2017

IDES 200: Program, Standards and Codes—A Peer Review of Teaching Project Benchmark Portfolio

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Peer Review of Teaching Course Portfolio
IDES 200: Program, Standards and Codes

Abstract
This teaching portfolio documents my teaching efforts for IDES 200, a class in UNL’s Interior Design Program, entitled Program, Standards and Codes. Although I have taught similar content prior to this course, Spring 2017 marked the first time I taught this course. After seven years of teaching the material, and now packaged in a new class, the Peer Review of Teaching project offered the opportunity to critically reflect on course objectives, teaching and delivery methods, the structure of course activities and documenting and analyzing student learning. My primary objective through the Peer Review of Teaching project has been to illustrate all I do in this class with the hope of improving the course. I chose this course for two reasons: first, students often find the material dull and boring, and second the course is filled with practical information that is crucial to their success in professional practice. I am invested in developing methods that can help students navigate the codes, standards and programming processes through a framework of their own design, thereby helping them develop critical thinking skills that get them engaged with what they perceive to be dull topics. This portfolio outlines my course objectives, teaching methods, assignments and rationales, assessments and an analysis of selected student work relative to selected objectives.

Keywords: Interior Design, Codes, Programming, Built-Environment, Project-Based
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1 Objectives for Creating this Portfolio

From the beginning of my participation in the Peer Review of Teaching project, I have had two clear objectives. First, I wanted to know if my teaching methods were effective in helping students learn. Second, I wanted to know how well my assessment measures were mapping back to the course objectives. Both of these objectives are tied to the overarching goal of making improvements to the course. Creating this portfolio has allowed me to critically consider my teaching methods and made me think about the validity of different course activities. It has allowed me to look at my content delivery methods, the role that different learning exercises play in student assessment, and made me consider the learning effectiveness of lectures, tests and applied projects.

This portfolio will be used as documentation of my teaching abilities toward promotion and tenure and I plan to utilize the backward design course development methodology to restructure other courses. Finally, this portfolio has helped me develop more relevant research questions related to the scholarship of teaching and learning. In particular, I am interested in asking how students learn through applied exercises and making prototypes of design solutions.

2 Course Description and Background

The description of this course (from the syllabus) is “an in-depth study of programming, standards, and codes, and their application with which an interior designer is concerned.” This course is required for interior design students and is taken spring semester of their second year. They have had three semesters of design classes prior to taking this course: a first-year shared experience with architecture and landscape architecture students, and one semester of classes more specifically focused on the discipline of interior design. This is the first class that provides a detailed look at the regulations governing the practice of interior design. Students will have practiced the design process through a number of abstract to materially-concrete interior space making projects, but largely without in-depth program considerations, and certainly lacking constraints posed by building codes and spatial standards. Following the course, they take two years of interior design studios in which projects and topics increase in complexity. It is of the utmost importance that students leave this class with a basic knowledge of how to navigate the codes review process, that they know how to develop a formative framework plan to organize programed spaces (and evolve that plan when necessary), and have begun to build a referential library of common interior design standards. As these goals are tied to success of subsequent interior design studio projects that follows this course, it is crucial that Programs, Standards and Codes lay a foundation for future success. Finally, this course’s material is critical for students to be able to navigate as they become professionals. Developing a framework to organize interior programs and reference spatial standards are basic skills held by any professional interior designer.
2a Course Objectives

The primary objectives for this course come directly from the Council for Interior Design Accreditation (CIDA) Standards. These objectives are as follows:

1) Students have awareness of the origins and intent of laws, codes, and standards.

2) Student work demonstrates understanding of laws, codes, and standards that impact health, wellness, security, and fire and life safety, including: sustainable environment guidelines; compartmentalization: fire separation and smoke containment; movement: access to the means of egress including stairwells, corridors, and exit-ways; detection: active devices that alert occupants including smoke/heat detectors and alarm systems; and suppression: devices used to extinguish flames including sprinklers, standpipes, fire hose cabinets, extinguishers, etc.

3) That students apply: a) federal, state/provincial, and local codes and guidelines; and b) barrier-free and accessibility regulations and guidelines.

4) Student work demonstrates an understanding of: methods for gathering human-centered evidence. Student work demonstrates the ability to: apply human factors, ergonomics, and universal design principles (spatial standards) to design solutions.

Although CIDA standards do not precisely outline objectives for programming, two additional objectives which support the programming components of the class are:

5) That students understand how to conduct inventory and analysis of program within an existing building or interior space.

6) That students understand how to pragmatically craft a spatial program based on a strategy or framework of their own design which incorporates site inventory, projected function and human stakeholders (user occupants).

As a central takeaway from this class, I want two student attitudes to emerge: 1) that knowledge of codes and standards is empowering information that gives interior designers significant value toward the design and construction of the built environment; and 2) that these topics are largely about knowing where to go for information more than memorizing all codes that govern built environments. Students should leave this class knowing how to work efficiently and how to be resourceful; knowing where to go for information. I want students to commit only the most important, often referenced, codes and programming information to memory, while developing a model for understanding how to move cyclically within these specific aspects of the design process. Students should illustrate the capacity to merge the creative with the pragmatic and develop a mindset that building codes and spatial standards are an integral part of any design project. They need to understand that individual building codes and space standards fit together to create the larger picture about an overall project; and that one must develop methods for addressing codes and standards individually, while understanding their impact on design decisions as a whole.
3 Organization of the Course

The course is structured to establish a process that logically sequences information into something that is greater than the sum of its parts. Consequently, course material and projects build in complexity throughout the semester, from conceptual understanding to practical application. This approach is reflected through the daily course structure by continually relating individual bits of information back into an outline that conveys its impact on other aspects of design. For example, if the width of a first-floor stairwell in a three-story building changes, it may change the occupant load allowed to use that stairwell for egress, which in turn effects the number of people allowed on upper floors and changes the types of activities allowed to happen in those spaces.

This class is divided into two units: unit 1 covers codes and unit 2 focuses on programming. Unit 1 is approximately 10 weeks long and unit 2 occurs during the last 5 weeks of the semester. As the titles suggest, each unit focuses on different topics related to the pragmatic organization of the built environment, from the scale of a small grouping of rooms to a multi-story building. The course meets twice a week for 75 minutes at a time. Class meetings are generally used for one of two different activities: lecturing on new topics or feedback on assignments.

3a Teaching Methods and Course Structure

During the Codes Unit, the primary method of instruction is lecture. The first few weeks of the course are lecture heavy in order to disseminate necessary codes and standards information. The middle 5 weeks of the course strikes a balance between lecture and projects, and the last 5 weeks involves less lecture, and more support information toward successful completion of their final project. This structure allows necessary information to be disseminated to students early on, while project-based learning toward the end of the semester has them apply and assess that information.

The format of the course during a typical lecture session involves instruction over material for 45-50 minutes, spending 10-15 minutes explaining a new assignment and leaving 15-20 minutes for discussion at the end of the course. This flexibility at the end of the class is something new I tried for this course. Some days the discussion about lecture material continues, some days there are questions about how to apply the information in practice, and other times students offer reflections about their own observations of codes or standards in interior environments. These discussions prove to be great opportunities to have rich dialogues about course material in context. They are great teaching moments because when I cannot offer sound explanations for anomalies, I direct students toward resources that might answer their questions. I also use these occasions to remind them that understanding codes application is more about knowing where to go for information than it is having the information memorized.

To support the application of lecture and reading concepts, students are given a number of complex application exercises. While one of these assignments is active, I typically use a class period to meet individually with teams working on the assignment. I do this five times
throughout the semester: once each for the space planning/egress assignment, once for the
life safety assignment, once for the accessible restroom assignment, and twice for the
reverse programming assignment. The idea with this approach is to connect with small
groups (3-4 students) to review a draft of their efforts and make sure they are understanding
how to apply course content to a project. It gives me an opportunity to address specific issues
the team may be having, and gives students the opportunity to ask questions that have arisen
as they’ve started the assignment.

This course covers a great deal of information, and I have found that the most effective way
to initially introduce students to that material is through lecture. This is followed by a means of
testing students’ ability to apply the knowledge through exercises and projects that have them
do the things presented in class.

3b Course Activities

Early in Unit 1, assignments focus on concept identification. These short assignments are
designed to familiarize students with core concepts so they can apply these concepts later in
more complex assignments. The assignments are designed to take students 45 minutes –
one hour to complete and primarily require calculation of occupant loads, identification of
occupancy, construction types, egress pathways, fire safety equipment and justification of
strategies. These assignments are meant to achieve parts of objective 2: student
understanding of laws, codes, and standards. They also reinforce one of my secondary goals
for the class: that students commit some of the most important (often referenced) codes and
standards to memory.

Later in Unit 1, assignments are project-based and ask students to apply ideas from the
lectures, readings and concept assignments. These assignments require two to three drafts,
and each draft iteration typically requires two to three hours of time. These assignments
further develop student understandings under objective 2 and also help fulfill objective 3: that
students are able to apply federal, state/provincial, and local codes and guidelines.

My approach with assignment structuring is that they increase complexity throughout the unit.
At first, students are simply identifying concepts, and then applying them through activities
like space planning, establishing means of egress on a floor plan and properly laying out a
life safety plan. These application assignments assess if students are learning how to apply
the codes review process in an incremental manner, if lectures are supporting their ability to
complete such projects in a timely manner and if they are being resourceful in pursuing
information when they need to know more.

In Unit 2 students are asked to “reverse” program a small commercial office space. This has
students apply their knowledge of programming, as they are asked to thoroughly document
an existing project. In teams of three to four, they communicate their understanding through
graphic diagramming and a written analysis.
3c Student Learning and Assessment for Specific Activities

Concept Assignments

Students should learn basic skills in applying common codes problems on a case by case basis, while focusing on one aspect of the code at a time. There are correct and incorrect answers to these types of problems. Full credit is given when correct answers are provided, partial credit is given if operations are correct, but an incorrect variable or method was used.

Application Assignments (Egress/Space Planning, Life Safety and Accessible Restroom)

These assignments are designed to help students develop skill in applying multiple aspects of the code to a project. The Egress and Space Planning Assignment requires laying out a tenant space in an office building, calculating occupant loads for the entire floor, graphically identifying all code minimums and establishing a safe route out of a building. The Life Safety Assignment has students introduce required life safety equipment (smoke detectors, alarms, emergency lighting, signage, fire extinguishers, etc.) on an existing floor plan. The Accessible Restroom Assignment provides a blank restroom shell and asks students to adhere to ADA guidelines while laying out toilets, sinks, circulation sequences and other necessary components. Assessment for these assignments is done through the use of a rubric that measures graphic communication, layout skills and all assignment specific codes and standards criteria.

Reverse Programming Project

In the Reverse Programming Project, students learn how to uncover a designer’s intentions in adhering to the code and how to look for programmatic strategies in an existing project. A qualitative rubric is used to assess this project. Success on this assignment is determined through the legibility of drawings and through the correct application of codes and standards information. Craft, communication and drawing organization are examined for care and consideration.

Final Exam

The final exam is designed to revisit both basic concepts and application skills. Concept information is tested through true/false, multiple choice, matching and short answer questions. Applied information is tested through scenario-based problems that address a limited scope of codes issues. These questions are meant to reinforce skills acquired through the application exercises, but are not as complex.

3d Readings and Support Resources

Each phase during unit 1 is supported with required readings from Illustrated Codes for Designers: Non-Residential, by Katherine Ankerson. This interactive text allows students to visualize concepts through diagrams, animations, links between content areas and an accompanying glossary of terms. As a supplement for completing assignments, students use the Sizet smartphone application, by Stacy Spale and Betsy Gabb. This resource was developed as an illustrated reference for common standards and codes information. Codes and standards lectures are built from these sources as well as from the International Building Code, Time Saver Standards for Interior Design, (Panero and Zelnik) and Time Saver
Standards for Building Types (De Chiara). These texts are excellent resources for standard/normative information, both for individual spaces and common collections of adjacent interior spaces. Unit 2 employs concepts from Problem Seeking: An Architectural Programming Primer (Pena and Parshall). Readings from this text expose students to an excellent framework for analyzing the programming process.

3e The Course and the Bigger Picture

This course covers material that is crucial for a professional interior designer to know to protect public health, safety and welfare. It is designed to introduce students to these concepts, have them practice applying concepts through projects in which they get to do a little designing and promotes carrying the skills into future design studios. This relationship is illustrated in the interior design curriculum flow chart.

Students should come away from this course feeling comfortable with an introductory level ability to apply the codes review process to an interior design project. I want them to feel comfortable taking the lead on this stage of design in future course work with allied disciplines (for example, their third-year interior design studio that immediately follows this class, and the fourth-year collaborative studio experience, shared with architecture and landscape architecture).

These basic skills in understanding codes and programming are also important beyond graduation. Many students will eventually seek jobs with commercial architecture firms, where these processes are infinitely more complex. I have always felt that a thorough understanding of building codes gives professional interior designers a great deal of value in these settings. I remind students many times throughout the semester that the knowledge they are gaining will help them as advocates for the discipline of interior design.

For the aforementioned reasons, the application assignments and programming project are developed from methods used in the NCIDQ professional licensure examination. As a professional degree program, it is only appropriate that the exercises given in a course covering codes and program closely align with material found on the professional exam.

3f Stakeholders in this Process

As an exercise early in this portfolio process, I developed a list of potential stakeholders in this class. It has been important to revisit this list and consider how I am addressing these various populations through the design of the class. Although the length and order has evolved throughout the process, the following stakeholders (and brief rationales for their inclusion) have remained relatively consistent:

1. Students – must have knowledge of course material to become effective professional designers
2. Myself – developing a well-structured class that makes material applicable and interesting to students
3. Interior Design faculty who will have these students in the future: upper level design studio instructors will expect students to know and apply this information
4. The Council for Interior Design Accreditation (CIDA): expects that students have a basic working knowledge of this material when they graduate
5. The general public: expects a professional interior designer to protect their health, safety and welfare
6. Interior Design Program Director and Dean of the College of Architecture: expect this class to establish a framework for future classes and for this class to meet specific standards for CIDA accreditation
7. Allied disciplines of the built environment: expect a professional interior designer to have a working knowledge of programming, standards and codes

4 Analysis of Student Learning

The learning objectives that this section will focus on are objectives 2, 3 and 5. Objective 2 asserts that student work should demonstrate an understanding of laws, codes, and standards that impact health, wellness, security, and fire and life safety. Objective 3 states that students should be able to apply federal, state/provincial, and local codes and guidelines. Objective 5 states that students should understand how to conduct inventory and analysis of program within an interior space. Objective 2 and 3 are linked to two of the application exercises: the Egress & Space Planning Assignment and the Life Safety Assignment. Objective 5 is covered by the Reverse Programming Project. For comparison purposes, three different student groups are assessed for each of the three projects. They are organized into low, medium and high pass solutions to the assignment.

4a Egress and Space Planning Assignment Analysis

Low Pass (B-/C+) – GROUP A Egress_Space Planning. The graphic communication on this project is lacking – there are few connections between the drawing and the key, the colors used are not tied to a key and labeling is not consistent and incomplete. Several of the code application components are lacking (they are not entirely incorrect, but they do not take enough criteria into consideration): the minimum widths for stairs and corridors assume code minimums, not (as they should) calculations based on occupant load. The occupancy type is list as B, not mixed use. However, in calculating total number of occupants the group did consider different loading factors between types A and B, which makes it clear that they understood that an ‘A’ occupancy space exists in the plan.

Medium Pass (B) – GROUP B Egress_Space Planning. The graphic communication on this project is satisfactory – there are connections between the drawing and the key and the colors used are tied to an objective in communication. Just as in GROUP A, the minimum widths for stairs and corridors assume code minimums, not calculations based on occupant load. The occupancy type has been correctly identified as “mixed” and the load factors for both occupancy types A and B are clearly noted.

High Pass (A) – GROUP C Egress_Space Planning. The graphic communication on this project is strong – the visual variances between a firewall, an egress path and a minimum turnaround are apparent just looking
at the drawing, prior to even reviewing the key. Minimum widths for stairs and corridors are based on calculations that take occupant load into account. The occupancy type has been correctly identified as “mixed” and the load factors for the specific sub-category of A is clearly noted.

The majority of student groups illustrated a strong command of the space planning aspect of this assignment, most solutions were efficient and practical. Competency in the means of egress part of the assignment varied. Of the nine groups in the class, two were high pass, five were in the medium pass category, and two groups turned in low pass solutions.

4b Life Safety Assignment Analysis

Low Pass (B-//C+) – GROUP A Life Safety. Graphically there is no color, making identifying the life safety components very difficult. The solution lacks adequate pathway lighting, smoke detectors are not optimally placed, and neither a life safety plan nor fire extinguishers are identified.

Medium Pass (B) – GROUP B Life Safety. Graphically the colors help identify certain aspects of the life safety equipment. However, only certain equipment is identified this way, and there is not a clear hierarchical justification for the color assignments. An appropriate number of pathway lights are present, but several are not oriented correctly to allow for functional operation. An appropriate number of smoke detectors are present, but not consistently in optimal locations.

High Pass (A) – GROUP C Life Safety. Graphically, there is a strong effort to have colors identify the most important elements of life safety equipment. Pathway lighting is generally placed to illuminate pathways (and not pointing into walls). An appropriate number of smoke detectors are present, but just as in other solutions, there placement is not optimal. This group did a better job than most with the audible/visual alarms, but has included far more than is necessary.

Most student work on the life safety assignment demonstrated a clear understanding of the amount of required life safety equipment to appear in this floor plan. However, in many instances, this equipment was not placed appropriately according to divisions of space. This is problematic because success with this exercise demands correct placement of these pieces. Of the eight groups in the class, one was in the high pass category, four were in the medium pass category and three groups turned in low pass solutions.

4c Reverse Programming Project Analysis

Low Pass (C) – GROUP A Reverse Programming. The analytical diagrams identifying structural grid, public/private relationships, circulation and building core do not thoroughly/accurately identify all aspects of these topics. The adjacency matrix and inventory chart have overly simplified the intricacies of this project. No mention is made of the programmatic concepts that were to be addressed throughout the project. The volumetric diagram on the last page
succeeds in illustrating program relationships, but does not communicate the nuances of form in this space.

Medium Pass (B) – GROUP B Reverse Programming. The analytical diagrams identifying structural grid, public/private relationships, circulation and building core show a stronger understanding of these concepts than a low pass solution. The adjacency matrix and inventory chart account for each space found in this project. Programmatic concepts are tied to diagrams, but are done so in a bulleted format that is not as complete as a narrative form. The volumetric diagram on the last page illustrates the hierarchy of program relationships, but its “3D text” format does not communicate volumes of space effectively.

High Pass (A) – GROUP C Reverse Programming. The analytical diagrams communicate a layered understanding of aspects related to each topic; nearly each addresses a hierarchy of the selected topic. The adjacency matrix and inventory chart account for each type of space found in the project and show how the spaces could be synthesized into a simpler format. Narratives on programmatic concepts are tied to diagrams, and offer explanations of the concepts in context. The volumetric diagram on the last page illustrates the hierarchy of program relationships, show spaces transparently to communicate adjacencies and ties the diagrams to additional programmatic concepts.

All student work on the reverse programming assignment illustrated skill in creating individual analytical program diagrams. Those groups that achieved high pass were able to string these diagrams together through a narrative that pointed out links to programmatic concepts introduced in lecture. Of the eight groups in the class, four was in the high pass category, three were in the medium pass category and only one group was in the low pass category.

4d Survey

Students were given a pre- and post- survey to gauge their knowledge of course material and their interest in the material at the beginning and end of the course. This survey was designed to measure student perceptions about what they learned and how interested they were in learning it. This survey was particularly important toward understanding how I was achieving my goal of students feeling engaged with course material. The percentages of students in the class who agreed or strongly agreed with selected statements at both the beginning and end of the semester are listed below.

<table>
<thead>
<tr>
<th>Statement (agreed or strongly agreed with)</th>
<th>Beginning</th>
<th>End</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I know when to apply CODES during the design process”</td>
<td>42%</td>
<td>100%</td>
</tr>
<tr>
<td>“I feel comfortable in my ability to reference STANDARDS”</td>
<td>32%</td>
<td>89%</td>
</tr>
<tr>
<td>“I feel comfortable in my ability to analyze the PROGRAM strategies of an existing architecture or interior design project”</td>
<td>57%</td>
<td>93%</td>
</tr>
<tr>
<td>“I am/was excited to learn the topics this course covers”</td>
<td>64%</td>
<td>57%</td>
</tr>
</tbody>
</table>
“I am/was excited to learn about CODES in this class” 66% 61%
“I am/was excited to learn about STANDARDS in this class” 64% 62%
“I am excited to learn about PROGRAMMING in this class” 71% 81%

Overall, student perceptions that they learned something about the core concepts of the class increased greatly during the semester. There was a slight decline in student excitement in learning about codes and standards in this class, but a significant increase in excitement regarding learning about programming. These trends are not all that surprising. Of the topics covered in the course, programming is closely aligned with creativity in the design process, while codes and standards are much more pragmatic, primarily offering rigid constraints to the design process. In summary, students generally felt that they learned a lot throughout the class, but their interest in the topics did not necessarily increase. One possible solution to address this decline in student interest/excitement is discussed in the Planned Changes section.

5 Planned Changes

5a Syllabus, Course Objectives and Organization

Near the end of the semester, I realized I had not developed any course activity that specifically addressed objective six. This objective states that students will be able to generate an original program for an interior design project. The reverse programming project was essentially a programmatic case study analysis, but did not ask students to craft an original program of their own design. At first this concerned me, but I’ve come to realize this objective doesn’t belong in the class. Designing their own program is what students should be able to do with this course’s material in future design studios. Objective six will be omitted from future iterations of the syllabus.

When planning began on this course, I assumed that there would be three units: codes, standards and program. I quickly learned that the codes and standards components are somewhat dependent on one another and the course was collapsed into two units. However, I observed that students were not always clear on what ‘rules’ were codes and which were standards. In the future, more effort needs to be given to distinguishing between these concepts. I plan to develop a standalone unit that addresses standards and their links to codes, but distinguishes them more clearly.

The pace and duration of the units needs improvement in some places. In particular, two class period were devoted to establishing a means of egress, after an initial introductory lecture. While this is a key component to the codes review process, one of those review sessions was unnecessary and the time could have been applied to unit 2. The reverse programming project in unit 2 felt rushed in several ways: it was a lengthy project that required two drafts (although a third would have been great) and it required both lecture introductions and one-on-one group meetings. This project needs to begin sooner in the semester and needs a more even pace of milestones for students to meet.
5b Course Activities

I will continue to make the application assignments denser with learning objectives. The semester began with three concept assignments that were limited in scope. Their intended purpose was to help students commit conceptual information to memory before embarking on the application exercises. In many ways, these were not successful – they did not help students connect the concepts to application strategies as I hoped they would, and they created lots of initial grading. I will likely exclude these concept assignments from future iterations of the course. Students get thorough exposure to basic concepts through lecture, and their efforts on homework are better spent trying to apply ideas to spaces.

Through conversations with colleagues during PRoT retreats, the idea “passive learning handouts” was discussed. One instructor shared that he has developed 5-question handouts that are tied to each of his lectures and students have to address a question on a piece of paper in front of them every 10-15 minutes. During some lectures, I felt like student attention was fading – this type of handout could serve as a means of keeping them engaged. Reviewing these handouts could also serve as a way to provide some structure the flexible discussion time at the end of each lecture period. I plan to investigate if this type of questionnaire could be done through Canvas or another digital format.

The reverse programming project provided a richer learning experience than I originally anticipated. Students uncovered programming concepts, but also made space layout observations that were linked to codes concepts covered early in the semester. This project could be more deliberately designed as a cumulative project for the entire semester, not just unit 2.

I would like to do more to align course activities with the professional licensure examination for interior design. The application exercises were closely linked to the NCIDQ exam, but every assignment could cover a topic related to this exam. This could serve as an introduction for students to realize what kind of information the exam covers. This class is one of only two or three in our curriculum that focuses heavily on material this exam covers.

Finally, I have realized that I need to incorporate site visits in this course. The end-of-class discussions were so often focused on questions about specific spaces (often either renowned interior spaces or spaces on UNL’s campus) and how they were adhering to or violating codes. I observed that these discussions resonated with a great deal of the class. To engage all students with these kinds of contextual connections, major topics throughout unit one could be supplemented with site visits to observe the concepts in action. Site visits and contextual understanding might help address the decline in student excitement about course material expressed through the survey results.

6 Summary and Assessment of the Portfolio Process

Never before have I had such a thorough documentation of my efforts in teaching a class. I look forward to reviewing this portfolio in a few months’ time, as I think about how to implement the planned changes. I believe that revisiting my efforts here, after time away from this process, will reveal even more things that can be improved. I also look forward to sharing this document with my fellow interior design faculty members, to communicate my efforts regarding objectives, assignments, methods and vocabulary of this class. It is my hope that
discussions surrounding these topics will ultimately help us develop stronger continuity across our undergraduate courses. These discussions might also help us better promote student accountability for material from previous classes.

The portfolio process has helped me to reflect on my teaching practices in several ways, but perhaps my most profound realization has to do with developing objectives. I have always had what I considered to be carefully considered course objectives. However, not often enough throughout a semester do I consider how I’m achieving those objectives. After this process, I find myself thinking often about how different course activities map back to the objectives. This process has helped me realize that each and every activity that occurs in a course (lecture, exam, homework, project, field trip) should in some way support a course objective. This will be my biggest take away from this process, until I revisit this work!

A big thank you to all students enrolled in IDES 200: Programs, Standards and Codes during the Spring of 2017. I greatly appreciate your consent to allow me to include your work in this portfolio.
IDES 200 Programs, Codes and Standards 3 credits

Course Description: An in-depth study of programs, standards, and codes and their application with which an interior designer is concerned.

Course Format Tuesday/Thursday Lecture (3 Credits), Arch Hall 305, 12:30pm – 1:45pm

Instructor Nate Bicak, Assistant Professor of Interior Design

Textbooks/Materials Illustrated Codes for Designers Non-Residential, Katherine Ankerson Sizet App, Betsy Gabb and Stacy Spale

Course Objectives [including CIDA competencies]
Based on the Council for Interior Design Accreditation (CIDA) standards, an outline of the objectives of this course are as follows:

1) Students have awareness of the origins and intent of laws, codes, and standards.

2) Student work demonstrates understanding of laws, codes, and standards that impact health, wellness, security, and fire and life safety, including: sustainable environment guidelines; compartmentalization: fire separation and smoke containment; movement: access to the means of egress including stairwells, corridors, and exitways; detection: active devices that alert occupants including smoke/heat detectors and alarm systems; and suppression: devices used to extinguish flames including sprinklers, standpipes, fire hose cabinets, extinguishers, etc.

3) Students apply:
   1) industry-specific regulations and guidelines related to construction.
   2) industry-specific regulations and guidelines related to products and materials.
   3) federal, state/provincial, and local codes and guidelines.
   4) barrier-free and accessibility regulations and guidelines.

4) Student work demonstrates understanding of: methods for gathering human-centered evidence. Student work demonstrates the ability to: apply human factors, ergonomics, and universal design principles (spatial standards) to design solutions.

Although no CIDA standard exists for the following, additional objectives which support this class are:

5) Students understand how to conduct inventory and analysis of program within an existing building or interior space.

6) Students understand how to pragmatically craft a spatial program based on a strategy or framework of their own design which incorporates components of (obj. 5) as well as projected function and human stakeholders (user occupants).

7) Students understand that individual pieces of building code or space standards fit together for a larger picture about an overall project; and that one must develop a framework for addressing codes and standards individually, while understanding their impact on adjacent criteria. (that sequencing of information builds to something greater than the sum of its parts)
8) Students understand the codes review process as a framework in which to work. They should know how to navigate the IBC; know where to go quickly for important information.

In addition to these CIDA objectives, I have several other goals for this course. I hope to see two student attitudes emerge from this course: one, that knowledge of codes and standards is empowering information that gives interior designers significant value toward the design and construction of the built environment; and two, that these topics are largely about knowing where to go for information more than memorizing the intricacies of all codes.

I want you to come away from this course feeling comfortable with an introductory level ability to apply the building codes review process to an interior design project. I want you to feel comfortable taking the lead on this stage of design in future course work with allied disciplines (e.g., the fourth year collaborate studio experience, shared with architecture and landscape architecture). I want you to know how to work efficiently and how to be resourceful, knowing where to go and when for codes and standards information. I want you to commit only the most important (often referenced) codes and standards to memory, while developing a model for understanding how to move forward and backward with the codes, standards, and programming processes. I want this class to be the beginning of the construction of a referential library of common standards information that you can access in future classes.

My hope is that this class has success in helping you learn to merge the creative with the pragmatic, and develop a mindset that building codes and spatial standards are an integral part of any design project. I want you to be able to use your understanding of building codes to champion the discipline of interior design as an advocate for the health, safety and welfare of the public.

Student Evaluation

The understanding of material presented in and through this class will be evaluated through assigned readings, exercises, projects and a comprehensive final examination.

Grade Breakdown

At the end of the semester your total earned points from the above activities will be converted to a percentile. This percentage will then be converted into the appropriate letter grade listed below.

- A+ 97 – 100
- A 94 – 96
- A- 90 – 93
- B+ 87 – 89
- B 84 – 86
- B- 80 – 83
- C+ 77 – 79
- C 74 – 76
- C- 70 – 73
- D+ 67 – 69
- D 64 – 66
- D- 60 – 63
- F 0 – 59

Course Policies

Attendance

Attendance is expected in all classes, activities and/or field trips planned during class time. Attending class will make a difference in achieving your goals and passing this course. The more successful students are those who attend class on a consistent basis. As a result attendance (both physical and mental) for the full class period is required. Each unexcused absence beyond two (2 or the equivalent of one week of classes) will result in the 10% reduction for the final course grade. Accidents happen, so please plan accordingly. (Should you have exceptional circumstances, you are personally responsible for explaining the reasons for your absence, preferably before the absence occurs, to Nate).
Punctuality

When you are late for a class, you send the message that class is not important. Entering the classroom after class has started is disruptive, and you have missed the learning that has already occurred. Tardiness shows a lack of respect for others in the class. It is your responsibility to be on-time and attentive each day. Three (3) tardies or partial attendance will result in one (1) absence ("late" is counted after attendance has been taken).

Preparedness

Successful students are prepared for class. Come to class ready to learn. When you prepare before coming to class, you have a greater chance of understanding what the instructor is presenting. You also will be better prepared to ask questions about any material that you may not have understood. Know beforehand what is going on in class each day and be prepared.

Attendance for scheduled exams is mandatory. There will be no “make-up” examinations. Examinations will be a combination of information recall questions [True/False, Multiple Choice, Fill-in the Blank] and situational written responses.

Late Work: All projects will be turned in for review and evaluation as announced. All projects will be due at the beginning of class unless otherwise stated. LATE WORK WILL NOT BE ACCEPTED. It is better to turn in your project in whatever state it is in and receive at least partial credit than to not hand in anything and subsequently receive no credit at all.

Academic Dishonesty

All academic work, written or otherwise, submitted by a student for grade is expected to be the result of his/her own thought, research or self-expression. Plagiarism includes reproducing someone else’s work or employing or allowing another person to alter or revise the work that a student submits as his/her own. Should a student use part of, or refer to another source in the exercise, it is expected that proper credit will be given in accordance with established documentary formats. Any work submitted for grade that proves to be that of someone other than the student will receive a “0” for grade.

Special Accommodations

Students with disabilities are encouraged to contact the instructor for a confidential discussion of their individual needs for academic accommodation. It is the policy of the University of Nebraska-Lincoln to provide flexible and individualized accommodation to students with documented disabilities that may affect their ability to fully participate in course activities or to meet course requirements. To receive accommodation services, students must be registered with the Services for Students with Disabilities (SSD) Office, 132 Canfield Administration, 472-3787 voice or TTY.

Assignments

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
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<tr>
<td>Occupancy Classification Assignment</td>
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<tr>
<td>Occupancy Calculations &amp; Types of Const.</td>
<td>10 pts</td>
</tr>
<tr>
<td>Stair/Ramp Calculations</td>
<td>5 pts</td>
</tr>
<tr>
<td>Egress and Space Planning</td>
<td>80 pts</td>
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<td>Life Safety Plan</td>
<td>30 pts</td>
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<td>Accessible Restroom</td>
<td>15 pts</td>
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<td>Comprehensive Final Exam</td>
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Topical Outline/ Schedule

**Week 1** (January 10, 12)
Topic: Introduction to Course, Occupancy

**Week 2** (January 17, 19)
Topic: Occupant Load, Construction Types and Sizes

**Week 3** (January 24, 26)
Topic: Heights and Areas, Means of Egress

**Week 4** (Jan 31, Feb 2)
Topic: Means of Egress

**Week 5** (February 7, 9)
Topic: Means of Egress, Fire Separation and Compartmentalization

**Week 6** (February 14, 16)
Topic: Fire Separation and Compartmentalization

**Week 7** (February 21, 23)
Topic: Interior Codes, Renovations to Existing Structures

**Week 8** (Feb 28, Mar 2)
Topic: Fire and Smoke Codes

**Week 9** (March 7, 9)
Topic: Standards tests and Code Relationships

**Week 10** (March 14, 16)
Topic: Interior Space Standards

**Week 11** (March 21, 23) **Spring Break, NO Classes**

**Week 12** (March 28, 30)
Topic: Program: Building Organization Strategies

**Week 13** (April 4, 6)
Topic: Program: Building Organization Strategies, Analyzing Program

**Week 14** (April 11, 13)
Topic: Analyzing Program, Developing and Designing from a Program

**Week 15** (April 18, 20)
Topic: Developing and Designing from a Program

**Week 16** (April 25, 27) **Dead Week, NO Classes**

**Week 17** (May 2, 4) **Finals Week**

Final Exam Time: Friday, May 5th, 10am – 12pm
Occupancy Calculations and Types of Construction

Using IBC Table 1004.1.1 provided here, determine the design occupant load for the following conditions. Show your work/process.

Table courtesy of International Code Council, reprinted with permission

1. A single-floor office building measuring 100' x 150'(15,000 SF):

2. A 300 SF dance floor:

3. A restaurant and associated kitchen; the restaurant is all open seating with no booths and the kitchen is 200 SF. The overall total area is 2,000 SF:

4. The second floor of a clothing store with 2,100 SF including 300 SF of stock area:
Using IBC Table 503 provided here, answer the following questions about types of construction. Show your work/process where appropriate.

**TABLE 503**
ALLOWABLE BUILDING HEIGHTS AND AREAS
Building height limitations shown in feet above grade plane. Story limitations shown as stories above grade plane. Building area limitations shown in square feet, as determined by the definition of "Area, building," per story.

<table>
<thead>
<tr>
<th>GROUP</th>
<th>TYPE I</th>
<th>(Type A)</th>
<th>TYPE II</th>
<th>TYPE III</th>
<th>TYPE IV</th>
<th>TYPE V</th>
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5. There are ___________ types of construction, sub-divided into__________categories.

6. Lightframe construction falls under construction type ________________
7. Type IV construction is also known as ________________________________

8. Type __________ construction requires exterior walls of non-combustible materials, but allows combustible materials for structural frame, roof, walls, and floors.

9. Construction Types __________ and __________ are required to be built using only non-combustible materials for structural frame, roof, walls, and floors.

10. Two non-combustible materials are __________ and __________

11. Under Type IIIA construction and an F-2 occupancy:
   how many floors are allowed to be in a building? ________________
   what can be the maximum square footage of each of those floors? __________

12. Under Type VA and an R-1 occupancy:
   how many floors are allowed to be in a building? ________________
   what can be the maximum square footage of each of those floors? __________

13. What is the fire resistance rating for the structural frame of a building with Type VA construction? (in hours) ________________________________

14. What is the fire resistance rating for the roof construction of a building with Type IA construction? (in hours) ________________________________

15. An existing building of type IIIB construction has two floors with 16,100 square feet per floor. Can this be converted into a hotel? Why or why not?
16. A design + build firm wants to build a series of modern townhomes (duplex units). Some are going to be 3 stories tall, some are going to be 4 stories tall. The typical first floor of the units will be 2,235 square feet, the second floor will be 2,175 square feet, and the third and fourth floors will each be less than 1,000 square feet. Can the firm build these as planned? If not, what will they have to alter about them?

17. You have a client who is looking for a new building for her furniture production facility. She has found a 2 story type II-B construction building in which her industrial area could occupy the first floor. Each floor is the building is 14,500 gross square feet, and when she moves in she will have 135 employees, including herself.

A. Right after she moves in, how many more people will she be able to hire to work in her furniture production facility?

B. You client likes this building because it seems that the upstairs tenant may eventually move out, allowing her to double the size of her operation. Should that happen, would the code allow this?
Means of Egress and Space Planning Exercise  80 points total

Phase 1 – Space Planning  
(read carefully, there is crucial information for determining occupancy type and construction type in this paragraph). The plan on your drawing sheet shows the upper floor of a high-rise building with one fully planned tenant space. The building is classified as a business (B) occupancy, but also contains one assembly (A) space. The building is constructed of protected steel construction with concrete floors, and is fully sprinkled. The primary steel structural frame must carry a one (1) hour fire rating and all exterior bearing walls must carry a two (2) hour fire rating.

Your task (in teams of 3, one team of 4) will be to:  
Phase 1. Add additional program, according to the information given, while adhering to initial codes specifications.  
Phase 2. Conduct and document a codes review process on a self-designed space, and according to what you have learned thus far about occupancy and egress. Further instructions to follow after Phase 1.

Phase 1  40 points
Divide the remaining floor area into four (4) additional tenant suites with public circulation and egress spaces, to include the following:
- common egress corridor(s), minimum 5' wide
- one 800 sq ft (minimum) office suite
- one 1900 sq ft (minimum) office suite w/southern exposure (*fully planned, see 6)
- one 2100 sq ft (minimum) training area with tables and chairs
- one 2800 sq ft (minimum) office suite
- one existing office suite (provided)

Instructions

1. Print drawing (to scale). Drawing is laid out on an 18"x24" sheet.
2. Using trace, subdivide space for a total of five suites using the given square footages above.
   - Because this is a business, consider gross square footage, not net.
   - Start your planning by creating a 5' corridor around the building core. Then place the spaces with the largest square footage requirements; larger spaces generally place best in the corners.
   - Show demising walls (the walls dividing tenant spaces) at 4 ½" – 5" thick and label actual square footage (area) of each suite. Adjust demising walls so they intersect windows at mullions, columns or solid walls.
   - Calculate and label occupant load for each suite (on drawing), using table 1004.1.1 from chapter 3 of your text.

3. The common egress corridor:
   - Should be a minimum of 5’ wide throughout.
   - Show egress doors from all suites (minimum 36” wide).
   - Doors must swing in the direction of travel and not into the common egress path.
• Tip: make all entrances 3’x5’ recesses to provide accessible maneuvering clearance of 18” on the pull side of the door.

4. Where two exits are required from a suite:
• At least one space will require two exits, place this adjacent to a long enough stretch of corridor so that the exits can be separated by at least the required minimum distance (one-third or one-half the diagonal distance of the space, depending on whether the building is sprinkled).
• Show appropriate number of doors for each suite and at the appropriate distance from each other (use the “1 to 500 people = 2 exits” rule, but also tables 1021.2 and 1015.1 in chapter 6)

5. Roughly check travel distances from each suite egress door(s) to the stair doors – table 1016.1 in chapter 6 (given the size of the building, this shouldn’t be an issue).

6. *Space plan the 1900 sq ft office suite, it must include:
One (1) conference room at 300 sq feet
  o 3’-6” x 9’ conference table and 8 chairs
Two (2) offices at 220 sq feet each
  o 3’x6’ desk with desk chair
  o two 6’x16” cabinet
  o one 24” diameter circular table with 2 side chairs
Two (2) offices at 145 sq feet each
  o 3’x6’ desk with desk chair
  o one 4’x16” cabinet
  o one side chair
One (1) break room at 100 sq feet
  o 2’x2’ table with 2 chairs
  o 6 linear feet of 2’ deep countertop
One (1) reception area at 80-100 sq feet
  o minimum 2’x5’ desk with desk chair
  o 2 waiting chairs

Phase 2 40 points
Document applicable building codes and means of egress to your existing drawing. Position your drawing to the left side of a 24”x36” (landscape) sheet and include any written documentation to the right hand side of the sheet. Include a 2 ½”w X 22”t title block on the far right side of the drawing. Title Block to include at least: “Means of Egress and Space Planning”, Names of all team members and Date. It is highly recommended that you use color and/or line type variations to identify certain elements.)
The following information should appear at a minimum of 14 point font, with each heading clearly identified in bold text.

**CODES REVIEW**

**BUILDING CONSTRUCTION TYPE**
Type of construction:
Allowable story to story height of one floor:
Maximum allowable floors:
Maximum allowable square footage per floor:

**OCCUPANCY**
Occupancy classification:
Occupant Load Factor(s):
Total occupant load for this floor:

**OCCUPANT LOAD CAPACITIES**
Minimum stair width:
Minimum corridor width:
Minimum door width into stairs:

**EGRESS**
Maximum allowable egress path if this building is sprinkled:

In addition, you must label / identify / document the following on your drawing:

- Draw a line representing the egress path through all the shared corridors.
- Identify one (1) area of refuge near the stairs (with a dashed region - 30”x48”)
- Identify any tenant walls that must be fire rated (creating a fire barrier) for the building to be classified under a single occupancy. (walls that give fire separation). Table 706.4 from chapter 7.
- Identify any walls that should be fire rated (creating a fire barrier) to form an exit. Table 706.4
- Dimension the width of the corridor in at least three (3) locations.
- Show a 60” (5’) turn-around capacity at any location where corridor changes direction.
- Label the width of egress doors out of tenant spaces. (done as a small number somewhere between the door and swing).
- Within each individual space, label:
  - name of space, for example: “816 sq ft office suite”
  - actual square footage
  - actual occupant load
  - For spaces requiring two exits:
    1. draw the longest diagonal of the space
    2. label its length and label the length of 1/3d
    3. Dimension that the distance between the two doors is equal to or greater than 1/3d.
In BOTH the pre-existing tenant office space and the space you have programmed:
  - Identify the “common path of egress travel” and label its length. This should be drawn from the FARTHEST point from the tenant space egress door (must be 75’ or less or you have some rearranging to do!)
  - Dimension the width of any corridor(s) in at least one (1) location
- Add any other relevant notes required to communicate means of egress strategies (for instance, I know one group has a horizontal exit occurring, label it as such).

Final Drawing Requirements:
- Printed (or hand drawn) to scale at 1/8" = 1'-0" on a 18"x24" sheet.
- Label each suite with its name, actual area, and occupant load.
- Label space names and actual square footages within the 1900 sq ft suite – just one occupant load for the overall suite is fine for now.
- Put each team members’ name in bottom right of the sheet at no more than 18 point font.
- Note: This may be done digitally or by hand, or a combination. Either way, excellent craft is expected.
Life Safety Exercise  
30 points total

The tenant space shown on the accompanying drawing sheet (can be found on Canvas) is a portion of the fifth (5th) floor of an eight (8) story office building. The space is occupied by an urban university and contains offices, a studio space and a classroom. The building is constructed of a protected steel frame with concrete floors and curtain wall cladding, and is fully sprinkled. You must use the provided drawing, this handout, the last two lectures and chapters 6, 7, and 10 in your book to complete this assignment.

Project Requirements

Accommodate the following requirements for partitions (wall and door assemblies):

- Acoustical privacy for the conference room
- Card readers and secure access hardware for each egress door of the suite.
- Secure and controlled access for the storage room.
- Note – where "fire barriers" are not required, “fire partitions” should be used throughout the space.
- Note – doors within fire-rated partitions should also be fire rated.

Required in the Design Solution

1. Complete the door/frame/hardware schedule for the doors tagged on the floor plan
2. Complete the partition schedule for the partitions (walls) tagged on the floor plan
3. Draw the following life safety equipment within all spaces on the plan. Identify the equipment clearly with the symbols given, and color. If a symbol is not given, used a colored dot/mark to indicate location.

- Exit signs
- Smoke detectors
- Fire extinguishers
- Emergency lights with battery backup
- Audio/visual fire alarms (include dimensions between each to justify placement)
- Manuel fire alarms (only 1 is desired, located appropriately near the stair exit)
- Life safety plan locations (the detailed plan hung on the wall)
Accessible Restroom Exercise 15 points

PROJECT DESCRIPTION

Following applicable code requirements and accessibility standards, draw a layout of a men’s restroom (washroom) on the provided Restroom Plan sheet. This is an individual project, not to be done in teams.

PROJECT REQUIREMENTS

Accommodate the following requirements:

- Consideration of sight lines from entrance into restroom (washroom) so that fixtures, if seen from entrance, are obscured by partitions.
- Plumbing fixtures can only be located on walls having a plumbing chase.
- Two (2) lavatories, one (1) of which is accessible.
- Two (2) wall hung toilets, one (1) of which is accessible.
- Two (2) urinals, one (1) of which is accessible.
- Grab bars as required by code.
- Mirror at each lavatory; mirror at accessible lavatory must be accessible.
- Wall-mounted soap dispenser(s), 4” w x 12” h x 4” d. Dispenser at accessible sink must be accessible.
- One (1) accessible hand dryer or paper towel dispenser, 12” w x 12” ~ x 8” d.
- One (1) accessible, wall-mounted, recessed trash receptacle.

REQUIRED DESIGN SOLUTION:

Follow all the program requirements above and:

A. Draw & dimension all critical dimensions to provide accessibility
B. Tag fixtures & accessories with provided symbols/abbreviations on drawing sheet
C. Complete fixture & accessory schedules with standard and accessible mounting heights for fixtures and equipment
D. Complete Notes (add notes to clarify design intentions wherever necessary)
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<th>Space Planning</th>
<th>Ratings</th>
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<td>Plan divided equitably into suites that conform to square footage. 40.0 pts</td>
<td>Either division or square footage is off, but not both. 32.0 pts</td>
<td>40.0</td>
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<td>Both division and square footage are off. 24.0 pts</td>
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<td>Plan division done poorly 16.0 pts</td>
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<tr>
<td>Egress Corridor</td>
<td>Consistent 5' width, each suite with an egress door, door swings in direction of egress, and 18” on pull side of door. 10.0 pts</td>
<td>One of the preceding criteria is missing. 8.0 pts</td>
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<td>One of the preceding criteria are missing. 6.0 pts</td>
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<td>Three or more of the preceding criteria are missing. 4.0 pts</td>
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<td>Path (and Common Path of Egress) Identification</td>
<td>Clearly marked, and is correct. 10.0 pts</td>
<td>Is correct, but graphic identification is lacking. 8.0 pts</td>
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<td>Has multiple inaccuracies and graphic work lacks. 6.0 pts</td>
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<tr>
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<td>Paths wrong and graphics indecipherable. 4.0 pts</td>
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<tr>
<td>Codes Review Documentation</td>
<td>Construction type, occupancy information and occupant load all identified correctly. 10.0 pts</td>
<td>Missing minor information about criteria (construction / occupancy information) 8.0 pts</td>
<td>10.0</td>
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<td>Multiple errors in representing information. 6.0 pts</td>
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<td>Poor attempt at documenting this information. 4.0 pts</td>
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<tr>
<td>Overall Graphic Representation</td>
<td>Excellent - legible and clear. 10.0 pts</td>
<td>Good - some issues with legibility and clarity. 8.0 pts</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fair - too many issues with legibility or clarity 6.0 pts</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Poor attempt at graphic representation. 4.0 pts</td>
<td></td>
</tr>
</tbody>
</table>

Total Points: 80.0
Reversing Program
To apply your knowledge about programming, you are asked to thoroughly document the programming process of an existing project. In teams of 3-4, you will take an existing project and understand the programming efforts of the designers; this process will result in several drawn diagrams and written analysis of the project. Your efforts will result in (5) 11x17 pages that represent the program of the project. All drawings/diagrams should be YOUR OWN ORIGINAL WORK and should be cohesive in style (color, typeface, etc).

Project Requirements & Descriptions

PAGE ONE
Background information on the project – designer, year, location, 1-2 good quality photos that capture the project, square footage, type of spaces (“office” – but also think about Gensler’s terms regarding focus, collaborate, learn and socialize – what types of spaces does the project include?)

PAGE TWO
Adjacency Matrix – List all spaces discovered in drawings, devise this matrix based on what has been done, classify according to “most desirable, somewhat desirable, not desirable”
Inventory Chart – represent adjacency matrix information visually/proportionally through an inventory diagram

PAGE THREE
Core Identification – identify in a 2D or 3D drawing where the building core is located and label its type (is it centralized or decentralized? off-centered, exterior or detached? Is it split into multiple pieces?)
Structural grid – through a 2D drawing/diagram (probably a floor plan) identify the underlying structural system that organizes the building

PAGE FOUR
Circulation – Develop a diagram (either 2 or 3 dimensional) that illustrates circulation throughout the project
Public, Semi-Private, Private – develop a 2D or 3D drawing/diagram that communicates these three levels of privacy about the project

PAGE FIVE
3D Program Spaces Diagram – show volumetric relationships of program spaces through a three-dimensional diagram. WRITTEN: Answer 1. How do the program spaces relate to one another three dimensionally? 2. How does the grouping of spaces result in an idea about the DESIGN?

Project Schedule
Day 1 Assigned, form teams, begin reviewing project and looking for sources
Day 2 First Draft of PAGES ONE and TWO printed
Day 3 First draft of PAGES THREE, FOUR and FIVE printed
Day 4 Final Pages all together, to include all required drawings PLUS minimum of 12 of the 24 programmatic concepts addressed throughout pages as well (you decide which 12 to address, and how they integrate with the pages) Make any final changes by April 20th

Day 5 Project Due, Review for Final (project based final)
# Reverse Programming Assignment Rubric

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Ratings</th>
<th>Pts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural Grid and Core</td>
<td>Clearly and correctly identified. 20.0 pts</td>
<td>20.0 pts</td>
</tr>
<tr>
<td>Identification</td>
<td>Clearly identified, but not correctly. 16.0 pts</td>
<td></td>
</tr>
<tr>
<td>Circulation/Public Private</td>
<td>Not clear or correct. 12.0 pts</td>
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</tr>
<tr>
<td>3D Program Diagram</td>
<td>Incomplete. 0.0 pts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intention is present, but diagram does not communicate it as well as possible. 16.0 pts</td>
<td></td>
</tr>
<tr>
<td>3D Program Diagram</td>
<td>Diagram intention is unclear. 12.0 pts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Incomplete. 0.0 pts</td>
<td></td>
</tr>
<tr>
<td>Graphics / Layout</td>
<td>Graphics and layout excellently done. 20.0 pts</td>
<td>20.0 pts</td>
</tr>
<tr>
<td></td>
<td>Minor issues with consistency, misalignments, pixelation, etc 16.0 pts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Major issues with consistency, misalignments, pixelation, etc 12.0 pts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Incomplete. 0.0 pts</td>
<td></td>
</tr>
<tr>
<td>Matrix</td>
<td>Adjacency Matrix communicates the relationship of spaces in an excellent manner. 20.0 pts</td>
<td>20.0 pts</td>
</tr>
<tr>
<td></td>
<td>Adjacency Matrix communicates the relationship of spaces in a satisfactory manner. 16.0 pts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adjacency Matrix communicates the relationship of spaces in a fair to poor manner. 12.0 pts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Incomplete. 0.0 pts</td>
<td></td>
</tr>
<tr>
<td>Program Inventory Diagram</td>
<td>Diagram communicates the relationship of spaces in an excellent manner. 20.0 pts</td>
<td>20.0 pts</td>
</tr>
<tr>
<td></td>
<td>Diagram communicates the relationship of spaces in a satisfactory manner. 16.0 pts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diagram communicates the relationship of spaces in a fair to poor manner. 12.0 pts</td>
<td></td>
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<tr>
<td></td>
<td>Incomplete. 0.0 pts</td>
<td></td>
</tr>
<tr>
<td>Program Concepts</td>
<td>12 clearly identified, with well written justifications. 30.0 pts</td>
<td></td>
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<tr>
<td></td>
<td>Missing one or two, and/or written justifications are only satisfactory. 24.0 pts</td>
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<tr>
<td></td>
<td>Missing three or more, and/or written justifications are poor. 18.0 pts</td>
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<tr>
<td></td>
<td>Incomplete. 0.0 pts</td>
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<tr>
<td></td>
<td><strong>Total Points: 150.0</strong></td>
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</tr>
</tbody>
</table>
Upper level design studios: skills acquired in Program, Standards and Codes should be applied to design projects in these courses.

Potential 18 credit minor option. (Raises total credits to 138 credits.)

*IDES 491 Interior Design Internship
   All students enrolled in the Interior Design Program need to complete an approved internship as part of their professional requirements. Students are not eligible for an internship until they are enrolled in, or have completed, IDES 351.
   The internship is typically completed in the summer between the 3rd and 4th years.

My target course, found in the disciplinary systems and professional development thread of our undergraduate curriculum.
Means of Egress & Space Planning
Kayla Knox, Claire Hills, Taylor Johnson

Building Construction Type:
Type of construction: Type BA
Allowable Story: Story Height 10'

Occupancy:
Occupancy classification: Mixed Occupancy
Occupant load factor: B+3.0, A+1.5
Total Occupant load: 220

Means of Egress:
Maximum allowable egress paths: 75'

Key:
Fire Rated Walls: ☢
Path of Egress: ☄
2 Door Measurements: ✎
Stairway: ⚙
Area of Refuge: □
Building Construction Type

Type of construction: IIIA
Allowable story to story height of one floor: 85'
Maximum allowable floors: 4
Maximum allowable square footage per floor: B - 85,000'

Occupancy

Occupancy classification: Mixed occupancy A1 and B
Occupant load factors:
- assembly without fixed chair: 15 net
- business areas: 100 gross
- Total occupant load for this floor: 228

Occupant Load Capacities

- Minimum stair width: 68.4"
- Minimum corridor width: 45.6"
- Minimum door width into stair: 45.6"

Egress

- Maximum allowable egress path if this building is sprinkled: B - 300'

Symbols:
- Green: Firewall
- Dash-dot: Common Path of Egress
- Red line: Path of Egress
- Blue dot: 5 Feet Turn Capacity
- Blue line: Area of Refuge
- Blue arc: Longest Diagonal of Space
Designed for a prominent animation studio, the site wraps open and enclosed offices around a editing and viewing core that works at/as the heart of the company.
ADJACENCY MATRIX

Screening Room
Edit Suite
Server Room
Bathroom
Central Circulation Space
Lobby
Reception
Enclosed Office
Open Office
CEO Office
Conference Room
Kitchen
Break Room

INVENTORY CHART

1.1 - Closed Offices 29%
1.2 - Open Offices 8% 41%
1.3 - CEO's Office 4%
2 - Circulation - 29%
3 - Edit/Screen/Server - 9%
4 - Bathrooms - 8%
5 - Break/Kitchen - 7%
6 - Lobby/Reception - 5%
7 - Conference Room - 1%
MULTIPLE PIECES
The center of the office opens up to reveal the original 1940 bowstring truss that connects to the “cube” that acts as the center piece of both the building and the company. The space extends through the exterior breakroom wall and into the garden through a built in bar with exterior seating that connects the main volume to the overall site and emphasizes the open feeling of the volume.
Designer: Pierre Thibault

Year: Completed in 2016

Location: Downtown Montreal, Quebec

Square Footage: 17,800

Type of Spaces:

Focus: unassigned, quiet rooms for concentration

Collaboration: Informal meeting spaces to gather

Learning: Concentrated spaces for problem solving

Socializing: Relaxed environment
**core**

exterior + centralized.

**tolerance**

the centralized core on the exterior allows for opportunities for dynamic activity through the middle of the building.

**activity grouping**

there are breakout spaces spotted through the middle of the space with focused meeting and work areas around the exterior.

**people grouping**

dedicated desks densely group people together for focused work while the open space allows for less dense collaboration.

**service grouping**

mechanical spaces are situated towards the west with work spaces towards the east.

**convertability**

the moveable meeting pods allow for change in organization.
mixed flow
the centralized wooden boardwalk promotes the interaction between coworkers by allowing them to cross from one side to another.

communication
having an open floor plan allows for communication in the office to be unrestricted between coworkers.

neighbors
the boardwalk splitting the office into two sides encourages socialization by serving as a central meeting space for coworkers.
Program spaces in three dimensions
The largest spaces are intentionally placed around a smaller more dense area dedicated to collaboration and social interaction.

Space grouping and design
The intent of this space we believe was to provide workers with easy access to breakout spaces which would result in increased amounts of collaboration and dynamic working. The spaces seems to revolve around the wooden “board walk.”

Hierarchy
Physical symbols of authority.
OVH creates hierarchy by using different materials on their focal piece.

Proximity
Establishing order of things like size, position, or social values.
OVH creates hierarchy by positioning their focal point directly in the center of their offices and juxtaposing the sizes of the workspace around it.

Orientation
Providing a point of reference in a space or building to avoid feeling lost. OVH creates orientation by placing spaces around a focal point and making open spaces so one can never feel lost.
“Resignation Media is the umbrella company to a group of diverse entities that includes the world’s largest photo entertainment website, a nonprofit charity, a music festival organization, and a beer label. The office culture is young, energetic, and committed to a lifestyle of blending work and play. Chioco Design’s approach was to design an environment that combined both into a functional office with the spirit of a home, restaurant, and bar combined.” -ArchDaily

**Designer:** Chioco Design - Jamie Chioco and Vanessa Francis

**Year:** 2014

**Location:** Austin, Texas

**Square Footage:** 11690 sq. ft / 1086 sqm

**Type of Spaces:**

**Focus:** Phone Room, Audio / Editing, Photo / Hair / Makeup Room, Office

**Collaborate:** Conference Room, Open Workspace,

**Learn:**

**Socialize:** Lounge, Patio, Break Room

**Function:** Entry Vestibule, Reception, Restroom, Printer Room, Hallway, Storage, Server Room, Dumb Waiter, Stair to Lower Level, Slide to Lower Level, Private Bathroom, Shower Room, Walk In Cooler, Fire Riser Room

**Character:** The character within the Resignation Media office is very client specific. It is hip, fun, and very bold, making a statement in each space. “The office culture is young, energetic, and committed to a lifestyle of blending work and play” ArchDaily. Chioco used materials and certain elements, such as a butcher block slide, to exhibit Resignation Media’s work culture.
**Program Types**

**Inventory Chart**

**Adjacency Matrix**

**Relationships:**
This corresponds to the idea that all the office accessories surround the offices and open workspaces. This provides an easy convenience for the workers when everything they need is within a few steps.

**Proximity:**
Resignation Media's office design accounts for proximity because the offices and open workspaces are all surrounded by accessory rooms such as conference rooms, phone rooms, printer rooms. Also, the executive offices are located farthest from the office entrance and are the largest offices within the building.
STRUCTURAL GRID

Hierarchy:
Hierarchy and proximity relate because the executive offices are the two largest offices, then there are eight smaller private offices for junior associates, followed by two large open workspaces for newer or younger members on their team. Hierarchy is shown through the space and type of space an employee is given to work in. slides are used by all promoting interaction between everyone.

Flexibility:
The two large workspaces on each floor allow for flexibility and versatility within Resignation Media. Those desks can be moved or rearranged in the case of an event. The bar and lounge also enhances the versatility of Resignation Media and allows for large groups of people to comfortably enjoy themselves.slides are used by all promoting interaction between everyone.
Split Exterior Building Core

Lower Level Building Core

Level 1 Building Core

Orientation:
The large atrium created in the southeast corner of the building helps give a sense of orientation for visitors. Additionally, there are no dead end corridors for a person to get lost in. The main hallways circle around and lead people back to where they need to be.
Mixed Flow:
A mixed flow is used within Resignation Media because interaction between all employees is encouraged based on the program and design of the space. Central spaces, hallways, restrooms, staircases, and slides are used by all promoting interaction between everyone.

Neighbors:
There seems to be a great sense of community within Resignation Media. There are two large open workspaces located near all the private offices, all employees share the bar area, the same lounge, patio, and break room. There seems to be no real separation between different types of employees.

Service Groupings:
Storage is placed out of the way and away from other office necessities. Storage seems to have taken a backseat and been the last program to be determined, getting place in leftover nooks and areas further away from other office activities. A dumb waiter, though, was wisely placed near the bar for convenience.
Activity Groupings:
Chioco’s goal was to create a functional office with a home, restaurant, and bar vibe. To achieve this, he grouped the bar right next to the open workspace as well as keeping a lounge and break room nearby. In doing this, Chioco created a very inviting, relaxing work environment for Resignation Media.

Density:
Density is applied mostly with the open workspaces in Resignation Media. Twelve to twenty-eight employees have their own desk within a large open workspace on both the first and second floor. This allows for enhanced collaboration needed with a media design company. Surrounding these workspaces are smaller offices and conference rooms to allow for more private meetings with others as well as interaction between all employees.
People Groupings:
They group the open office spaces in smaller groups, so this could be used to group individual teams or certain individuals all working on the same project.
IDES 200 – PRE survey

Please answer the questions below according to the following scale

1 strongly disagree  2 disagree  3 neutral  4 agree  5 strongly agree

GENERAL Questions about the course:

This class is important to my career goals.
1  2  3  4  5

This class is going to be challenging.
1  2  3  4  5

I am excited about learning the topics this course covers.
1  2  3  4  5

CODES Questions:

I know how to define the term CODES as it pertains to an interior design project.
1  2  3  4  5

I know when to apply CODES during the design process for an interior design project.
1  2  3  4  5

I know when to review an interior design project for CODE compliance.
1  2  3  4  5

I am excited to learn about CODES in this class.
1  2  3  4  5

STANDARDS Questions:

I know what STANDARDS are as they apply to an interior design project.
1  2  3  4  5

I feel comfortable in my ability to reference STANDARDS for an interior design project.
1  2  3  4  5

I am excited to learn about STANDARDS in this class.
1  2  3  4  5

PROGRAMMING Questions:

I know how to define the term PROGRAMMING as it pertains to an interior design project.
1  2  3  4  5

I feel comfortable in my ability to program a small scale interior design project.
1  2  3  4  5

I feel comfortable in my ability to analyze the programmatic strategy of an existing architecture or interior design project (not my own work).
1  2  3  4  5

I am excited to learn about PROGRAMMING in this class.
1  2  3  4  5
1. What do you hope to learn in this class?

2. How do you think this class is going to help with your professional career goals?

3. Tell me about any and all professional experience you have with the topics covered in this class: Codes, Standards and Program. (this can be from an internship/job, work done in other classes/studios, or if you have no experience with the topics, you can say ‘none’).

*Programming*

*Referencing Standards*

*Applying/Reviewing Codes*