



# Master's in Public Health

PBHL 698

Practice-Based Capstone

&

Capstone Research Project

Handbook

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## Capstone Research Project

Your [Practice-Based or](#) Capstone Research Project is an exciting opportunity that allows your education to apply your research skills. This is the time that you will be able to take everything you have learned in the classroom and apply it to the public health issues that interest you the most.

### Definitions...

Capstone Research Project is one of the culminating activities to fulfill requirements for MPH Nutrition and Wellness graduation. This is an opportunity for you to engage in health research within the area of public health. During this process, you will be able to look deeper into the questions regarding public or community health that you may have had prior to joining the program, have encountered during your time in the program, or foresee as a public health problem in the future. You will also gain experience in working with a research team with your committee members, under the guidance of your supervisor that will serve as a collaborator during your project.

We hope that you take full advantage of this opportunity to make a meaningful contribution to the public health knowledge base. We look forward to work with you through this process.

## The Capstone Research Project can be Combined with Your Practicum Experience

The practicum experience can be either research or practice-based. The practicum experience often can be linked to the Capstone Research Projects. We encourage students to be efficient and effective with time and available resources, and whenever possible, write a research protocol or program plan to gather data and information to fulfill the capstone research project requirements while performing their practicum. When feasible and appropriate, the student can work simultaneously in fulfilling his/her practicum requirements and at the same time working in a research protocol or program plan with the agency where is doing their practicum. By combining the practicum experience with the Capstone Research Projects a student may expedite the completion of his/her program.

## Capstone Research Project – Timeline

### **Prior to Beginning PBHL 698**

- ❖ Read the **Capstone Research Manual**
- ❖ Begin thinking of ideas for your Capstone Research Project
  - This list will help you in deciding your final topic

- You may also consult your academic advisor, and/or other Andrews University faculty or with other relevant people of the agency where you plan to do your capstone research project

### **PBHL 698 (2 credit)**

- ❖ Submit your **Project Proposal, Project Approval Form, and Project Contract**
- ❖ Speak with your academic advisor about who should be on your committee
- ❖ Apply for **AU IRB** approval
- ❖ Complete preliminary **Literature Review**

### **PBHL 698 (2 credits)**

- ❖ Make sure that all forms and approvals are completed prior to conducting research
- ❖ Conduct your research project
- ❖ Send **Draft of Project** to academic advisor
- ❖ Send **completed project** to Committee Members and the Chair of the Department of Public Health, Nutrition, & Wellness **10 days prior** to presentation
- ❖ **Present** Capstone Research Project to Committee Members and Chair of the Department of Public Health, Nutrition, & Wellness
  - We also encourage our students to invite their former practicum preceptors to their capstone presentation.
- ❖ Make sure that **all forms** are turned into academic advisor for final grading and to be eligible for graduation

## **An Overview of the AU MPH Capstone Research Project**

The Capstone Research Project meets partial fulfillment of the graduation requirements of the Master's degree and is part of the requirements for the MPH culminating activities. This culminating experience is intended to provide the opportunity for students to research a public health question or issue of their interest that draws from their academic experience. It provides students with the opportunity to apply, integrate, and synthesize knowledge and experience obtained during their academic course of study to a question or problem of public health relevance. In some cases the Capstone Research Project idea or opportunity may evolve from the student's field practicum.

## **The Capstone Experience**

The Capstone Research Project must be completed near the end of the program so that students have the advantage of drawing on and synthesizing their academic experience. However, students should develop ideas as soon as possible. Students should look for opportunities while

completing their coursework to develop their ideas and plan projects. It is strongly recommended that students discuss project ideas with their advisor during the spring or summer semester of their second year.

The project must meet the *Andrews University Standard for Written Work*. One copy of each report is submitted to the instructor under whose supervision it was prepared. It becomes the property of the department. Completed and signed approval forms for the project(s) must be filed in the Office of Academic Records no later than noon on Friday, one week before graduation, unless an earlier time is specified by the department. If students need time for project preparation beyond the semester(s) when regular project credits are accumulated, they may register for project continuation. Project continuation is a non-credit enrollment status that requires a small fee for each semester of registration.

## Student Supervisory Committee

A student's project supervisory committee normally consists of no more than two members chosen and appointed by the department chair/program director in consultation with the student. One member will serve as the chair of the committee and additional person(s) will serve as a committee member(s).

Committees are appointed before registration for Capstone project credits. The chair of the supervisory committee is the student's chief advisor. Therefore the chair must be a member of the Department of Public Health, Nutrition & Wellness. Additional members may be from the Andrews University faculty, faculty from another academic institution and in some cases public health professionals who have expertise in the area the student has chosen for the research. The function of the committee is to guide the student in his/her research and writing of the project. The term of service of a student's committee is deemed to have expired when a student has graduated or when registration has been terminated.

## Capstone Advisory

The capstone director provides academic and administrative oversight of the entire capstone process. The students will have the opportunity to choose a capstone supervisor that best suits their needs and research interests and a secondary advisor for the project, otherwise the director may assign each student a capstone advisor who is a faculty member.

## The Capstone Venues

The capstone project can be done in a wide variety of settings such as communities, agencies, churches, etc. Most capstone projects require a collection and analysis of either primary or secondary data. You can gather data, either archived or original from a community or relevant agency, such as Church organizations, health departments, Local, state, federal, and international governmental human service agencies, Non-governmental human service

agencies, Community-based organizations (CBOs), Advocacy organizations, Community clinics, Community centers, Community coalitions, Hospitals, nursing homes, and other long-term care facilities, Schools, Child care and daycare centers, International non-governmental organizations (NGOs), etc. You can collect data for the capstone project at the the same site and time while completing the field practicum. If by any reason, this is not possible, you can choose an organization or agency to conduct your Capstone Research Project. Since the data collection for your capstone research project provides you practical experience in applied research or assessment, the time you invest in collecting this data counts toward your 180 required hours for practicum as long as this experience is supervised by a qualified supervisor.

This site can be anywhere – domestic or international. It should meet the following criteria:

- ❖ Have an identified need that can be addressed with the problem-solving skills attained during the academic work.
- ❖ Provide an on-site preceptor who can meet with you regularly and who is willing to provide substantive guidance and assistance.
- ❖ Provide necessary resources (desk, data, access to clients, etc.) to enable you to carry out the project.
- ❖ Enable you to apply skills and competencies learned in the academic program.
- ❖ Have an organizational mission and value consistent with that of the program and Andrews University
- ❖ Provide an opportunity to interact with diverse populations in community settings and with public health practitioners

Capstone sites may be domestic or international. Examples of appropriate sites include:

- ❖ Church organizations
- ❖ Health departments
- ❖ Local, state, federal, and international governmental human service agencies
- ❖ Non-governmental human service agencies
- ❖ Community-based organizations (CBOs)
- ❖ Advocacy organizations
- ❖ Community clinics
- ❖ Community centers
- ❖ Community coalitions
- ❖ Hospitals, nursing homes, and other long-term care facilities
- ❖ Schools
- ❖ Child care and daycare centers
- ❖ International non-governmental organizations (NGOs)



## Responsibilities of the Student, Academic Advisor, Committee Members, & On-Site Preceptors

### Responsibility of the Student

- ❖ Initiate the Capstone Research Project by researching prospective sites, making community contacts, and presenting options to their academic adviser.
- ❖ Familiarize themselves with potential sites by contacting staff and identifying potential preceptors.
- ❖ Schedule regular meetings with their academic advisor and on-site preceptors.
- ❖ Perform all of the tasks outlined in the Project Proposal and work plan, collecting and completing all forms, and producing all deliverables on schedule, including:
  - Project Proposal
  - Project Contract
  - Work Plan
  - Literature Review
  - AU IRB Approval
  - Draft Report
  - Final Report
  - Oral Presentation
  - Community Presentation
- ❖ Formally evaluate the quality of the Capstone Research Project experience and make recommendations for improving the experience

### Responsibility of the Academic Advisor/Committee Chair

- ❖ Assist students in choosing their Capstone Research Project sites
- ❖ Advise students to assure that their projects have reasonable and appropriate aims and both is rigorous and feasible
- ❖ Collaborate with students and on-site preceptors, develop a schedule of regular meetings to monitor progress, problem-solve around issues that come up, and provide advice on background development, literature search, methods, and presentations
- ❖ Assist students in preparing, if necessary, AU IRB applications
- ❖ Assume principal responsibility for project oversight, ensuring scientific quality, and integrating project tasks with academic work, learning objectives, and students' career objectives
- ❖ Review and critique all project deliverables, including proposals, work plans, progress reports, drafts, and final reports
- ❖ Evaluate student work for the purpose of grading and assure that grades are submitted to the registrar at project completion
- ❖ Assure consensus of the committee for assigning a final grade for the project

### Responsibility of the Committee Members

- ❖ Responsible for guiding the student's Capstone Research Project

- ❖ Provide guidance regarding components of the Capstone Proposal document

### **Responsibility of the On-Site Preceptors**

- ❖ Assist students in identifying community/agency needs and in formulating an appropriate, feasible and edifying project
- ❖ Share expertise, experience, and organizational values
- ❖ Assist students in completing the Capstone Research Project Contract
- ❖ Meet with students and academic adviser at the onset and regularly during the project
- ❖ Orient students to their sites, serves as an advocate for the student, introducing them to staff and familiarizing them with organization procedures
- ❖ Mentor the student, providing expertise on community and organizational ethos and on appropriate public health approaches and practice skills
- ❖ Help students to find appropriate working space and equipment
- ❖ Assist students to obtain access to necessary data
- ❖ Review and comment on written products
- ❖ Attend the final oral presentation
- ❖ Contribute to project evaluation and grading

## The Capstone Research Project Process

The Capstone Research Project consists of four phases: Planning, Doing, Evaluating and Reflecting, and Summarizing and Presenting. The Planning portion of your Capstone Research Project will take place during PBHL 698 Capstone Research Project (1 credit); however, it is advised that you begin brainstorming prior to registering in this course. The Doing, Evaluation and Reflecting, and Summarizing and Presenting will be completed in PBHL 698 Capstone Research Project (3 credits). While some may want to begin this process earlier, please remember that all forms and approvals must be completed prior to beginning any work.

### **Planning: Find Committee Members**

Discuss and choose committee members in consultation with your advisor (chair of your committee). Committee members must be approved by advisor prior to formally beginning the project.

### **Planning: The Capstone Proposal and Contract**

The MPH Capstone Research Project is an opportunity for students to work with an agency or organization in order to contribute to public health literature by looking at a problem and finding a potential solution.

The student is expected to develop several ideas for possible projects and appropriate faculty will be assigned by the MPH Director to work with the student to complete his/her culminating project. The assigned academic advisor should be the primary primary resource for this purpose, but the student may also consult with other Andrews University faculty. The ideal stage for preparing your culminating project should occur within the first two semesters of your second year in the MPH program. Address a need and/or have direct, practical value to a community organization or public health-related agency. Involve an identifiable activity (or set of activities) with a clear endpoint and produce a specific “product” that can be described in detail and evaluated formally or through reflection.

Capstone Research Projects should apply and extend specific public health skills, knowledge, and experience in an area of special interest to the student. Be relevant to improving the health of a community, advancing social justice, eliminating health disparities, or improving public health practice. Be evidence-based. It is not sufficient just to do something for the Capstone Research Project. You must build on – or place in the context of – what is known. Include an evaluation or self-evaluation component. Be summarized in a written report and orally in a rigorous, thoughtful, and professional manner.

Students have several options for fulfilling their Capstone Research Project requirements. Capstone Research Projects can range from secondary analysis of existing data, to the collection of new data, or to the development and evaluation of an intervention or curriculum. Every research project must include a hypothesis or research question and must involve the summary or analysis of data. Students are encouraged to develop research ideas from their practicum site, or from another data-rich resource with public health relevance. Research projects may also be conducted a student’s current employment if it is distinct from work duties and involves public

health activities. The Capstone Research Project must be conducted outside of normal work responsibilities. The student's work supervisor must approve of the use of work-related resources for the research project, and may, if appropriate, serve as a committee member.

## Planning: The Capstone Proposal Alternatives

The following are examples of potential Capstone Research Projects. Examples include, but are not limited to, the following:

- ❖ **Secondary Analysis of Existing Data:** These projects involve the use of publicly-available data, such as NHANES, BRFSS, SEER, state vital record data, etc. Research questions that cannot be addressed using original data collection techniques (due to time or financial constraints) can often be addressed by analysis of previously collected data.
- ❖ **Qualitative Analysis:** Qualitative approaches are used to study phenomena or experiences and are based on the interpretation of words and text, as opposed to numerical data in quantitative analysis. Qualitative data are collected by means of interviews, focus groups, or observational studies. (*Students must take a qualitative research class prior to starting research and the 2<sup>nd</sup> member on their committee must have qualitative research expertise*).
- ❖ **Survey Research:** Survey or questionnaire studies encompass measurement procedures that are based on questions posed to respondents. Survey research includes questionnaires administered by paper, in-person interview, telephone, or web-based data collection strategies.
- ❖ **Needs Assessment:** Needs assessment refers to a systematic study of a public health issue to identify a potential need for resources to address that issue in a defined population (i.e. children with special health care needs, young mothers, or cancer survivors). A wide variety of data sources are generally required for a needs assessment.
- ❖ **Program Evaluation:** Evaluation research includes a heterogeneous assortment of techniques, procedures, and methods for systematically assessing the conceptualization, design, implementation, and utility of social intervention programs. These techniques can include participant observation, archival research, interviewing quasi-experimentation, and experimentation.
- ❖ **Other options may include:**
  - An implementation plan for a public health program
  - A public health intervention
  - A curriculum design
  - An evaluation (report)
  - A communications campaign (advertisements, video, etc.)
  - A training program
  - A policy analysis
  - Policy development
  - Proposed legislation
  - A community mobilization effort

Complete and have your academic advisor approve the Capstone Research Project Proposal Approval Form. In addition, include an outline of your proposal that includes a draft title, the

public health question that will be addressed, and the methods that will be used for addressing the question. Include some discussion of challenges you may expect and how you will address those challenges. Committee members will provide further guidance regarding components of written documents.

## Planning: Capstone Proposal Components

The capstone proposal requires the following components:

- Background and public health significance
- Purpose of the project
- Description of project activities (section varies depending on the nature of the project)
- Capstone at worksite/former field placements site (If relevant)
- Project timeline
- Capstone competencies and specific learning objectives to be met by the capstone
- Reference list

## Planning: Capstone Final Report

Students can begin and end the capstone fieldwork at any time during the year. After the completion of the field work, students develop a written final report which describe the field experience and further demonstrates the knowledge and skills they have gained in the MPH program. The final report contains the material on the bulleted list below. Students are provided with a template which explains each of these sections and they are encouraged to review completed portfolios of prior graduates as templates.

**Overview:** To obtain the MPH degree at Andrews, students will successfully complete a culminating experience, which includes a 1) practice-based capstone or a capstone research project and a 2) passing grade in the comprehensive examination. The combination of the two components of the culminating experience is aimed at meeting all the competencies in the MPH program.

MPH students have the option to engage in and complete either a practice-based capstone or a capstone research project.

**Practice-Based Capstone:** In the practice-based capstone, the student will apply proven methods to monitor the health status of the community, investigate unusual occurrences of diseases or other conditions and implement preventive control measures based on current understanding of public health sciences. Students will also collect and analyze health data for the purpose of protecting the health of a particular community. The benefits and risks are experienced by the participants in the participating community only.

**Capstone Research Project:** In the capstone research project, the student will test new unproven treatments or strategies that are not known to be efficacious. Thus, the research report will include the design of the study, rigorous monitoring of health outcomes and unexpected consequences to human subjects in the application of new experiments/interventions. In research-based projects the student will collect and analyze data for the purpose of generating knowledge. This knowledge will benefit the general population beyond the participants in the participating community.

The outlines of reports for practice-based capstone and capstone research project are provided in the Table 2.5.1 below.

<b>Table 2.5.1 Outline of Capstone Reports*</b>	
<b>Practice-Based Capstone</b>	<b>Capstone Research Project</b>
<ul style="list-style-type: none"> <li>▪ Title</li> <li>▪ Abstract/Summary</li> <li>▪ Introduction</li> <li>▪ Project purpose, goals, objectives</li> <li>▪ Literature review</li> <li>▪ Methods</li> <li>▪ Results</li> <li>▪ Discussion</li> <li>▪ Conclusions</li> <li>▪ Recommendations</li> <li>▪ Bibliography</li> <li>▪ Mapping competencies</li> </ul>	<ul style="list-style-type: none"> <li>▪ Title</li> <li>▪ Abstract</li> <li>▪ Introduction indicating the Project Goal(s) and Objectives/Purpose/Hypothesis</li> <li>▪ Literature review</li> <li>▪ Methods</li> <li>▪ Results</li> <li>▪ Discussion</li> <li>▪ Conclusions</li> <li>▪ Recommendations</li> <li>▪ Bibliography</li> <li>▪ Mapping competencies</li> </ul>

\*Practice-based capstone project or capstone projects may deviate from the above format to adjust relevant research methodologies, such as qualitative research designs.

MPH students will plan and develop their practice-based capstone project or capstone research proposal during the last year of their academic program under the supervision of their capstone research advisor. The culminating experience will address all the core and concentration competencies of the MPH program, which allows the student to demonstrate their synthesis of the core and concentration-specific public health knowledge and skills gained throughout the curriculum. While the comprehensive exam assesses all the competencies, practice-based capstone project or the capstone research project only covers relevant competencies in depth that will vary depending on the project and practicum experience. See the table below:

### Planning: Andrews University Institutional Review Board Approval

Approval from the AU IRB must be obtained for projects that involve human subjects before data collection, in the case of the use of surveys and questionnaires or and analysis of an existing dataset. **This includes the use of secondary data.**

Please refer to the AU IRB section for more information.

## Conducting the Capstone Research Project

This is the phase where you conduct your project. The details of what to do varies depending on the individual projects.

During this time, you should meet with your academic advisor at least twice during the semester and your on-site preceptors at least every two weeks. It is important that the whole committee meet all together once during the semester, unless additional meetings are necessary.

### Statistical Analysis

Assistance will be provided for statistical analyses upon request. Requests must be made to your committee chair.

### Formatting and Referencing

Formatting and referencing must follow the American Psychological Association Publication (APA) guidelines.

Papers will be evaluated on a “criteria met/unmet” basis based upon the following:

- ❖ The background, rationale, and purpose for the project are clearly stated
- ❖ The methods are clearly described and appropriate for the purpose of the project
- ❖ The results are presented clearly, using tables and figures, if appropriate
- ❖ The discussion relates the findings to the existing literature, identifies strengths and limitations, and describes implications for public health
- ❖ The paper is well written

Presentations will be evaluated on a “criteria met/unmet” basis by the Capstone Committee on the following:

- ❖ The purpose for the project is clearly stated
- ❖ The methods are clearly described and appropriate for the purpose of the project
- ❖ The results are presented clearly, using tables and figures, if appropriate
- ❖ The discussion relates the finding to the existing literature, identifies strengths and limitations, and describes implications for public health
- ❖ The presentation is well organized and presented within the time allotted

## Capstone Research Oral Presentation

Students are to complete a 30 minute oral presentation after their project has been completed. The specific dates is arranged between the student and the committee members, but must be completed **two weeks prior** to the end of the semester.

The completed project (in document form), including the proposal and results, must be submitted no later than 10 days before the oral presentation date.

## Capstone Research Written Report

This report must be written adhering to professional and academic standards and the references must follow scholarly standards such as APA, etc. The format and length of the report will vary according to its nature and will be suitable for the intended purposes.

## Publication of the Project

In some cases research projects may be considered for presentation at professional conferences in the form of a poster or submission to peer-reviewed journal. These opportunities and additional opportunities will be determined by research committee members.



## Detailed Timeline of Project Deliverables and Due Dates

<b>Timeline for PBHL 698 (2 credit)</b>			
<b>Document/Milestone</b>	<b>Responsibility of:</b>	<b>Due Date</b>	<b>Submitted to:</b>
Project Proposal	Student	First two (2) weeks of the course	Academic Advisor
Project Approval Form	Student	First two (2) weeks of the course	MPH Program Director
Project Contract	Student	One (1) week after project proposal acceptance	Academic Advisor
AU IRB Application	Student & Academic Advisor	Middle of semester	Office of Research & Creative Scholarship
Preliminary Literature Review	Student	End of semester	Academic Advisor

<b>Timeline for PBHL 698 (2 credits)</b>			
<b>Document/Milestone</b>	<b>Responsibility of:</b>	<b>Due Date</b>	<b>Submitted to:</b>
Draft of Written Product	Student	Middle of semester	Academic Advisor
Final Project Report	Student	10 days prior to presentation	Committee Members, MPH Program Director & Chair of PHNW
Project Presentations	Student	Two (2) weeks prior to end of the semester	Committee Members, MPH Program Director & Chair of PHNW
On-Site Preceptor Evaluation of Student	On-Site Preceptor	Two (2) weeks prior to end of the semester	Academic Advisor
Student Evaluation of Capstone Site	Student	Two (2) weeks prior to end of the semester	Academic Advisor
Faculty Evaluation of Student	Academic Advisor	One (1) week prior to end of the semester	Student
Notice of Student Eligibility to Graduate	Academic Advisor	One (1) week prior to graduation	Office of Academic Records
Final Grade	Academic Advisor	Date Set by Office of Academic Records	Office of Academic Records

## Roles and Responsibilities for Turning in Materials

**Student:** Have all materials turned in on the dates specified above to the correct person. Student is responsible for making sure their on-site preceptors get an evaluation form and for letting their on-site supervisor know when the evaluation is due to the academic advisor.

**Academic Advisor:** Will use the student reflection and on-site preceptor evaluation to grade the student's work. The academic advisor is responsible for getting the evaluation from the on-site preceptor on time for grading. The academic advisor will notify the department registrar that the student has completed the Capstone Research Project and is eligible to graduate, submit the student's final Capstone grade and send their evaluation of the student's work to the student for their reference.

**On-Site Preceptor:** The on-site preceptor is responsible for completing the evaluation form of the student's work and getting it to the academic advisor at a time the academic advisor deems appropriate for grading.

## Andrews University Internal Review Board

The AU IRB is part of the Office of Research and Creative Scholarship that approves all research that includes human subjects prior to data collection and research is allowed to begin. Collecting data on human subjects without IRB approval violates U.S. Department of Health and Human Services regulations. It cannot be included in any project that receives academic credit through Andrews University and will not be publishable in professional journals

The AU IRB website is:

[http://www.andrews.edu/services/research/research\\_compliance/institutional\\_review/](http://www.andrews.edu/services/research/research_compliance/institutional_review/)

**Prior to applying for AU IRB approval**, all applicants must have National Institute of Health (NIH) Training. This training can be found at:

[http://www.andrews.edu/services/research/research\\_compliance/institutional\\_review/irb-training.html](http://www.andrews.edu/services/research/research_compliance/institutional_review/irb-training.html)

The AU IRB has three (3) categories in which they review applications. These categories are decided on by the AU IRB. The categories are as follows:

1. **Exempt from IRB Review** (feedback within one (1) week of receipt of the complete application): Does not include any of the ten (10) criteria listed below under the other two (2) categories and can be classified under one (1) of the following OHRP categories:
  - a. Research done in established educational settings and involving normal educational practices.
  - b. Research using surveys, interviews, observation of public behavior, or educational tests.
  - c. Research involving elected or appointed public officials, or candidates for public office.
  - d. Research involving use of existing data, documents, records, or pathological or diagnostic specimens.
  - e. Research conducted or approved by department or agency heads designed to study, evaluate or examine public benefits or service programs.
  - f. Research involving taste and food quality evaluation and consumer acceptance studies.
2. **Expedited Review** (feedback within two (2) weeks of receipt of the complete application): Does not fall under the Exempt category or includes **any** of the following:
  - a. Identification of subjects is possible (data is not anonymous) and identification may place subjects at risk
  - b. Data deals with private or sensitive topics
  - c. There is either audio or video recording of the data
3. **Full Review** (feedback within three (3) days after IRB meeting at which it was evaluated): Does not fall under the other two (2) categories of it includes **any** of the following:
  - a. More than minimal risk (e.g., physical, psychological, economic, social, or legal) to the subjects

- b. Any subjects younger than 18 (except for research not needed to be submitted to the IRB – administrative evaluation or routine in-class evaluation)
- c. Any subjects likely to be vulnerable to coercion or undue influence (e.g., pregnant women, prisoners, mentally impaired)
- d. Coercion or undue pressure involved in selecting or recruiting subjects
- e. Significant concealment related to research procedures
- f. Deception related to research procedures
- g. Invasive procedure

More information on the AU IRB process can be found in the IRB handbook at:

[http://www.andrews.edu/services/research/research\\_compliance/institutional\\_review/irb\\_handbook\\_-\\_final\\_copy\\_for\\_fpdc\\_-\\_january2.pdf](http://www.andrews.edu/services/research/research_compliance/institutional_review/irb_handbook_-_final_copy_for_fpdc_-_january2.pdf)

The application for the AU IRB can be found at:

[http://www.andrews.edu/services/research/research\\_compliance/institutional\\_review/apply\\_form.html](http://www.andrews.edu/services/research/research_compliance/institutional_review/apply_form.html)

The AU IRB application guidelines can be found at:

[http://www.andrews.edu/services/research/research\\_compliance/institutional\\_review/guidelines.html](http://www.andrews.edu/services/research/research_compliance/institutional_review/guidelines.html)

**If you need assistance with this process**, please contact your academic advisor as soon as possible.

## Capstone Report Format Outlines

**Journal Submission** – original research, policy briefs, systematic reviews, etc.

**I. Cover Letter**

This varies journal to journal, but generally includes: a short statement about whether or not you have abided by the code of ethics set forth by the journal (if you have departed from the code of ethics, you must provide a brief explanation as to why), a disclosure of all possible conflicts of interest, disclosure of previous publications based upon the same material, and a brief indication of the importance of the manuscript to the field of public health.

**II. Abstract**

Structured abstracts should not exceed 250 words and employ 4 headings: Purpose (or Objectives), Methods, Results, and Conclusions. You may use an unstructured abstract for a policy brief or if your journal requires it.

**III. Background**

Clearly state the purpose of the research and summarize the rationale for the study by providing a brief literature review.

**IV. Methods**

The methods section should be very thorough and clear enough that someone uninvolved in the research may replicate the study exactly. The section should include: Description of all study subjects, the protocol for how informed consent was obtained, any established methods with references, and detailed description of any new method.

**V. Results**

Results should be presented in a clear and logical format and include any statistical tests of significance with the corresponding P value. Text, tables and illustrations may be used to present the results.

**VI. Discussion**

This section should focus on the new and important finding from the research. This section should include limitations and implications of the study. Don't repeat data from the results section.

**VII. Conclusions**

The conclusion section is generally short and should be carefully stated so as not to over or under value the implications of the study findings.

**VIII. References**

**IX. Appendices**

Please include all of the forms and documents used during this process

## **Organizational Report** – program evaluations, needs assessments, policy analysis

### **I. Title Page**

### **II. Acknowledgements**

### **III. Table of Contents**

### **IV. List of Figures**

### **V. Abstract or Executive Summary**

Should not exceed one page, ideally 250 words for an abstract. Should highlight the key findings and lessons learned from the project. The on-site mentor should be able to glean the most important findings from your report from this single page.

### **VI. Introduction**

Includes a detailed problem statement including references as well as a justification for why this project was commissioned to address the problem.

### **VII. Background (Literature Review)**

A literature review to provide background on the public health problem, solutions that have been tried in the past, and describe any current evidence-based practices. This section should also include background on your agency, their history, and how this project aligns with their work and mission. This section may also include any relevant local background including policies and area history.

### **VIII. Methods/Procedures**

A detailed and clear explanation of how you set about solving the problem. Should include how subjects were selected if any, how data was collected, how variables were chosen and measured, and how the data was analyzed.

### **IX. Results**

A clear and logical explanation of accomplishments and learning, including any significant results from data analysis.

### **X. Discussion of Results**

What are the implications of the findings? What are the limitations of the findings? What are the implications for public health? The community served?

### **XI. Recommendations**

Recommendations to the community agency based on your findings.

### **XII. References**

### **XIII. Appendices**

Include all forms relevant to your project.

**Cover Description for a Product** – curriculum or training development, physical product or process development and piloting

**I. Title Page**

**II. Acknowledgements**

**III. Table of Contents**

**IV. List of Figures**

**V. Executive Summary – Product Description**

Should not exceed one page, and should describe the product that was developed, why it was developed, and a brief methods section to describe how it was developed.

**VI. Introduction**

Should include a problem statement based on the literature with references.

**VII. Background (Literature Review)**

A literature review to provide background on the public health problem, solutions that have been tried in the past, and describe any current evidence-based practices. This section should also include background on your agency, their history, and how this project aligns with their work and mission. This section may also include any relevant local background including policies and area history.

**VIII. Methods/Procedures for Product Development**

A detailed and clear explanation about how the product was developed so that someone else could replicate the product development. Should include how the subjects were recruited if any, how data was collected, how the product was evaluated for performance, and how any previously existing methods and measures were used to develop or test the product.

**IX. Results (Product)**

May be a copy of the product itself, a detailed description of the product, or results of product testing with target population.

**X. Conclusions**

Should discuss findings, implications, limitations, and areas for future development.

**XI. Recommendations**

Recommendations to the agency regarding the use or continued development of the product.

**XII. References**

**XIII. Appendices**

Include all forms relevant to your project.

## Appendices & Important Forms

### Appendix A – Aspects of a Successful Capstone

<b>Aspects of a Successful Capstone Project</b>	
1	The student has an ACTIVE role in the project, and is genuinely interested in the topic.
2	Expectations of student and faculty are clear at the start
3	Committee members that work well together enjoys meetings with student, and is on the same page
4	Capstone projects start with an approved written proposal from the academic advisor
5	The on-site preceptor is actively engaged
6	Both the process and product associated with the Capstone are valuable to the sponsoring organization
7	There is an excellent research question, which is precise, clear, answerable, important, and publishable
8	Students meet with their WHOLE committee throughout the process
9	There is a realistic plan to do the project in the time allotted; There is a backup plan for potential problems
10	Students read the Capstone products of successful graduate as preparation to planning their own work
11	A good literature review is completed BEFORE data tools are designed and as the research question is being developed
12	IRB requirements are well understood sufficiently in time to follow the processes
13	There is elegance to the methods, with a clear and concrete process
14	When students write their proposals, they include blank “table shells” to illustrate how their data will be presented and analyzed in a way that answers research questions
15	The Capstone requires both quantitative and qualitative skills
16	There is creative and independent use of secondary or available data
17	When the student does his/her own data collection, it is done well
18	There is innovation involved – the student brings something new to the project
19	Process deadlines are meaningful and motivational
20	No laws or important rules are broken
21	When the project is being done under stressful circumstances, or in an organization under stress, a lot of faculty support is required; likewise, students from stressed backgrounds will need extra support
22	It’s a résumé-stuffer, but not so burdensome as to be life-defining
23	Evidence of a great Capstone is that there are continuing activities after it is done
24	Sometimes the Capstone is highly connected to the practicum
25	Students pushed beyond their current comfort area
26	The Capstone turns into a job, or at least a relationship is built that will lead to future projects
27	There are policy implications for the findings of the Capstone
28	There is individual learning about the student’s own strengths and weaknesses
29	Sufficient time is allocated for final Capstone presentations
30	Students are encouraged to write publishable papers, and then publish them



## Appendix B – Exercise to Develop Capstone Ideas

Fill out this form to identify topic interests and skills you want to develop in a Capstone experience

Content Areas of Interest		Skills I want to Acquire/Hone	

## Appendix C – Capstone Proposal Outline

The student and the academic advisor should develop a topic for the project. After choosing the topic, the student is expected to write a five-eight (5-8) page Capstone Project Proposal for review by the academic advisor. The Capstone Project Proposal should include the following:

- ❖ Title
- ❖ A 250 – 300 word abstract of the project
- ❖ A brief description of the public health problem to be addressed in the project
- ❖ A review of the most relevant existing literature
- ❖ A description of the data that will be collected
- ❖ A description of the methodology used to address the problem

It is recommended that the student and the academic advisor meet to discuss the proposal. The academic advisor will then approve the Capstone Research Project. The student is responsible for completing the Capstone Research Project Approval Form, obtaining the proper signatures, and submitting the form to the MPH Program Director. The student should also provide copies of the proposal and approval form to each of the Committee Members.

# Andrews University

## MPH Nutrition & Wellness Capstone Research Project Proposal Approval Form

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This form is used to notify the MPH Program that the Capstone Committee has reviewed the student’s Capstone Project Proposal and has approved it. The student is responsible for completing the form, obtaining the signatures, and submitting the form (with the proper attachments) to the MPH Program Director.

<b>Student Information:</b>	
Student Name:	Campus ID:
Telephone:	Email:
Proposal Title:	
<b>Capstone Committee Information:</b>	
Capstone Committee Chair:	
Department: <b>Public Health, Nutrition &amp; Wellness</b>	
Telephone:	Email:
Capstone Committee Member (2):	
Department:	
Telephone:	Email:

**To be complete, the student must attach a 250-300 word abstract to this document.**

Appendix F – Student Evaluation of Capstone Site Preceptor (if applicable)



**MPH Nutrition & Wellness  
Student Evaluation of Capstone Site Preceptor**

**Please turn this into academic advisor 2 weeks prior to the end of semester.**

<b>Student</b>	
<b>Agency</b>	
<b>On-Site Preceptor</b>	

Please read each statement below and select from within a scale range of **1 (strongly disagree)** to **5 (strongly agree)** regarding your experience with you Capstone Research On-Site Preceptor.

<b>Objective</b>	<b>1 (Strongly Disagree)</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5 (Strongly Agree)</b>
Introduced me to other staff and helped me to establish collegial relationships with them					
Was usually available whenever I needed him/her					
Met with me on a regular basis to provide supervision					
Asked me to specify my learning goals					
Treated me as an adult learner					
Encouraged me to critically examine my performance					
Provided ongoing specific and constructive feedback about my performance					
Encouraged me to take initiative					
Established comfortable personal/professional boundaries					
Encouraged me to experiment with my own ideas and approaches					
Was a positive professional role model for me					
Assisted me in exploring problem-solving options					
Encouraged me to expand my public health knowledge					
Encouraged me to collaborate with and learn from other staff					
Was sensitive to the multiple demands of my graduate experience					

Please read each statement below and select from within a scale range of **1 (strongly disagree)** to **5 (strong agree)** regarding your experience with your Capstone agency.

Objective	1 (Strongly Disagree)	2	3	4	5 (Strongly Agree)
Provided a desk and other resources for me to do my job					
Provided me with access to the necessary data files					
Allowed me to represent the agency by attending and participating in interagency functions					
Was a supportive learning environment					
Treated me with respect					
I feel this experience prepared me for public health practice					
I feel this experienced help me get ready for public health employment					

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Student Signature

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Date

## Appendix G – Capstone Presentation Requirements

All graduating students must present their Capstone Research Project **at least three weeks prior to the end of the semester**. The student must schedule a time with their Committee, MPH Program Director, and Department of Public Health, Nutrition, & Wellness Chair.

Each student will have 30 minutes to present their Capstone Research Project. This time must allow for questions.

A suggested outline for the presentation follows. The number in parentheses indicates an approximate number of slides for each section.

**Title Slide** – Title, student (1)

### **Introduction**

- ❖ Aims of the project (1)
- ❖ Local context and motivation for the project (1-2)
- ❖ National context – scientific, evidence-based, other experience, motivation (1-2)

**Methods** – what you did (2)

**Results/Accomplishments** – What you accomplished (2)

**Conclusions/Lessons learned, implications, next steps** (1-2)

**Acknowledgements** (1)

**References** – use relevant short references inside the power point slides and a complete bibliography at the end of document.

## Appendix H: MPH Capstone Oral Presentation Grading Rubric

Student's Name: \_\_\_\_\_ Date: \_\_\_\_\_

Criteria	Excellent (5)	Very Good (4)	Good (3)	Poor (2)	Points	Weight	Points
<b>Content Opening</b>	Opening captivates the audience with interest and/or intrigue.	Interesting opening; engages audience.	Opening is minimally engaging.	Opening is not engaging.		1	
<b>Organization</b>	Information/ideas are presented in a consistently logical sequence. Transition/connections are eloquent. A strong sense of wholeness is conveyed. Conclusion leaves the audience with a strong sense of closure.	Important ideas and information are identified for the audience. Information/ideas are presented in a logical sequence with few lapses. Transitions and connections are made. Closing effectively summarizes the presentation.	Irrelevant, unnecessary information detracts. Big ideas are not specifically identified. There are significant lapses in the order of ideas. Transitions are inconsistent and weak or missing. Closing demonstrates an attempt to summarize.	No clear organization. Ideas do not connect with one another. There are no clear transitions. No closing is evident.		2	
<b>Presentation Speech</b>	Commands audience politely using eye contact, making sure audience is ready. Can be heard by all members of audience without assistance. Uses visual aid as guide or outline for speaking. Consistently maintains eye contact.	Makes sure audience is ready before starting. May need reminders from audience to speak up; generally consistent, maintains eye contact, and minimizes reliance on notes.	Makes occasional eye contact, makes few attempts to command audience; may start speaking before audience is ready. Needs reminders from audience to speak up. Mostly reads from notes.	Audience hears with great difficulty. Reads notes and seldom establishes eye contact.		4	
<b>Visual Aid</b>	Visual aid readable and attractive from all parts of the room. Graphic is clear and professional looking, enhancing the message.	Visual aid readable from all parts of the room. Graphic is neat. Appropriate subject chosen to depict message.	Visual aid is not completely accessible to all audience members. Graphic may be messy. Visual may not be most appropriate to support presentation.	Visual aid undecipherable. Graphic detracts from message. Messy or inappropriate visual.		2	
<b>Content</b>	The content of the presentation reflects extensive research and is based on strong scientific evidence.	The content of the presentation reflects some supportive research.	The content of the presentation reflects limited research to support it.	The content of the presentation reflects limited research.		10	
<b>Time Frame</b>	Presentation falls within required time frame.	Presentation falls within required time frame.	Presentation is less than minimum time.	Presentation is more than maximum time.		1	
<b>Maximum Total Points (100 points)</b>					<b>Points=</b>		

Evaluator's Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Observations: \_\_\_\_\_

## Appendix I: MPH Capstone Research Project Written Report - Grading Rubric

Student's Name: \_\_\_\_\_ Date: \_\_\_\_\_

<b>Scale Description: Poor (1); Fair (2); Good (3) Excellent (4)</b>	<b>Points Scored (1-4)</b>
<b>Research Inquiry</b>	
The research question/hypothesis/purpose are clearly stated	
The content of the document is <b>focused</b> on the research inquiry.	
The paper <b>reflects an expert understanding</b> of the topic of the inquiry.	
<b>Literature supporting the document</b>	
<b>Students used <u>sufficient reputable sources</u></b> to support his/her research, such as peer-reviewed articles, documents from government and credible organizations such as FAO, WHO, American Cancer Association, etc.	
<b>Student provides <u>sound evidence</u></b> to document the research problem, to support the research question or hypothesis, the methodological issues, the discussion, conclusions and recommendations.	
<b>Research Methodology</b>	
<b>Research design was appropriate</b> to answer the inquiry	
<b>Instrumentation and measurements.</b> Valid and reliable instruments used to extract original data.	
<b>Data analysis.</b> The data analysis procedures are suitable for the data.	
<b>Analysis and Conclusions</b>	
The student <b>demonstrates keen analytical skills</b> to interpret his research findings in light of the literature.	
The <b>conclusions</b> are a clear reflection of the data presented.	
<b>Organization, Coherence, and Style</b>	
The research paper is <b>carefully organized</b> .	
The paper is <b>carefully edited and flows smoothly</b> with adequate transitions.	



The paper is <b>coherent</b> as a whole. The title, purpose, hypothesis or research question. The literature used.	
The paper is written following <b>standard technical writing, such as APA style.</b>	
<b>Total Points: (14-56 total points)</b>	

Observations:

Evaluator's Name: \_\_\_\_\_ Signature: \_\_\_\_\_