Introduction
The interior design faculty of the Department of Apparel, Design, and Hospitality Management require all Interior Design students receiving a Bachelor of Science or Bachelor of Arts degree to complete an extensive design project. This requirement is a capstone project which provides senior interior design students with the opportunity to demonstrate, explore and enhance their design skills by participating in a student initiated design project. The subject of the interior design project shall be appropriate for a professional degree in interior design and requires the student to choose a subject that will allow exploration of new ideas, testing of accepted norms and the pursuit of a greater understanding of interior design.

Senior Capstone Project – Defined

*Capstone n.* 1) The crowning achievement or final stroke; the culmination or acme; 2) the highest point, as of achievement

The Interior Design Capstone (Senior Project) provides students with the application of numerous facets of interior design research and investigation processes.

Opportunities will be created to allow students to explore quantitative and qualitative research as part of the proposal process for the capstone project and to tie the knowledge obtained into design development of the senior comprehensive interior design project.

The capstone project requires advanced research and analysis of selected projects utilizing reality based end-user interior environment program requirements which emphasize the interrelationship of codes, regulations, standards, material specifications, and sustainable interior applications and design solutions.

A senior capstone project emphasizes critical thinking, skill development, advanced research and socially responsible design in which student teams have designed, researched and assessed an essential question related to the discipline of Interior Design. The culminating event for the Comprehensive Senior Project includes an exhibition of the thesis project that demonstrates evidence of the process, advanced research, analysis, synthesis and conclusion.
Substance and Scope of the Project
The senior interior design capstone project may focus on any of a wide range of reality based end-user design problems. The method for approaching the project is the design process. A clearly defined analytical framework will be required to guide this process. You will develop this framework in consultation with the faculty based on the state of knowledge and theory regarding the topic, as well as the feasibility of your team’s project. The following list suggests some of the possibilities that your team should consider:

1. The design of spaces for special populations
2. Sustainable issues in the built environment
3. Universal design solutions
4. Technical issues in the near environment
5. Environment and behavior
6. Aesthetics
7. Functionalism
8. Socio-Cultural considerations

A Senior Project topic should be an in depth investigation of a proposed area of study that demonstrates socially responsible design as shown in the model. It is advisable to define the area of investigation as clearly as possible. In order for the Senior Project to be a useful vehicle for personal development it should be motivated by personal interest in an area relevant to the field of interior design. Fueled by passion, the Senior Project Design Project becomes an experience valuable for the rest of one’s professional life.
Preliminary proposal requirements include (page numbers indicate location of detailed description of each required item):

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>5</td>
</tr>
<tr>
<td>Statement of Intent</td>
<td>5</td>
</tr>
<tr>
<td>Project Description</td>
<td></td>
</tr>
<tr>
<td>Mission statement</td>
<td>7</td>
</tr>
<tr>
<td>User/Client</td>
<td>10</td>
</tr>
<tr>
<td>Goals &amp; Objectives</td>
<td>14</td>
</tr>
<tr>
<td>Design Concept Statement</td>
<td>15</td>
</tr>
<tr>
<td>Field Survey</td>
<td>16</td>
</tr>
<tr>
<td>• Existing Conditions Analysis (Site, Building, and Interior)</td>
<td>16</td>
</tr>
<tr>
<td>Scope of Work</td>
<td>17</td>
</tr>
<tr>
<td>Programming</td>
<td>18</td>
</tr>
<tr>
<td>• Room Data Sheets</td>
<td>20</td>
</tr>
<tr>
<td>• Adjacency Matrix</td>
<td>21</td>
</tr>
<tr>
<td>Code Analysis</td>
<td>21</td>
</tr>
<tr>
<td>Proposed Timeline</td>
<td>22</td>
</tr>
<tr>
<td>Bibliography Discussion</td>
<td>22</td>
</tr>
<tr>
<td>Complete Set of Construction Documents</td>
<td>22</td>
</tr>
<tr>
<td>Outside Reviewer</td>
<td>22</td>
</tr>
<tr>
<td>Proposal Presentation Evaluation</td>
<td>23</td>
</tr>
<tr>
<td>Title Page Format</td>
<td>24</td>
</tr>
<tr>
<td>Appendix A</td>
<td>25</td>
</tr>
<tr>
<td>• Methods for recording behavior observations</td>
<td>25</td>
</tr>
<tr>
<td>• General Appendix Requirements/Considerations</td>
<td>27</td>
</tr>
<tr>
<td>Bibliography/References</td>
<td>28</td>
</tr>
</tbody>
</table>
Title/Location

The proposed title of the senior project should clearly indicate the project's subject. The specific location for the project should be identified.

Statement of Intent

Provide a rationale for the project, an overview of the steps that are going to be used in the design process, and the challenges that the project is designed to answer or solve. Include the description of specific questions to be addressed by this design project. Justify why the proposed project represents a culmination of your educational experience. Why is the project important? What do you hope to accomplish?

WRITING STYLE:

- Direct and straightforward manner
- No gimmicks
- Use active, not passive voice
- Do not use words such as rather, quite, somewhat, fairly, pretty much
- Be positive
- Emphasize strengths
- Be accurate and precise
- Type the statement and check for grammatical and spelling errors. Edit carefully! The reviewer should "see the content," not the content plus poor preparation.

EDIT RUTHLESSLY

- CUT OUT redundancy
- Be organized, orderly, specific and concise.
- Use examples where needed
- Keep the statement to one or two typed pages.
- Use transitions that tie each paragraph to the next.
- Do not assume that the reviewer (Prof. Ray-Degges or other faculty members) will understand everything.
Outcomes that **must** be addressed for a successful statement of intent:

1. **Student defines problem as it relates to the field of Interior Design:**
   a. demonstrates understanding of a problem that has relationship to the interior environment
   b. demonstrates understanding of complexity of problem in relation to health, safety, and/or well-being of occupant of an interior environment
   c. assesses complex relationships and makes recommendations for application

2. **Student understands the meaning and impact of design as it relates to human interaction, technology, theoretical frameworks, and interdisciplinary efforts:**
   a. assesses design options based on an understanding of human needs and behavior
   b. demonstrates understanding of specific individual, seniors, society and/or cultural issues
   c. assesses technological options and applies based on an understanding of performance criteria
   d. integrates and combines appropriate theories to inform design solutions -- uses existing theoretical framework to develop research questions
   e. assesses design options based on knowledge and theories from multiple disciplines -- delves into other disciplines as exploration of design topic

3. **Student effectively analyzes information, evaluates issues, and sets priorities:**
   a. Demonstrates a logical research methodology
   b. Completes a thorough literature review
   c. Demonstrates a thorough understanding of current research on chosen topic
   d. Combines and classifies information in a logical manner
   e. Sets clear project goals and objectives
   f. Demonstrates application of research

4. **Student explores and generates creative solutions via a systematic and coordinated design process that integrates functional and aesthetic concerns.**
   a. Uses theoretical framework to integrate multiple perspectives and concerns
   b. Develops clear and logical programmatic requirements for design solutions
   c. Demonstrates understanding of complexity of design process
   d. Demonstrates understanding of impact of design at the macro and micro-levels of analysis
   e. Shows evidence of and is able to defend design solutions through critical, analytical, and strategic thinking

5. **Justifies and defends design solutions as they relate to social-economic and global issues:**
   a. identifies and clearly states conclusion, implications and consequences
   b. expands justification to larger social, economic, and global issues
   c. integrates and explains the interrelationship between design, the built environment and the larger society
Mission Statement
"A mission is a statement that explains why an organizational unit exists and what its main purpose is" (Brauer, 1992, p. 80). Formulating a mission statement helps to evaluate what each organizational unit does as well as what each unit should actually be doing.

An existing organization/business will be selected to serve as the foundation for the senior comprehensive design project.

Examples
The Office of Provost and Vice President for Academic Affairs provides administrative leadership for all academic activities, by promoting, supporting, and sustaining excellence in teaching, research, creative activity, and service in all institutional academic units. Responsible for academic resources and budget, professional faculty matters, academic computing, and the University’s instructional curriculum, the Office of Provost and Vice President for Academic Affairs is committed to creating an environment conducive to good academic and institutional citizenship. [North Dakota University – Office of Provost and Vice President, 2007]

theRESORT exists to create a seamlessly rejuvenating environment by maintaining five-star facilities and holding guest satisfaction as an utmost priority. (Senior Project, 2006)

Ben & Jerry’s is founded on and dedicated to a sustainable corporate concept of linked prosperity. Our mission consists of 3 interrelated parts

Product Mission
To make, distribute & sell the finest quality all natural ice cream & euphoric concoctions with a continued commitment to incorporating wholesome, natural ingredients and promoting business practices that respect the Earth and the Environment.

Economic Mission
To operate the Company on a sustainable financial basis of profitable growth, increasing value for our stakeholders & expanding opportunities for development and career growth for our employees.

Social Mission
To operate the company in a way that actively recognizes the central role that business plays in society by initiating innovative ways to improve the quality of life locally, nationally & internationally.

Central To The Mission Of Ben & Jerry’s is the belief that all three parts must thrive equally in a manner that commands deep respect for individuals in and outside the company and supports the communities of which they are a part.
Mission Statement – In GREATER DETAIL 😊

The mission statement should be a clear and succinct representation of the enterprise’s purpose for existence. It should incorporate **socially meaningful and measurable criteria** addressing concepts such as the moral/ethical position of the enterprise, public image, the target market, products/services, the geographic domain and expectations of growth and profitability.

The intent of the Mission Statement should be the first consideration for any employee who is evaluating a strategic decision. The statement can range from a very simple to a very complex set of ideas.

**How Specific Should You Be?**

Normally, the Mission Statement should represent the broadest perspective of the enterprise's mission.

You may want to take the approach of being very specific. For instance, a Mission Statement for a fictitious airline could be worded as follows:

Airco, Inc. will be the 'guaranteed' on-time airline. Maintaining the most efficient equipment in the industry, we will target a customer base of mainly young businessmen and offer them the lowest cost service on the west coast, with an objective of a 20% profit before tax and a 30% per year revenue growth.

Or, you may want to say the same thing, but with more room for management interpretation. A more general way of stating Airco's Mission Statement could be:

Airco, Inc. will be recognized as the most progressive enterprise in the transportation business. We will offer our customers cost effective transportation service within geographical areas and market segments that can benefit from our services and will insure a return on investment and growth rate consistent with current management guidelines.

**Mission Statements of Well Known Enterprises**

The following are some examples of mission statements from real enterprises.

**3M**

"To solve unsolved problems innovatively"

**Mary Kay Cosmetics**

"To give unlimited opportunity to women."

**Merck**

"To preserve and improve human life."

**Wal-Mart**

"To give ordinary folk the chance to buy the same thing as rich people."

**Walt Disney**

"To make people happy."

These are the 'one-liners', but each is supported by a set of values that set the performance standards and direct the implementation of the mission.

For example, Merck, a company that produces pharmaceutical products and provides insurance for pharmacy benefits, publicly states the following values.

- Corporate social responsibility
- Unequivocal excellence in all aspects of the company
- Science-based innovation
- Honesty & integrity
- Profit, but profit from work that benefits humanity

And Walt Disney, an entertainment business states their values as follows.
Senior Comprehensive Design Project | 2011/2012

- No cynicism
- Nurturing and promulgation of "wholesome American values"
- Creativity, dreams and imagination
- Fanatical attention to consistency and detail
- Preservation and control of the Disney "magic"

**Should Your Grasp Exceed Your Reach?**

Many believe that the Mission Statement should have a **grand scale, be socially meaningful and be measurable.** The following are some examples of historical Mission Statements that were truly grand in scale.

"Ford will democratize the automobile" **Ford Motor Company (early 1900's)**
"Become the company most known for changing the worldwide poor-quality image of Japanese products" **Sony (early 1950's)**
"Become the dominant player in commercial aircraft and bring the world into the jet age" **Boeing (1950)**
"Become a $125 billion company by the year 2000" **Wal-Mart (1990)**

**Conclusion**

So, when you are preparing your Mission Statement remember to make it clear and succinct, incorporating socially meaningful and measurable criteria and consider approaching it from a grand scale. As you create your Mission Statement consider including some or all of the following concepts.

- The moral/ethical position of the enterprise
- The desired public image
- The key strategic influence for the business
- A description of the target market
- A description of the products/services
- The geographic domain
- Expectations of growth and profitability


User/Client

Provide a description of your client as well as the primary users of the space. If you are designing a residential space your client and users may be the same. In commercial design you will need to designate the primary users of the space and the tasks typically associated with each user’s job description.

Examples

Dietitian - It is this person’s job to direct the operation of the kitchens and dining rooms in all areas of the hospital to provide nutritious, well prepared food for both patients and staff. To develop diets as appropriate for all patients according to their medical needs.

Job overview - The Support Pro will support customers in technical problems they may encounter in the operation of software, hardware, operating systems, e-mail, etc.

Reports to: Support Prof Supervisor

Duties & Responsibilities

- Installs, tests, and maintains a variety of personal computing and network hardware and software systems, with local area network and wide area network connections
- Performs diagnostic tests, modifies or repairs hardware in the board or component level
- Replaces hardware or software as needed
- Assists user community in software and hardware problem resolution
- Logs calls and takes appropriate action to ensure satisfactory response with acceptable time frames for the user community
- Establishes and maintains personal computer parts inventory for supplies and computer center related materials
- Keeps up to date with current trends and is prepared to make recommendations
- Keeps customer log updated
- Produces support documentation

Knowledge, skills and abilities

A strong understanding of a wide variety of personal computing equipment and software
In commercial projects include **organizational chart.** A graphic representation is provided below and the following pages.

(Mitton, 2007)

---

Does your chart show the lines of responsibility between departments or division of the organization?

Does your chart provide a legible graphic presentation of the relationships and interrelationships within an organization that identifies the lines of authority and responsibility in an organization?
Organizational Flow Chart V. 5

Effective coordination/communication between LPDC office coordinators and all organizational components is essential to successful outcomes of projects, action plans, events, and fundraising activities.

Leonard Peltier Defense Committee
Lawrence, Kansas

1. Absolute communication flow - legal structure per by-laws
2. Weekly communication packages to Leonard emphasis on legal and action plan updates

Leonard Peltier

Legal Team

Spiritual Advisor

LPDC Board of Directors

International Coordinators

International Office

Team Coordinators

Communications Coordinator

Administrative Coordinator

Support Groups Coordinator

VOLUNTEER Office Staff

Act Coordinator

 condos Coordinator

Accounting

Staff

Advisory Board

National Speakers Bureau

Lobbying Team

Flint Ridge Advocates

*While retaining the required legal structure, this organizational chart is intended to emphasize a preference for team-oriented approach to accomplishing the goals and objectives of the LPDC’s overall mission.

**Individual BOD members are responsible for direction and oversight in specific areas. These include events and fundraising, finance, personnel, and legal strategy.
Goals & Objectives

Goals represent a general intent or aim that an organization would like to achieve. Objectives are the mechanisms for obtaining goals and may outline specific requirements regarding the number of square feet needed in a building or identifying space and furniture needs to fulfill a particular service the facility offers or needs.

Example

Goal: To create a home in which the Whitman family can grow comfortably.
Objective: Design interior spaces accommodating the physical changes of its users through the application of universal design concepts.

Think of the goals as the treasure at the top of a stairway, and the objectives as the stairs.

The Difference Between Goals & Objectives

- Goals are broad; objectives are narrow.
- Goals are general intentions; objectives are precise.
- Goals are intangible; objectives are tangible.
- Goals are abstract; objectives are concrete.
- Goals can't be validated as is; objectives can be validated.
Design Concept Statement

A design concept is a written statement that describes the principal ideas, both functional and aesthetic, of the proposed design. The concept statement should discuss the methods that bring about results; it does not state what those results will be. For example, a concept statement might say, "The great room will be designed to be flexible in use by providing......" or "Public space, accommodating the special needs of its users, will......"

Below is a list of hints you may want to consider when developing your concept statement:

- Prioritize the information you put down and organize for clarity.
- Consider stating your ideas as if you are giving a presentation to a client; make broad statements and then refine them for clarity.
- Consider taking notes as you develop your solution; each time a decision is made, jot down the reason for it.
- Content might include a selection of the following ideas:
  - Overview of design and character of the space in relation to architecture
  - Specifics related to client needs and program requirements
  - Placement of spaces with regard to circulation, view, lighting, aesthetics, plumbing, etc.
  - Materials that enhance the character and use of the space
- Discuss the elements and principles of design and how they are used to enhance your concepts and also how they are used to address your clients wants, needs, and desires.
- Read design publications. In articles that focus on a successful design locate paragraphs that analyze the space and effectively communicates the visual image to you. Then try writing your own statement following that example.

Examples

theRESORT is the definitive private getaway for the hectic, urban couple. Located near Key West theRESORT offers climates better than other parts of the world with warm, pristine beaches and cooling waters. With visions of exotic elegance in an under-stated privacy, theRESORT encompasses physical and emotional relaxation. Natural materials give way to fresh, cool cushions and sheer fabrics. You can feel the tropical breeze flow through the effortlessly placed windows. Sunlight filters through seamless canvas openings, blending the floor with the beach. Submerge in one of many private plunge pools of take a relaxing nap. Settle in for a cool drink or an appetizer along the endless pool side or lose yourself in the intimacy of the LOUNGE. When the day is through, retreat to a distinctively design suite, complete with a whirlpool and ocean side views. Retire in the bungalow for the ultimate private escape.

“design a neutral background of warm color finishes while maximizing the view to outside”
Field Survey
An investigation and systematic evaluation of a property that takes place on the site; to include site description, review of exterior architectural design/architectural elements, building type, etc. Review the side margin for an example of a Field Survey Form and address all the items listed to complete an accurate review of the interior/building you are working with.

Existing Conditions Analysis
Site. Provide a brief overview of the physical location of your project.
- climate and geographic data (location, latitude, precipitation, temperatures, winds, sun orientation, amount of sunny weather, etc.)
- location and adjacencies (pedestrian/vehicular access, city easements, etc.)
- topography and views

Indicate regional characteristics which make the project representative of that area. The immediate surroundings are often very important in providing visual imagery for a setting. Be sure to include enough information so that someone reading the project description could get a "feel" for the area.

Building. Describe the size and physical characteristics of the building in which your interior is located. Be sure to emphasize architectural elements which will act as an inspiration for the project.
- building/site adjacencies: analyze the building and site adjacencies for patterns, forms, rhythms, proportions, grids, heights, circulation (pedestrian and vehicular, service entrances, etc.)
- building form patterns-exterior: analyze the existing building to discover common and unique rhythms, proportions, materials, colors, details, etc.
- building form patterns-interior: analyze the existing building and discover the common and unique interior patterns and relationships (also circulation and zoning); also consider views, vistas, and other external influences from and on the interior analyze

Interior. Describe the existing physical condition of the interior you plan to design (for example, are the interior walls surfaced with gypsum wallboard or are they made of poured reinforced concrete). Indicate existing structural and mechanical elements that will be retained as well as define the location of the HVAC and fire management systems.

Documents. May include instruments/documents used to collect/record data for site (i.e., sketches, photographs, site measurements, surveys, questionnaires, inventory sheets,
behavioral observations [See Appendix A]).

Site Plan, Elevations, and Exterior Views can help support the Field Survey Discussion.

**Scope of Work**
A chronological description of the work to be accomplished by the interior designer. The purpose of the scope of work is to provide a guide to the interior designer during the initial phases of the project design and used as a tool throughout project development.
**Programming**

Definition: Brauer (1993) suggests that programming is "...the family of procedures and methods for gathering, analyzing, and recording information that forms a program. Designers combine these data, together with a variety of standards, codes, formalized criteria, and principles of design practice, into a facility solution.

A program typically contains both functional and technical requirements. Functional requirements describe building or facility characteristics that will allow occupants or users to perform their activities efficiently and safely. Technical requirements define attributes of a building or facility and its systems that are essential for meeting a variety of constraints. Typical contents of a program are the types and amounts of space, attributes of individual spaces or types of space, attributes of the facility or building, characteristics of the site, types and capacities of building systems, and supporting utilities" (Brauer, 1993, pp. 471-472).

Cohen (1993) divides programming into four main phases:

1. **Defining goals:** This includes the goals of the users, owners, and other parties involved in the environment under consideration.
2. **Identifying, describing, and analyzing problems, issues, and needs:** Critical topics that require informed decision making.
3. **Developing design guidance:** Translating the information gathered into an integrative, usable communication to be used by designers and others. The generic design guide is a typical product of this phase. It supplements specific building programs and other design-guidance products such as case studies....
4. **Generating Solutions:** this is the ultimate goal of the programming process; but since the process is not entirely linear, some good ideas, questions, information are fed back into the previous phases (Cohen, 1993, pp. 455).

"The ultimate goal of a productive programming process is to have a tangible, and hopefully positive, impact on the design environment"

(Cohen, 1993, p. 459)
Program Requirement Form. Develop a Room Data Sheet for each area/space within the interior. This approach narrows the focus to specific people/occupants, activities, functional requirements/equipment, proximity/adjacencies, spatial requirements, scheduling/time data and layout sketch

People/Occupants. Identify the occupants for each of the areas/spaces within the interior environment. People can be recorded by name, position title, or description. It is best to identify with a position title as individuals may share workstations or move around within the organizational structure.

Activities are those things that done to fulfill a particular function within the organization (a judgment must be made as to how much detail is provided for each activities). Identify the activities for each of the areas/spaces within the interior environment. An activity is an action word which is used to define or describe how an objective within an organization or facility will be met (example: Organization=NDSU; Objective=Education; Activity=assemblies or lectures).

Functional requirements/equipment are those items required to complete each activity in each space. (This is a listing of the essential items --- not a wish list). Those items that occupy floor space or depend on some portion of the building system should be included. Dimensions of these items should also be included. Dimensions of items may include maintenance space or the space needed for servicing the equipment (i.e. loading paper in a copy machine). In addition to basic equipment and/or furniture pieces it is necessary to list information for the following "typical" requirements:

- access/circulation - movement of people within the space, control of such movement, or movement between spaces; visual access (privacy factors, size and type of openings, control of openings, critical distances for computers and electronics);
- appearances/finishes/image - general character for the finish surfaces and finish treatments (characteristics or type of wall, floor, or ceiling finish or treatment);
- communication - identification of built-in communication features or components which support wiring or equipment must be included (telephone terminals, "Hot" lines, fax/modem lines, TV terminals, computer terminals);
- utilities and waste - support systems that must be built into a facility; amounts and locations of controls (electrical services, water, etc.);
- storage - built-in storage excluding free-standing storage cabinets, bookcases, etc.;
- environmental conditions - identifies the conditions necessary for human occupancy, safety, performance, and comfort or for support of equipment (lighting, sound, thermal conditions, air quality);
- special building features - this category includes all built-in features not previously identified (security features; fire detection, alarm, and suppression systems).

Proximity/adjacencies indicate how required spaces/areas should be positioned or related to one another. An adjacency matrix should be completed in addition to listing various areas and level of proximity to the specific space under consideration.

Spatial requirements for most kinds of spaces uses the floor area as the unit of measure. There are various ways to estimate space size (space standards, sketch method, comparison method).

Scheduling/time data represents regular hours for activities, peak times for activities, and other related factors.
### Room Data Sheet

#### Programming / Schematic Design

**Independent Family Doctors**

<table>
<thead>
<tr>
<th>Room Name: Laboratory</th>
<th>Room Location: 305a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Users: Medical Technician</td>
<td>Activities: Clinical laboratory technicians perform routine tasks in the laboratory that aid in the detection, diagnosis, and treatment of disease. For example, they collect samples of blood and urine, label them, and conduct simple tests on them</td>
</tr>
</tbody>
</table>

#### Furniture / Equipment

<table>
<thead>
<tr>
<th>Furniture:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 6’ counter space w/cabinets above and below; cabinets must be clad with plastic laminate; All casework shall be easily cleanable, and finishes shall be compatible with materials used for cleaning and disinfection</td>
</tr>
<tr>
<td>- Knee space work area with telephone</td>
</tr>
<tr>
<td>- 3 ergonomic task stools</td>
</tr>
</tbody>
</table>

#### Mechanical / Electrical

<table>
<thead>
<tr>
<th>Heating / Vent / AC:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Temperature controlled by individual thermostat; central HVAC system; 35 – 50 cfm outdoor air per occupant</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Plumbing / Fixtures:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Adjacent bathroom requires one toilet; one pedestal sink</td>
</tr>
<tr>
<td>- Lab space requires double compartment sink with foot pedal controls</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Electrical:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Lab area: One grounded duplex outlet every 18” (44”AFF) at counter area; remaining outlets 36” OC 12” AFF</td>
</tr>
<tr>
<td>- Bathroom: exhaust fan w/light seal</td>
</tr>
<tr>
<td>- Integrated ceiling fluorescent fixtures; below counter task lighting as necessary (100 f.c. recommended)</td>
</tr>
<tr>
<td>- Standard room switch controls</td>
</tr>
<tr>
<td>- Smoke and flame detectors as per code</td>
</tr>
<tr>
<td>- Verify special electrical requirements for other equipment pieces</td>
</tr>
</tbody>
</table>

#### Architectural

<table>
<thead>
<tr>
<th>Floors:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Sheet vinyl w/welded seams</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wall Partitions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 1-hour min. wall rating</td>
</tr>
<tr>
<td>- Integrated specimen pass-through cabinet (verify wall thickness required to house cabinet)</td>
</tr>
<tr>
<td>- Commercial vinyl wallcovering; Corner guards and bumper rails shall be provided to protect wall surface in high traffic/impact areas</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ceilings:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- One hour ceiling rating</td>
</tr>
<tr>
<td>- 8-6” ceiling height; acoustical ceilings (2X2) laid in each room with all interior partitions extending above finished ceiling</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Doors / Windows:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- All doors min. 40” wide; 1 x3/4” solid core w/gaskets for sound privacy; 16 gauge steel jambs and frames; lockable; standard cylindrical lock set; security locks as required.</td>
</tr>
<tr>
<td>- Windows fixed with operable vents; all window sills start @ 42” AFF</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Natural Lighting:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Incorporate at minimum two exterior fenestrations (windows) in lab area. Windows will need some type of light/glare control mechanism</td>
</tr>
</tbody>
</table>

#### Hours of Operation:

Facility available 8:00 a.m. to 6:00 p.m.

#### Communications:

Designated data ports for two computers; multi line phone; wireless capabilities

#### Special Provisions:

- Facility for blood draw requires tablet-arm blood draw chair, shelf for disposable gloves, wall hung writing shelf
- Laboratory requires double compartment sink; knee space for microscope; under counter refrigerator
- Adjacent toilet room w/specimen pass through door
- Space shall be allocated in each laboratory for contaminated waste box storage.

#### Equipment:

- Scales w/writing surface (24” per scale); sink; under counter refrigerator; paper towel & soap dispenser; pass-through specimen cabinet

#### Equipment:

- 2 lab technicians
- 1 patient

<table>
<thead>
<tr>
<th>Room Size:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Laboratory 8’ X 12” suggested; station may be recessed into niche in corridor</td>
</tr>
<tr>
<td>- Adjacent toilet space w/specimen pass through door</td>
</tr>
<tr>
<td>- Restroom must comply with ADA</td>
</tr>
</tbody>
</table>

#### Additional Information:

- Special considerations should be made to make the lab adjacent to exam rooms; blood draw area should provide visual privacy to shield blood draw patient from sight of others
- Adjacent Storage Room (min. 6’ X 6’); adjustable shelving on 2 or more walls; lockable storage
**Adjacency Matrix**
Graphical representation that examines interrelationships within an organization. Matrices offer a mechanism to clarify/synthesize complex information. Levels of interaction will range from primary to undesirable, indicating how required spaces/areas should be positioned or related to one another.

![Adjacency Matrix Diagram]

**Codes Analysis**
Clearly list specifics regarding codes issues: occupancy classification and loads; construction type and building size; means of egress; fire and smoke protection; plumbing and mechanical requirements; electrical and communication requirements; and finish and furniture selection (*use code checklist/form provided online*).
Proposed Time Line (For Spring 2012 Semester)

This section consists of the dates you (and your team) propose to have completed each phase of the project. A general timeline framework will be provided for the entire senior class. Each team will create their team’s timeline based on this framework. This particular portion of the proposal will allow your advisor to adjust expectations to make them more realistic or point out ways to reduce the time necessary to complete a given phase.

Senior Show Exhibit – MU, Prairie Rose
9:00 a.m. to 5:00 p.m. - Tuesday, April 24 through Friday, April 27, 2012
Senior Show Presentations – MU Century Theater (times TBD)
Closing Reception Friday, April 27 from 5:00 to 6:30 p.m.

Presentation Boards/Construction Document Submission Monday, April 23 at 12:00 Noon.

Bibliography (and Appendix sections as necessary)

This section should include evidence-based research materials you have collected to support the design project. All information should be clearly labeled and referenced (e.g. citations). [Format will be provided] You may also want to include information that describes the geographical location for the project site as well as the social and economic climate of the surrounding area/region.

Complete Set of Construction Documents

A complete set of documents must be collected for your team’s building no later than September 30.

Outside Reviewer
Select a professional from the community to serve as an outside reviewer during the proposal development phase and through the final presentation.
Evaluation

_There will be no official letter grade for the Proposal._ Each student will receive a pass/fail notation. If a student's Senior Project Proposal receives a failing notation he or she will receive an incomplete grade for ADHM 450. The incomplete grade will be removed once the team has made the necessary corrections and changes to their project proposal or program.

- All information must be typed (unless otherwise noted) and draft copies submitted in the group’s blackboard folder (including a title page, table of contents). When the final copy is submitted students will be responsible for CD production.
- The document must have a running header to include project title and team member’s last names. A running footer will provide continues page numbers.
- Construction drawings must be reviewed for approval (Check due date on schedule).
- Oral presentations of the initial proposal (50 pts.) and final proposal (50 pts.) will be presented in class. Dates are noted on the course schedule. Final oral presentations will be evaluated on the following:

  Presentation Evaluation (100 total points – initial – 50 points/final – 50 points)

<table>
<thead>
<tr>
<th></th>
<th>20</th>
<th>15</th>
<th>10</th>
<th>5</th>
<th>1</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal Presentation Skills (20 points)</td>
<td>20</td>
<td>15</td>
<td>10</td>
<td>5</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Organization/Clarity of Information (20 points)</td>
<td>20</td>
<td>15</td>
<td>10</td>
<td>5</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Introduction/Body/Conclusion (20 points)</td>
<td>20</td>
<td>15</td>
<td>10</td>
<td>5</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Handout (25 points)</td>
<td>25</td>
<td>20</td>
<td>15</td>
<td>10</td>
<td>5</td>
<td>0</td>
</tr>
</tbody>
</table>

  - Topic clearly defined/presented
  - Adequate information/resources
  - Layout/Design

| Professional Dress (15 points) | 15 | 9 | 7 | 5 | 3 | 1 |
Title Page Format

Project Title
(upper /lower case, centered)

By
(names of team members, home town)
Jane Doe, Any Town, North Dakota
Freeda Berg, The Town, North Dakota

Comprehensive Design Project Proposal

For
Department of Apparel, Design and Hospitality Management
North Dakota State University
November XXXX

Please note that this format must be followed. Additional graphics may be added but the information listed on this page must be included with each submission.
### Appendix A – Sample Behavior Observation Recording Devises

Sample field notes from site visit to a hospital emergency room (observations made from nurse’s station at 1:00 p.m.)

<table>
<thead>
<tr>
<th>Observation</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woman waiting in wheelchair has been waiting in corridor between nurse and row of examining rooms since at least 10:30 a.m. She is watching activity</td>
<td>Does watching emergency activity make waiting easier?</td>
</tr>
<tr>
<td>Police arrive with stretcher. Announce in loud voices they have a woman who fell down and passed out. She is lying still on stretcher with eyes closed, covered. All other patients sitting in corridor lean forward in chairs to look. The stretcher will not fit through corridor where patients are sitting. Police struggle to maneuver stretcher through the crowded of nurses and doctors in the nursing station to get to uncrowded corridor on other side. Patient is put in examining room. Curtain pulled part-way closed by last policeman to leave. Patients waiting in corridor have full view of patient in exam room</td>
<td>Why do they announce it? For nurses to clear the path? Patients looking again! Is it just something to do? Hallway waiting causes traffic problems for stretcher cases. This probably bothers patients being examined?</td>
</tr>
<tr>
<td>A policeman wheels stretcher out back door into middle of waiting area, while another tells a nurse the details about the woman they brought in, leaning over the counter at nurse’s station.</td>
<td>This public discussion surely seems like an invasion of privacy.</td>
</tr>
<tr>
<td>Nurse leaves nurse’s station, walks around counter into corridor, scans all patients waiting there. She walks up to one man who is seated, stands three feet away and tells him the results of lab tests and what they mean. Doctor walks over and asks same patient to go into exam room with him.</td>
<td>Nurse in her “station” cannot see the informal or overflow waiting area in corridor. What are the design implications? Behavior of nurse in telling lab results is another type of invasion of privacy.</td>
</tr>
<tr>
<td>Doctor’s voice, shouting angrily, comes from an exam room.</td>
<td>What acoustical control is needed in exam rooms?</td>
</tr>
<tr>
<td>Doctor leaves nurse’s station, approaches woman waiting in wheelchair, pulls up a chair, sits down beside her and talks in low tones. Other patients sitting nearby watch and occasionally speak to each other.</td>
<td>Consultation in waiting areas may be standard emergency-room procedure? Is there a way to allow this to take place more privately?</td>
</tr>
<tr>
<td>Sound of friendly chatter, laughing from one exam room.</td>
<td>Does this perhaps relax people in waiting area?</td>
</tr>
</tbody>
</table>

*Field notes by architect/research Polly Welch (1977) (Zeisel, 1981, p. 120-121)*
Sample Behavior Recording Devices
Sample behavior descriptions and corresponding questions for shopping center design, by level of design (Zeisel, 1981, p. 128)

<table>
<thead>
<tr>
<th>General Description</th>
<th>Detailed Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Shopping&quot; as opposed to &quot;Hanging around&quot;</td>
<td>In a shopping-center plan, how many paces are needed for people to hang around, and how can they be designed to augment rather than interfere with shopping?</td>
</tr>
<tr>
<td>Shoppers browsing as opposed to buying something</td>
<td>How should items be displayed so that browsers and buyers can have greater access</td>
</tr>
<tr>
<td>Where and how often shoppers stop in supermarket aisles</td>
<td>How can flooring materials, lighting, and aisle length be designed for maximum convenience to customers, maximum exposure of sales items, and minimum maintenance?</td>
</tr>
<tr>
<td>How high patrons will reach and how low they will stoop</td>
<td>What shelf design and what product placement (what size container on what shelf) will ensure that customers have the easiest time reaching items</td>
</tr>
<tr>
<td>What customers’ eyes focus while moving down an aisle</td>
<td>Where should standard signs be placed to convey the most information, and where ought sale signs be located to catch customers’ glances?</td>
</tr>
</tbody>
</table>

(Zeisel, 1981, p 128)
Appendix ? – Created based on the need of each project team

Each team will have unique research areas and information collection methods. These materials may be presented in separate appendix sections.

For example, a team is designing a retail store the team members may decide to research topics in the area of lighting, retail design, purchasing behaviors. Their proposal may include the following appendix sections:

Appendix A – Evidence Based Research Findings

A.1 – Lighting Design Implications in Retail Design  
A.2 – Retail Store Design Features that Impact Buying Patterns  
A.2 – Sensory Experiences that Impact the Retail Environment

Appendix B – Data Collection and Behavioral Observations of Local Candy Stores

B.1 – Widman’s Candy  
B.2 – Nicole’s Fine Pasterys  
B.3 – Survey; Survey results of Candy Store Use

Appendix C – Geographical and Economic Information on Fargo, North Dakota

C.1 – Geographical Description of Fargo, North Dakota  
C.2 – etc……
Bibliography


