

Parsons The New School for Design

AMT

Collab: MAKE Magazine

PUDD 4550 J; CRN 6362

Spring 2010

Wednesdays 3:00 pm - 5:40 pm, Parsons 2 W 13th Room 1006

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Course Description

Make: Beyond DIY will expose students to techniques, tools, and resources for expanding what we can make and share ourselves. In-class workshops, field trips and guest instructors will inform individual and group assignments on hacking how-to projects and producing outstanding online documentation including tutorials in text, pictures, and video. We'll combine traditional and novel techniques and materials in electronics, computation, crafts, fabrication, and other do-it-yourself genres to make tools, toys, art, hacks, and upgrades, to name just a few. We'll release our projects as fully and openly as possible and investigate the cultural implications of participating in the global DIY community. Through instructor Becky Stern, Associate Editor at Make: Online and CRAFT, students will have opportunities for online exposure and access to a stellar network of innovators, hackers, hobbyists, and crafters producing DIY projects.

Course Outline

Schedule may change to accommodate visiting instructors and field trips. Unless noted otherwise, assignments are due via class blog post on 10pm the night before class. Most classes will begin with a presentation of interesting DIY projects from around the web that week.

WEEK 1	Jan 27	Introduction, Syllabus Handed Out, in-class discussion and web demo	Assignment: Get your digital maker self organized: create/synchronize accounts on class blog, Instructables, Flickr, YouTube/ Vimeo, Twitter, etc. Subscribe to and catch up on required blogs in RSS reader. Pick out a kit for first project and desired textbook. Email all account links and kit/book choices to Becky by 10pm Feb 1. Introduce yourself on class blog.
WEEK 2	Feb 3	Kit building/ soldering workshop	Assignment: Finish kit build/evaluation/ documentation of improvements Due: 10pm Feb 9 Keep current on required blog reading, start to delve into your selected textbook, selecting two projects that interest you.
WEEK 3	Feb 10	Kit reflection presentations/ discussion/ laser	Assignment: Execute project from your book that was approved by Becky, evaluate and blog. Due: 10pm Feb 16
WEEK 4	Feb 17	Photography for tutorials, brainstorm midterm projects	Assignment: Based on in-class discussions, begin mid-term projects (groups formed in class).
WEEK 5	Feb 24	3D printing/ MakerBot workshop	Assignment: Work with group mid-term projects.
WEEK 6	Mar 3	Individual/ group meetings, in-class work time Mid-term evaluations administered by email	Assignment: Finish mid-term project, documentation, release, community feedback Due: Release by 12am Mar 8
WEEK 7	Mar 10	Mid-term project presentations Knitting/soft circuits	Assignment: Spring break! Keep up on blogs and read more from textbook, start thinking about final project Due: reflection/brainstorm blog post due 10pm Mar 23

WEEK 8	Mar 24	Video	Assignment: Make a quickie tutorial video, prepare final project proposal Due: 10pm Mar 30
WEEK 9	Mar 31	Final project discussion	Assignment: Source materials/supplies for final project, create parts/supply list with links, outline steps and shot list for photo/video Due: 10pm Apr 6
WEEK 10	Apr 7	NYC Resistor/ MakerBot field trip	Assignment: Work on final projects, create in-progress status blog post
WEEK 11	Apr 14	Quiz, in-class work time/ individual/ group meetings	Assignment: Work on final projects
WEEK 12	Apr 21	Promoting your project online/ analytics	Assignment: Install/access analytics in preparation for your first major release. Work on final projects.
WEEK 13	Apr 28	In-class work time/ peer-supported writing workshop Students Write Course Evaluations	Assignment: Finish final projects with photo/ video/writing. Release and promote online, prepare report/presentation. Release by 12am May 3.
WEEK 14	May 5	Final project presentations	Assignment: Evaluate community impact through use of analytics, reflect on final project
WEEK 15	May 12	Reflections/ next steps, treats Last Class	

Learning Outcomes

By the successful completion of this course, students will be able to:

1. Make DIY projects: electronics, crafts, toys, tools, services

2. Document projects through photography, video, and writing
3. Release tutorials online so others can make DIY projects, too
4. Engage with the maker community through groups, blogs, and events

Criteria for Evaluation

Participation and communication: Your participation in class will be evaluated not just in the classroom through discussions and group project work, but also online through the class blog and other DIY project sharing outlets including photo, video, tutorial, and social media sites. Plentiful, frequent, high-quality, and well-organized contributions to class and the web are essential.

Quiz: You'll be given a quiz on in-class safety and the specifics from one or more of the in-class workshops. The questions will be directly relevant to your understanding of the techniques put forth. You'll be provided with study material in advance. The quiz will be open-internet, but your answers should be processed and recorded individually.

Individual and group assignments: You will be evaluated on your production of well-documented DIY projects with accompanying tutorials, alone and/or in groups. You'll first be asked to put together a kit and evaluate its instruction set, and will be graded on your successful completion of the kit with highest quality projects taking the kit to a previously-undiscovered new level/domain/function. Next you'll be asked to tackle projects of your choice based on in-class brainstorming, but with guidelines for documentation and sharing online upon which your (or your group's) project will be evaluated.

Final project: Your final and most impressive DIY project to date will be evaluated based on its cultural merit (benefit/relevance to maker community), writing, photography, videography, and open/organized internet release.

Peer Evaluation

Any group work will be evaluated by your instructor and your peers. Your grade on group projects will be weighted as follows:

Individual grade	50%
Team grade	25%
Peer evaluation average	25%

Final Grade Calculation

Participation /attendance	25%
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Kit build	10%
2nd tutorial build (from reading)	10%
Midterm group project	20%
Quickie video tutorial	10%
Quiz	5%
Final project	20%

Required Reading

Students will be provided with a copy of MAKE, Volume 21 and one of either *Make: Electronics*, *Fashioning Technology*, or *Getting Started in Arduino* (student choice), as well as one Maker's Notebook (courtesy of MAKE/O'Reilly Media).

In addition to these print materials, the following blogs must be reviewed frequently, preferably daily:

Make: Online: blog.makezine.com

CRAFT: blog.craftzine.com

BoingBoing: boingboing.net

Adafruit Industries: <http://adafruit.com/blog>

Featured Instructables: <http://www.instructables.com/tag/type-id/featured-true/rss.xml>

Fatlab: <http://ffff.at/>

Core77: <http://www.core77.com/blog/>

Fashioning Technology: <http://fashioningtechnology.ning.com/>

Threadbanger: <http://www.youtube.com/threadbanger>

How to Get What You Want: <http://www.kobakant.at/DIY/>

Evil Mad Scientist Laboratories: <http://www.evilmadscientist.com/>

use of an RSS reader such as Google Reader (<http://www.google.com/reader>) is required.

Recommended Reading

More blogs for the hungry, not required but interesting regardless!

Inspire me now: <http://szymon.tumblr.com/>

Arduino blog: <http://arduino.cc/blog/>

Thingiverse things: <http://www.thingiverse.com/newest>

Instructor's site: sternlab.org

Resources

Recommended Twitter feeds: <https://twitter.com/bekathwia/recommended>

Some resources for shopping/downloads/services:

Supplies/materials	Services	Software
makershed.com	thingiverse.com	gimp.org
sparkfun.com	instructables.com	inkscape.org
adafruit.com	shapeways.com	openscad.org
lessEMF.com	ponoko.com	arduino.cc
digikey.com		
jameco.com		
mcmaster.com		
polytek.com		

Materials and Supplies

You will need access to a digital still and video camera for this course. Access to lighting equipment, microphone, and tripod are highly recommended. Internet access, photo manipulation, and video editing are the requirements of the computers you use for this course. Cross-platform and open source resources will be provided and used as often as possible.

Materials and supplies will vary based on each student or team project's needs. Some workshops will be held in which acquiring supplies will be organized by the instructor to aid in convenience/reduction of shipping costs/accuracy.

Grading Standards

These standards have been modified based on the Parsons grading standards for written work.

F

Failing grades are given for required work that is not submitted, for incomplete final projects or for examinations that are not taken (without prior notification and approval). Make-up work or completion of missed examinations may be permitted only with the approval of the instructor.

D

The project adheres to all of minimum terms of the assignment. Project work receiving a “D” grade may be poorly conceived, executed, or documented. “D” projects may also have serious organizational and grammatical errors in evidence, which may or may not impede the viewer's/reader's ability to understand the author's point.

C/C+

These are average projects. They will demonstrate some success in engaging with the assigned readings and subject matter at hand. The project will show that the student can identify and work with key elements of a DIY project and its documentation in tutorial form. Additionally, the project poses an interesting and unique idea. Typical of a “C/C+” project, however, is that the original idea is not explored to its full potential. There may be mediocre or difficult-to-follow instruction, photo documentation, or video. “C/C+” projects may also have significant organizational, grammatical and/or editorial errors in evidence. These errors may periodically impede the viewer's/reader's ability to understand the author's point.

B/B+

These are very good projects. The “B/B+” project does everything a “C/C+” project does, but offers a sustained high-quality level of documentation of a culturally-relevant and unique DIY project. The project is clear in all documentation genres: text, photo, and video. Although minor grammatical and editorial errors may be present, do not impede the reproducibility of the project from the instructions created by the student.

A

These are exceptionally good projects that go above and beyond the expectations and requirements set forth in the assignment. They demonstrate substantial effort and achievement in the areas of ideation, execution, and documentation through text, images, and video. “A” projects are very well organized, and are free of grammatical and editorial errors.

I

A grade of I (Incomplete), signifying a temporary deferment of a regular grade, may be assigned when coursework has been delayed at the end of the semester for

unavoidable and legitimate reasons. Incomplete grades are given only with the written approval of the instructor and the major program Chair. The Request for an Incomplete Grade form must be filled out by the student and instructor prior to the end of the semester.

For undergraduate students, if a grade of incomplete is approved, outstanding work must be submitted by the seventh week of the following Fall semester (for Spring and Summer courses) or by the seventh week of the following Spring semester (for Fall courses). Otherwise, a grade of I will automatically convert to a permanent unofficial withdrawal (WF) after a period of four weeks. For graduate students, the maximum deadline for completion of an incomplete is one year though a shorter period may be imposed at the discretion of the instructor.

Divisional, Program and Class Policies

The remainder of the syllabus is Parsons/New School boilerplate text except where listed as an "Instructor addendum."

- Responsibility

Students are responsible for all assignments, even if they are absent. Late projects, failure to complete the readings assigned for class discussion, and lack of preparedness for in-class discussions and presentations will jeopardize your successful completion of this course.

- Participation

Class participation is an essential part of class and includes: keeping up with reading, contributing meaningfully to class discussions, active participation in group work, and coming to class regularly and on time.

- Attendance

University Policy: Faculty members may fail any student who is absent for a significant portion of class time. A significant portion of class time is defined as three absences for classes that meet once per week and four absences for classes that meet two or more times per week. During intensive summer sessions a significant portion of class time is defined as two absences. Lateness or early departure from class may also translate into one full absence.

Collab studio specific: Collaboration Studios meet for one two-hour and forty-minute session per week, and at least 5-10 hours of work per week is expected from each student. As per University policy, 3 absences constitute grounds for failure. Two absences will result in an automatic academic warning. Arriving fifteen minutes after the start of class also constitutes an absence. There is no such thing as an excused absence; any failure to attend a class sessions will be marked as an absence.

Instructor addendum: Please let Becky know in as far advance as possible if you must miss a class. Email preferred, phone/txt ok.

- Blackboard

Instructor addendum: The class blog will function in place of Blackboard. Check it often, subscribe to its RSS feed, and contribute to it regularly.

- Delays

In rare instances, I may be delayed arriving to class. If I have not arrived by the time class is scheduled to start, you must wait a minimum of thirty minutes for my arrival. In the event that I must miss class entirely, a sign will be posted at the classroom indicating your assignment for the next class meeting.

- Academic Integrity

This is NSU's Statement on Academic Integrity: Plagiarism and cheating of any kind in the course of academic work will not be tolerated. Academic honesty includes accurate use of quotations, as well as appropriate and explicit citation of sources in instances of paraphrasing and describing ideas, or reporting on research findings or any aspect of the work of others (including that of instructors and other students). These standards of academic honesty and citation of sources apply to all forms of academic work (examinations, essays, theses, computer work, art and design work, oral presentations, and other projects).

It is the responsibility of students to learn the procedures specific to their discipline for correctly and appropriately differentiating their own work from that of others. Compromising your academic integrity may lead to serious consequences, including (but not limited to) one or more of the following: failure of the assignment, failure of the course, academic warning, disciplinary probation, suspension from the university, or dismissal from the university.

Every student at Parsons signs an Academic Integrity Statement as a part of the registration process. Thus, you are held responsible for being familiar with, understanding, adhering to and upholding the spirit and standards of academic integrity as set forth by the Parsons Student Handbook.

- Guidelines for Written Assignments

Plagiarism is the use of another person's words or ideas in any academic work using books, journals, internet postings, or other student papers without proper acknowledgment. For further information on proper acknowledgment and plagiarism, including expectations for paraphrasing source material and proper forms of citation in research and writing, students should consult the Chicago Manual of Style (cf. Turabian, 6th edition). The New School University Writing Center also provides

useful on-line resources to help students understand and avoid plagiarism. See www.newschool.edu/admin/writingcenter/usefullinks.html.

Students must receive prior permission from instructors to submit the same or substantially overlapping material for two different assignments. Submission of the same work for two assignments without the prior permission of instructors is plagiarism.

- Guidelines for Studio Assignments

Work from other visual sources may be imitated or incorporated into studio work if the fact of imitation or incorporation and the identity of the original source are properly acknowledged. There must be no intent to deceive; the work must make clear that it emulates or comments on the source as a source. Referencing a style or concept in otherwise original work does not constitute plagiarism. The originality of studio work that presents itself as “in the manner of” or as playing with “variations on” a particular source should be evaluated by the individual faculty member in the context of a critique.

Incorporating ready-made materials into studio work as in a collage, synthesized photograph or paste-up is not plagiarism in the educational context. In the commercial world, however, such appropriation is prohibited by copyright laws and may result in legal consequences.

- Student Disability Services

In keeping with the University’s policy of providing equal access for students with disabilities, any student with a disability who needs academic accommodations is welcome to meet with me privately. All conversations will be kept confidential. Students requesting any accommodations will also need to meet with Jason Luchs in the office of Student Disability Services, who will conduct an intake, and if appropriate, provide an academic accommodation notification letter to you to bring to me. At that point I will review the letter with you and discuss these accommodations in relation to this course. Mr. Luchs’ office is located in 79 Fifth Avenue, 5th floor. His direct line is (212) 229-5626 x3135. You may also access more information through the University’s web site at [www.newschool.edu/studentsservices/disability/.](http://www.newschool.edu/studentsservices/disability/)