BIS 3800

Introduction to Capstone and Graduation Preparation

Course Guidebook

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Interdisciplinary: Integrating knowledge from two or more distinct academic disciplines into a project that combines insight and breadth of vision arising from exploring connections between knowledge development in the involved disciplines. Interdisciplinary projects are often too complex or multi-focused to be adequately addressed within a single discipline.
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Chapter 1

Introduction

Learning Goals:

- Understand the purpose of this text
- Explain what is meant by the term *academic discipline*
- Explain what is meant by the term *interdisciplinary*
- Describe interdisciplinary opportunities at Weber State University

Definitions:

*Academic Discipline*: A branch of learning or field of study characterized by a defined body of knowledge that is accepted and augmented by scholars who identify themselves as participating members of the discipline. A few examples of academic disciplines include chemistry, psychology, mathematics, history, nursing, English, and health promotion.

*Interdisciplinary*: Integrating knowledge from two or more distinct academic disciplines into a project that combines insight and breadth of vision arising from exploring connections between knowledge development in the involved disciplines. Interdisciplinary projects are often too complex or multi-focused to be adequately addressed within a single discipline.
The Purpose of this Text

This text has been specifically created to help Weber State University students navigate the challenges associated with completing interdisciplinary Capstone Projects and learning professional skills that will help market their interdisciplinary degree after graduation.

Information compiled within this PDF textbook will provide the bulk of the readings for the BIS 3800 Capstone Preparation Course. The content is meant to provide a foundation upon which students will build productive and meaningful interdisciplinary Capstone Projects based on interests, potential careers, and graduate school goals.

Understanding the significance of completing an interdisciplinary project requires background knowledge related to the establishment of academic disciplines in higher education. Interdisciplinary studies emerged in response to the need to solve problems and work effectively within a complex world using knowledge development related to more than one specific academic discipline.

Academic Disciplines

The concept of interdisciplinarity arose in response to previous establishment of academic disciplines. Here is one definition of Academic Discipline: A branch of learning or field of study characterized by a defined body of knowledge that is accepted and augmented by scholars who identify themselves as participating members of the discipline. A few examples of academic disciplines include chemistry, psychology, mathematics, history, education, nursing, English, and health promotion.
Specialized fields of knowledge have been in existence since people started to formally educate each other, and some would argue that the earliest educational activities were the start of academic disciplines. It could also be asserted that academic disciplines did not become established until medieval times when universities with distinct fields of study in theology, law, and medicine emerged.

Others believe that academic disciplines arose during the 19th century in conjunction with the advent of scientific advancements in fields like chemistry, biology, life sciences, and physics. These advancements made university settings the most logical places to continue to develop knowledge since experimental work now required laboratories, technology, and collaboration (Augsburg, 2006). Klein (1990) explained the beginnings of academic disciplines in this way:

“The modern connotation of disciplinarity is a product of the nineteenth century and is linked with several forces: the evolution of the modern natural sciences, the general “scientification” of knowledge, the industrial revolution, technological advancements, and agrarian agitation. As the modern university took shape, disciplinarity was reinforced in two major ways: industries demanded and received specialists, and disciplines recruited students to their ranks. The trend toward specialization was further propelled by increasingly more expensive and sophisticated instrumentation within individual fields” (p. 21).

In simple terms, solitary scholars in the 19th century could no longer acquire and maintain functioning laboratories at home. To complete meaningful research they needed to collaborate with other scholars who were interested in reaching common scientific goals. This led to the
formation of groups of scholars in university settings who were intent on furthering knowledge development in their respective fields of study (disciplines). In order to assure growth, adequate resources, and ongoing study, it was necessary to recruit continual streams of students who could carry discipline specific knowledge development on into the future. This resulted in the ongoing development of loyal students and scholars who strongly identified themselves as members of specific disciplines and who engaged in narrowly delineated knowledge development related to their chosen academic disciplines.

The formation of distinct academic disciplines was a productive endeavor because it supported focused study of specific problems and topics. This led to deep understandings and scientific breakthroughs related to phenomena that affect human beings every day, for example germs, the ozone layer, bird migration, child development, weather patterns, noise pollution, and psychosis. It also led to the creation of things that significantly improved human lives, for example radiography, penicillin, insulin, microscopes, telescopes, stethoscopes, and anesthesia. Today, maintaining a structure in higher education that relies on clear delineation of academic disciplines continues to provide support for knowledge development related to phenomena that require narrow scope and focused depth in order to fully develop, understand, and utilize findings and insights.

Interdisciplinary Studies

Sometimes, however, problems or phenomena display complexities that would be better understood through approaches that incorporate knowledge development from multiple disciplines. Some scholars in university settings, though not all, decided that collaboration across
disciplines might facilitate knowledge development associated with complex phenomena. The following definition for the word *interdisciplinary* illustrates this concept:

*Interdisciplinary:* Integrating knowledge from two or more distinct academic disciplines into a project that combines insight and breadth of vision arising from exploring connections between knowledge development in the involved disciplines. Interdisciplinary projects are often too complex or multi-focused to be adequately addressed within a single discipline.

Some scholars working within established disciplines were (and are) resistant to interdisciplinary knowledge development, making the argument that “…it is a doubtful business to spend time in interdisciplinary learning projects when the students lack a mature basis in any of the contributing disciplines…a substantial commitment to integrative studies in the undergraduate program will impede the student’s development of an essential disciplinary competence” (Newell, 1998, pp. 105-106).

Other scholars, however, saw (and see) academic merit in learning to approach and analyze phenomena in interdisciplinary ways, saying “An academic discipline is a challenging intellectual game at best, and a sterile and meaningless exercise at worst, when it is taken out of the context of human experience, which is always too broad and complex to be captured fully by any one discipline…increasing numbers of careers require specialized backgrounds that are interdisciplinary. Dealing with environmental problems, urban problems, energy problems, and many others requires training in synthetic thinking, in weighing arguments from diverse narrow disciplinary perspectives, and in placing them in the larger context” (Newell, 1998, pp. 111-114).
From a historical perspective, interdisciplinary movements in higher education began in the 1930’s as scholars began to borrow instrumentation and ideas from each other in the pursuit of broadening their respective fields of study. The social sciences led the trend to engage in interdisciplinary collaboration, with other disciplines following later. World War I and World War II both stimulated interest in interdisciplinary collaboration because researchers sought to understand many complex questions related to “…war, labor, propaganda, population shifts, housing, social welfare, and crime” (Klein, 1990). By the end of World War II, it became apparent that interdisciplinary approaches were needed to solve a variety of problems:

“In the realm of applied research, World War II proved an even greater catalyst for interdisciplinarity than World War I, on technological, political, and intellectual grounds. During World War II, the military’s need for a new turbo engine led cooperative work among physicists and chemists, an effort now regarded as part of the early history of the field of solid-state physics. Operations research evolved as operating problems were experienced with a new system of radar. They were not simple, technical problems…” (Klein, 1990, p. 32).

Interdisciplinarity in higher education gained momentum after the 1940s and 1950’s but was still considered innovative and not quite mainstream. A social climate of reform and innovation characterized the 1960’s and 1970’s, and this influenced a proliferation of interdisciplinary programs on university campuses during that time. Today, there are thousands of interdisciplinary degree programs across the United States, Europe, and Canada, and interdisciplinarity in higher education continues to grow.
The Association for Integrative Studies (AIS) was founded in 1979 to “…promote the interchange of ideas among scholars and administrators in all of the arts and sciences on intellectual and organizational issues related to furthering integrative studies” (Association for Integrative Studies, 2009). This organization hosts an annual Interdisciplinary Studies educational and research conference and has 46 supporting institutions, including Weber State University, in and outside of the United States.

Interdisciplinarity at Weber State University

The mission of Weber State University is distinctly interdisciplinary: there is a focus on providing a broad-based education that prepares students for meaningful careers, graduate school, and civic engagement (Weber State University Profile, 2009). To that end, there are many departments and programs that contribute to an interdisciplinary atmosphere where students have opportunities to collaborate with professors, professionals, and peers to further educational, professional, and personal goals:

- Seven Colleges and 60+ departments offer a large range of academic disciplines.
- The Bachelor of Integrated Studies (BIS) Program provides students with an opportunity to design their own interdisciplinary degree that integrates three academic disciplines into one meaningful educational and capstone experience.
- University and departmental honors programs provide interdisciplinary classes on a wide array of topics and provides an opportunity for students to be formally recognized for academic excellence.
- The Office of Undergraduate Research (OUR) provides funding and opportunities for students to engage in mentored research activities.
- The community Involvement center (CIC) provides students with opportunities to volunteer in the community and engage in service learning coursework offered across campus.
- The Department of Student Involvement and Leadership offers opportunities in student government, the academy of leadership, and student clubs and organizations.
- The Weber State University Stewart Library provides resources to help students integrate knowledge across disciplines.
Chapter 2

Interdisciplinarity and the Importance of Integration

Learning Goals:

1. Describe the relationship between interdisciplinarity and integration
2. Discuss a specific example of successful integration
3. Produce metaphors to illustrate the meaning of interdisciplinary integration

Definitions:

Interdisciplinarity: Reflects the goals of connecting and integrating two or more academic schools of thought into the completion of one unified project.

Integration: To merge, mix, and blend into a unified whole.

Metaphor: A figure of speech in which one thing is referred to as another, i.e. something is something else. An example would be this: Integrated interdisciplinary work is a tweed cloth (with all of the colors mixed and showing throughout) rather than a patchwork quilt (with distinct color patches arranged next to one another). *Please note: Similes use like or as if, i.e. this steak is like shoe leather, metaphors do not.

The Relationship Between Interdisciplinarity and Integration

The first word in the definition of the term interdisciplinary is integrating for good reason! In order for a project to be considered an interdisciplinary endeavor, the involved disciplines must be integrated--seamlessly woven together into a final product that demonstrates a solid understanding of the interconnectivity of the parts. It is only possible to complete a truly interdisciplinary project when integration is the foremost goal and the guiding principle of the
entire endeavor (Augsburg, 2005; Klein, 1990; Newell, 1998). The definition of integration is simple:

Integration: To merge, mix, and blend into a unified whole.

This definition is deceptively simple. Implied connections between disciplines are often easy to assume, however explicitly explaining those connections in a scholarly way during the completion of an interdisciplinary project can be a daunting task. Examples are sometimes more effective teaching tools than long explanations, so here is an example of how one student effectively demonstrated integration:

Let’s say there is a student in the WSU BIS program whose three emphasis areas are child and family studies, visual arts, and recreation. This student is interested in integrating her three areas by completing a creative portfolio for her capstone project that addresses this thesis question — How can I help young families with children between the ages of 3 months to 3 years find free, age appropriate recreational activities in the Wasatch Front area? After brainstorming with advisers, friends, family, coworkers, and professors, this student decides that the question can be answered through the creation of a pamphlet (visual arts) focusing on young families (child and family studies) through recreational activities (outdoor recreation) in the Wasatch Front, and outlines the family benefits. This is an excellent project idea and it effectively incorporates knowledge development related to all three emphasis areas. The information above should be enough to demonstrate integration, right? Not exactly…for this project, demonstration of integration must occur in several ways that include the following:
1. The pamphlet itself will demonstrate integration through a seamless mix of:
   - Family friendly graphics (visual arts),
   - with photos and explanations of free age appropriate (child and family studies) recreational (recreation) activities available along the Wasatch Front,
   - several simple explanations of the family benefits (child and family studies) of engaging in planned group activities,
   - and the pamphlet will be arranged and folded in an attractive and functional way that will fit into a child’s diaper bag (visual arts).

2. The student will demonstrate practical integration by going to area daycare centers and pediatric clinics (child and family studies), recreation centers and sports equipment stores (recreation), and preschools (child and family studies) and asking if they would be willing to distribute the finished pamphlets to young parents. The student will also distribute PDF copies of the pamphlet to church groups and parenting groups online.

3. A creative project support paper will be written to further demonstrate integration. In addition to other components that will be discussed later in the text, the integration components of this paper will include:
   - An introduction that explains how the three areas will be integrated into one unified and meaningful project,
- a review of literature (more on that in Chapter 7 of this text) that explores relevant scholarly work related to the three disciplines represented in this project,
- a discussion of how the literature review clarified understandings and influenced the project,
- a summary of how integrating all three emphasis areas enriched the final product beyond what would have been accomplished within one discipline.

Effective integration is usually made up of equal parts vision, planning, scholarly work, and creativity. Maintaining a focus on creating a seamless and unified final product that honors the importance of each involved discipline helps to clarify the goal setting process and enables students to focus on concrete and attainable *interdisciplinary goals* rather than getting sidetracked and bogged down in any one discipline or set of details.

*Another Way to Envision Integration: The Use of Metaphor*

Sometimes it can be helpful to think of challenging concepts like *integration* in metaphorical terms (Klein, 1990), especially those that are easy to talk about superficially but difficult to meaningfully incorporate into a multifaceted and sophisticated academic project. The definition for metaphor is:

*Metaphor*: A figure of speech in which one thing is referred to as another, i.e. something is something else. *Please note: Similes use like or as if, i.e. this steak is like shoe leather, metaphors do not.*
Creating and using metaphors for difficult concepts serves the purpose of maintaining focus on the central aim (in this case integration), rather than getting sidetracked and spending an inordinate amount of time and energy on any one project component (thereby neglecting the other components and confusing the overall purpose of the project).

The concept of integration could be considered metaphorically in these ways:

- Integrated interdisciplinary work is a tweed cloth rather than a patchwork quilt.
- Integrated interdisciplinary work is a fine crème Brule, with a crisp caramelized crust of sugar, and flecks of vanilla bean scattered uniformly throughout a smooth pond of dairy bliss.
- Integrated interdisciplinary work is a sing along with Mick Jagger, Beverly Sills, and Krishna Das.
- Integrated interdisciplinary work is a hot day with a bit of a breeze and a one hour dance through the backyard sprinklers.
- Integrated interdisciplinary work is a warm bed on a cold night with a really good book.
- Integrated interdisciplinary work is getting three kids to bed (and to sleep) at the same time.
- Integrated interdisciplinary work is patting your head and rubbing your tummy while humming “Row, row, row your boat.”
- Integrated interdisciplinary work is going snorkeling for the first time, following a giant sea turtle all over the place until you’re too far from the boat, and not drowning, getting eaten by a shark, or sucking any sea water into your nose while you’re doing it!
If you come up with three of your own metaphors for *integrated interdisciplinary work*, you will instantly understand the concept better than you did before. Try it! And then paste a copy of your favorite metaphor onto your BIS notebook to remind you about the central importance of integration in completing your Capstone Project.
Chapter 3
Combining Varied Areas of Study into a Capstone Project Idea

Learning Goals:

1. Define the purpose of a capstone project
2. Summarize how others have integrated various disciplines into meaningful and productive projects
3. Create two different examples of how your chosen academic disciplines (areas of emphasis) could be integrated into 2 different interdisciplinary projects, discuss the merits and challenges related to each one, and then share with classmates

Definition:

Capstone Project: The Capstone Project is an undertaking that demonstrates integrated knowledge and skills related to the culmination of undergraduate education. It is a scholarly activity meant to make a modest contribution to an organization, community, industry, or body of knowledge (Bender, 2003).

The Purpose of a Capstone

The Capstone Project is an opportunity for students to demonstrate meaningful application of what they have learned during college studies and extracurricular activities. Here is a definition:

Capstone Project: The Capstone Project is an undertaking that demonstrates integrated knowledge and skills related to the culmination of undergraduate education. It is a scholarly activity meant to make a modest contribution to an organization, community, industry, or body of knowledge (Bender, 2003).
Excellent Capstone Projects can be added to professional portfolios to strengthen job and/or graduate school applications after graduation. There should always be a practical reason for completing a capstone project. Here are a few examples, though this is not an exhaustive list:

- A student with a job he likes and wants to keep after graduation creates a project in his place of employment that demonstrates new skills and a desire to take on more responsibilities at work.
- A student wishing to get into graduate school creates a Capstone Project that paves the way for her research or thesis development in graduate school.
- A student wanting to get a foot into the door of a totally new career or company goes to a prospective employer whom she has always wanted to work with and offers to complete a free-of-charge capstone project related to the needs of that company.
- A student wants to remain a homemaker, so he decides to work with the Parent Teacher Association (PTA) at his local elementary school to create a service-learning project that will help the neighborhood school and provide new opportunities to enrich his experience as a homemaker.

Early in the process of choosing coursework and a capstone project, it is important to ponder what sorts of practical applications could be created through the combination (and integration) of your areas of study that would support personal, professional, and academic goals. As a starting point, ponder your areas of study and search for connections between them, and then mindfully identify what purpose you are trying to fulfill with the completion of your degree. As discussed in Chapter 2, integration should be the central goal in completing a capstone project. Here are 4
activities you can do that will help you productively explore what to do for your capstone project:

- Create a separate list for each discipline that will provide the basis for your project: Write down all of the reasons you were drawn to each discipline.

- Identify common themes on the lists that you created above and use the commonalities as a starting point for identifying what types of projects you might be interested in completing.

- Brainstorm with professors, advisors, family members, and friends about what types of projects could be done that would incorporate the common themes listed above and write all of the suggestions down in a list, no matter how outlandish some of the ideas may sound. Reviewing the list several times over the course of a week or two (or more) will provide processing time, and during that time, certain ideas may take shape and become more promising than they appeared initially.

- Go online and type in the search terms interdisciplinary projects and integrated studies. Also try typing in each of the names of the disciplines that form the basis of your project, for example Interdisciplinary Projects in Chemistry, or Interdisciplinary Projects in Political Science. The results of these searches should provide you with examples of integrated projects that others are doing in your areas of interest.

A required assignment for this week will be the Interdisciplinary Studies Process Worksheet. The first is a template of what to do once you have decided on a narrow topic, look at which disciplines could be involved, and decide if the areas of emphasis you have fit the best to solve or better understand your complex problem or phenomenon. Here is what your
assignment looks like followed by an example of what yours might look like. It is okay if this is a struggle at first, you are learning to think differently.

It may also be helpful for you to complete the *Capstone Topic Worksheet* on the next 2 pages and ask for feedback on your completed worksheet from a trusted adviser or professor.
Capstone Topic Worksheet

Name: ________________________________

1. List your three areas of Emphasis:

A. ________________

B. ________________

C. ________________

2. What topic are you planning to work on for your capstone? Write the answer to this question as a full sentence; be specific and clear. If it’s appropriate, formulate your topic as a question to be answered as a way to give you focus and direction.

3. Does this topic incorporate all three of your areas of emphasis equally? Explain
4. How will you demonstrate, in your final product, that you have used theories and knowledge from all three areas of emphasis?

5. Do you feel passionate this topic? How does your topic act as a stepping-stone towards your educational and/or career goals?

6. How does this topic relate to your work experience or any other non-academic skills and interests you have, and how can you use that experience to enhance your project?

7. List three challenges you’ll face with this topic and brainstorm possible solutions:
Newell's Conception of Interdisciplinary Study (1983)
1. Become struck by a “confrontation” with a complex phenomenon.
2. Formulate an interdisciplinary question.
3. Gather all relevant disciplines.
4. Consider the problem/question through the perspectives of each discipline, one at a time.
5. Gather together all the insights gained from each discipline.
6. Evaluate all the insights.
7. Fashion an interdisciplinary response to the question.
8. Critique if this approach is the best combination of perspectives to solve this problem or to best understand this phenomenon.

Step One:

Complex Phenomenon:

• Why is it complex?
• Why are you interested in this phenomenon/problem?
• What future relevance does studying this problem have for me?

Step Two:

Formulate an interdisciplinary question
Step Three:

Relevant Disciplines-

Steps Four and Five:
Consider the problem/question through the perspectives of each discipline, one at a time.

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Disciplinary Perspective</th>
</tr>
</thead>
</table>

Step Six:
Evaluate all the insights.

Step Seven:
Fashion an interdisciplinary response to the question.

Step Eight:
Critique if this approach is the best combination of perspectives to solve this problem or to best understand this phenomenon.
Sample Integrative Process Worksheet

Step One:

Complex Phenomenon: Earlier detection of child abuse by empowering children through education of when to report certain acts.

• Why is it complex? Children may think discipline is abusive when they don’t get their way, so it is a fine line to teach.

• Why are you interested in this phenomenon/problem? There is far too much suffering of children and deaths related to abuse. Teachers and neighbors need not be the only ones to detect the problem, but children can be empowered to know that they have rights and whom to talk to.

• What future relevance does studying this problem have for me? I want to be a social worker for foster care children and protect them from abuse either at home or while in foster care.

Step Two:

How can I educate children about what abuse is in a sensitive way and empower them to be their own advocate or find an adult they trust to tell about abuse?

Step Three:

Relevant Disciplines-
Steps Four and Five:

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Disciplinary Perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child and Family Studies</td>
<td>The dynamics of the family, theories of growth and development, and factors contributing to abuse.</td>
</tr>
<tr>
<td>Criminal Justice</td>
<td>The law relating to child abuse and requirements to report suspicious cases.</td>
</tr>
<tr>
<td>Psychology</td>
<td>The effects of abuse on the victim and the perpetrator, and possible disorders caused by abuse.</td>
</tr>
<tr>
<td>Social Work</td>
<td>How interventions are carried out in cases of proven and suspected abuse, and what happens to all involved.</td>
</tr>
<tr>
<td>History</td>
<td>The trends of incidence of abuse, how it</td>
</tr>
</tbody>
</table>
has been handled, and how it affects the victims’ lives long-term.

<table>
<thead>
<tr>
<th>Education</th>
<th>How to best teach the sensitivity of this dark subject without tainting young minds, yet informing enough to help kids know what is and is not appropriate and whom to get help from.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Science</td>
<td>The physical stresses and harm of the differing types of abuse.</td>
</tr>
<tr>
<td>Sociology</td>
<td>All of the socioeconomic factors affecting higher incidences of abuse.</td>
</tr>
</tbody>
</table>

**Step Six:**

Child and Family Studies and Social Work are probably the two most pertinent disciplines to address this interdisciplinary problem. They have the knowledge also contained in Criminal Justice enough to know the laws and how to help children to get protected in the foster care system, as well as the laws and process related to reporting suspicious abuse. There is also Sociology and Psychology contained in Child and Family Studies. History could be touched on as well as recent statistics, but it could be touched upon by Child and Family Studies as well as Social Work. Education could be incorporated by being sensitive to the subject going to such a young audience going with theories from Child and Family Studies and by getting plenty of feedback from kids, parents, and teachers.
Step Seven:

Children can be educated sensitively about abuse and get empowered about being their own advocate to report inappropriate treatment of them or someone they know. Creating a children’s book with tips for teachers and parents would be an age-appropriate intervention and educational tool for parents and teachers to approach this topic. Having more awareness and conversation on this dark topic will hopefully prevent abuse and consequent harm by having earlier and accurate reporting.

Step Eight:

Creating an educational children’s book to prevent or create earlier reporting is one intervention in alleviating the suffering to some of the most innocent and vulnerable. There may be problems for some parents, however, in not wanting to expose their children to such a dark topic. But for those wanting to educate their children in a sensitive manner this may be a solution. If not just this book, I am hoping something like this is present at all schools and addressed to educate and empower children. By including the disciplines of Child and Family Studies, Education, and Social Work I will integrate principles that will allow to me to present this topic in the most appropriate and effective way.

(Exercise from Ausburg, 2006.)
Learning Goals:

◊ Understand available project options
◊ Summarize academic, occupational, and life goals related to degree completion
◊ Identify what project types that might fit your goals

Definitions:

*Thesis question:* A thesis question is the principal focus of a capstone project. It is presented in the form of a question to be answered or a situation to be explored.

*Service Learning:* “Service-learning is a teaching method that engages young people in solving problems within their schools and communities as part of their academic studies or other type of intentional learning activity. Service-learning helps students master important curriculum content by supporting their making meaningful connections between what they are studying and its many applications” (National Service Learning Partnership, 2009).

*Undergraduate Research:* An inquiry or investigation conducted by an undergraduate student and faculty mentor that results in an original intellectual or creative contribution to a field of study (Council on Undergraduate Research, 2009).

*Secondary Research:* Reading, examining, studying, summarizing, and integrating research completed by others with the intent of answering an original thesis question or supporting other scholarly or service related work.

*Literature review:* A summary and explanation of key knowledge development, i.e. research studies and scholarly papers, related to a proposed Capstone/Senior Project.
**Academic/Creative Portfolio:** A record of academic experiences, achievements and professional development related to educational activities, culminating with completion of the Capstone/Senior Project. It should include documents and other media that demonstrate variety, depth, breadth, and quality of work.

**Overview of Capstone Project Options**

Now that Capstone Projects have been defined and clarified in the preceding chapters, it’s time to gain an understanding of the types of project options that are available. They are categorized under 4 main headings. Many students choose one project type because it fits their goals, while other students take a mix and match approach, building a project with components from two or more of the main options. Either way is acceptable. The most important thing to remember is to create a reasonable project with a manageable scope that makes sense given your emphasis areas and goals.

**Goal Identification Exercise**

Because it is so important to the Capstone process for students to identify goals early on, take a moment to answer the following questions about yourself:

- What are the three most important things you hope to learn and accomplish during the completion of your college degree?
- What kinds of lifestyle issues related to employment are most important to you? Are work hours important? Number of years in school? Moving residences around or staying put? With regard to your job roles, do you want to be autonomous, supervised, or do you want to supervise others? High or moderate stress?
If you could work in any field, what would it be? Why did you choose that particular field? List jobs in this field that you might be interested in pursuing, then narrow the list based on how you answered the lifestyle question above. Here is an example of how to go about answering this question…let’s say you chose the medical field. You list the following jobs at first…

- Medical Doctor
- Pharmacist
- Optometrist
- Medical or pharmaceutical sales
- Physical or Occupational Therapist
- Health educator
- Clinical Laboratory Sciences
- Dentist
- Hospital or nursing home administrator
- Physician’s Assistant
- Industrial Hygienist

Then you narrow the list to the following based on your lifestyle answers, where you indicated that you wanted to be out of school in 3 years or less after graduation with your bachelor’s degree, autonomous, moderate stress, and you did not want to be expected to work all hours of the day and night on a regular basis:

- Optometrist
- Medical or pharmaceutical sales
o Physical or Occupational Therapist

o Health educator

o Dentist

o Hospital or nursing home administrator

o Industrial Hygienist

What aspects of your coursework will support your efforts to obtain employment in these particular areas?

☐ List the 3 most important personal goals that you have at the current time and assess whether all that you listed above meshes with them. If so, then you are done with this exercise. If not, then you will need to revisit the above information and narrow further so that academic, professional, and personal goals mesh.

Once you have finished answering the questions in the Goal Identification Exercise, you will have useful information related to life, academic, and personal goals. Your capstone project should be a reflection of some aspect of your goals. While reading the project overview information that follows, mindfully consider the goals that are most important to you and try to determine what types of projects will help you reach your goals.

**Capstone Project Overview**

Every capstone must include a considerable amount of writing, evidence of research in all areas of emphasis (disciplines), substantial analysis, which can be quantitative and/or qualitative, and integration of the three areas of emphasis (disciplines) into a single, focused project:
During your course of study, include classes from your three disciplines that will prepare you for the capstone. For example, you may need skills from a research methods class, or a course in statistics, or a writing class in order to complete your project. Be sure to choose a topic that:

- Integrates your three areas of emphasis equally in a single project.
- Focuses on a topic about which you feel passionate and committed.
- Demonstrates appropriate-to-the-subject research skills and methodologies.
- Results in a final project that will contribute to knowledge on the topic.
- Includes a finished written component that will be placed in the library.
- Acts as a stepping-stone towards your career or graduate school goals.

The Finished Product

Whatever form your project takes, your final product should be a bound, hard copy that will be permanently housed in the Stewart Library. Whether you write a research paper or do a hands-on Service Learning Project, your final bound copy should include a reformatted version of the BIS Capstone Cover Page (found on the BIS Webpage, in the BIS Student Handbook, and at the end of this chapter) so the librarians have all the information they need to catalog your work. Along with the bound copy for the library, you’ll also make three hard copies, one for each member of your committee, which you’ll give them at least a week before your oral defense. Please ensure that the final product is polished and professional in appearance.

Your Proposal should explain clearly what final product you plan to generate. Will it be a research paper? Perhaps it will be a Web site and support paper. Or you may put a portfolio together. Before you start your project, articulate in your Proposal precisely what final product your committee can expect.

Approximate Length of the Finished Product
If you’re doing an undergraduate research project or literature review the average number of double-spaced pages is about 25 to 30. Most committee members don’t count pages or words, however, if you hand in a 10 page final paper, it will look as though you haven’t done much work.

- If you’re doing a hands-on project, you’ll want to keep a log and document all the work you did as your committee won’t see that. By the time you’ve included lesson plans and/or documentation of your time and work, and/or assessment of your project, along with a 10-15 page double-spaced support paper, you’ll probably produce about 25-30 pages.

- You must have at least 3-4 references per area of emphasis for your support paper. If you are doing a creative project or a service-learning project you will be kept to the minimum standard, but if you do a primary or secondary research project you should expect to have 5-7 references per area of emphasis.

**Basic Form of all Capstone Projects**

Capstones vary considerably, depending on the topic, but most of them follow this basic form:

- An introduction explaining what you’re doing and why.

- An explanation of how all three disciplines converged in your work.

- A conclusion that acts as analysis or assessment of what you did. If you’re doing a research project, you’ll answer your thesis question in your conclusion. For example, if you are finding out how art therapy can help autistic children, you will end your paper by giving your conclusions and explaining how you reached that opinion. If you’re doing a hands-on project, you’ll try to answer questions like: What worked? What didn’t? How can you tell? Who benefitted from your work?
Four Basic Types of Capstone Projects

You can write a classic research paper, but don’t feel limited by that version of a capstone project. Here are some choices:

**Primary Research (Mentored Undergraduate Research)**

An inquiry or investigation conducted by an undergraduate student and faculty mentor that results in an original intellectual or creative contribution to a field of study (Council on Undergraduate Research, 2009). This is a mentored research project, where you will work with a faculty mentor to engage in undergraduate research. You start with a focused research question, and then collect primary data that you analyze. Depending on your discipline, you could do a scientific experiment, or a survey, or a series of interviews. If you choose this route, keep these considerations in mind:

- Mindfully choose a faculty mentor to help you. This should be a person who:
  - Shares academic interests,
  - Is organized and responsive to students,
  - Has enough time to fully mentor you through this process.

- Complete Informed Consent Forms through the Weber State University Institutional Review Board (More on this in Chapter 6 of this text) if you’re using human subjects.

- Create a project that is manageable, narrow in scope, and appropriate for someone at the undergraduate level. You must write a support paper that is usually 25-30 pages and has 5-7 scholarly references per area of emphasis.
Secondary Research

Reading, examining, studying, summarizing, and integrating research completed by others with the intent of answering an original thesis question or supporting other scholarly or service-related work. The knowledge you gather is not original, but you do something with it that hasn’t been done before. For example:

A resource guide for single mothers in Northern Utah (ChFam; Comm; WS)
A plan to decrease waste in a factory’s cookie production (MFET; SST; Math)
A workshop on good nutrition for kidney dialysis patients (Nutri; Psych; Chem)

If you choose this option, consider the following questions:

- What problem or issue are you addressing?
- Why are you addressing this problem?
- How will you go about your project?
- How will you measure your success? For example, a pre and post test could assess whether the workshop you design has had any effect.
- Who is your audience? You may well have two audiences. For example, the single moms in Northern Utah want accessible and useful information from a resource guide; your capstone committee wants to know where your information came from, how you gathered it, and why you organized your guide the way you did. If you have two audiences, plan on producing a two part capstone: the resource guide/workshop/program for your target audience (i.e. Mothers in Northern Utah), and a supporting document for your academic audience (i.e. your Proposal Committee). You will give both completed parts to your capstone committee for your final product.
What is your final product? For example, if you’re writing a resource guide, you’ll also need to provide a support paper, appropriate to your disciplines, and include a complete bibliography citing your sources. Your reference list must use correct format (use APA—American Psychological Associate—unless told otherwise by your committee).

Another type of secondary research is a literature review. This means you determine a topic to study in depth and then read, summarize, and integrate other people's research materials into a clear picture of past knowledge development, where knowledge development related to this topic is at the present time, and where it might be going in the future. You also make conclusions and recommendations based on what you learned from studying the research of others. Literature reviews start with a question related to precisely what you would like to know, for example, you could ask: "What is the best treatment for Parkinson's Disease?" (Chem; Zool; Psych). Begin by writing an introduction that explains what question you're asking, why it's an important question to address and why a literature review is an appropriate approach. Then read approximately 7-9 scholarly articles per emphasis area, two or three recently published text, and no more than three creditable Web sites.

At your proposal meeting, reach an agreement with your committee on exactly how much reading you'll be required to do. As you write your final paper, demonstrate what you learned from each article, text and Web site by discussing similarities and differences in findings. Does there seem to be a consensus regarding your topic or question? Are there conflicting opinions or research results? Explain the significance of what you have learned from the readings in terms of clarifying your topic or question. Draw conclusions based on what you have learned. Discuss what you think is the best answer to your capstone question based on what you learned.
from your readings. As a final product, you will be expected to produce a 20 to 30-page paper with properly formatted citations and reference list, using APA format unless told differently by your committee.

Service-Learning Project

“Service-learning is a teaching method that engages people in solving problems within their schools and communities as part of their academic studies or other type of intentional learning activity. Service-learning helps students master important curriculum content by supporting their making meaningful connections between what they are studying and its many applications” (National Service-Learning Partnership, 2009). This option blends academic study and community service. Through service-learning, you make the connection between classroom instruction and real-life situations in a reflective way. You will do a volunteer project for a non-profit agency or educational institution, (but not a church), approved by your capstone committee, and then demonstrate what you’ve learned by writing a reflective journal and a 15 page project support paper.

If you do a service-learning project, you will be expected to:

- Create and complete a particular project for your agency. It’s not enough just to put in volunteer hours.
- Write a clearly focused goal and plan for your service project as part of your Proposal.
- Sign a contract with the agency, clearly outlining expectations on both sides.
- Work out a contract of hours per week with the agency, sufficient to satisfy the agency and your capstone committee.
- Write one single-spaced reflective journal page for every hour you spend doing volunteer
work, showing what you actually did and how you responded to these experiences.

- Write a 15-page project support paper where you describe how your three areas of emphasis informed your work. The purpose of your paper is to show how you have integrated best practices and theories learned in your three areas of emphasis. Your paper will be formatted appropriately to your disciplines, and including a complete bibliography citing your sources in APA format unless otherwise directed by your committee. You are expected to use 3-4 references per area of emphasis for your support paper.

Before embarking on this project, please find and print out the paperwork that accompanies the project. It can be found on the BIS homepage.

**Creative Project**

You can choose to do a creative capstone project that brings something new into the world. For example, you may:

- Design a website.
- Write a children’s book.
- Create an animated short film.
- Produce an educational pamphlet.
- Write and perform a musical composition.
- Mount an exhibition of your own art work.

If you choose this option:

- Be sure your topic involves all three emphasis areas.
- Actually produce your creative capstone. In other words, put the website out on the
internet; give a concert showcasing your musical composition; do a performance of your original dance.

- Ensure that your capstone committee attends or sees your creative project when you produce it.
- Produce a copy of your work for the library: for example, a CD, video, or tape.
- Write a 15 page project support paper that explains what you’re doing, why you’re doing it, and what research (short review of relevant literature) you did to bring it into being. Your paper should show how you have integrated the knowledge and skills learned in your three areas of emphasis, and should be formatted appropriately to your disciplines, including a complete bibliography citing your sources using APA format unless told otherwise by your committee. You are expected to have 3-4 references per area of emphasis for your support paper.

General Steps for Completion

Here’s a brief listing of the steps you will follow to complete any of the above capstone project options:

- Take BIS3800 at least three semesters before you plan to graduate if possible.
- After completing BIS3800, register for BIS4800 close to the semester that you plan to complete the project. It usually takes more than one semester to complete your project and you only have to pay for BIS 4800 once.
- Put together your Capstone Committee.
- Discuss your proposal (that you created in BIS 3800) with your prospective committee members and invite them to be on your committee.
*Please note that if you decide to change your proposal after completing BIS 3800, it’s okay. All you need to do is send your new proposal to the program director, via e-mail, so that it can be reviewed and approved.

- Hold a proposal meeting. Find out their communication preferences, let them know how often you’ll get in touch with them, who will be the chair of your committee, and that you will work with the WSU Writing Center to put your paper in APA format (unless told otherwise).

- Work on your capstone project: send your committee drafts on a regular basis so they have the time and opportunity to give you feedback. Keep sending drafts and incorporating feedback until all three of your committee members have agreed that no further revision is needed. After this milestone has been reached, then it is time to move on to the next step…

- Call a defense meeting, making sure each member of your committee has at least two weeks to read the final draft of your project before holding the oral defense. Once it’s acceptable to them, schedule your defense with your committee and make sure the director of BIS is there as well. Remember to contact the BIS administrative assistant for help with scheduling—the director does not make appoints. Tell what you learned and your next steps after graduation, not what you did for your project since they are well acquainted with it already. Workout the details of getting them a hard copy of your support paper. You usually get them a hard copy after your defense if there are any more revisions to be made. Be sure to write them each a thank you card for mentoring you and giving you their time.
Capstone Project Grading

Your Capstone Committee will award a final grade at your oral defense. This grade will be based on the BIS scoring rubrics found at https://weber.edu/BIS/grading.html

It is very important that you give your committee a final version (that requires no more feedback from committee members or further editing) of your capstone at least a week before your oral defense.

In the event that your Capstone Committee does not feel that you are ready to defend and/or pass your defense, your defense will be cancelled by the BIS Program Director.

Final Thoughts

Stay in close touch with your committee members. Send them drafts on a regular basis, e-mail or visit during office hours to update your faculty on the progress you’re making.

- Make sure your committee members have at least two weeks to read your final capstone paper, and approve it, before they come to your oral defense.
- Begin the oral defense scheduling process early: a month ahead of the time you want to hold the meeting. Make sure your committee has at least a week to read your work before the oral defense meeting.
- Keep a working binder that documents each step of the Capstone process, committee comments, reference articles, draft copies, and ultimately, the final Capstone product.
- Take a look at the completed BIS projects on the BIS website.
Regardless of the type of capstone project you decide to complete, your thesis question should be the guiding light for the entire project. Upcoming chapters will explore the process of writing appropriate thesis questions for each project type. Remember, your thesis question should be narrow enough to clearly explain, clarify, and quantify (if applicable), a specific topic, it should cover only what you will discuss in your final or support paper, and it should be supported with applicable scholarly literature and related evidence.
During the process of completing your capstone, you will develop academic skills through the content of your capstone, and leadership skills through the capstone process. Both sets of skills are important components of your capstone experience, and will strengthen you in terms of employment and further study.

**Capstone forms are available for you on the BIS website**

https://weber.edu/BIS/resources.html
Chapter 5

Capstone Project Option: Community Engaged Learning

Learning Goals:

- Understand and describe the process of a Community Engaged Learning Capstone Project
- Define and understand Community Engaged Learning (CEL) and the three forms of CEL facilitated at WSU
- Explore how to create a thesis question or focused exploration for a Community Engaged Learning Capstone Project
- Reflect upon what types of community engaged learning activities resonate with your personal goals and values
- Summarize the activities and opportunities available at the Weber State University Center for Community Engaged Learning
- Envision types of service, democratic engagement, and community research activities that could mesh with your Capstone Project ideas

Definitions:

**Community Engaged Learning** involves working to make a difference in the civic life of our communities through both political and non-political processes while developing the combination of civic knowledge, civic skills, civic values, and civic action to make that difference (from *Civic Responsibility and Higher Education*, edited by Thomas Ehrlich, published by Oryx Press, Preface, page vi.).
Community engaged learning (CEL) encompasses “actions wherein individuals participate in activities of personal and public concern that are both individually life enriching and socially beneficial to the community” (AAC&U Civic Engagement Rubric). CEL can therefore take on many forms of engagement that enhances the public good, from individual volunteerism to organizational involvement to electoral participation to attending awareness raising seminars, panels and discussions around issues of public concern. It can include efforts to directly address an issue, work with others in a community to solve a problem, or interact with the institutions of representative democracy. In all community engaged learning experiences, the focus is on meeting the public good, not creating a private benefit for an exclusive population.

The Center for Community Engaged Learning (CCEL) facilitates three forms of community engaged learning: service, democratic engagement, and community research.

**Service** experiences often involve working directly with community residents to meet an immediate need; such as, volunteering to serve meals at a homeless shelter, serving as a mentor or tutor in a local youth development program or school; cleaning up the banks of the Ogden River; hosting a Valentine’s Ball at a local senior center; or coaching a Special Olympics team.

**Democratic Engagement** experiences often involve raising awareness about issues of public concern and working more systemically through both political and non-political processes to create change; such as, attending organized discussions about pollution, serving on a neighborhood association, writing a letter to an elected official, serving as a poll worker, assisting with voter registration drives, engaging others in the process of deliberative democracy, or producing a piece of legislation or policy.
Community engaged learning experiences often involve gathering information with and for community organizations to solve a pressing community problem or create change. Examples of community research include, but are not limited to, community needs assessment survey; water quality or scientific assessment; or program evaluation for non-profit organizations.

Most community engaged learning experiences involve all three forms of CEL listed above. One pathway may be more central to a project or experience than others but most community engaged learning involves service, democratic engagement, and/or community research to varying degrees.

Thesis question: A thesis question is the principal focus of a capstone project. It is presented in the form of a question to be answered or a situation to be explored.

Understanding Community Engaged Learning

Completing a successful Community Engaged Learning Capstone Project requires an understanding of community engaged learning and the three forms of CEL facilitated at WSU: service, democratic engagement, and community research. The following slide presentation will help you better understand these experiences and provide information on the Weber State University’s Center for Community Engaged Learning (CCEL). CCEL assists BIS students who complete Community Engaged Learning Capstone Projects.

The Process of Completing a Community Engaged Learning Capstone Project

This capstone option blends academic study and community engaged learning. Through community engaged learning, you make the connection between classroom instruction and real-life situations in a reflective way. Please review Weber’s high-impact division, Center for Community-Engaged Learning at https://weber.edu/cCEL
Consider the following:

- You must have a specific goal or purpose, with a beginning, middle and end. It’s not enough to spend time volunteering for an agency. What will your project contribute to the agency that they are not already doing?

- You may choose to work with any non-profit agency or educational institution, but your project cannot be affiliated with a church.

- The purpose of your capstone project is to demonstrate what you’ve learned in your three disciplines, and to synthesize that knowledge in a single project.

- Your community engaged learning project must be approved by your capstone committee.

- Consider what research you need to do in order to understand the issue you’re addressing through your hands-on work. The community engaged learning project should be a combination of academic and practical work, so make sure you include grounding in research.

- Make sure you analyze and integrate the knowledge you gained from your experience. Here are some questions to guide your thinking:
  
  - What worked? What didn’t? What would you do differently?
  - What skills and knowledge helped you? What else did you need to know to complete this project?
  - Who benefited from your work and how?

If your project involves human subjects, you’ll have to complete the IRB paperwork for legal coverage. This process takes time, so start early. For more information, look at: https://weber.edu/irb
• Think about what your final product will look like. What will you include in your capstone portfolio and how will you organize it?

The Process:

1. If you do a community engaged learning project, you will be expected to complete the following paperwork before you start your volunteer work:

   □ Complete the **BIS Community Engaged Learning Contract**, provided at the end of this chapter as a way to:
      1. articulate a clearly focused goal and plan for your community engaged learning project
      2. make the expectations on both sides explicit
      3. provide you and the agency with legal coverage

   □ Complete the **Disclaimer Form for Community Engaged Learning Project**
      1. This form must be signed by you and the person who will be supervising and guiding your service learning on site,

   □ Complete and sign these two forms before you start your project. Give one copy to the BIS office, one to the agency, and make a copy for your records.

2. **During** the time that you work in the agency, you will also:

   1. Complete the online electronic **Community Engaged Learning Time Record**, documenting your hours and activities with the agency.

   2. Write one reflexive journal page for every session you spend doing volunteer work, describing what you did, and how you responded to these experiences. Please see the
Community Engaged Learning Journaling Ideas included in this packet for ways to go about writing this journal.

- Write a short (10-15 pages) research paper combining your three areas of emphases. The purpose of your paper is to show your scholarly understanding and ability to apply knowledge from your three areas of emphases in this practical situation. Your paper will be formatted appropriately to your disciplines, including a correctly cited bibliography of your sources. (APA, MLA, or Chicago style sheet, depending on your disciplines).

3. At the end of your time with the agency, you will:
   - Complete the Personal and Professional Growth Assessment with your supervisor at the agency as a way to evaluate your performance.

4. For your capstone, submit all the completed forms named above as an appendix to your final written capstone project.

Creating Thesis Questions or Focused Explorations for Community Engaged Learning Capstone Projects

Creating an excellent community engaged learning project requires mindful reflection related to what types of community engaged learning activities resonate with your personal goals and values. Take a moment to envision what types of volunteer activities you would like to do. Ask yourself the following questions:

- Do you enjoy working with children, adolescents, adults, family units, or the elderly?
- Do you want to work indoors or outdoors?
- Do you prefer structured or unstructured environments?
What skills, passions, knowledge, and interests do you have to offer individuals or agencies?

What sorts of environments would you strongly prefer not to be in? *It’s okay to have preferences!

What kinds of agencies or groups of people might be able to use your unique skills to enhance or improve their circumstances? Be creative! Here are 12 examples of the types of activities that are possible, along with hypothetical thesis questions/focused explorations to stimulate your thinking related to what you might be able to do. An agency, community group, or group of individuals might need your help to…

- Update or create a Web page that showcases services and activities
  - Possible thesis/focused exploration question: “What top 6 agency services are utilized most heavily and how can they be presented to the public most effectively on the Web?” Or
  - “What 5 improvements could be made to the current agency home page to improve site utilization?” Or
  - “What information should be included on a new Web page for this agency? Why should this specific information be included?”

- Raise funds or write a grant
  - Possible thesis/focused exploration question: “What is the most pressing funding need for this agency (group, etc.) and how can I assist with fund raising (or grant writing)?” Or
“What funding opportunities for this agency are available in the public and/or private sector and how can they be effectively pursued?”

- Build low cost housing
  - Possible thesis/focused exploration question: “How does the purchase of a Habitat for Humanity home change the financial outlook of the families who buy the homes?” Or
  - “How will rehabilitating blighted homes in an inner city neighborhood affect the surrounding community?”

- Tutor Junior High School kids in math and science
  - Possible thesis/focused exploration question: “What 3 tutoring activities are most effective for helping Junior High School Aged kids learn elementary algebra (or physics, or chemistry etc.)?” Or
  - “What are the 5 most important long term social implications of tutoring at risk Junior High School aged kids in math and science?”

- Teach a computer skills class to adults in the community
  - Possible thesis/focused exploration question: “What are the top 5 benefits of learning basic computer skills according to seniors at one local senior center?” Or
  - What basic computer skill is the most challenging to learn according to adults in a community Basic Computer Skills class? What resources are available to facilitate teaching/learning this skill and how can they be acquired and utilized by this program?”
Assist kids with cerebral palsy to ride horses

- Possible thesis/focused exploration question: “How does horseback riding benefit kids with cerebral palsy?” Or
- “How does assisting kids with cerebral palsy to ride horses affect perceptions related to people with disabilities in the volunteers who work with this program?”

Organize and staff Special Olympics activities

- Possible thesis/focused exploration question: “What funding model would be best to use for the Special Olympics in Utah? Or
- What 10 ways can volunteers be utilized most effectively for the Special Olympics in Utah?”

Put on a formal dance for residents at a long term care facility

- “According to participants in a qualitative survey, what are the top 5 social benefits for both residents and volunteers of participating in a formal dance at a long term care facility? What similarities and differences exist in the above responses?” Or
- “How did a group of college volunteers put on a formal dance at a long term care facility? Successes and lessons learned.”

Video tape and document a community event for an organization that would like to create a video archive

- Possible thesis/focused exploration question: “Creating a video record of the Ogden Alzheimer’s Walk: Successes and Lessons Learned.” Or
- Why is it important to create a video record of the Ogden Alzheimer’s walk? Historical roots, current concerns, and benefits for the organization.

- Create or update pamphlets and other promotional materials
  - Possible thesis/focused exploration question: “What pamphlets and promotional materials are currently available for the Freedom Rider’s organization and what could be added to enhance community visibility?”
  - Or
  - “How might existing pamphlets or promotional materials for the Freedom Riders organization be updated to enhance reader appeal?”

- Teach kids in an after school or recreational program about the benefits of exercise and healthy eating
  - Possible thesis/focused exploration question: “According to a group of kids in one Ogden City after school program, what top 5 factors influence the amount of vigorous physical activity they engage in each day?”
  - Or
  - “Kids and healthy eating: Results of a pre and post test to determine if an educational program on healthy eating influenced attitudes about healthy versus unhealthy food choices.”

- Arrange and perform in a dance program for Seniors at a local senior center dinner theater event consisting of dance numbers encompassing historically accurate dances from the 1940s and 1950s and also current styles
Possible thesis/focused exploration question: “Did seniors who attended a local senior center dinner theater event prefer seeing dance numbers performed in styles reminiscent of the 1940s and 1950s, did they prefer current styles, or did they enjoy both equally?” Or

“Putting on a dinner theater with dance entertainment at a local senior center: Successes and lessons learned.”

The possibilities are endless. If you have skills to share and a passion for service, chances are good that someone will be interested in working with you—especially if you take a flexible approach and envision new possibilities, not apparent to you at the outset, that arise from conversations with teachers, advisors, agencies, friends, and family.

**BIS Community Engaged Journaling Ideas**

Here is some guidance on your journal writing. Remember, you’re expected to make an entry for every session you spend on-site, doing volunteer work. These are things you could include:

- Write an account of the daily events that occur. (This descriptive component of your journal should be kept to a minimum.)

- Next describe your feelings and perceptions, questions and ideas about what happened during your work. Let your thoughts roam freely and don’t be concerned with grammar, etc. at this stage. You can clean your work up later.

- What research would help you do this project better? Make a list of topics or questions you want to find out more about.
You might reflect on any of the following:

- Are you clear about the goals of your site and do you agree that these goals are worthy?
- Are you clear about your own goals with this project, and do they seem to be working out?
- If you were in charge of the site, would you change anything?
- Tell about a person there whom you find interesting or challenging to be with. Why?
- What is the most difficult/satisfying part of your work experience? What does it take to be successful at the kind of work you do?
- Write about something you learned as a result of a disappointment or even a failure. Think back on a moment when you felt especially happy or satisfied in your work. What does this tell you about yourself?
- What are you learning in terms of your three areas of emphases by doing this service-learning project?

Below you will find a reflection template designed to help students articulate what they have learned from their community engaged learning experiences. Four specific outcome areas have been identified by Weber State University as important learning outcomes for students who engage in the community. These outcome include: civic knowledge, civic values, civic skills and civic action. The reflection template can be used to help you reflect on what you have learned from your community engagement in any one of these areas.

The reflection model is called DEAL wherein the D stands for “Describe,” the E stands for “Examine,” and the AL stands for “Articulate Learning.” The Describe and Examine steps are
process steps and the Articulate Learning step is where you produce your reflection product. This articulated learning product is a journal entry.

At the end of the DEAL reflection template, you will find a rubric against which you can evaluate your Articulated Learning product. As a BIS capstone student, your Articulated Learning products should be able to be evaluated by your committee and result in a score equivalent to at least the “Proficient” level of the rubric.

**Reflection Template**

*DEAL Model for Critical Reflection*

Use the following prompts to create a comprehensive reflection piece detailing your civic engagement experience and what you learned from it.

**Step 1: Describe**

Describe your experience objectively. Answer the following prompts:

- What did you do?
- Where did you do it?
- Who were you working with and/or for?
- When did this happen?
- Why did you do it?
- What did you say or otherwise communicate?
- What did others do? What actions did you/others take?
- Who didn’t speak or act?
- What else happened that might be important (e.g., equipment failure, weather-related issues, etc.)
Step 2: Examine

Examine your experience in terms of one of the following four learning outcomes: civic knowledge, civic skills, civic values, or civic motivation. Answer the prompts associated with one of the four learning outcomes listed below.

Civic Knowledge (Intersection between academic enhancement and civic learning)
- Did any academic concepts become apparent during this experience?
- Were any academic concepts utilized to reach the goal you were trying to accomplish? How so?
- Did you need to change your approach after new information and experiences were presented to you?
- What do the differences between your textbook and your experience in the community suggest about changes that may be needed in the policies that affect the individuals your partner organization serves?
- How can you or others in the community use what you learned about the course material and are there any challenges associated with doing so?
- Did this experience differ from your initial expectations? Why or why not?
- How does your civic engagement experience and academic knowledge inform your understanding of systemic causes of the social, political, or civic issue on which you are focused?

Civic Skills (Intersection between civic learning and personal growth)
- What was the goal you were trying to accomplish?
- Were you able to effectively achieve your goal? Why or why not?
• Which skills did you bring to the experience that helped you meet your goal?

• How did your skills contribute to the diversity of the people with whom you worked? And how did you approach the harnessing of those differences for maximal effectiveness?

• Did you form any new assumptions that required you to change your approach? How so?

• Did you acquire any new skills by having to work to achieve this goal?

• Was this an easy or a difficult task to undertake? Why?

• Did you recruit others to help accomplish your goals or raise awareness of the problem you are actively trying to address? Why and how? Or Why not?

**Civic Values (Intersection between personal growth and civic learning)**

• How did your strengths and weaknesses contribute to working towards the goal you were trying to accomplish? What were the positive and negative effects of these personal characteristics?

• What assumptions did you bring? And what new assumptions did you need to form as you undertook this process?

• Did your assumptions about members of the community make your experience more or less successful when accomplishing your objectives?

• Did your personal values regarding civic engagement play a role in helping you to accomplish your goal? How and why? Or why not?

• What effect did you and this experience have on others?

• In evaluating the plan in light of its benefits and challenges, did you recognize any need for you to change personally? How so?
Civic Action

- Did this experience increase your sense of responsibility for acting on behalf of others?
- Did this experience have any influence on your future educational or career path?
- What personal knowledge and skills did you discover or acquire during this experience that will assist you in your future endeavors in this area?
- Did this experience inspire you to continue a commitment to serving others?
- What steps have you taken - or do you plan to take - to implement this plan of continued commitment?

Step 3: Articulate Learning

Use your responses to the prompts above in both the “Describe” and “Examine” sections of this reflection template to create a thoughtful essay wherein you articulate what you have learned from your civic engagement experience.

Each of the following questions should be addressed in your essay:

- What did I learn?
- How did I learn it?
- Why does it matter?
- What might/should be done in light of it?

For more information about what your Capstone Project Report will look like, go to:

https://www.weber.edu/BIS/project-faq.html
Chapter 6

Capstone Project Option: Mentored Undergraduate Research

Learning Goals:

- Understand and describe the process involved in an Undergraduate Research Capstone Project
- Explore how to create a thesis question or focused exploration for an Undergraduate Research Capstone Project
- Summarize the activities and opportunities available with the Weber State University Office of Undergraduate Research
- Envision and discuss what types of Mentored Undergraduate Research activities could mesh with your Capstone Project ideas

Definitions:

**Undergraduate Research**: An inquiry or investigation conducted by an undergraduate student and faculty mentor that makes an original intellectual or creative contribution to a field of study (Council on Undergraduate Research, 2009).

**Mentor**: Person who serves as guide and advisor to a less experienced person.

**Institutional Review Board**: A group of experienced researchers and other stakeholders entrusted with the task of reviewing proposed research projects that involve human participants to assure that the rights of participants are protected, that informed consent is obtained from the participants, and that possible benefits of the research outweigh the possible risks to participants.

**Thesis question**: A thesis question is the principal focus of a capstone project. It is presented in the form of a question to be answered or a situation to be explored.
The Process of Completing a Primary Research Project

This capstone option provides the opportunity for students to use knowledge gained from coursework and work with a faculty mentor to complete research related to a specific research question. Through the completion of an Undergraduate Research Capstone Project, you gain experience and knowledge related to the research process that can be applied to job situations that require formal inquiry and/or future studies in graduate school.

Consider the following:

- You must have a specific goal or purpose, with a beginning, middle and end.
- You must start with a focused research question, and then collect primary data (under the guidance of a faculty mentor) that you analyze.
- Depending on your discipline, you could do a scientific experiment, or a survey, or a series of interviews.
- Mindfully choose a faculty mentor to help you. This should be a person who:
  - Shares academic interests,
  - Is organized and responsive to students
  - Has enough time to fully mentor you through this process
- Complete Informed Consent Forms through the Weber State University Institutional Review Board (More on this in Chapter 6 of this text) if you’re using human subjects.
- Create a project that is manageable, narrow in scope, and appropriate for someone at the undergraduate level.
- Remember that the purpose of your capstone project is to demonstrate what you’ve
learned in your three disciplines, and to synthesize that knowledge in a single project.

- Your Undergraduate Research Capstone Project must be approved by your capstone committee.

- Make sure you integrate what you learned from completing the research project in light of your areas of emphasis (disciplines). Here are some questions to guide your thinking:
  
  o What skills and knowledge from each of your disciplines helped you to complete this project?
  
  o What conclusions can you make about the results of the research project that will help you understand your emphasis areas (disciplines) better?
  
  o How did your work contribute new knowledge to each of your emphasis areas (disciplines)?

- If your project involves human subjects, you’ll have to complete the IRB paperwork for legal coverage. This process takes time, so start early, preferably the semester before you plan to complete your capstone. For more information, look at: .

- Think about what your final product will look like. How will you organize your paper to effectively include all aspects of the research that you completed? (There will be more information about writing your paper in Chapter 12). Most capstone research papers are 25-30 pages long and need at least 5-7 scholarly references per area of emphasis.

**Creating Thesis Questions or Focused Explorations for Research Projects**

Creating an excellent Research Capstone Project requires mindful reflection related to what research topics resonate with your personal goals and values. Take a moment to envision what
types of questions you are interested in asking about phenomena related to your areas of emphasis (disciplines). Ask yourself the following questions:

- Are you interested in answering questions related to:
  - People
  - Animals
  - The environment
  - Processes
  - Thoughts and ideas
  - Observable phenomena
  - Measurable phenomena

- Do you like to count things or talk about things (or both?)

- What skills, passions, knowledge, and interests do you have that can be used to support the completion of a research project?

- Are there any professors on campus working in any of your disciplines that might be able to use your unique skills, enthusiasm, and interests in contributing to a research project that is already underway? Be open to brainstorming and making creative connections!

- Here are 7 hypothetical thesis questions to give you an idea of how a thesis question should be constructed and to stimulate your thinking related to what you might be able to do:
  - Researchers studying the results of a pre and post test given to High School students who participated in a 6-week community drumming class ask this
question: Will a community drumming group for High School aged youths decrease self-reported levels of perceived stress?

- What are the top 5 most frequently utilized services at United Way of Northern Utah and do results match previously identified community needs assessment results?

- Will an educational program on ergonomics and back care related to transport of books/supplies to and from school affect 6th graders’ attitudes about preventing back injury related to carrying too much weight in book bags? Results of surveys completed before, and 6 weeks after an educational program presented to three 6th grade classes in the Weber School District will be presented.

- Are there fewer Canadian Geese migrating through the Willard Bay area in Utah now than in 1969? Results of a comparison of numbers recorded in Spring of 1969 and numbers recorded in Spring of 2009 will be presented along with a discussion of possible reasons that might explain noted changes or the lack of noted changes.

- Will a sustained exercise program decrease cravings for simple carbohydrates in morbidly obese women? Results from a 6 week self report study will be presented.

- Does horseback riding decrease muscle spasms in children with moderate to severe cerebral palsy? Results from a 12-month study of parental reports related to muscle spasms in children participating in the Freedom Riders program will be presented.
How much vigorous physical activity do 6th grade children engage in during recess at school? Results of a 6-week observational study of 2 cohorts of 6th graders who were observed during recess periods at school.

The possibilities are endless. If you are inquisitive, have skills to share, and a passion for asking and answering complicated questions, chances are good that you will be able to arrange an Undergraduate Research Capstone Project—especially if you take a flexible approach and envision new possibilities, not apparent to you at the outset, that arise from conversations with teachers, advisors, agencies, friends, and family.

The Weber State University Office of Undergraduate Research

The Weber State University Office of Undergraduate Research (OUR) has funding available for undergraduate research projects that students can compete for on a rotating basis. They also host an Annual Undergraduate Research Symposium where students have the opportunity to formally present their projects at a professional/scholarly conference. Information about the OUR can be accessed at: https://weber.edu/our

WSU values undergraduate research. As you're working on your capstone, take advantage of the opportunities designed to support and encourage the research you're doing. You can find detailed information on the OUR website at: Or, type "undergraduate research" in the WSU search engine. You'll find the following exciting options open to you:

Grants

The WSU Undergraduate Research Grant Program is intended to facilitate student research and creative activity in all disciplines, to encourage collaboration between students and faculty on sustained projects of significant educational value to the student, and to
enhance the overall undergraduate experience through active engagement in the process of discovering and sharing new knowledge.

All currently enrolled students are eligible to apply. Students must work with a WSU faculty or staff member whose role is to serve as a mentor to the project, complete a Mentor Recommendation Form, and sign the Grant Application Form.

The maximum amount of a single grant is $3000. Grant money may be requested to cover the following project-related expenses (NOTE: retroactive expenses are NOT eligible for reimbursement):

- Materials (left-over materials purchased with this grant will remain the property of WSU)
- Equipment (equipment purchased with this grant will remain the property of WSU)
- Student travel to gather data for the project
- Student travel to present the results of the project (if the student has been selected to present the project at a conference, exhibit or recital)
- Student stipend during some or all of the time required to complete the project (this is taxable income)

For more information, look at the "Grant Application" section of the Undergraduate Research website.

**Annual Symposium**

At the Weber State University Annual Undergraduate Research Symposium, undergraduate students may apply for the opportunity to give formal presentations or displays of original research, scholarly or creative activities in all academic areas. Presentation formats may
be as diverse as the fields they represent but must be appropriate to the discipline. Applications must be received by March most years. For more information, look at the symposium information on the OUR website https://weber.edu/our

National Undergraduate Research Conference

WSU sponsors the students with the best undergraduate research projects who have presented at the Weber State University Annual Undergraduate Research Symposium to attend the national annual conference. For more information, see the "National Conference on Undergraduate Research" section of the Undergraduate Research website.
Here are some past examples of student Undergraduate Research projects presented at the WSU Undergraduate Research Symposium:

- Constructivism: Comparing the “Cognitive Complexity” of Communication, Business, and Mathematic Majors
- General Anxiety, Depression, Social Anxiety, and Social Support: Prevalence and Comorbidity among College Students
- The Migration of Plants and Culture: The Presence of Traditional Mexican and Central American Medicinal Plants in the Latin Markets of Ogden
- Survival of Escherichia coli in Bruised Apples and Salmonella Enteritidis in Tomatoes
- The Biological Effects of Shift Work: A Correlation between General Health Markers and Cortisol Production in Law Enforcement Personnel
- The Impact of Podcasting on Learning
- Sierra Leone: A Case Study of Civil War and International Jurisprudence
- Photographing Folklore: Ogden’s Underworld
- Epidemiology of community and hospital-associated Methicillin-Resistant Staphylococcus aureus in Salt Lake City, Utah
- Sex & Gender Differences in Learning Styles
- El Legado de los Eventos de Ernesto “Che” Guevara a las Futuras Generaciones
- “Maybe you can help me.”: Negotiating Masculinity in Feminine Space.
- The Effect and use of Pilot Tubes on Various Coagulation Studies
- Cultivation Theory Supports the Effects of Negative News on Society

For more information about Primary Research, go to [https://www.weber.edu/BIS/project-faq.html](https://www.weber.edu/BIS/project-faq.html) > What are the various types of Capstone Projects
Chapter 7

Capstone Project Option: Secondary Research

Learning Goals:

- Understand and describe the process involved in a Thesis Question and Literature Review Capstone Project
- Explore how to create an appropriate question for a Thesis Question Project or a Literature Review Project
- Summarize the support opportunities available with the Weber State University Stewart Library

Definitions:

**Secondary Research:** Reading, examining, studying, summarizing, and integrating research completed by others with the intent of answering an original thesis question or supporting other scholarly or service related work.

**Literature review:** Summary, explanation, and integration of key knowledge development, i.e. research studies and scholarly papers, related to a proposed project.

**Scholarly Literature:** Scholarly literature consists of academic works published in peer-reviewed journals and books. *Peer reviewed means that a group of academics with expertise related to article content have reviewed the article for accuracy, clarity, and significance before publication. Most academic disciplines have specific journals where field specific content is published.*

**Thesis question:** A thesis question is the principal focus of a capstone project. It is presented in the form of a question to be answered or a situation to be explored.
Completing a Secondary Research Capstone Project

This capstone option provides the opportunity for the student to ask a scholarly question about a phenomenon of interest and then answer that question through the process of studying related scholarly literature (knowledge development). A mindful and thorough search for existing knowledge development will facilitate a reflective exploration of your question and allow you to propose unique observations and informed answers. After answering the question, many students create a practical component to demonstrate real-world use of the information gained through process of researching and writing the paper, for example the creation of a resource guide or an educational offering.

There are two kinds of secondary research that you can do for this type of capstone project:

- Create and answer a **thesis question**, or
- Write a **review of literature**

The main focus of a project with a **thesis question** is to present scholarly literature to explore and support your own argument. The focus of a **literature review** is to summarize and synthesize the arguments and ideas of others. The thesis question research paper should have a wide range of scholarly articles to illustrate the argument (similar to a literature review), but it is usually a select number of articles because the emphasis of the paper is on the question or argument. A literature review should also have a question to be answered or some form of an argument, however the question/argument is not as important as thoroughly covering available scholarly sources on the topic in question. In simple terms, a thesis question project (and the accompanying paper), and a literature review project (and the accompanying paper) contain
many of the same elements and are quite similar on the surface. The difference between the two has to do with whether the emphasis is on the question/argument (i.e. a thesis question project) or thorough study of the scholarly literature (i.e. a literature review project). In metaphorical terms…

- A thesis question project is a criminal trial in a court of law
- A literature review is a documentary on the origins of criminal behavior

**Consider the following:**

- The purpose of your capstone project is to demonstrate what you’ve learned in your three disciplines, and to integrate that knowledge into a single project, in this case, an answer to a thesis question that incorporates aspects from all of the disciplines you have studied.
- Your capstone committee must approve your final thesis question and project completion plan before you start the project.
- Consider what kinds of research articles you need to find in order to understand the issue you’re addressing and make sure that you include research from all of your emphasis areas equally. A good rule of thumb is to have a minimum of 7-9 excellent, fully applicable articles from each involved discipline.
- Make sure that you analyze and integrate the knowledge you gained from coursework and reading relevant scholarly literature. Here are some questions to guide your thinking:
  - In comparing the results of the articles that you read, how were the conclusions related to on another? How did all of the conclusions (when added up together) clarify your thinking related to your thesis question(s)?
  - How did the articles relate to one another overall? Why did you choose this particular group of articles for your project?
What are the similarities and differences related to research results in each of the articles?

Why is it important to integrate your disciplines in order to answer your particular thesis question?

Please note that review and integration of existing literature does not require approval from the IRB. See: https://www.weber.edu/IRB/

- Think about what your final product will include. What headings will you include in your paper and how will you organize it? Typically, this type of paper requires 25-30 pages of text to fully explore, explain, and integrate the topic (See Chapter 12 for more information on writing your paper). Will you also include a copy of a resource guide, lesson plan, or educational presentation?

Creating Thesis Questions for Thesis Question Capstone Projects

Creating an excellent thesis question for your secondary research project at the outset will provide a guiding structure from the beginning through to successful completion. It is vitally important that you carefully choose a topic that is narrow enough that you are able to identify and explore one specific phenomenon and then create meaningful conclusions that can be applied in the real world. The creation of a workable thesis question may seem simple on the surface, however it will require many revisions and iterations until you finally settle upon precisely what you are trying to accomplish with this endeavor. The 5 hypothetical thesis questions provided below are meant to stimulate thinking related to what you might be able to create for your secondary research paper:
“Growth trends in the United States over the last 60 years: A study of the relationship of nutritional patterns and human growth from birth to 21 years. What can we learn from these patterns?”

“Do alcoholics who regularly attend 12-step programs have a lower incidence of relapse than those who practice abstinence alone?”

“10 years later: How do urban community garden projects affect local economies?”

“What are the funding strategies and practices of community based dance companies that have survived financially for 10 or more years?”

“What technologies do high school aged young adults most often use to communicate with peers and how has this affected classroom learning?”

The possibilities are endless. If you are curious about the world around you and enjoy asking (and answering) complicated questions, chances are good that you will find committee members who are interested in working with you—especially if you take a flexible approach and envision new possibilities, not apparent to you at the outset, that arise from conversations with teachers, advisors, agencies, friends, and family.

The Process of Completing a Literature Review Capstone Project

Consider the following:

- The purpose of your capstone project is to demonstrate what you’ve learned in your three disciplines, and to integrate that knowledge into a single project, in this case, a focused and very thorough exploration of a topic that incorporates aspects from all of the disciplines you have studied. To reiterate…The difference between a literature review and a secondary research paper is subtle but important: “A literature review discusses published information in a particular subject area, and sometimes information
in a particular subject area within a certain time period….it usually has an organizational pattern and combines both summary and synthesis. A summary is a recap of the important information of the source, and a synthesis is a re-organization, or a reshuffling, of that information. [For a literature review, you need to do both summary and synthesis]. It might give a new interpretation of old material or combine new with old interpretations. Or it might trace the intellectual progression of the field, including major debates. And depending on the situation, the literature review may evaluate the sources and advise the reader on the most pertinent or relevant” (The Writing Center at the University of North Carolina at Chapel Hill, 2009). With a literature review, there is a focus on thoroughly covering relevant knowledge development related to a specific topic in order to better understand identified aspects of the topic, for example understanding, describing, and summarizing important characteristics of funding trends for the arts in K-12 education in the United States between 1900 and the present time so that you can come up with funding suggestions for your local high school, or describing and synthesizing knowledge development related to the use of alternative forms of energy in South America in the last 10 years so that you are able to devise an educational program for villagers in Costa Rica. The focus with a literature review project is on thoroughly exploring a phenomenon in order to clarify understandings and provide insights for the future.

- Your literature review topic and project completion plan must be approved by your capstone committee.
- Consider what kinds of research articles you need to find in order to understand the issue you’re addressing and make sure that you include research from all of your emphasis
areas equally. A good rule of thumb is to have a minimum of 7-9 excellent, fully applicable articles from each involved discipline.

- Make sure that you analyze and integrate the knowledge you gained from your thorough study of academic literature. Here are some questions to guide your thinking:
  
  - In comparing the results of the articles that you read, how were the conclusions related to one another? How did all of the conclusions (when added up together) clarify your thinking related to your thesis question(s)?
  
  - How did the articles relate to one another overall? Why did you choose this particular group of articles for your project?
  
  - What are the similarities and differences related to research results in each of the articles?
  
  - Why is it important to integrate your disciplines in order to answer your particular thesis question?

- Please note that review and integration of existing literature does not require approval from the IRB.

- Think about what your final product will look like. What headings will you include in your paper and how will you organize it? Typically, this type of paper requires 25-30 pages of text to fully explore, explain, and integrate the topic (See Chapter 12 for more information on writing your paper). Will you also include a copy of a resource guide, lesson plan, or educational presentation?
Creating topics of inquiry (Questions) for a Literature Review Capstone Project

Creating an excellent question, or scope of inquiry, for your literature review at the outset will provide a guiding structure for your project through beginning to successful completion. It is vitally important that you carefully choose a topic that is narrow enough that you are able to identify and explore one specific phenomenon. The creation of a workable question may seem simple on the surface, however it will require many revisions and iterations until you finally settle upon precisely what you are trying to accomplish with this endeavor. The 5 hypothetical questions provided below are meant to stimulate thinking related to what you might be able to create for your literature review paper:

- “What is currently considered state-of-the-art treatment for dementia at the current time? What future and/or alternative treatments hold promise for the future?”
- “Marriage and divorce in the United States: Trends and social commentary over the last 10 years. Is the traditional nuclear family unit suffering or alive and well?”
- “Air pollution trends in California and Utah: What can Utah learn?”
- “The Lean Manufacturing revolution: Increasing productivity for the future of manufacturing in the United States”
- “Cultural shifts in the United States related to the increasing Hispanic population: The importance of collaboration, understanding, and integration”

The possibilities are endless. If you are curious about the world around you and enjoy asking (and answering) complicated questions, chances are good that you will find committee members who are interested in working with you—especially if you take a flexible approach and envision
new possibilities, not apparent to you at the outset, that arise from conversations with teachers, advisors, agencies, friends, and family.

For more information on a secondary research project go to: https://www.weber.edu/BIS/project-faq.html > What are the various types of Capstone projects
Chapter 8

Capstone Project Option: Creative Project

Learning Goals:

- Understand and describe the process involved in a Creative Capstone Project
- Reflect upon what types of creative activities resonate with your personal goals and values
- Envision what types of creative activities could mesh with your Capstone Project ideas

The Process of Completing a Creative Capstone Project:

You can choose to do a creative capstone project that brings something new into the world. For example, you may:

- Design a website.
- Write a children’s book
- Create an animated short film
- Produce an educational pamphlet
- Write and perform a musical composition.
- Mount an exhibition of your own art work.

If you choose this option:

- Be sure your topic involves all three emphasis areas.
- Produce your creative capstone. In other words, put the website out on the Internet; give a concert showcasing your musical composition; do a performance of your original dance.
- Ensure that your capstone committee attends or sees your creative project when you produce it.
Produce a copy of your work for the library: for example, a CD, video, or tape.

Write a short supporting paper (10-15 double-spaced pages) that explains what you’re doing, why you’re doing it, and what research (short review of relevant literature) you did to bring it into being, at least 2-3 scholarly references per area of emphasis. Your paper should show how you’ve integrated the knowledge and skills you’ve learned in your three areas of emphasis, and should be formatted appropriately to your disciplines, including a complete bibliography citing your sources. (remember to use APA style unless directed by your committee).

General Steps for Completion

Here’s a brief listing of the steps you will follow to complete any of the above capstone project options:

- Take BIS 3800 at least two semesters before you plan to graduate if possible.
- After completing BIS 3800, register for BIS 4800 during the semester that you plan to complete the project.
- Put together your Capstone Committee.
- Write a proposal.
- Hold a proposal meeting.
- Work on your capstone project: send your committee drafts on a regular basis so they have the time and opportunity to give you feedback.

Call an oral defense meeting, making sure each member of your committee has at least two weeks to read the final draft of your project before holding the oral defense.
Consider the following:

- You must have a specific goal or purpose, with a beginning, middle and end. It’s not enough to simply create something interesting. What will your project contribute to the world?
- The purpose of your capstone project is to demonstrate what you’ve learned in your three disciplines, and to synthesize that knowledge in a single creative expression of learning.
- Your creative project must be approved by your capstone committee.
- Consider what research you need to do in order to understand the significance of the project that you are creating through your hands-on work. The creative project should be a combination of academic and practical work, so make sure you include grounding in research.
- Make sure you analyze and integrate the knowledge you gained from your experience. Here are some questions to guide your thinking:
  - What worked? What didn’t? What would you do differently?
  - What skills and knowledge helped you? What else did you need to know to complete this project?
  - Who benefited from your work and how?
- If your project involves human subjects, you’ll have to complete the IRB paperwork for legal coverage. This process takes time, so start early. For more information, look at: http://weber.edu/irb
  - Think about what your final product will look like. What will you include in your capstone portfolio and how will you organize it? For creative projects, there is
typically a portfolio with photographic, CD, and/or DVD records of the creative work, journaling records, time records, and a supporting research paper (10-15 pages) that integrates knowledge from your three areas of emphases. The purpose of your paper is to show how you’ve used the academic/scholarly theory you’ve learned in your three areas of emphases in this creative situation. Your paper will be formatted appropriately to your disciplines, including a correctly cited bibliography of your sources. (APA, MLA, or Chicago style sheet, depending on your disciplines).

Creating an excellent Creative Capstone project requires mindful reflection related to what types of creative activities resonate with your personal goals and values. Take a moment to envision what types of creative work you enjoy doing. Ask yourself the following questions:

- What are you passionate about?
- Who is your audience?
- What is the importance and significance of what you are planning to create?
- Who will be able to mentor you through the project with an understanding of the creative process needed to make this project successful?
- Where will you display or enact your project?
- What kinds of agencies or groups of people might be interested in experiencing the end result of your project?

Students interested in completing a creative project will often mix and match aspects of other types of capstone project types together into a unique expression that meets personal,
professional, and academic goals. The creative project option is an excellent opportunity to envision and create something that is unexpected and unique. The BIS director and your committee members will help guide you in the creation of a scholarly and fulfilling project plan that effectively integrates your areas of study.

For more information about a creative project go to: https://www.weber.edu/BIS/project-faq.html > What are the various types of Capstone projects
Chapter 9

Writing Your Proposal

Learning Goals:

- Understand and describe the relationship between a proposal and a project plan
- Describe strategies for creating an effective proposal
- Explain key points and headings that must appear on your proposal
- Summarize the type and amount of information that must appear on your proposal
- List the necessary steps for a successful proposal process

Definitions:

Proposal /Project plan: A written document that includes: project background, description of the problem or phenomenon that will be explored, i.e. thesis question or topic to be explored, project outcome objectives that will be met, basic timeline of how and when the objectives will be achieved, description of how project objectives will address all disciplines related to the project, clear and specific list of deliverables to be turned in to advisers when the project is completed.

Thesis question: A thesis question is the principal focus of a capstone project. It is presented in the form of a question to be answered or a situation to be explored.

Proposal Overview

A proposal (for the purpose of this text) is an academic project plan. It is generally 3 pages long but can be longer if it needs to be. The ultimate purpose of a proposal is to have a succinct document to present to prospective committee members. The details of your project are, of course, subject to change, but this clarity will keep you on track and help you recognize the help you may need from your committee. Your Proposal will explain to them:
What you intend to do

Why you intend to do it

A clear discussion related to exactly how your emphasis areas (disciplines) will be incorporated and integrated

Your step-by-step plan for how you intend to complete it

What the final product will be, i.e. a list of precisely what you plan to turn in at the end

Three resources your have found, one per emphasis area to show your committee your foundational scholarly roots to your project.

After you have completed a written proposal that is approved by your instructor in BIS 3800 or the BIS director, present it to prospective committee members to see if they would be interested in serving on your committee. When a faculty member agrees to serve on your capstone committee, the two of you must complete the BIS Capstone Contract (there is a copy of this contract at the end of this chapter) and this completed contract must be turned in to the BIS office to be kept in your academic records. The contract has very specific guidelines described and it is important that you know what they are and that you explain them in detail to your faculty committee member. You will complete one of these contracts for each of your three Capstone committee members. You do not have to meet with your committee before the end of the semester of taking BIS 3800, but it is to your advantage to do so.

After you have formed a complete committee consisting of one faculty member from each of your areas of study (disciplines), you will schedule a proposal meeting. This meeting should be scheduled and completed before you begin work on your project. The proposal
meeting gives your three faculty members the opportunity to collaborate and agree upon expectations for your project. It is an opportunity for clarification, feedback, revision, and planning. **It is important that you and your committee members agree upon expectations related to time frame, communication preferences, draft revisions, and who (if anyone) would like to assume the lead advisor role on your committee.** The *BIS Capstone Proposal Meeting* Contract will be completed at this meeting (there is a copy of this contract at the end of this chapter). This contract indicates that you and all three committee members have collaboratively agreed upon precisely what you will be doing for your capstone project. This completed contract must be turned in to the BIS office where it will be kept in your student file.

**Headings and Content that must be Included in Your Proposal**

- Start with what your thesis question is.
- What you intend to do
  - Begin with a paragraph that explains **what** topic you will be doing. This paragraph should also include some background information that led you to this topic.
- Why you intend to do it
  - Explain **why** this is a significant and important topic for you to pursue. In this section, your committee will want to know what you’re doing that will add to, rather than just repeat, knowledge. Also explain how your three areas of emphasis will be integrated into this single project.
  - A clear discussion related to exactly how your emphasis areas (disciplines) will be incorporated and integrated should be included in this section.
Be sure to include a bullet point for each of your three areas that highlights how each area will be integrated into your project.

Your step-by-step plan for how you intend to complete it

- Outline **how** you plan to achieve your capstone goal. *This will be your longest section, as you'll outline your timeline, procedure, and possible sources, as well as list questions you'd like answered. I really expect a lot to this area and will ask you to revise your paper or take off significant points for not having a clear plan.*

What the final product will be, i.e. a list of precisely what you plan to turn in at the end

- Explain clearly what the **final product** will be by creating a bulleted list of exactly what you plan to turn in.
  - It could be a 25 to 30 page research paper with 15 scholarly references--5 references for each of your three emphasis areas;
  - or perhaps a website with a 10 page support paper with 7 scholarly references;
  - or a volunteer service portfolio with sections that might include photos, a CD ROM, a support paper, handouts, graphs and charts, art pieces, etc.
  - Be specific so that your committee members will know precisely what they will have in their hands when you are finished.
ALL projects will require a scholarly paper that discusses pertinent academic research/literature related to your project. If you complete a mentored research project or secondary research project, the paper will be about 25-30 pages long. If you complete any other type of project, your paper will be about 10-15 pages long.

Please conclude your document with 1-2 references for each of your areas of emphasis pertaining to your project. You may use the same references you found for unit 11, as well as a short summary of what each article entails.

Goal Setting as it Pertains to your Capstone Project
Many Proposal papers I have seen do not include details needed to inform committee members of each one’s plan, such as when things will happen, what needs to be done, and what help the student will need and when from its committee members. The help you will need doesn’t need to be written in great detail; just enough to let them know of your expectations in revising your drafts and when they can expect the first one, or if you would like a member to attend the class you will teach if that is your project.

Consider the principles above: Specific, measurable, attainable/action-oriented, realistic, and time-bound when thinking about creating your Proposal to set yourself up for successful completion of your Capstone Project. These principles are also those that are considered while planning and deciding on your project and its focus. It is a great deal of what we do in BIS 3800.

**S.M.A.R.T.**

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<th>Specific</th>
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<th>SMART goal</th>
<th>Criteria Met?</th>
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<td>Who, what, where, why, how? Make your objectives clear. This is easily covered in your first two sections of “What you intend to do” and “Why you intend to do it.”</td>
<td>-I will study the effects of X from Y by testing Z. -I will hold a kids’ choir summer camp at X and hold a concert at the end of the two weeks. The</td>
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These parameters help you stay focused and enthusiastic as you complete the steps to completion.

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<th>How will you measure whether you have succeeded in your project? Is the primary research experiment completed? A published paper? A new program developed and implemented in the community?</th>
<th>I will measure an athlete’s level of anxiety before and after teaching them visual relaxation techniques by comparing heart rate, blood pressure, and temperature of before and after the intervention.</th>
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<td>-Establish concrete criteria for measuring progress toward the attainment of each goal you set. When you measure your progress, you stay on track, reach your target dates, and experience the exhilaration of achievement that spurs you</td>
<td>-I will create a website with the contents of x, y, and z, along with these other functions…for the purpose of….</td>
</tr>
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</table>
on to continued effort required to reach your goals.

<table>
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<tr>
<th>A</th>
<th>Attainable/Action-Oriented</th>
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<td>This pertains to the feasibility of the resources you will have for your project, as well as it being a narrow enough topic and appropriate project size to complete it in the time you have left before graduation. If you can’t organize your project into smaller goals or steps to complete in a timely manner, chances are it isn’t attainable. A goal needs to stretch you slightly so you feel you can do it with the appropriate help and resources, and then determine the actions you must take to work towards</td>
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<td>R</td>
<td>Realistic</td>
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<tr>
<td>---</td>
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<tr>
<td>T</td>
<td>Time-bound/ Timeline</td>
</tr>
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perhaps by the first, middle, or end of a certain month. Be sure to give yourself what I like to call “soft” deadlines, which means you set a goal to complete a step by the first week of April but it will not be a crisis if you do not complete this certain step until mid to late April. Your project is nothing more than a wish unless you set a specific timelines for it to be accomplished. If it has many steps, identify key milestones, assign deadlines, and methodically accomplish them in timely manner.

next step, Y, will be completed the following month about the same time.

“Once you have a strong SMART goal statement, it is time to create an action plan. Setting SMART goals is the first step, but sticking to the action plan, maintaining a positive attitude, and overcoming setbacks require most of the effort. While you are in control of yourself, your attitude, and your actions, you might have little control of external factors such as economics, coworkers, [committee members] or time constraints. Do not be discouraged by unforeseen delays or setbacks. Learn from mistakes and failures, and manage your time effectively. Talk to your supervisor or mentor, seek feedback, and identify the required resources (time, skills, and knowledge). Most importantly, remember that attitude and perseverance are everything. If you want your career development plan to be more than a dream or wishful thinking, you have to take control of your actions and stay on top of it” (Rowan, 2010).
Here is an example of a complete student proposal:

Name

BIS 3800

PROPOSAL

Thesis Question: Will the presentation and pamphlets I create help to educate my colleagues about the WIC Program and serve as an outreach tool for more referrals from both my colleagues and the health community?

What I intend to do:

My capstone project will be a creative project wherein I will create a presentation and a pamphlet to accompany it regarding the WIC Program. This presentation will give information on who qualifies for WIC, the process for qualification, what WIC provides for the client in terms of food vouchers and nutrition education, and why WIC is a successful program. The pamphlet will be a brief overview of the information that was provided in the presentation so staff will have a resource at their fingertips to refer to once they are back in their respective offices. I intend to present this to my colleagues at the Health Department and use it as an outreach resource for both my colleagues and health professionals in my community.

Why I intend to do it:

I am doing this project because I am the director of a WIC Program and work with colleagues that have been employed by the health department for more than 10+ years and they do not know what services WIC provides to the client. I want to educate my colleagues so they can become a good referral source for our program in addition to educating them about the program. I also need to provide yearly community education and outreach for WIC in our
geographical area, so this presentation and the accompanying pamphlet will help me accomplish that as well. I am passionate about the WIC Program and feel that it is a program that is not readily understood—both by new employees to the Health Department and ones that have worked there for years. I think it is considered a program where low income families can go to get formula for their babies. While that is a part of the program, that is a very small portion of it and I would like to expand the knowledge base of my colleagues and the health community in my geographical area so they understand that WIC is a nutrition education and supplemental food program that saves money in the long run because it teaches families about good nutrition and incorporating healthy lifestyles. By doing this project, I hope it will ultimately provide referrals to our WIC program as my colleagues will be better informed and will be able to educate their clients on what services we can provide to them and their families. My three areas of emphasis are nutrition, health promotion, and health administration. My capstone project will incorporate these areas as explained below:

- Nutrition will be incorporated by explaining the types of nutrition education WIC provides to clients and families.
- Health Promotion will be incorporated through the teaching process I will be doing to educate my colleagues about the WIC Program. In this sense, I am serving as a health education specialist by developing a presentation that will serve to ultimately bring more clients into the WIC Program, which will better the health of them and their families.
- Health Administration will be incorporated through the management of this presentation. I will use management functions I have learned—planning, organizing, leading, and controlling—to develop and present this project.
My step-by-step plan:

I plan on having my capstone project completed by the end of Fall semester 2013. In August, I will begin working on the PowerPoint presentation and script. I will work with the registered dietitian at our WIC Program who has been employed with WIC for 20+ years and utilize her knowledge of the program. I will have the PowerPoint and accompanying script completed by the middle of September and will send it to my committee for review. I will design the reference pamphlet the last two weeks of September. This will be an at-a-glance overview of the WIC Program and will be in color and easy to read.

I will submit the pamphlet to my committee for review the first week of October. I plan to present my project to my colleagues at a staff meeting in October. The staff consists of nurses, clinical assistants, WIC nutritionists, Early Intervention personnel (occupational, speech, and physical therapist), nurse practitioner, health promotion staff, and environmental specialists. I will have them fill out a pre- and post-survey to assess their knowledge of the program and to evaluate if their knowledge increased after my presentation.

I will use the Stewart Library to write my 10-15 page support paper using appropriate resources and hope to have my final draft submitted before the Thanksgiving holiday. I would like to call an oral defense meeting the first week of December.

Final Product:

The final product will consist of a PowerPoint presentation with accompanying script, pamphlet designed for use as a desk resource, pre- and post-survey results, and 10-15 page support paper with 7 scholarly references.
REFERENCES

**Nutrition:**

Whaley, S. E., Ritchie, L. D., Spector, P., & Gomez, J. (2012). Revised WIC Food Package Improves Diets of WIC Families. *Journal of Nutrition Education & Behavior, 44*(3), 204-209. (This article presents data exploring the consumption of lower fat milk, fruits and vegetables, and whole grain foods by WIC families to see if this increased with the implementation of these foods in the WIC food package. This article showed that the federal policy changes had a positive impact by improving the diets of low income women and children).

**Health Promotion:**


(This article presents health education professionals information on using participant-centered nutrition education to promote positive behavior change. Participant-centered education places the participant at the center of the nutrition education process and focuses on participants' capabilities, strengths, and needs, rather than solely on problems, risks, and negative behaviors).

**Health Administration:**

(This article discusses management techniques that could be used at a WIC clinic to improve customer satisfaction and decrease wait times. The techniques are ones that are seldom used in public health settings but the article shows they can significantly help underfunded, understaffed, and overwhelmed public health departments).
The following page is the rubric I use to grade your paper and how much each section is worth:

**Proposal Grading Rubric**

<table>
<thead>
<tr>
<th>Headings that need to be included on your proposal</th>
<th>Information to be Included under each heading</th>
<th>Point value for each section</th>
<th>Points given</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Description (What are you planning to do?)</td>
<td>Begin with your thesis question and then a paragraph that explains what topic you will be doing. This paragraph should also include some background information that led you to this topic.</td>
<td>90 points (18%)</td>
<td></td>
</tr>
<tr>
<td>Significance (Why is this a significant project?)</td>
<td>Explain why this is a significant and important topic for you to pursue. In this section, your committee will want to know what you’re doing that will add to, rather than just repeat, knowledge. Also explain how your three areas of emphasis will be integrated into this single project. Be sure to provide a clear description of how each of your three areas of emphasis will</td>
<td>90 points (18%)</td>
<td></td>
</tr>
</tbody>
</table>
be integrated into your project.

| Project Plan (How will you do this project?) | Outline how you plan to achieve your capstone goal. This will be your longest section, as you’ll outline the steps you will take to complete the project. Be clear and specific in this section. Include information regarding whom you will work with, where you will go, what sources of information you will use, and how long each step is anticipated to take. | 140 points (28%) |
| Final Project (What will this all look like when it is done?) | Explain clearly what final product your project will take. It could be a 25 to 30 page research paper, or perhaps a website with a 10 page support paper, or a portfolio divided into different sections. Specify how many pages the final product will likely be, how many references, and three references you’ve found and how it will apply to your project. | 115 points (23%) |
| *This is not a heading Format, grammar, punctuation, spelling, organization | This paper should be polished and ready to present to your capstone committee. | 65 points (13%) |

Comments: Total possible: 500 points Received:_______
**BIS CAPSTONE PROPOSAL MEETING**

Student’s name:

SS# or Student ID:

Address:

Phone number: E-mail:

Capstone title or brief description:

Date of Meeting:

Capstone Committee Members present:

Print name:_________________  Sign name:________________________

Print name:_________________  Sign name:________________________

Print name:_________________  Sign name:________________________

Comments on proposal:

The student will return this completed form to the BIS Director after the proposal meeting.
BIS Contract

Instructions: The BIS student and the capstone committee faculty mentor will work through and sign this form as an agreement on expectations and responsibilities for the BIS capstone thesis.

Faculty name:____________________________ Department__________________________

Phone Number:__________________________ E-mail address:________________________

Faculty:

I understand that the capstone will entail sufficient work to warrant three credits at the 4000 level and that it will demonstrate research methods and bibliographic style sheet appropriate to the discipline.

I agree to:

☐ Attend a proposal meeting that the student will arrange, in order to approve the student's project and offer feedback and guidance.

☐ Read the student's drafts (minimum of three drafts) in a timely way and then provide mentoring and feedback related to necessary revisions and improvements. The student is responsible for submitting drafts (minimum of three draft rounds) to the faculty member.

☐ Attend the student's oral defense at the end of the process to approve the finished project and give the student a final grade.

☐ Be sure to read the information packet that will be sent from the BIS office after the proposal meeting is completed

Student name:____________________________ Department__________________________

Phone number:__________________________ E-mail address:________________________
Student:

I understand that the capstone will entail sufficient work to warrant three credits at the 4000 level and that it will demonstrate research methods and bibliographic style sheet appropriate to the discipline.

I agree to:

- **Call two meetings** (proposal and oral defense) for my faculty committee. I understand that I will take the initiative to contact faculty members to arrange these two meetings, set up the meetings in a timely way, and ensure that all of my committee members are able to attend in person or via conference call.

- **Give my committee a minimum of three drafts of my project for review and feedback during a reasonable time frame** so they have time to read them and provide feedback that will help me improve my work.

- **Ensure that my committee members have the final “no further revisions needed” draft at least two weeks before my defense.**

Signed: (Faculty)__________________________ Date____________________________

Signed: (Student)__________________________ Date ____________________________

*To the student: Please ensure that the BIS office is given the original and the faculty member and student have copies for their records.*
Chapter 10

Putting the Proposal into Action: Success Strategies

Learning Goals:

- Summarize the Capstone Project process from initiation to completion
- Understand common pitfalls and how to effectively address them
- Describe Capstone Project success strategies

Definitions:

Proposal: A written document that includes: project background, description of the problem or phenomenon that will be explored, project outcome objectives that will be met, basic timeline of how and when the objectives will be achieved, description of how project objectives will address all disciplines related to the project, clear and specific list of deliverables to be turned in to advisers when the project is completed.

Summary of the Capstone Project Process

1. While you’re in BIS 3800, you will:
   - Determine who will serve on your Capstone Committee by beginning a dialogue with one faculty member from each of your three areas of emphases to sit on your committee.
   - Write a proposal, explaining the “what”, “why”, and “how” of your project.
   - Write a professional resume.

2. Call your Proposal meeting (it is strongly recommended to be done at the end of the semester you take 3800 but can be postponed if needed):
• Project a time and date at least two weeks ahead and be prepared to negotiate times and dates to accommodate all three faculty members. All three members of your committee must be present at the meeting, either in person or by conference call (the B.I.S. department can provide that capability if you need it), and it is your responsibility to ensure a time and date they can attend. The BIS director is NOT required to attend this meeting.

• Use [www.doodle.com](http://www.doodle.com) as a tool to schedule this meeting and later your Oral Defense. It is easy to use, but you are still responsible to communicate which time and date that is optimal for everyone. It is simple to create and leads you through the necessary steps.

• Call (801) 626-7713 if you’d like the BIS office to schedule a room, or there are always study rooms in the library to meet in.

• Send your committee a paper copy of your proposal BEFORE the meeting so they have time to read it.

• Make your proposal meeting useful: ask questions and seek guidance. They have agreed to me your mentors and this is your chance for advice and for all to catch the vision of your project.

• *Remember to use APA style unless directed differently by your committee.*

• At the meeting, ask your committee to sign the Proposal Meeting form to show they attended. **Return the signed form to the BIS Office.**

If your project involves research with human subjects, you will need to complete the IRB procedures and documentation available at [https://weber.edu/irb](https://weber.edu/irb)
• You will also need to complete some training and have your chair be your principal investigator to sign off some forms, as well as the BIS Director.

• After the meeting, e-mail your committee with a summary of the discussion so that you all have a written agreement on the expectations of the project.

3. During the semester that you plan to complete and defend your capstone, register for BIS 4800: The BIS office will give you the permission slip that allows you to register for it.

You register for BIS 4800 once, even if you take two or more semesters to complete your capstone project. You will earn three upper division credits for your capstone when you finish. If you don’t complete and defend your capstone project the semester you enroll in BIS 4800, you will receive an “I” grade at the end of the semester, which will be changed to a letter grade if you complete your project within 9 months. After the INC has expired, the grade will automatically become an E.

4. Work on your capstone project:

• Send your committee drafts on a regular basis, at least three times, so they have the time and opportunity to give you feedback.

• Make sure each member of your committee has at least two weeks to read the final draft of your thesis before holding the defense.

• The defense is NOT the time for corrections to be discussed—this must be done before the meeting when your committee provides feedback on the FINAL draft. Any corrections suggested at that time must be incorporated before the final defense so that your project is totally complete when the meeting occurs.

5. Call a Defense meeting:
• Project a time and date at least two weeks ahead and be prepared to negotiate times and dates to accommodate all three faculty members. (Use www.doodle.com to help you in this process.) The BIS Director **MUST BE PRESENT** at your capstone defense so be sure to contact the BIS administrative assistant (the director does NOT schedule defenses) to find out when the director is available so that you can plan your meeting accordingly with the other committee members. **EVERY MEMBER OF YOUR COMMITTEE MUST BE PRESENT AT YOUR DEFENSE**, either in person or by conference call, and it is your responsibility to ensure a time and date that they can attend. If, however, unforeseen circumstances occur, the BIS Director may conduct the defense with two of the three committee members present.

• Ask your committee members for **letters of recommendation to complete your Career Portfolio** close to the time of your Oral Defense, before or after.

• After the defense, submit the signed Oral Defense Form (a copy of this form is provided at the end of this chapter) and a clean, bound copy of your completed capstone thesis to the BIS office.

• Write a thank you note to each member of the committee; they’ve given you their time and expertise.

6. *Apply for graduation: In the first 6-8 weeks of your last semester.* Follow your CatTracks closely to assure you’ve completed all requirements for your degree. Graduate and celebrate!
Oral Defense Checklist

Here is a checklist to follow when you are preparing to have your oral defense. If you follow this checklist carefully, it will minimize setbacks.

Oral Defense Check List

One Month before the oral defense:

- Contact your committee to find a time when they’re all available.
- Call (801) 626-7713 to book a meeting room.
- At least two weeks before the schedules defense, give each member of your committee a hard copy of your finished product. No further revisions or feedback from committee members should be needed at this time--all of your committee members should have indicated that the finished product is completely done. Pay attention to attractive presentation.

One week before the oral defense:

- E-mail or call each member of your committee to remind them of the time and day you’re meeting.
- Plan a 10 minute presentation. Don’t tell them what you did; they already signed they know all about what you did by reading drafts throughout the duration of your project. You can briefly summarize what you did and mainly focus on what you learned from going through the capstone process, how you incorporated each of your three areas in your project, what you did well, what you would do differently in retrospect, etc. Also, talk about what you plan to do after graduation.
The day before your oral defense:

- E-mail or call each member of your committee to remind them of the time and day you’re meeting. (Yes, this will be the third time!)
- In preparation for your meeting, make sure to retype (with your Information on it) and print out the following. You must bring these two forms with you to the defense (both of these forms are provided at the end of this chapter):
  - Library Cover Page
  - Oral defense form

On the day of your oral defense:

- Dress appropriately for a professional meeting.
- Bring the oral defense form with you so we can write down and sign off on your grade.

After your oral defense:

- Write thank you notes to each member of your committee.
- When you’ve received the committee’s approval, make a final library copy for the BIS office with the cataloging form as the first page. Bring or send that library copy to the BIS office. We will post your grade when we receive your final copy.

Eight Common Pitfalls and How to Avoid Them

Here is a list of 8 of the most common mistakes that students make when working on capstone projects:

- Only two faculty members can come to your proposal meeting, so you go ahead without the third person.
  - Apart from their approval, the main reason you all meet is so they can talk with
each other and agree on your project. You create all sorts of problems for yourself later if you haven’t ensured they have this opportunity to talk to each other.

☐ You set up the proposal meeting and/or your oral defense a month in advance and assume everyone will come.
  - Assume no-one will come unless you remind them by e-mail at least twice more: one week before the meeting, and one day before.

☐ You don’t hear anything from your committee after you’ve given them a draft, so you assume everything is O.K.
  - You can probably assume the faculty member hasn’t read your work, and that it’s at the bottom of a stack of stuff he or she is trying to get through. If you get no response, set up a phone appointment or an appointment to go to his or her office hours. That way the professor has a reason to read your work and a deadline to do it by.

☐ You disappear for a really long time, and faculty who pass me on campus say, “What happened to X?”
  - You are being graded on your professional behavior as well as your final academic performance, so act responsibly by keeping in touch with your committee. If there’s a reason you need to take a break from your capstone, let them know. Treat them with respect.

☐ You assume the revision you give your committee is final from their point of view, and you schedule your oral defense without checking to see they’re OK with that draft.
Check with every member of your committee that the draft you consider your final one is passable from their point of view. Make sure they don’t want more revisions. Do this before you schedule an oral defense.

You turn up to your oral defense without a prepared oral presentation and just “wing” it.

If you do this, it makes you look unprofessional and unprepared. This is a formal meeting, so dress appropriately, and prepare comments or a presentation that’s worth your committee’s time.

For your oral presentation, you tell your committee what you did.

If they read your project drafts and provided feedback, they should already know what you did. Talk about what you learned, what you might have done differently, and what you will do after graduation.

You come to the defense with copies of your final draft for everyone.

This is the biggest mistake you could make. How can your faculty committee give you a grade if you haven’t given them an opportunity to read and assess your work? They must have a paper copy in a nice binder at least a week before your oral defense. If you turn up at your oral defense with your final copies in hand, the BIS director will cancel the defense.

Capstone Faculty Guide Sheet and Capstone Grading Guide

Each faculty member that sits on your capstone committee will receive this information, so it is important that you are aware of what is on this BIS Capstone Faculty Guide Sheet and the Capstone Grading Guide. Both are provided below provided below.
BIS Capstone Faculty Guide Sheet

Thank you for considering working with a B.I.S. student. Your contribution will make a significant difference to the student's success. This guide sheet explains the part you'll take in the BIS capstone process if you decide to become a member of the student's capstone committee:

1. **The student invites you to sit on his or her capstone committee as the representative of your discipline.** You will be joined by two more faculty from the student's other areas of emphasis.
   * The student should be able to give you an initial idea of the capstone topic and project so you can decide if you want to become involved and help shape that project.
   * The capstone can take a number of different forms, all of which are explained in "The Culminating Experience" packet. Please contact the BIS office if you'd like a copy of this document or have questions: (801) 626-7713.

2. **After you've agreed to sit on this capstone committee, the student will bring you a "Capstone Contract" to sign.** The purpose of this document is to clarify, in writing, the responsibilities both for you and for the student. You agree to:
   * attend a proposal meeting with the other two faculty members of the committee;
   * read the student’s drafts in a timely way;
   * attend the student’s oral defense with the other two faculty members of the committee, and the BIS Director.

3. **The student will call a proposal meeting.**
   * The student should schedule this meeting at a time convenient for you.
Before the meeting, the student will send you or give you a written copy of his or her proposal, which should clearly answer the following questions:

What is the capstone topic?

Why is this a significant topic, and how does it incorporate the three areas of emphasis?

What is the student's plan for completing the project? (E.g., research methods, timeline, course of action, etc.)

Your role at the proposal meeting is to offer the student guidance, advice, and support. Any changes in the proposal you might suggest should be clearly stated on the "Proposal Meeting Form" which the student will ask you to sign at the end of the meeting.

4. The student works on the capstone, sending you drafts on a regular basis.

It's the student's responsibility to stay in touch with you, through e-mail contact, giving you drafts, and/or visiting you during office hours.

When you receive a draft, please give the student feedback in a timely way so s/he can revise the work.

Before the student calls the Oral Defense meeting, you should be satisfied that the paper is complete and finished.

5. The student invites you to attend the Defense meeting.

The student should schedule this meeting at a time convenient for you. The director of the BIS program also attends this meeting.

The student should ensure that you have time to read a final draft before attending the Defense meeting.
* The student will have prepared a 10 minute oral presentation explaining what s/he did, and what s/he learned. You can then ask questions and discuss the capstone project with the student, the other two faculty members, and the BIS director.

- You decide on an appropriate grade in negotiation with the other two committee members.
Capstone Grading Guidelines for Faculty

These capstone grading criteria are intended as a guide for your assessment of BIS student work. The student demonstrated:

- High Impact Learning through a rigorously engaging capstone process
- Academic research, theory and/or best practices in each disciplinary area
- Effective synthesis in the three disciplinary areas into an integrated capstone project
- Analytical, assessment, and problem-solving skills
- Skilled use of oral and written skills in both spoken and written communications
- Time management and leadership skills necessary for success
- Effective communications with you as a faculty mentor
- Presented you with a polished capstone report paper following guidelines for the appropriate project type.
Oral Defense Form

Instructions to BIS Students:
• Reformat this page, using the wording below as a template. Replace the parts in *italics* with your information.
• Bring one copy of your personalized Oral Defense Form to your oral defense for your committee members to sign and write in a grade. Do not include it in your finished capstone as this completed form will be filed in our office rather than being sent to the library with your capstone.

Weber State University Bachelor of Integrated Studies Program

Approval of a BIS Capstone Project

*Your Title*

*Your Name*

This Capstone Project has been read by the following Capstone Committee members for a final grade of: ____

Comments:

*Your Committee Member’s Name*  
Date

__________________________________________  

*Your Committee Member’s Name*  
Date

__________________________________________  

*Your Committee Member’s Name*  
Date

__________________________________________
Chapter 11
Writing Your Capstone Paper

Learning Goals:

- Understand typical length of what is turned in for different project types
- Examine academic style options for your paper
- Summarize the best ways to obtain help with grammar, punctuation, formatting, and editing when writing your paper
- Understand the importance of citations, the reference list, and the use of scholarly literature to support your paper
- Explain the services available at the Weber State University Stewart Library that will support successful completion of your paper.

Definitions:

Citation: Properly formatted reference to a source that was used when writing a scholarly paper that appears in the body of the paper.

Reference List: The properly formatted list of sources used when writing a scholarly paper that appears in a list format at the end of the paper.

Scholarly Literature: Scholarly literature consists of academic works published in peer-reviewed journals and books. *Peer reviewed means that a group of academics with expertise related to article content have reviewed the article for accuracy, clarity, and significance before publication. Most academic disciplines have specific journals where field specific content is published.

The Role of Committee Members During the Writing Process

Your committee members are responsible for mentoring your knowledge development, professional growth, and academic growth. They are not responsible for editing your paper or
correcting grammatical, spelling, and punctuation errors. Focus on **content** and **appropriate style choice** with your committee members. Enlist the help of others for everything else.

**Obtaining Help with Grammar, Punctuation, Formatting, and Editing**

The Weber State University Writing Center will help you with grammar, punctuation, formatting, and editing. You can learn more about the WSU Writing Center by going to the Writing Center Website or reading them on-line: https://www.weber.edu/WritingCenter

**What is the Writing Center?**

The Writing Center is a place where students come to receive assistance in becoming better, more confident writers.

**Who are the Tutors?**

Tutors working in the Writing Center are students and who have been trained to help students with all aspects of writing. The tutors are a diverse group, representing various backgrounds and majors. Tutors are also familiar with many different styles and types of writing, so they can help students with papers from any department.

**Do the Tutors only help with English papers?**

Tutors at the Writing Center help students write English papers, scientific research papers, abstracts, personal poems, narratives, resumes, and more!

**How can the Writing Center help me?**

A tutor will help with composition, grammar, structure, ideas. The tutor works closely with you through the steps of writing. However, the tutors aren’t editors or proofreaders—they won’t proofread your paper or act like a thesaurus and dictionary to provide different words. Be prepared with questions and specific areas that you want to work on within the paper, areas that you feel aren’t as good as they should be.

A tip: if you are looking for someone to write your paper for you, or who will allow plagiarism, this is not the place.
What kinds of resources does the Writing Center have available for students to use?

At the Writing Center, we have a variety of reference books--dictionaries, thesauruses, grammar handbooks--available, as well as knowledgeable, friendly tutors for you to consult. Our bulletin board has information about our workshops, about other campus tutoring, and about upcoming writing conferences and contests.

What Does it Cost?

No. It is part of your student services--take advantage of it.

Do I need to make an appointment?

Nope--just drop in. If you want to be sure to see your favorite tutor, you can sign up in advance. No pressure--if you are five minutes late, that tutor will take the next drop-in. We just like to encourage you to plan ahead.

Can I just drop off my paper to have you fix the grammar and then come back later?

We work face to face and through on-line submissions. Our goal is not to be just a proofreading or editing service, but to help you become a better writer in addition to having a better paper.

How do I get more information?

Tutors routinely give in-class demonstrations of the Center’s activities and resources. Ask your professor, or drop in and see us, and we can give you more information.

Typical length of Papers for Different Capstone Project Types

Primary and secondary research (thesis question or literature review) project papers are usually 25-30 pages long including title page, abstract, body of the paper, and reference list. Service Learning and creative project portfolios usually contain a 10-15 page support paper (including cover page, body of the paper, and reference list), and appendices with journals, paperwork, photos, copies of teaching
plans, pamphlets, music sheets, artwork, etc. totaling approximately 25-30 pages overall (including the 10-15 page support paper).

**Academic Style Options**

Academic papers are written in specific styles, commensurate with the disciplines addressed in the paper. Because this is an interdisciplinary project, you will need to ask your committee members at the proposal meeting what style they prefer for your paper. The most common academic styles are listed below. Each style has associated Web sites and handbooks that will help you understand how to properly format your paper. The WSU Writing Center is able to help you understand how to properly format your paper according to the required style:

- **American Psychological Association (APA)**
- **Chicago Manual of Style**
- **Modern Language Association (MLA)?**

**Importance of Citations, References, and Scholarly Literature**

The importance of citations within the body of the paper, the reference list at the end, and the overall appropriate use of scholarly literature throughout cannot be underestimated for ANY project option. You must clearly demonstrate, whether it is a major 25-30 page paper or a 10-15 page support paper, that you have carefully reviewed related scholarly literature, understand its significance, and have effectively applied knowledge gained from reading the papers to the successful completion of your project. Your committee members will help you identify scholarly literature that may be applicable to your project. It is up to you to locate and read what has been suggested and then incorporate it into your work. The librarians at the WSU Stewart Library will assist you with locating and acquiring appropriate literature. This service can be provided either in person or online and is free of charge. If you work closely with WSU librarians, it will save you a significant amount of time, frustration, and worry.

**Services at WSU Stewart Library that will Support Completion of your Paper**
Content subject librarians are available at Stewart Library to help you complete scholarly papers related to coursework, senior projects, and capstone projects. Each discipline at WSU has a librarian assigned to that discipline to assist you. Contact the library reference desk for more help.

Stewart Library also has an extensive collection of articles available online. These article databases can be accessed through the WSU Stewart Library homepage. There are also tutorials on the homepage that will help you understand how to find appropriate articles. The information on the following pages provides basic information for Stewart Library. There are many more

ACCESS
TO STEWART LIBRARY RESOURCES

WSU students, faculty and staff may access library databases and other online library resources from their home or other off-campus locations with an Internet connection. The Stewart Library Web site at https://library.weber.edu/node is your starting place for hundreds of useful resources including full text articles and indexing from thousands of magazines, journals, and newspapers; full text encyclopedias and specialized dictionaries; and other reference resources.
Chapter 12

Communication and Mentoring: Keys to Effective Capstone Completion

Learning Goals:

- Examine basic modes of communication that may be used during the capstone process
- Summarize the best ways to discern preferred communication modes for your committee members
- Understand the central role of the mentoring process during the completion of your project
- Learn to create an appropriate communication and mentoring plan that will facilitate optimal mentoring and learning opportunities

Definitions:

*Communication*: To transmit thoughts, ideas, and feelings through various methods enabling understanding between sender and receiver.

*Mentor*: Person who serves as guide and advisor to a less experienced person.

*Collaboration*: When two or more people work together towards a common goal.

The Importance of Planned and Mindful Communication

The definition of communication is simple; yet effectively enacting it in everyday life is quite the opposite! *Communication*: To transmit thoughts, ideas, and feelings through various methods enabling understanding between sender and receiver.

Effective communication is critical to a successful capstone project and students often underestimate its importance. The whole point of forming a committee during the capstone process is for students to benefit from mentoring relationships with each committee member; effective communication is essential in promoting productive mentoring relationships. The people on your committee are experts in their fields, and by agreeing to be on your committee, they are agreeing to
share their expertise and knowledge with you to facilitate the creation of an excellent capstone project. **Treat this offer of help and support with a great deal of respect** by making a concerted effort to effectively communicate with each committee member, and by asking for (and using!) feedback and advice.

*Forming a Collaborative Committee*

Ask current or former professors, one from each area. If the ones that you would like to ask are not available, ask the department secretaries who would be good to ask, who might be interested in your project or focus, and who has served on BIS committees. The department secretaries will know what each professor’s load looks like and who would therefore be more available to help. Try getting a hold of these professors by email or finding out their office hours and making an appointment.

You can start working with your committee early in the process of forming your proposal and it’s preferable that you do to get guidance and focus earlier on. Plenty of students don’t, so don’t worry if you haven’t gotten your committee together until after your proposal. It just seems to be advantageous to have your committee involved as early as possible.

Please be aware that your committee members may not know each other and may not have ever worked with each other, and now they are in a committee together to help you create an excellent capstone project. They may not know the best ways to work with each other and they may not be fully knowledgeable about the capstone process. It is up to you create a situation where everyone has the opportunity to effectively contribute and knows your timeline and what help you will need from them.

*Choose a Committee Chair*

It is preferable for one of your committee members to assume the role of committee chair. Because faculty members are accustomed to working on many university committees where there is always a committee chair, they may feel more comfortable working within this structure. It will be helpful if you determine what is preferred in this regard at the proposal meeting. You could say something like this:
“One of the things that I would like to determine at this meeting is which one of you would like to assume the chair role for this project?” I want you to know that each of my three emphasis areas will still be equally represented in the finished project. Agreeing on a committee chair will only simplify the communication process.

Once a chair is chosen, it would be customary for you to send your project drafts to that member first, incorporate suggestions and feedback, and then send the new draft to the other committee members for further feedback. After eliciting committee feedback, provide the chair with your revised work.

A couple of issues for you and your chair:

- “Do you prefer to be contacted in person, via e-mail, or by telephone?”
- “How often would you like to receive project updates? Once every week, two weeks, or once a month?”
- “How will you be providing draft feedback and suggestions to me? Will you be using track changes on the document, sending hand-written notes, or would you prefer to arrange an in-person or phone appointment to discuss drafts?”
- “How many weeks notice will you need when I begin planning the capstone defense meeting?”
- “Are there any instances in the coming months when you will be out of town for an extended period of time?”

The Central Role of Mentoring

Mentoring, when a person (or group of persons) serve as guide and advisor to a less experienced person, is a central component of the capstone process. If you mindfully engage in the mentoring process with each of your committee members, you will create a capstone project that demonstrates quality and knowledge development far beyond what you would have been capable of producing on your own. Here are 5 things you can do to indicate to your committee members that you would like to engage in the mentoring process:
1. Present your ideas about the capstone project and then ask if they have any other ideas that might fit your areas of study. Engage in brainstorming with them!

2. Explicitly say that you would like to engage in a mentoring relationship, for example, “Dr. Jones, I respect your work in zoology and want to learn more from you during the process of completing my capstone process. Will you be my mentor in this endeavor?”

3. Make yourself aware of the past scholarly work of each of your committee members and ask them informed questions about their work.

4. Stay in contact on a regular basis—honor the communication arrangements you made during the proposal meeting. They have agreed to enter into an ongoing relationship with you and they expect you to stay in regular contact until the relationship has fully run its course and the project is complete. This agreement is an honor (they could have declined). **Honor and respect that agreement.**

5. Accept feedback with gratitude and do your best to incorporate feedback appropriately. If you become confused with any feedback you receive, ask for clarification.

**Mentoring relationships lead to positive outcomes, for example:**

- Leads related to career and employment opportunities
- Deep insight concerning disciplines and integration of disciplines
- Enhanced ability to work collaboratively
- Significant skill development related to managing complex projects
- Increased communication skills
- Augmented critical thinking skills
- Improved confidence

Mentoring does not passively evolve. It takes deliberate effort and must be initiated by the student. Consciously choosing to engage in mentoring relationships with your committee members and the BIS director will enhance your capstone experience in many ways and will support project excellence.
Chapter 13
Professional Preparation: The Resume

Learning Goals:

- Understand the preferred resume format and create a resume using that format
- Summarize the type and amount of information to include on a professional resume
- Create an excellent professional cover letter that will appropriately market your degree after graduation

Resume Introduction

Your resume should present a clear picture of what you have to offer a particular job setting. People often create several slightly different resumes to ensure that talents and skills related to a specific job placement can be highlighted for each prospective employer. Some prospective employers may not understand what constitutes an interdisciplinary degree, and it is important to present information that will clarify the degree’s value. It would be appropriate to explain the degree in this way:

“The Bachelor of Integrated Studies (BIS is an interdisciplinary degree, which meets all the requirements of a Weber State University bachelor's degree. Instead of choosing a traditional major and a minor, BIS students complete coursework related to three academic areas of study and then integrate those disciplines into an integrated capstone project. The capstone project follows the procedure of masters work in that students work with a committee consisting of faculty representatives from each of their three emphasis areas in order to complete a capstone project that reflects scholarly knowledge development in each of the three chosen areas. A final oral defense is held when the project is completed.

The BIS degree exemplifies the idea that the whole is greater than the sum of its parts. Here are some examples: One student combined coursework in physics, mathematics, and Spanish to create a project meant to facilitate physics education for Hispanic students.
Another student combined coursework in Art, English, and Telecommunications/Business Ed (TBE) to create a magazine that celebrated the accomplishments of non-traditional female students at Weber State University. A third student combined coursework in zoology, psychology, and health promotion to complete a portfolio aimed at supporting future entrance into a master's degree program in physical therapy.

BIS students creatively design their own degrees, selecting areas of emphases and capstone projects that will prepare them for graduate school or a particular career path.

 Completion of this degree requires independence, effective collaboration within professional working groups, and an ability to create and manage complex timelines.”

**Preferred Resume Format**

Your resume should be one page maximum and only include most important highlights of your life. Your education, as well as your work history, should list your current or most recent degree, or job, and go backwards (i.e. current job, last year’s job, and the job you had the year before). Listing your GPA is optional. Your educational highlights should contain opportunities you took to gain or display leadership above and beyond work and school. You may list if you were on the Dean’s Honor roll if you have ever had semesters of a GPA greater than a 3.5. Also list any scholarships or memberships, or if you earned all of your college expenses. Your Capstone Project section should be a brief narrative of your project and what you accomplished. Under work experience should never use complete sentences, tell what skills you learned, and quantify your performance where possible (tutored 14 kids and helped increase their grades by 24% on average).

Print your resume on heavy weight paper, but not cardstock. Don’t have it be too creative in format. Save your creativity for your interview. Proof your resume multiple times, have others look it over, have strangers take 15 seconds to look it over and tell you if you have sold yourself well.
Sample Resume

WALDO G. WILDCAT

508 East Broadway
Ogden, Utah 84408
(801) 555-1212
waldowildcat@mail.weber.edu

Objective:
A retail management position with XYZ Corporation that allows me to utilize my Bachelor’s Degree in Business Administration and over 4 years of related work experience.

Education:
Weber State University – Ogden, Utah
Bachelor of Integrated Studies Degree – April 2014
Areas of Emphases: Major: Business Administration (GPA:3.52); Communications (GPA:3.67); Spanish (GPA: 3.84)

Educational Highlights:
• Captain, Weber State Golf Team; Member since 2019
• Member, Golden Key Scholastic Honorary Society
• Member; Dean’s Honor Roll – 8 semesters
• President, SHRM Student Chapter (Society for Human Resource Management)
• Recipient, Bank of Utah Scholarship for four years

• Completed job shadowing assignments in five cross-functional areas; front-end operations, sales floor merchandising, human resources, inventory control, and accounting/back offices
• Identified gaps in current operational processes and procedures in cross functional areas and proposed plan to implement solutions with quantifiable metrics
• Communicated plan status and updates to store management team of 6
• Presented project summary and success report to the marketing team at the close of the internship

Experience:
Men’s Clothing Department Manager; Big Name Store – Ogden, Utah 2009 to Present
• Trained and motivated 8 employees to increase retention from 70% to 92% in an 11-month period
• Tracked daily sales, cash loss, refunds, and inventory using Excel and other spreadsheets
• Increased customer traffic from 5.2% to 5.8% through promotional events
• Manage employee information, evaluation, promotion, time entry using Oracle e-business suite

Skills:
• Microsoft Office including advanced knowledge of MS Excel, Word, Outlook, and PowerPoint
• Demonstrated management, interpersonal, and competitive skills; team player
• Time management and organizational skills shown by working, competing in sports, and maintaining high GPA
• Adept at employee recruiting, development, training, delegation and retention
• Willing to relocate

Volunteer Work:
• Spent two years of voluntary service in Mexico. Taught new and unique information to local residents. Gained a deep appreciation for people of different cultures and ethnicities
• Fluent in Spanish
• Volunteer for Utah Special Olympics and reading program for inner city youth

References:
Available upon request.
Creating a Professional Cover Letter to Accompany Your Resume

A polished cover letter will provide prospective employers the opportunity to assess your written communication style. Brian Krueger, author of *College Grad Job Hunter: Insider Techniques and Tactics for Finding a Top Paying Entry Level Job* described the best use of a cover letter in this way (used with permission):

“A successful cover letter should be specific and personal. It should be clean, neat laser copy, yet not mass generated. Each letter should refer to a **specific person** at a **specific company** and provide a **specific next step** that you will be taking. If you wait for employers to call you, your odds of contact decrease dramatically. To move the process forward to the next level, usually requires a proactive response from you. The “Squeaky Wheel Theory” is alive and well in the employment marketplace. If you make the effort to contact the employer, the employer will respond to you. If you passively wait for your phone to ring, do NOT expect the employer to call. If you wait for your resume and cover letter to magically product results, you will likely find yourself buried underneath reams of other resumes. BE THE ONE WHO STANDS OUT!

The cover letter should contain two important points: (1) what your PRODUCT can do for your customer (the company) and (2) what your customer will need to do to BUY your product. You see, most people use the sheet of paper to talk about themselves and what a “great” product they are, when they really should be concentrating on how they can benefit the customer (employer). If you have no idea **how** you can benefit the employer, then you may be wasting everyone’s time (including your own) in even attempting a reasonable job search. You will most certainly FAIL any interview.

You need to have a quick and ready answer to the question, “What is your competitive advantage in the marketplace?” If you are just another player in the already very crowded
entry-level job market, you will not be noticed. If you’re not sure what differentiates you from the rest of the market, research your background and make note of the areas where you excel. Work on your 30 second elevator pitch that you could sell yourself in a very short amount of time.

A Basic Formula for Cover Letters

1. Standard business letter format – prospect name, title, company, address in the top left
2. Salutation to a REAL person
3. First paragraph should tell why you are writing? To meet that company’s specific needs
4. Second paragraph should briefly state two or three top skills followed with benefit after benefit that these skills will provide to the company
5. Third paragraph is the close! Not just the “close” to the letter, but the “sales closer” to the letter. CLOSE THE SALE! Give your target contact a specific action to take and a backup action you will take if you do not get a response.

Use a structure with which you feel comfortable and then customize your letter to the specific needs of the specific customer.”
Chapter 14

Professional Preparation: The Interview and Career Portfolio

Learning Goals:

- Summarize how to adequately prepare for a job interview
- Verbalize understanding of appropriate job interviewing skills in person and on the telephone
- Create a Senior Career Portfolio for all your future job and school applications. The process for distance BIS students is included in this chapter.

Definition:

Interview: To formally discuss education, job qualifications, and life experiences for the purpose of determining if the interviewee should be hired for a specific job.

ePortfolio: An electronic file which compiles a student’s college transcripts, four letters of recommendation (three from professors, one from a previous or current employer), and resume. Often universities provide this service for students although they may require fees.

Appropriate job Interviewing Skills

Weber State University Career Services Center offers job counseling, writing tips, information on how to effectively complete graduate school applications, job postings, and many other career related services. You may obtain more information by visiting their website:

http://departments.weber.edu/careerservices/

How Employers See Student Candidates

Survey conducted by Troy Nunamaker and Flora Riley of Clemson University – 2006

Professional Behaviors

Recruiters have consistently commented that student candidates “fell short” of the employers’ expectations for knowledge of the company/organization with which they were interviewing. Employers feel that student candidates often do not conduct enough research on the companies prior to the interview.
Another concern focuses on actions such as students not sending thank-you notes after an interview, and leaving only very informal/unprofessional voicemails as thank-you follow-ups. Most of the recruiters said they prefer e-mailed and hand written notes instead of voicemails.

Students need stronger presentation skills and need to use them to sell themselves as potential employees. Students need to be able to market themselves. This includes eye contact, handshakes, dress, critical thinking skills, ethics, and slang language. Students should be very careful of the information and images they put on social networking sites. Employers use this avenue in screening applicants, corresponding with applicants, and informing applicants about their organizations through marketing and networking invitations.

Employers feel that some students have misconceptions about relocation, promotions, and raises. Many students have begun to ask for timelines for promotions and evaluations and the consistency of raises. Rather than seeing raises and promotions as performance based, recruiters feel that student candidates expect these as their due. Recruiters that that student candidates had this “entitlement mentality” because of their high potential to perform—not from a track record of high performance.

**Preparation Tips for Interview**

- Analyze the job and the organization. **Make sure you know the job description.**
- Review each bullet on your resume and prepare a concise explanation for each.
- Practice giving succinct answers to potentially tough questions.
- Prepare questions to ask the interviewer.
- Think through your job objectives and your goals.
- Know what job you want, why you want it, and **how you will benefit them by being hired.**
- Practice your delivery using a tape recorder or video camera.
- Watch for nervous habits such as knuckle cracking, chewing gum, etc.
• Dress like the professional person you are.

• Remember to take extra copies of your resume with you to the interview.

• Know the time, date and location of the interview and **Don’t Be Late!**

• Remember to be yourself and remain relaxed.

**Researching Potential Employers**

*Researching an organization can be done through a variety of sources:*

- The Wall Street Journal
- The Internet
- Business Week’s 100 best small U.S. companies
- Dunn & Bradstreet (dnb.com)
- Forbes list of best small companies in America
- Online Job Sites
- Standard & Poor’s Register of Corporations
- Bizweb.com
- Inc. list of 500 fastest-growing U.S. companies
- Trade Shows
- Fortune’s list of 500 biggest U.S. companies
- LexisNexis
- Industry Week’s list of 100 best managed U.S. companies
- WSU Career Fair
- NACE Job Choices
- Dept. of Workforce Services
- Corporate Web Sites

*Employer Information You Need to Know Before Going to an Interview*

- The history of the organization
What is the relative size of the company or organization in the industry?

What does the firm do?

What is the potential growth for the industry?

What is the array of products or services?

Who is the competition?

What is the organizational structure by product line, function, etc.?

What is the average age and background of top management?

Where is the location of corporate headquarters and the geographical locations of other business sites?

How many plants, stores, or sales outlets make up the corporation?

What is the promotional path of a professional employee?

What is the organization’s relocation policy?

What kinds of training programs are in place?

Is there a formal training program or is it on-the-job?

What is the average starting salary for college graduates?

What is the annual sales growth for the past five years?

What recent developments have been publicized via news stories, television, etc.?

Is the working environment compatible with my expectations?

Will promotion require an advanced degree?

Phone Interviewing Skills

Excerpt from the January 2, 2003 edition of “Spotlight,” Published by the national Association of Colleges and Employers:

As employers increasingly rely on telephone interviews to screen job candidates,
students need to be prepared for that possibility. Vanessa Singleton, Assistant Director of Recruitment for FDIC, says she can tell right away that candidates aren’t going to work out if they have music or video games playing in the background, are obviously chewing gum, chronically hesitate or say “um” or “uh” during the interview, or aren’t available to take her prearranged call. Many employers will call applicants twice: once for an interview which candidates are prepared for and once for an impromptu discussion. By catching candidates unprepared, they can assess how quickly candidates think and process information, how honed their communication skills are, and if they are well-suited for a particular position and the company culture. Employers look for candidates with initiative, positive attitude, quick-thinking and problem-solving skills, coach ability, creativity, adaptability, interdisciplinary knowledge, and superior communication skills. They say they can gauge candidates’ suitability in seven areas through a 30-minute phone interview.

1. **Tenacity:** The employer purposely does NOT return the candidate’s phone call. Tenacious candidates don’t give up. Instead, they persist in calling every 10 days, re-expressing their interest in the position and the company—even when their messages go unanswered.

2. **Positive Attitude:** The employers ask the candidate about “worst boss” horror stories. True positive thinkers avoid divulging such stories and instead will focus on “best boss” anecdotes.

3. **Ability to Think on Their Feet:** By role-playing during the phone interview, employers view quick thinkers, such as those who can appease a persistent, irate customer, as an asset to any organization.

4. **Ability to Accept Criticism:** and have a desire to improve, or get defensive.

5. **Adaptability:** Tested by suggesting alternate ways of getting work done or solving problems. For example, they ask what candidates would think of performance
evaluations that were done by peers and clients, or how they would feel working in a specific geographic location.

6. **Thirst for Knowledge:** By asking what books candidates have recently read, what electives they studied in college, or what their hobbies are, employers can ascertain which candidates have a thirst for knowledge and a desire for expanding their horizons.

7. **Superior Communication Skills:** By asking candidates to leave voice-mail messages stating why they are “right” for the position, employers can gauge how effectively the candidates can articulate their position and how well they will function when fired.

**Critical Success Factors and the Behavioral Interview**

What exactly are employers looking for in new college graduates? Following is the list of the top ten critical success factors that nearly every employer is seeking:

1. Positive Attitude Toward Work
2. Proficiency In Your Field of Study
3. Oral and Written Communication Skills
4. Interpersonal Skills
5. Confidence
6. Critical Thinking and Problem Solving Skills
7. Flexibility
8. Self-Motivation
9. Leadership
10. Teamwork
These competency factors tie in directly with Behavioral Based Interviewing. Whether the company is looking for them directly or indirectly, they will be looking for them. To rise above the competition, be prepared to show your competency in these factors.

The Behavioral Interview

The purpose of the Behavioral Interview is to “predict” performance. The interviewer wants to assess a candidate’s technical abilities, preferences, and behavior patterns. Past behavior in specific situations is one of the most accurate ways of predicting future behavior; i.e. personal preferences, attitudes, and behaviors. You will have approximately two minutes in your 30-minute interview to respond to each question. Each response will be graded on a scale of 1-4: (1) doesn’t have the skill; (2) appears to have the skill; (3) has the skill; (4) is exceptionally well qualified. The ten areas of a Behavioral Interview are listed below.

1. **Organizational Skills:** Out of your entire life experience, what are you going to put together to give the employer an overview of who you are and what you have to offer?

2. **Intellectual Capacity:** Your academic preparedness.

3. **Influencing Others:** The ability to use your personal influence to bring others to your point of view.

4. **Interpersonal Style and Competence:** Conveying poise, self-assurance and professionalism.

5. **Communication Skills:** Listening, being interested in what others are saying; clarity in your oral and written communications.

6. **Motivation:** Initiative, commitment to high standards of excellence.

7. **Administrative Skills:** Setting and adjusting priorities; creating and implementing short and long term plans.

8. **Teamwork:** Working collaboratively within a team toward shared goals.
9. **Internal Control and Self-Esteem:** Viewing one’s self as in control of your own destiny to assume responsibility for results.

10. **Personal Growth and Adaptability:** Ability to cope with the demands of the job

In a behavioral Based Interview, combinations of the following questions are often asked. Be prepared with hypothetical answers to these questions, and rehearse your answers with friends and family, before going to an interview.

1. **Organizational Skills:** “Tell me the top 3 skills you feel you have as a college graduate.”

2. **Influencing Others:** “Tell me about a time when you were most persuasive in overcoming resistance to your point of view.”

3. **Interpersonal Style and Competence:** “Give me an example of when your primary responsibility was to handle customers’ problems or complaints; or where you were required to deal with customer complaints that could NOT be resolved by lower level employees.”

4. **Personal Growth and Adaptability:** “Describe an incident where you had a disagreement or clash with someone in your work.”

5. **Communication Skills:** “Describe an occasion in which someone totally misunderstood what you were trying to communicate.”

6. **Motivation:** “What do you feel has been your most significant accomplishment, other than completing your Baccalaureate Degree?”

7. **Administrative Skills:** “Give me an example of when you have done work that regularly involved planning, prioritizing, scheduling, and monitoring work for fewer than 10 people.”

8. **Fostering Teamwork:** “What did you do in your last position to contribute toward team success?”

9. **Internal Control and Self-Esteem:** “Tell me the last time you made a decision that backfired.”

10. **Intellectual Capacity:** “What class, at Weber State, gave you the most difficulty and why?”
Words That Convey Your Skills

Words, both spoken and in writing, are powerful indicators of what kinds of skills you possess. Use the words listed below to appropriately convey the skills that you have worked so hard to develop and demonstrate in past academic and job-related work.

Technical Skills: adapted, applied, assembled, built, calculated, computed, conserved, constructed, designed, determined, developed, fabricated, installed, maintained, operated, printed, programmed, replaced, resolved, specialized, upgraded.

Management/Leadership Skills: administered, analyzed, attained, chaired, consolidated, contracted, coordinated, delegated, developed, directed, eliminated, enforced, established, generated, headed, hired, incorporated, increased, initiated, inspected, instituted, led, managed, motivated, organized, oversaw, planned, presided, produced, recommended, reorganized, replaced, reviewed, scheduled, strengthened, supervised.

Organizational Skills: approved, arranged, catalogued, categorized, charted, classified, coded, collected, compiled, corresponded, distributed, generated, implemented, inspected, maintained, monitored, operated, organized, prepared, provided, reviewed, scheduled, sorted, submitted, updated, validated.

Creative Skills: acted, adapted, composed, created, designed, directed, displayed, drew, entertained, fashioned, formulated, illustrated, initiated, introduced, invented, modeled, originated, performed, photographed, revised, shaped.

Interpersonal Skills: addressed, advertised, arranged, communicated, composed, condensed, corresponded, defined, directed, drafted, edited, explained, expressed, formulated, interpreted, interviewed, judged, lectured, marketed, mediated, negotiated, observed, participated, persuaded, presented, promoted, publicized, reconciled, recruited, referred, reported, resolved, responded, specified, suggested, translated, wrote.

Appropriate Interview Attire
While the college campus may be the perfect forum in which to exhibit your flair for the latest in fashion style, the interview is NOT the place to do so. With very few exceptions, Oxfords and business suits are still “in.” Even though many companies have relaxed dress codes, interviews still follow the conservative standard. Don’t buck the trend. Conservative is in for interviewing. Why?

YOU should be doing the talking, not your clothes. Pay attention, as well, to your shoes. Some recruiters form first impressions based solely on shoes. People who pay attention to details, like shoes, are also likely to be diligent in their work life. Many recruiters say, “You can judge a person by their shoes.”

Follow these guidelines for successful interview dress:

The #1 Statement to Generate the Job Offer

By Brian Krueger, author of “College Grad Job Hunter”

Following the interview, ASK FOR THE JOB!

Less than 1 percent of all college students actually ask for the job. If an interviewer knows that you want the job—that you really want the job—it makes his/her job that much easier and will greatly increase the odds of you receiving an offer either on the spot or in the very near future.
If you are truly interested, then at the end of the interview you should (1) recap why you feel you are the best candidate (give two or three of your strongest attributes and/or qualifications) and (2) restate your interest in the position by asking for the job.

“I feel my GPA indicates the strength of my educational background and my internship has given me hands-on experience in my chosen career field. I am well prepared for this position and am very interested in your organization. I would like to work for (name of company) following my graduation from Weber State. May I have the job

This approach may appear a little bold, but it is far and away the #1 way to generate a job offer. The prerequisites of using this approach are 3-fold:

1. **You have already sold them on you as a candidate.**
2. **They have already sold you on working for them.**
3. **You are talking to the person who makes the hiring decision.**

How do you know who is making the hiring decision? Simple, **ASK.** “Who will be making the hiring decision for this position?” Ask HR, ask the managers, ask a peer level. Any of them can tell you. You just need to ask.

This is not the time to be shy. If you want to get married, you have to pop the question! You need to learn how to **break the rules** in a **GOOD** way and this is one of the best ways to break the rules and generate a job offer.
References


http://www.units.muohio.edu/aisorg/index.shtml


Council on Undergraduate Research (2009). Accessed May 28, 2009 at:

http://www.cur.org/faq.html


http://www.service-learningpartnership.org/site/PageServer?pagename=SL_index


The University of North Carolina at Chapel Hill (2009), accessed June 4, 2009 at:

www.unc.edu/depts/wcweb/

http://weber.edu/IR/instprof.html