> |
|--------------|-------------|---|---|
| | | the university – Guy Diedrich | |
| March. 25 | R | The Future of Media – Robert Riggs | 1 Soft Innovation due |
| March. 30 | T | Privacy – Rodney Hill | Post Ideas Challenge by April 2 |
| April. 1 | R | Entrepreneurship, Aggie 100 – Scott Moscrip Creativity Minor – Jay Woodward | |
| April. 5 | M | | Presentation #3 due by midnight |
| April. 6 | T | Presentation #3 | |
| April. 8 | R | Presentation #3 | 1 Soft Innovation due |
| April. 13 | T | David Mebane www.aemagazine.com/pdf/Paristimes/americanbicycle.pdf Entrepreneurship Week – James Lancaster | |
| April. 15 | R | Entrepreneurship – James Lancaster | 1 Soft Innovation due |
| April. 20 | T | Presentation #4 | Flow discussion due |
| April. 22 | R | Presentation #4 | Finalists notified-Ideas Challenge |
| April. 26 | M | | Presentation #4 due by midnight |
| April. 27 | T | Future Trends, The Perfect Storm – Rodney Hill | 1 Soft Innovation due Finalist Prep Workshop Ideas Chall. |
| April. 29 | R | Singularity/Accelerating Futures/Outline for final – Rodney Hill | May 5 Ideas Challenge Finals |
| May 11 | T | Final Exam 1:00 – 3:00 p.m. | |

G. ASSIGNMENTS OVERVIEW

All of your assignments require that you produce knowledge instead of reproduce knowledge. This means that the correct answer is not in the back of the book or that there is even a correct answer. You may be introducing to the world something unique that has never existed until you created it. You will have to exercise your imagination, intuition, creativity, and innovation to produce results similar to what the future will demand for your success and survival.

BREAK OUT OF YOUR OLD "PRESENTATION STYLE" PARADIGM. NUTURE YOUR IMAGINATION! EXPERIMENT!

Assignments will often be presented in class. You may utilize PowerPoint, PhotoShop, live performances, AutoCAD, animations, MediaPlayer, QuickTime, etc. to convey your ideas. DVD and audio components are in the classroom. You may incorporate performance art or any other means of communication. **You must be able to communicate!**

If your group will needs sound for the presentation arrangements will need to be made with the teaching assistant, Justin Curtsinger, prior to the class presentation times.

All assignments done as hardcopies must be in 8.5"x11" page size.

Always include your name, team number, assignment number and due date on assignment. Use title page when appropriate. **DO NOT WRITE YOUR UIN ON ANY ASSIGNMENT.** For multi-page work, bind all pages together. Folders/binders are fine, as is a stapler. A stapler is located in the computer lab on the ground floor of Building A and in the Technical Reference Center on the second floor of Building A.

ANY ASSIGNMENT NOT COMPLETED IN A UNIVERSITY-LEVEL MANNER WILL NOT BE GRADED!

FILE SUBMISSIONS

All group presentations will be submitted through eLearning by midnight the night before it is presented. If your group presentation requires sound or it is a "movie" file, then eLearning will not accept the file. Your group needs to contact me and we can make arrangements to submit the file.

It is **highly recommended** that groups bring a copy of the presentation on a flash drive as a backup for the presentation.

MAKE CERTAIN YOUR ELECTRONIC FILES WORK ON CAMPUS COMPUTERS AND ON A MAC.

VIDEO FILES The preferred file formats are: wmv, mov (quicktime) avi, (non-Divx); other file types will not work on Macs and the computer in the lecture hall.

Some assignments have time limits, please be mindful of those. If a group exceeds the time limit points will be deducted from the presentation grade.

GROUPS Some assignments require the use of groups to complete the work. Groups are assigned by the Teaching Assistant. Communication between group members is the responsibility of each group member. Suggested communication tools include Facebook groups, Twitter, email and phones. Group members will decide the grade assigned to their own team members based on their performance using the group evaluation sheet from eLearning.

PRESENTATION #1 SOCIAL INNOVATION COMPETITION – Group Project (15 points)

Go to <http://www.dellsocialinnovationcompetition.com/DatesAndDeadlines> for details. Write a one page Dream Paper to enter the competition and email it to the competition. There will be 50 semi-finalists who compete for \$50,000. If you are picked as a semi-finalist, you will receive 10 bonus points in this class. Groups will do a PowerPoint presentation in a timed, 3 minute presentation for presentation to the class. Submit the presentation to WebCT by 11:00 p.m., March 1. **Members of each group will decide the grade assigned to their own team members. If your group is selected as a finalist, you will get another 10 bonus points.**

PRESENTATION #2 YouTube VIDEO- Group Project (15 points)

The YouTube Video will be at least a three to four minute presentation on creativity. It can be combinations of music, people, photos, etc. Use your imagination and have fun. Post it as **TAMU10A-Creativity-Group##**

PRESENTATION #3 IDEAS CHALLENGE CONTEST – Group Project (15 points)

Go to <http://cnve.tamu.edu> and click on Ideas Challenge under Programs. Your group will develop two business plans to compete in the Ideas Challenge. Your group will present both of them for class presentation and the best one will be submitted to the Ideas Challenge. There are three meetings that at least one member of your group must attend; they are listed in the schedule in this syllabus. There will be 60 top businesspersons that will evaluate your

proposal. There is a \$3,000 first prize, a \$2,000 second prize, and ten \$1,000 third prizes. Your submission must be given to the CNVE and uploaded on WebCT by 11:59 p.m. on April 2nd. Workshops are Feb. 22, March 1 & 8th. One member of each group must attend each workshop. They are all different. The finalists will be notified on April 22nd. There will be a finalist prep workshop on April 27th. The finalists will present on May 5th to a group of 60 angel investors and entrepreneurs.

Members of each group will decide the grade assigned to their own team members. If your group is selected as a finalist, you will get extra points. There is a 3 minute time limit for the presentation

All members of each group will decide the grade assigned to their own team members using the group evaluation sheets from eLearning. There is a 3-minute time limit for the presentation.

PRESENTATION #4 PRODUCT DEVELOPMENT- Group Project (15 points)

Each group has the choice between two assignments:

1. Pick a soft innovation from your first presentation and develop it further by finding a way to improve it. You will show the existing product and explain how the product was improved.
2. Select a company's product in existence and develop it further by finding a way to improve it. You will show the existing product and explain how the product was improved. It must meet the patent requirements for an existing product. See Darrell Kuhn's lecture on patents.

You will present the product improvement to the class using PowerPoint or a video. The improvement must be a significant and justifiable modification. For example, changing the color or adding a minor detail or addition, to name a few will not be considered as an improvement.

All members of each group will decide the grade assigned to their own team members using the group evaluation sheets from eLearning. There is a 3-minute time limit for the presentation.

FINAL- Details to be announced in class. 10 points (for individual grade) and 10 points (for group grade)

This is a multi-part final. The details will be discussed further at the end of the semester.

One of the parts to the final will be for each group to create a semester summary CD. This CD will comprise of each student's work created throughout the semester. Each student is responsible for keeping a digital record of their work.

SOFT INNOVATIONS- Individual Project (10 points total, 1 point for each Soft innovation)

A soft innovation is an original invention or an adaptation to an existing idea that meets patent requirements.

By the end of the semester, you should have 10 soft innovations. **Do a patent search for each soft innovation.** If your innovation exists, you will not receive credit for it. Examples of Soft Innovations are posted on eLearning.

You must be able to communicate! Production of written work with a computer is encouraged except where your style of writing is integral to your assignment's presentation. **If your printing or handwriting is less than stellar, use the computer, paste and copy. Use spellchecker and proofread! If you can't draw your object(s) well, use cutouts, photos, or the computer.**

All work should be done at a University Level. This does not include notebook paper. The soft innovations should be printed on white paper. If you draw the soft innovation, then you should scan the image then type the text and print the assignment. If more than one soft innovation is assigned they must be stapled together or they will not be graded.

Each student needs to keep a digital copy of each soft innovation for the final. See final above. **The soft innovations are not handed back.**

You will be graded on cleverness of design, originality, performance, patentability and presentation. Think of each submission as a presentation to a prospective investor or CEO of a major company. Think of the commercial value of your invention when creating the format, communicating your idea and preparing the assignment to be graded.

No "inventions" involving cars moving slowly in front of you, ways to harm Transportation Services, toothbrush/toothpaste, washer/dryer, beer, remote controls, dentist/manicurist/hair-stylist combinations, tailgating, alarm clocks, showers, iPhones, iPods, hair dryers, and roommates. **You will receive an automatic "A" if one of your ideas is patented or purchased by a company**

For **two** soft innovations of your choice, you will need to use CombinFormation, see details listed under **CombinFormation Experiment**.

NON-DISCLOSURE FORMS- Individual (Required, no points)

The form is required for all students who are enrolled in the class. The form must be submitted or grades will be withheld. This is because many students will create business based on the ideas they create in the class. The form is posted on eLearning.

PERSONALITY TESTS- Individual Project (1 point – under class participation)

Please take each test and copy the results to a word document. An example of the formatting is posted on eLearning. **You will need to copy the information before you close out of each test.** Please print the **one page** document you create and submit it in class on the due date.

1. www.humanmetrics.com/cgi-win/JTypes2.asp. After completing the test, click on the Keirseay description and indicate your temperament and role variant.
2. www.ncsu.edu/felder-public/ILSpage.html. Take the ILS questionnaire and indicate the results.
3. Take the Goldberg Intuition Test **posted on eLearning**.

FLOW DISCUSSION- Individual (1 point – under class participation)

There will be a discussion group on eLearning, titled Flow, where you will post your name with experiences of creative flow and discovery. Each student needs to have one posting. You can comment on the way others achieve Flow and network.

SECRETS- New Experiment (Not Required, no points)

This is just for fun and it is not required. There will be a “Secrets” discussion group on eLearning where you can anonymously post your secrets. It will give you a sense of who is in the class and common experiences. Also, check out <http://postsecret.blogspot.com>

COMBINATION EXPERIMENT- Individual Exercise (points part of soft innovation)

For two of your soft innovations experiment with this unique software. It is funded by a National Science Foundation grant to experiment with the creation of new ideas and as a future resource for scientist and engineers. This software can help you create new ideas by combining and morphing different ideas to generate new possibilities. You will attach one sheet to each soft innovation with a paragraph explaining how the software helped or did not help you in creating that particular soft innovation.

G. ABSENCES

See University Rules regarding absences, <http://student-rules.tamu.edu/search/rule7.htm>.

If you have an excused absence when we have a problem solving session in class, you don't get the credit for the problem solving session. You will have to contact the teaching assistant for a make up session.

H. ACADEMIC INTEGRITY STATEMENT

An Aggie does not lie, cheat, or steal or tolerate those who do.

All syllabi shall contain a section that states the Aggie Honor Code and refers the student to the Honor Council Rules and Procedures on the web <http://www.tamu.edu/aggiehonor>