Graphics Workshop II

EVDA 543/ARST 453

Winter 2014 H(0-8)   *DIAGRAM.KILOGRAM.INSTAGRAM*

Dates   Mon + Wed

Time   0900 - 1250

Room   PF 2160

Instructors

Jodi James MArch

jbjames@live.ca

Matt Knapik MArch + MEDes

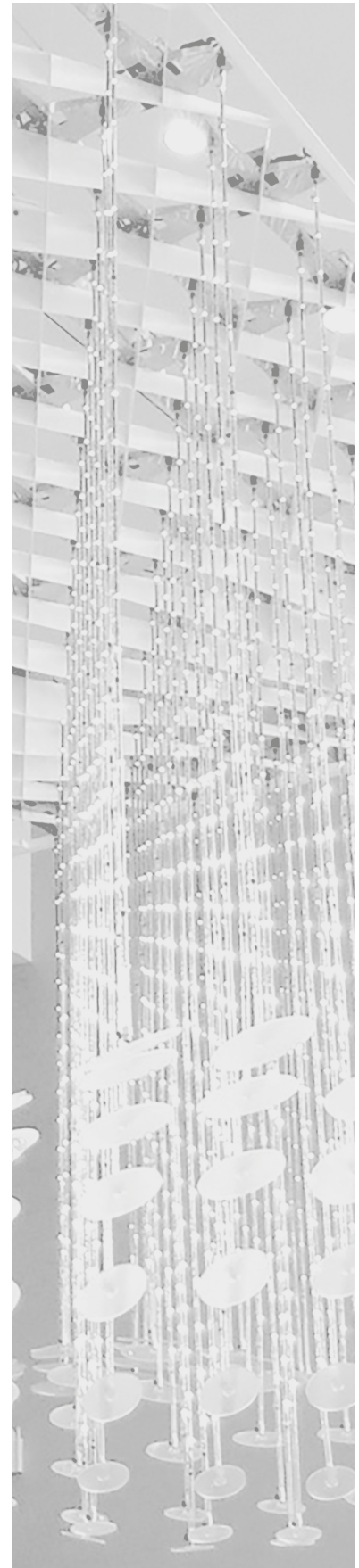graphics@mattknapik.com

TAs

Shane Oleksiuk MArch (candidate)

evdsgraphicsta@gmail.com

Matt Stewart MArch (candidate)

evdsgraphicsta@gmail.com

Prereqs

Graphics Workshop I

Students not enrolled in the Master of Architecture or the Minor in Architectural
Studies programs must seek permission of the instructor.

Memory Cloud, RE:site + Metalab

INTRODUCTION

EVDA 543/ARST 453 forms the second part of the graphics sequence in the Master of Architecture foundation year. The course focuses on digital and post-digital modes of production, engaging architecture as a discipline concerned with craft, storytelling, and the management of information. Our theme for Winter 2014 is *DIAGRAM.KILOGRAM.INSTAGRAM*; these three words capture important potentials and contradictions of graphics in contemporary architectural practice:

> *DIAGRAM* - What models of representation serve architectural practice in the
> contemporary complexities of environment, geometry, and performance?

> *KILOGRAM* - How should new modes of building and fabrication
> inform the production of architectural prototype?

> *INSTAGRAM* - How can architectural technique respond to information systems
> that are increasingly user-driven, connected, and massive?

Lectures will explore the aethetic and technical lineage of graphic concepts and terms, drawing lines between pre-digital, analog-digital, and post-digital methods. Lecture topics are linked directly to tutorials that will help students develop their skills in digital drawing and illustration, graphic composition, 3D modelling, rendering, parametric interfaces, and digital fabrication. Course assignments will yield a range of architectural artifacts, including diagrams, technical drawings, renderings, animations, and physical constructs.

The following CACB Student Performance Criteria will be covered in this course at a primary level: A3: Graphic Skills. The following CACB Student Performance Criteria will be covered in this course at a secondary level: B1: Design Skills; C3: Technical Documentation.

COURSE OBJECTIVES

In this course, students will:

1.   Continue to develop critical discourse on the past lineages and projected futures of architectural production.

2.   Build on their existing graphic skills with contemporary digital techniques that engage the evolving context of representation, fabrication, and information.

3.   Explore the manner in which parametric interfaces and digital fabrication methods can inform and support the design process.

4.   Continue to develop their skills in the craft and curation of architectural graphics, constructs, and interfaces.

Sagrada Familia Rope Model, Antoni Gaudi

TEACHING APPROACH

The course will involve lectures, in-class activities, group discussions, hands on tutorials, working sessions, critiques, and exhibitions. Students are expected to attend all course sessions. Each class will follow a typical pattern, though the proportions will vary according to the weekly content:

0900 - 0930	930 - 1045	1045 -1100	1100 - 1245
Warm-up	Lecture & Exercises	Coffee	Tutorial
Simple daily exercises to warm up your mind and wrists for a day at the drawing board/mouse.	Matt and Jodi will present lectures in digestible chunks that include participatory exercises, group discussions, and structured critiques. Assignment briefs will be distributed at this time.	A quick visit to the business school for the daily fix.	Tutorials will typically be led by the course TAs, and will focus on particular softwares and techniques that will be deployed in current and upcoming assignments.

RESOLVING ISSUES

To make it easier for you to get answers to your questions, and to help us all manage the curve balls that life throws our way over the term, we have created a series of quick resolution guides (below). Our intention is not to over-complicate things, but rather to save uncesseary "traffic" and repetition. As a teaching team, we will do what we can to be flexible and support your learning throughout the course – in exchange we expect that you will be smart about setting your own priorities.

A. Technical Questions – *i.e. how do I create a new layer in Photoshop?*

> Help files > Classmates > Google > TAs > Find another way

B. Course Organization & Evaluation Questions – *i.e. how will this assignment be evaluated?*

> Course outline & assignment briefs > Matt and Jodi

C. Theory / Concept Questions – *i.e. what do you mean by aggregation?*
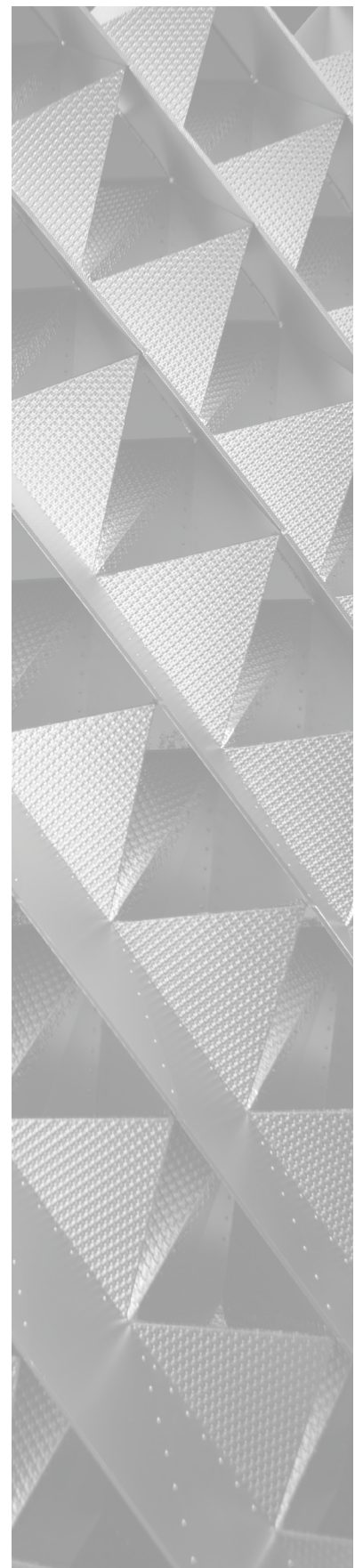
> Classmates > TAs > Matt or Jodi

D. Production Questions – *i.e. how do I use this tool properly / why is the laser cutter on fire?*

> Shop manuals & guides > Craig or Nathan > Don't do it

E. Extensions & Grading Queries – *i.e. may I please have an extension / I feel my grade is unfair*

> To notify the instructors of an issue impacting your ability to complete coursework on time, or to request an extension, please create a note using the following headings, and send by e-mail to **BOTH** Matt & Jodi. Incomplete forms or forms sent to only one instructor will be disregarded. Extension requests due to workload must be submitted at least two days before the deadline (before the end of Saturday for a Monday deadline). Submission of a form does not guarantee an extension.

> 1. Full Name
> 2. Date of event or request
> 3. Description of how the event is impacting your coursework
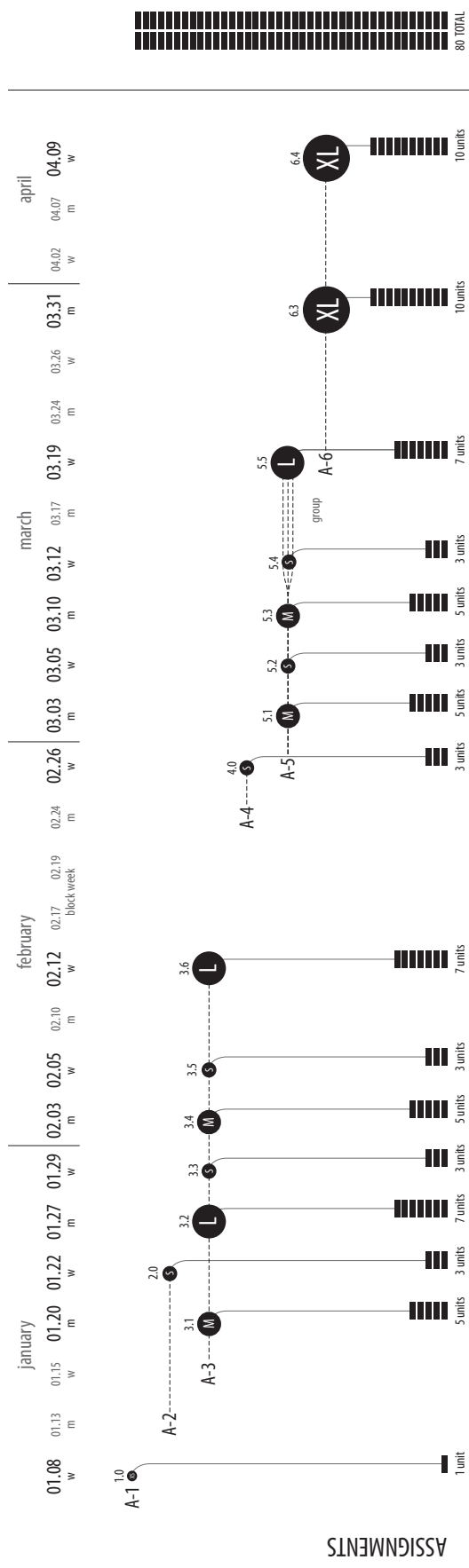> 4. Your proposed solution, including adjusted deadlines for project work.

3xLP, Nick Bruscia + Chris Romano

Dustryrelief - François Roche

COURSE SCHEDULE

ASSIGNMENTS

january

01.08 w — A-1 — 1.0 — 1 unit

01.13 m — A-2

01.15 w

01.20 w — A-3 — 3.1 M — 5 units

01.22 w — 2.0 s — 3 units

01.27 m — 3.2 L — 7 units

01.29 w — 3.3 s — 3 units

february

02.03 m — 3.4 M — 5 units

02.05 w — 3.5 s — 3 units

02.10 m

02.12 w — 3.6 L — 7 units

02.17 block week

02.19

02.24 m — A-4 — 4.0 s

02.26 w — A-5 — 3 units

march

03.03 m — 5.1 M — 5 units

03.05 w — 5.2 s — 3 units

03.10 m — 5.3 M — 5 units

03.12 w — 5.4 s — 3 units

group

03.17 m

03.19 w — 5.5 L — A-6 — 7 units

03.24 w

03.26 w

03.31 m — 6.3 XL — 10 units

april

04.02 w

04.07 m

04.09 w — 6.4 XL — 10 units

80 TOTAL

PARTICIPATION

P — 20 TOTAL

The participation grade is derived from a combination of blog postings and participation during in-class activities and reviews.

4

EVALUATION

The course is graded based on participation in class activity and the evaluation of assignments. For a breakdown of weighting between assignments, please see the course schedule on the previous page. Individual assignments will be graded based on rubrics that will be included in each assignment brief.

The Get Out of Jail Free Card

We would like to encourage risk-taking and foster a creative environment for this course, though sometimes this ideal can be overshadowed by grading and evaluation. In order to shift the balance toward a riskier, more rewarding approach to the course work, we will be issuing each student *one* "get out of jail free" card. Students may redeem this card to receive full grades for an assignment that took substantive risk and somehow missed the mark. Terms for the use of the GOOJF card follow:

- May only be used for assignments marked as *XS*, *S*, or *M* (see course schedule)

- *Something* must arrive at the review that *shows evidence of the attempted project*, whether that means the shattered pieces of a failed model, a half-plotted graphic nightmare with a sad face drawn on it, or a short essay describing why the assignment was fundamentally flawed.

- Assignments that were simply not completed will not be eligible.

Late Assignments

Late assignments that have not received an approved extension will be docked by 5% per day. Projects that are not pinned-up at the start of reviews will be considered one day late, so please plan ahead and anticipate production volumes in the printing room and shop.

Letter-grade Translation

The following breakdown will be used to translate number grades to letter grades at the end of term. This breakdown is standard throughout EVDS.

Percent	Grade	Grade Point	Description
92.5 - 100	A+	4.0	Outstanding
85 - 92.49	A	4.0	Excellent - superior performance
80 - 84.99	A-	3.7	Very good performance
76 - 79.99	B+	3.3	Good performance
73 - 75.99	B	3.0	Satisfactory performance
70 - 72.99	B-	2.7	Minimum Pass
< 69.99	C+	2.3	Failure at the graduate level
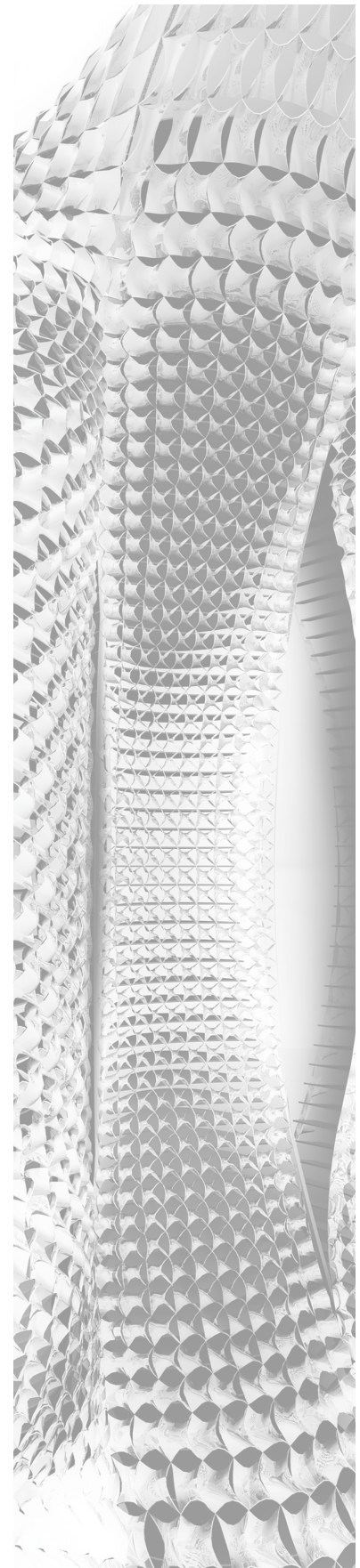
Parametric Figuration, Klasing/Krcha/Froeschl/Hofmann

SAFETY

Participation in this course will involve the use of shop tools, including blades, grinders, lasers, robotic arms, and other Bond villain devices. We shouldn't have to tell you to be safe around lasers, but here it is: improper use of this equipement can result in serious injury. For detailed information and certification required before using the shop, please refer to the EVDS website: *evds.ucalgary.ca/content/workshop*. Students are required to have completed EVDS shop training in order to use the shop facilities. Please contact the head shop technician: Craig LeBlanc (*evdsshop@ucalgary.ca*) for details about training schedules and other requirements.

SAFE USE OF SHOP EQUIPMENT WILL ALWAYS TAKE PRECEDENCE OVER COURSE REQUIREMENTS. DO NOT DRIVE OR USE SHOP EQUIPMENT IF YOU HAVE MISSED A NIGHT OF SLEEP.

The course will also involve intensive use of software, which can at times entail long stretches in front of a computer. Please be conscious of ergonomic practices in your workspace habits. Take frequent breaks, drink lots of water, and change your scenery every now and again. The following website, published by Cornell University, offers some good advice about the ergonomics of notebook computer use: *ergo.human.cornell.edu/culaptoptips.html*.

REQUIRED SOFTWARE AND MATERIALS

READINGS

There are no assigned textbooks for this class, though occassional readings may be assigned. Reading materials will be posted online.

SOFTWARE

This course will explore concepts and terms that are not software-specific, but the tutorials will focus on software packages that have been chosen for their flexibility, popularity, and low cost. Students are expected to have the following software installed on their computer at the start of term:

Adobe Creative Suite
CS6 or higher ideal; minimum CS5.

Rhinoceros 5 for Windows
Yes, we know there is a Mac version in development, but the beta doesn't yet support plugins necessary for this course. For those of you on Mac machines, we recommend bootcamp installations of Windows for optimal performance. Rhino is offered at very low price for students, and your student license will evolve into a professional license when you graduate.

Grasshopper 3D for Rhino 5
Available for free at *grasshopper3d.com*.

V-Ray for Rhino
Student license available. We will discuss options relating to the V-Ray plug-in during the first week of class.

Kartal-Pendik Masterplan, Zaha Hadid Architects

NOTES

1. Written work, term assignments and other course related work may only be submitted by e-mail if prior permission to do so has been obtained from the course instructor.

2. It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, please contact their office at 220-8237. (http://www.ucalgary.ca/drc/node/46) Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course.

3. Plagiarism - Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course when, in fact, it is not. Most commonly plagiarism exists when:(a) the work submitted or presented was done, in whole or in part, by an individual other than the one submitting or presenting the work (this includes having another impersonate the student or otherwise substituting the work of another for one's own in an examination or test),(b) parts of the work are taken from another source without reference to the original author,(c) the whole work (e.g., an essay) is copied from another source, and/or,(d) a student submits or presents work in one course which has also been submitted in another course(although it may be completely original with that student) without the knowledge of or prior agreement of the instructor involved. While it is recognized that scholarly work often involves reference to the ideas, data and conclusions of other scholars, intellectual honesty requires that such references be explicitly and clearly noted. Plagiarism is an extremely serious academic offence. It is recognized that clause (d) does not prevent a graduate student incorporating work previously done by him or her in a thesis. Any suspicion of plagiarism will be reported to the Dean, and dealt with as per the regulations in the University of Calgary Graduate Calendar.

4. Information regarding the Freedom of Information and Protection of Privacy Act (http://www.ucalgary.ca/secretariat/privacy) and how this impacts the receipt and delivery of course material

5. Emergency Evacuation/Assembly Points (http://www.ucalgary.ca/emergencyplan/assemblypoints)

6. Safewalk information (http://www.ucalgary.ca/security/safewalk)

7. Contact Info for: Student Union (http://www.su.ucalgary.ca/page/affordability-accessibility/su-structure/contact-info); Graduate Student representative(http://www.ucalgary.ca/gsa/) and Student Ombudsman's Office (http:// www.su.ucalgary.ca/page/quality-education/academic-services/student-rights).

P-WALL, Matsys