COLLABORATIVE DESIGN STUDIO

BACHELOR IN DESIGN
Professor: JEFFREY LUDLOW
E-mail: jludlow@faculty.ie.edu

Academic year: 17-18
Degree course: FIRST
Semester: 2º
Category: BASIC
Number of credits: 6.0
Language: English

PREREQUISITES
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SUBJECT DESCRIPTION
Pattern and pattern making is a basic fundamental to any design field. It is integral to textile/fashion, graphic, and architecture.

For this studio we will be exploring patterns in their history context, understanding the creative components of geometry & grids, exploring part to whole compositions with tiling's. We will also understand the power of scale in pattern making. Combining all these learned elements into an individual pattern library, which the students will then apply to several fictitious yet real world design assignments. Although the students will work individually to create their own pattern library, they will be working in pairs (2/3) for these pattern Missions/Assignments. These collaborative group missions will emphasize team building design skills and delegation.

OBJECTIVES AND SKILLS
Objectives
- Understand the importance of pattern making within design
- Understand how to use descriptive geometry, grids and scale within pattern making.
- Understand the historical perspective of patterns.
- Understand the importance of collaboration within the creative field, within team members but also within the historical foundation of design.

Skills
- Learn how to create patterns, using grids, scale and creativity.
- Learn how to transition from 2 dimension drawings to 3 dimension objects.
- Learn the necessary dynamics for the elaboration of a collaborative project.
- Learn the creative process in the resolution of statements, with emphasis on the division and teamwork management.
- Learn how to use your collection of patterns within different design fields and mediums.
- Learn how to apply and deploy pattern making into real world design problems.

METHODOLOGY

We will divide the course into two general parts. The first part will be lectures/class tutorials, where the students will understand their position within the design context/history of pattern making. In this part the students will be assigned historical patterns to research, and thereby will be collaborating on the existing built work. The will expand upon these historical patterns individually and will fill up their own pattern library book. The second part will be more collaborative where 2/3 students will be paired up differently each time to solve real world design problems in collaborative means. These real world problems, called Missions, are solved by the collaborative efforts of the students, but also based on each students pattern library as a foundation and a tool for design.

Lecture A: Descriptive Geometry Lecture/ Instructions

1. Descriptive geometry basics.
2. Diagraming and geometry analysis.
3. Descriptive writing and geometry.

Lecture B: Grid Influence

1. Villard de Honnecourt Divisions of Space
2. Golden Rectangle
3. Fibonacci Sequence
4. Beginning of the Modernist Grid (Jan Tschichold)
5. Brick Bonding (3D)

Lecture C: Tiling, Tessellations, and Transitions

1. Arabic Geometry / Tiling (Alhambra)
2. MC Escher Transitions
3. Edge to Edge vs not Edge to Edge
4. Monohedral, Dihedral,

Lecture D: Scale and modularity

1. Modernist Grids (Karl Gerstner)
2. Modular Man (Le Corbusier)
3. Scales of ten (Eames Video)

Lecture E: Effects and appropriation
1. History of Camouflage (WW1 onward to digital)
2. Camo/Mimicry/Counter Shading/Counter Illumination (Hugh B. Cott)
3. Dazzle Camouflage (Naval)
4. Op Art (Art, Fashion, Graphic Design)
5. Sol Lewitt (Instructions)

MISSION 1: CAMO

As climate change becomes more of a norm, our landscapes are changing it is time we begin to design new forms of camouflage that can operate as concealment but also as statements of the current environmental situation. Each team will be given a changed landscape and must create a pattern that will be applied to an upper and bottom (shirt/pants).

- 2D drawing of Pattern
- Photo Shop mockup of clothing
- Photo Shop mockup of clothing within the changed environment.
- Photo Shop mockup of clothing as fashion

MISSION 2: PRIVACY PATTERN

Most people know Silicon Valley offices to be quirky, fun lounge like space. However what is not mentioned is the amount of secrecy and privacy that most Silicon Valley companies need to void corporate espionage. Each team will be given a 5mx10m glass meeting room that they allow natural light to enter while preventing views. This assignment explores transparency and pattern transitions.

- 2D drawing of Pattern (Small scale)
- 2D plot of Pattern (Full scale wall paper mock up)
- 2D transparency print that will be place on model (Scale to be determined)
- Photo Shop mockup of pattern on glass office

MISSION 3: IVY CURTAIN

Exterior green walls reduce the solar gain and reflectance of a building structure by providing shade. Each team must create a 3D lattice structure that is vertical, hanging and aids climbing plants in growing upwards. This assignment explores lattices, shading and landscaping.

- 2D drawing of Ivy Curtain
- 3D model of unit (Full Scale)
- 3D model of unit (Small Scale)
- Photo Shop of Ivy Curtain

MISSION 4: GIF LOOP

Graphics Interexchange Format is both a visual way to show morphing/changing geometries in a simple and consumable way. Each team must create a convincing GIF and also a poster based on the varios stages of the GIF. This assignment explores geometry in motion.

- Drawing of beginning and end of GIF Loop
- Poster of Iterations
- GIF file(16x9 proportion)

MISSION 5: BREAKWATER
Breakwaters are structures constructed on coasts as part of coastal defense or to protect an anchorage from the effects of both weather and long shore drift. They are 3 dimensional units that must tile and stack upon each other to cover an angular surface but must also be as articulated to break up waves. Each team must create one design for a breakwater unit. This assignment explores 3 dimensional stacking and tiling.

2D drawing of 3D breakwater (Descriptive Geometry)
3D model of unit (Scale to be determined) 3D printed or made by hand
Photo Shop of breakwater units working together

<table>
<thead>
<tr>
<th>Teaching methodology</th>
<th>Weighting</th>
<th>Estimated time a student should dedicate to prepare for and participate in</th>
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</thead>
<tbody>
<tr>
<td>Lectures</td>
<td>10.0 %</td>
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<td>Discussions</td>
<td>16.67 %</td>
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<tr>
<td>Exercises</td>
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<td>40 hours</td>
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<td>Group work</td>
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<tr>
<td>Other individual studying</td>
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<td>20 hours</td>
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<tr>
<td>TOTAL</td>
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<td>150 hours</td>
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PROGRAM

SESSION 1 (FACE TO FACE)
Class 01_Jan. 09, 2018  (9:30-11:00)
1. Introduction About Professor/2x4 (.5 Hour)
2. Class description (1 hour)
3. Pattern assignment (Break up into groups 5/5/5/6 (brief explanation on research)

Group Assignment 1: Research over assigned historical pattern: the history, its application and find it in the real world. 4-5 pages (A4 landscape) per group.

SESSIONS 2 - 3 (FACE TO FACE)
Class 02_Jan. 11, 2018  (11:00 -2:00)
1. Group Presentation (1.5 Hour)
2. Grid Assignment (two Grids), individual desk work
3. Informal discussion about skill level (what additional skill they might need) (1 Hour)

Individual Assignment 1: With two grids you are to create 10 patterns per week (Grey and white) One element to each pattern. Each pattern must be in A4 portrait template

SESSION 4 (FACE TO FACE)
Class 03_Jan. 16, 2018  (9:30-11:00)
1. LECTURE A: Descriptive Geometry Lecture/ Instructions (1 Hour)
2. Skill class part _Illustrator tutorial (.5 Hour)

SESSIONS 5 - 6 (FACE TO FACE)
Class 04_Jan. 18, 2018  (11:00 -2:00)
1. Individual Desk Reviews (2 Hour)
2. Group Discussion over Individual Work/Revised Group Work (.5 Hour)
3. Skill class part (Illustrator tutorial) (.5 Hour)

Group Assignment 2: Each group will put together 2 pages over the descriptive geometry of their pattern. (A4 landscape)

Individual Assignment 1: With two grids you are to create an additional 10 patterns per week (Grey and white) One element to each pattern. Each pattern must be in A4 portrait template. One pattern must be written out as instructions.

SESSION 7 (FACE TO FACE)
Class 05_Jan. 23, 2018  (9:30-11:00)
1. LECTURE B: Grid Influence(1 Hour)
2. Skill class part _Illustrator tutorial (.5 Hour)

SESSIONS 8 - 9 (FACE TO FACE)
SESSION 10 (FACE TO FACE)

Class 06_Jan. 25, 2018  (11:00 -2:00)
1. Group Presentation (1 Hour-4 groups 15 mins each)
2. Individual Desk crits on 10 patterns (2 Hours)

*Individual Assignment 1: With two grids you are to create an additional 20 patterns per week (Grey and white) One element to each pattern, modifying the scale of the two grids. Each pattern must be in A4 portrait template*

SESSION 11 - 12 (FACE TO FACE)

Class 07_Jan. 30, 2018  (9:30-11:00)
1. LECTURE C: Tiling, Tessellations, and Transitions (1 Hour)
2. Skill class part _Illustrator tutorial (.5 Hour)

SESSIONS 13 (FACE TO FACE)

Class 08_Feb. 1, 2018  (11:00 -2:00)
1. Pin up for Individual Pattern Library - Group Internal Review (3 Hours)

*Individual Assignment 1: With two grids you are to create an additional 20 patterns per week (Grey and white). These patterns now must have 2-3 elements rather than one. Each pattern must be in A4 portrait template. Create one transition pattern.*

SESSIONS 14 - 15 (FACE TO FACE)

Class 09_Feb. 6, 2018  (9:30-11:00)
1. LECTURE D: Scale and modularity (1 Hour)
2. Movie (.5 Hour)

SESSIONS 16 - 18 (FACE TO FACE)

Class 10_Feb. 8, 2018  (11:00 -2:00)
1. LECTURE E: Effects and appropriation (1 Hour)
2. Desk Reviews: (1 Hours)
3. **Introduction of Mission 1: CAMO** (1 Hour)

*MISsION Assignment 1: Based on your pattern Library you are to begin to create a pattern that you think would work well on a piece of clothing (to be determined). Show patterns, explain your reasoning for that pattern, you will show your work in 2D and on a mock up.*

Class 11_Feb. 15, 2018  (9:30-2:00)
1. Mission 1 Formal Review – with Guest visitor TBC (3 Hours)
2. **Introduction of Mission 2: PRIVACY PATTERN** (1 Hour)
3. Desk Reviews as to how to start Project (.5 Hour)

*MISsION 2: Based on your pattern Library you are to begin to create a pattern that you think would work well on an office (5m x 10 m rectangular glass office cube). The pattern must simultaneously allow light in while blocking views and providing privacy.*
SESSIONS 19 - 21 (FACE TO FACE)
Class 12_Feb. 22, 2018  (9:30-2:00)
1. Mission 2 Group Review (3 Hour)
2. Desk Reviews/Skill class part as needed  (1.5 Hour)
Continue working on Mission 2

SESSIONS 22 - 24
Class 13_Mar. 1, 2018  (9:30-2:00)
1. Mission 2 Formal Review – with Guest visitor TBC(3 Hours)
2. Introduction of Mission 3: IVY CURTAIN (1 Hour)
3. Desk Reviews as to how to start Project (.5 Hour)

MISSION 3: Based on your pattern Library you are to pick a pattern and begin to translate it from a 2D realm to a 3D realm. It must be able to connect or be hung as to aid climbing plants to create curtains.
   - 1. Drawings
   - 2. 3D model of unit full size 40/40
   - 3. Render

SESSIONS 25 - 27
Class 14_Mar. 8, 2018  (9:30-2:00)
1. Mission 3 Group Review (3 Hour)
2. Desk Reviews/Skill class part as needed  (1.5 Hour)
Continue working on Mission 3

SESSIONS 28 - 30
Class 15_Mar. 15, 2018  (9:30-2:00)
1. Mission 3 Formal Review – with Guest visitor TBC (3 Hours)
2. Introduction of Mission 4: GIF LOOP (1 Hour)
3. Desk Reviews as to how to start Project (.5 Hour)

MISSION 4: Based on your pattern Library you are to pick a pattern that can show change but that starts and ends in way that it is infinitely continuous.

SESSIONS 31 - 33
Class 16_Mar. 22, 2018  (9:30-2:00)
1. Mission 4 Group Review (3 Hour)
2. Desk Reviews/Skill class part as needed  (1.5 Hour)

SESSIONS 34 - 36
Class 17_April. 5, 2018  (9:30-2:00)
1. Mission 4 Formal Review – with Guest visitor TBC (3 Hours)
2. **Introduction of Mission 5: BREAKWATER** (1 Hour)
3. Introduction to Final Review (.5 Hour)

**MISSION 5:**
1. Drawings individual
2. Drawing together
3. Render or collage
4. 3D print

**SESSIONS 37 - 39**

Class 18_April. 12, 2018  (9:30-2:00)
1. Mission 5 Group Review (3 Hour)
2. Desk Reviews/Skill class part as needed (1.5 Hour)
3. Discuss Final Review preparation

*Individual Assignment 1: Continue working on Mission 5*

**SESSIONS 40 - 42**

Class 19_April. 19, 2018  (9:30-2:00)
1. Mission 5 Group Review (2 Hour)
2. Desk Reviews/Skill class part as needed (1.5 Hour)
3. Discuss Final Review preparation (1 Hour)

*Continue working on Mission 1-5*

**SESSIONS 43 - 45**

Class 20_May. 3, 2018  (9:30-2:00)

FINAL REVIEW of all Missions and individual Pattern Library (4.5 Hours)
BIBLIOGRAPHY

Books:
1. Beautiful Evidence, Tufte Edward
2. Patternalia: An Unconventional History of Polka Dots, Stripes, Plaid, Camouflage, & Other Graphic Patterns / Jude Stewart
3. Knoll Textiles, 1945-2010 / Earl Martin (Editor), Angela Volker (Contributor), Paul Makovsky
4. Maharam Agenda / MICHAEL MAHARAM
6. 20th Century Pattern Design: Textile and Wallpaper Pioneers / Lesley Jackson

Websites
- http://www.patterntivity.org
- http://www.camopedia.org

Video
1. Power of 10 video by the Eames

Exhibition
Funcacion Juan March:
William Morris y compañía: el movimiento Arts and Crafts en Gran Bretaña
6 octubre 2017 – 21 enero 2018

EVALUATION CRITERIA

The evaluation for the class will be first based on attendance, class participation. Then group work and how an individual collaborated within the group missions. and finally individual presentation and the quality of work done on the individual pattern library.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Class Participation</td>
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<td></td>
</tr>
<tr>
<td>Group Presentation</td>
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</tr>
<tr>
<td>Individual Work</td>
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Each student will be graded on their individual by the following:
1. Class participation/attendance (1-20) where a 20 is a top mark
2. Individual Effort on the Pattern Library (1-30) where a 30 is a top mark.

As a group each individual will be given a grade based on the group's performance.
Based on a scale from 1-10 each group will be given an grade that will then transfer to the individual. The cumilation of these (5 group rounds) will then be the given grade for the individual

PROFESSOR BIO

Professor: JEFFREY LUDLOW
E-mail: jludlow@faculty.ie.edu
JEFFREY LUDLOW

Jeffrey Ludlow is the Principal/Creative Director of the 2x4 Madrid Office. He has led projects in Asia, Middle East, Europe and the United States for the following clients: Nike, Herzog & de Meuron, Kanye West, MoMA, and Prada. Many of these projects explored the relation between graphic design/branding and architecture. Previous to starting the Madrid office in 2013 he led the New York architecture team at 2x4 in spatial projects ranging from events, exhibition and retail. Jeffrey initially, headed up a site office in Beijing where he was in charge of the information / way finding master plan for the new CCTV Headquarters, with OMA/Rem Koolhaas. Prior to joining 2x4, Jeffrey worked in architecture studios in the USA, Europe and China, including OMA-Rotterdam, Mada s.p.a.m. -Shanghai as well has heading up a graphics department in Aedas HK, with projects in the Middle East and Asia.He holds a Master of Architecture from the Southern California Institute of Architecture (2003) and Bachelors in Architecture from University of North Carolina-Charlotte (2001).

Jeffrey is frequently invited to talk, write, and do workshops on issues related to branding and architecture. He is fluent in English and Spanish and lives in Madrid.

OTHER INFORMATION

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CODE OF CONDUCT IN CLASS

1. **Be on time:** Students arriving more than 5 minutes late will be marked as “Absent”.

   Only students that notify in advance in writing that they will be late for a specific session may be granted an exception (at the discretion of the professor).

2. **If applicable, bring your name card and strictly follow the seating chart.** It helps faculty members and fellow students learn your names.

3. **Do not leave the room during the lecture:** Students are not allowed to leave the room during lectures. If a student leaves the room during lectures, he/she will not be allowed to re-enter and, therefore, will be marked as “Absent”.

   Only students that notify that they have a special reason to leave the session early will be granted an exception (at the discretion of the professor).

4. **Do not engage in side conversation.** As a sign of respect toward the person presenting the lecture (the teacher as well as fellow students), side conversations are not allowed. If you have a question, raise your hand and ask it. If you do not want to ask it during the lecture, feel free to approach your teacher after class.

   If a student is disrupting the flow of the lecture, he/she will be asked to leave the classroom and, consequently, will be marked as “Absent”.

5. **Use your laptop for course-related purposes only.** The use of laptops during lectures must be authorized by the professor. The use of Social Media or accessing any type of content not related to the lecture is penalized. The student will be asked to leave the room and, consequently, will be marked as “Absent”.

6. **No cellular phones:** IE University implements a “Phone-free Classroom” policy and, therefore, the use of phones, tablets, etc. is forbidden inside the classroom. Failing to abide by this rule entails expulsion from the room and will be counted as one absence.

7. **Escalation policy: 1/3/5.** Items 4, 5, and 6 above entail expulsion from the classroom and the consequent marking of the student as “Absent.” IE University implements an “escalation policy”: The first time a student is asked to leave the room for disciplinary reasons (as per items 4, 5, and 6 above), the student will incur one absence, the second time it will count as three absences, and from the third time onward, any expulsion from the classroom due to disciplinary issues will entail 5 absences.