

**The Ohio State University  
College of Public Health  
The College of Veterinary Medicine  
Department of Veterinary Preventive Medicine**

**Master of Public Health  
Veterinary Public Health Specialization**

**GUIDELINES FOR  
CULMINATING  
PROJECTS**

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Note: This document is adapted from one prepared by the Division of Health Behavior and Health Promotion.

## GENERAL PROJECT GUIDELINES

The culminating project for the Masters of Public Health – Veterinary Public Health Specialization (MPH-VPH Program) is intended to provide students with the opportunity to integrate and synthesize knowledge and experience obtained during their academic course of study. For ideas of appropriate topics, students should review previous culminating projects in the MPH-VPH program, contact the Veterinary Public Health (VPH) coordinator, or speak with their advisor. Although every culminating project will be different, there are some general guidelines that are relevant to every project.

1. Each student must choose a **culminating project (CP)** in conjunction with the **academic advisor**.

The academic advisor must be a faculty member in the Veterinary Preventive Medicine Department, or must be a faculty member at the OSU College of Veterinary Medicine approved by the VPH advisory committee.

2. All CPs must have a significant veterinary component of direct importance to public health. They must be directly related to any of the fields or areas covered by Veterinary Public Health such as: zoonotic diseases, food safety and foodborne diseases, environmental health, biosecurity, bioterrorism preparedness, and comparative and applied biomedical research among others.
3. If the student decides upon a CP that is outside the academic advisor's area of expertise, the student may identify a **culminating project advisor (CPA)** with the input of the academic advisor. The student must obtain the CPA's direct consent to serve on his/her project. The CPA will work with the student and the academic advisor to design and/or develop the CP.
4. A minimum of two committee members is required to conform the **Culminating Project Committee**, they are the academic advisor and at least one reader. Therefore, the student and his/her academic adviser must choose another faculty member of the Department of Veterinary Preventive Medicine as a "**second reader**" and part of the student's MPH-VPH committee.

However, if the student has a culminating project advisor or any other faculty or professional directly involved in his/her Culminating Project they should be chosen as the second reader. A third member of the committee (**third reader**) may also be chosen by the student and his/her adviser. Both members of the committee should be chosen as early as possible in the academic program, but no later than the beginning of the student's final quarter. The student may add additional readers to the Committee, although this is rare.

5. The academic advisor must approve the topic and format of the student's project as well as the timeline referred to on the next page. For MPH-VPH students, the available formats are: (1) Integrative Writing Project, (2) Grant Proposal, or (3) Applied Research Project. The criteria for each of these options appear on pages 11-19. Once the project is selected, it would be advisable to **inform the MPH-VPH coordinator** to assure the appropriateness of the

project from the Veterinary Public Health point of view, and that such project will fulfill the requirements of the College of Public Health.

Students also have the option to complete a traditional research-based master's thesis as their Culminating Project. Although this option is less frequently chosen, those students who expect to pursue a doctorate or a research career are encouraged to consider a thesis, and there are of course some students who are simply interested in a topic that is best approached in the thesis format. Students interested in a thesis should discuss this with their advisers no later than the beginning of their third quarter of enrollment; to be sure they understand the requirements and time line. Specific guidelines about this option can be seen on pages 19-20.

6. The culminating project is eligible for four to eight hours of course credit, graded Satisfactory/Unsatisfactory. The level of credit is established by the scope and requirements of the project. Because the typical MPH–VPH course carries four credit hours, a rough guide would be that the hours should approximate the work required for either one or two regular courses. According to OSU guidelines, one hour of credit should require approximately three hours per week for ten weeks in order to earn an average grade. Translated for this purpose, **a four-hour project should take approximately 120 hours of work**, and an eight-hour project approximately 240 hours. The student and his/her academic adviser will need to discuss and agree on the appropriate hour assignment for the project in order to complete the *Culminating Project Proposal Approval* form (see appendix A). The hours of credit may be taken over more than one quarter. Students can be approved for up to four hours of credit in order to begin work on the project. Increasing to a total of eight hours of credit requires that the student has an approved proposal and their adviser has agreed that it justifies the higher credit level.
7. The actual timing of registration for credit for the culminating project should be discussed with the academic adviser, the MPH-VPH coordinator, and the Graduate Studies Office staff ***before the student registers***. Because of the impact on tuition, in some cases it may be advantageous to distribute the hours in different ways across quarters, depending on what other courses are being taken at the same time.
8. After completion of the culminating project, the student is required to present it to the student's Culminating Project Committee members at the **final presentation meeting**. With the permission of the committee, others may be invited to this meeting.
9. A pass/fail result on the culminating project will be reported to the Graduate School to determine the student's eligibility to graduate.

## PROJECT TIMELINE REQUIREMENTS

The student and the academic advisor must agree upon a timeline for completion of the project, subject to the constraints of Graduate School deadlines and provide a copy to the MPH-VPH coordinator. On the next page is a **timeline checklist** for the culminating project requirements, which can help guide the student and the advisor through this process. In addition, the advisor may require that the student meet other deadlines, such as submitting outlines or drafts of the culminating project paper. Remember, ***the student is responsible for meeting all of the deadlines.*** The deadlines for each quarter are available at the Graduate School ([http://www.gradsch.ohio-state.edu/Depo/PDF/Calendar/Grad\\_deadlines.pdf](http://www.gradsch.ohio-state.edu/Depo/PDF/Calendar/Grad_deadlines.pdf)) and are also posted outside the College of Public Health's Graduate and Professional Studies Office.

The following requirements are especially important:

1. The student must schedule a meeting for his/her final oral defense with their committee during the quarter they expect to graduate. The meeting should be scheduled in a timely manner, so that the student has sufficient time to make the usual necessary changes after the meeting, and the committee members have time to approve the revisions and sign the Master's Examination Report by the due date. See Appendix B to obtain an idea of the time involved just in the review process.
2. The student must provide the committee members with a correctly formatted (refer to page 7) printed **final draft** of the manuscript **at least two weeks prior to the date of your oral defense**. The final draft is defined as the draft that has been reviewed by the adviser and he/she has approved it to be sent to the committee members.
3. Upon completion of the final oral defense meeting and **after all the final revisions to the student's culminating project paper have been included in the final version**, the committee will sign the student's Master's Examination Report. Then, the student will provide the MPH-VPH coordinator with a bound final revised version of the culminating project and a copy of the signed student's Master's Examination Report.
4. The student will take the signed student's Master's Examination Report to the Graduate School (Room 247 University Hall), and a copy to the Graduate Studies Office.

If the student does not meet published graduation deadlines, but has completed all degree requirements by the last business day prior to the first day of classes for the following quarter, the student may graduate the following quarter without registering or paying fees (out of quarter graduation). Please remember, however, that some faculty members may not be available between quarters to schedule a final oral defense meeting or approve revisions to the student's culminating project paper. If the student expects to meet these "end of quarter" deadlines, **it is his/her responsibility** to determine whether their committee will be available. Failure to meet any of these deadlines may require the student to enroll and pay tuition for an additional quarter.

## MASTER OF PUBLIC HEALTH - VETERINARY PUBLIC HEALTH SPECIALIZATION CULMINATING PROJECT TIMELINE CHECKLIST

When	Date to be Completed	Check when Completed	What you must do
<b>Not later than the beginning of the quarter before the quarter you expect to graduate</b>		<input type="checkbox"/>	Meet with CP advisor and agree upon topic, tasks, hours of credit, and timeline to meet the requirements on this checklist.
		<input type="checkbox"/>	Complete <b>Culminating Project Proposal Approval form</b> and submit to Graduate Studies Office (GSO).
		<input type="checkbox"/>	Submit copy of Complete Culminating Project Proposal Approval form and tentative timeline to MPH-VPH unit.
		<input type="checkbox"/>	Recruit the members of the Culminating Project Committee who agree with your timeline.
		<input type="checkbox"/>	<b><u>Advisor should receive the first draft or major advance of the Culminating Project before registering in VPM 999.</u></b>
<b>As needed during quarters of work on CP</b>		<input type="checkbox"/>	Register for VPM 999 as necessary to accumulate approved credit hours, including at least 3 credits during the quarter in which graduation is expected.
<b>First week of final quarter</b>		<input type="checkbox"/>	Complete <b>Application to Graduate form</b> with appropriate signatures and submit to GSO.
		<input type="checkbox"/>	Send Copy of Application to Graduate form to MPH-VPH unit.
		<input type="checkbox"/>	Provide your academic advisor (or CP advisor) with a hard copy and digital file of the first draft of your CP.
<b>Not later than fifth week of final quarter</b>		<input type="checkbox"/>	Update CP Committee members on your progress.
		<input type="checkbox"/>	Arrange a time and place for the <b>CP Final Presentation</b> meeting.
		<input type="checkbox"/>	Contact MPH-VPH unit to reserve a room for the Final Presentation meeting.
<b>Two weeks prior to CP Final Presentation (Oral Defense)</b>		<input type="checkbox"/>	Provide committee members with a hard copy of the final draft of the project.
		<input type="checkbox"/>	Provide your academic advisor with a digital copy of your CP power point presentation (be ready for revisions and editing).
		<input type="checkbox"/>	Make sure your advisor has received your <b>Master's Examination form</b> from the GSO.
<b>At least one week before Graduate School deadline</b>		<input type="checkbox"/>	Attend the Final Presentation meeting with CP committee members.
		<input type="checkbox"/>	Provide committee members with a written copy of the Final version of the Culminating Project including the revisions suggested by the committee.
<b>Two days before Graduate School deadline</b>		<input type="checkbox"/>	Submit hard copy and electronic copy of final, revised version of CP paper to the MPH-VPH unit.
		<input type="checkbox"/>	Submit signed Master's Examination form to GSO and a copy to the MPH-VPH unit. An advisor must only sign the Master's Examination form after verifying that all the comments and suggestions of the committee members have been included in the final version of the Culminating Project.

Abbreviations: CP = culminating project  
GSO = Graduate Studies Office (contact: Judy Dawson, dawson.6@osu.edu, 293-6787)

## MANUSCRIPT REQUIREMENTS

1. The manuscript should be a significant effort, but specific expectations concerning the length of the manuscript may differ because of topic, analytic approach, etc. However, most manuscripts should be at least 20 pages, not including references, tables, figures or appendices. The length and content will obviously depend on the scope of the project and hours of credit.
2. The manuscript must be typed on one side of the page only, double spaced, with a margin of at least one inch on each side, and on white paper (8.5 x 11 inches) and bound or stapled.
3. The manuscript must be in a readable 12-point font; however, tables and footnotes may be in 10-point font if necessary.
4. Page numbers should be inserted (center bottom) on each page except the title page.
5. All figures and tables must be numbered, and all appendices must be labeled alphabetically.
6. The title page should include the Master of Public Health, Veterinary Public Health Specialization, the title of the project, the student's name including their degrees, the committee members' names, the text "Submitted in Partial Completion of Requirements for the Master of Public Health Degree at The Ohio State University," the month and year of the final project. An example is attached to the end of this document (Appendix C).
7. The sections of the manuscript will depend upon the nature of the project, as explained on the following pages. However, every project should have a title page, table of contents, abstract or executive summary, and references. The remainder of the work will vary according to the project requirements.
8. Citation of references should follow a standard format, such as that used for biomedical journals or the American Veterinary Medical Association. The staff of the Prior Health Sciences Library can help if the student has questions about citation styles.

### Journals:

1. Hoet AE, Saif LJ. Bovine torovirus (Breda virus) revisited. *Animal Health Research Reviews* 2004; 5(2):157-171.
2. Hoet AE, Nielsen PR, Hasoksuz M, et.al. Detection of bovine torovirus and other enteric pathogens in feces from diarrhea cases in cattle. *Journal of veterinary diagnostic investigation*. 2003; 5(3):205-212.

### Books

1. Ettinger SJ, Feldman EC. The Gastrointestinal System (Section X) In: Ettinger SJ, Feldman EC, eds. *Textbook of Veterinary Internal Medicine*. Philadelphia, PA: W.B. Saunders Company, 1995; 1206-1207.

### *A Note on Using the Internet*

Most students make use of sources discovered by Web search strategies. It is particularly important that students recognize three points regarding such sources: First, the “unfiltered” character of much of this information means that it needs to be evaluated extremely carefully. Second, most topics will require some resources not readily available on the Internet. Third, simply listing an Internet address is not an adequate citation. Any information must be identified so that it is unambiguously clear who produced it, what it is, and when the student accessed it. It should be obvious that the technical possibility of “cutting and pasting” from the Internet does not lessen the expectation of complete citation of sources and avoidance of plagiarism.

Guidelines concerning appropriate citation are available both in print and at several Internet sites. The Columbia University Press web site includes excerpts and general examples from a particularly useful source:

Columbia University Press. “Columbia Guide to Online Style.” Excerpted and adapted from Janice R. Walker and Todd Taylor, *The Columbia Guide to Online Style* (Columbia University Press, 1998). <http://www.columbia.edu/cu/cup/cgos/> (27 September 2004).

**9. A bound, printed copy and an electronic copy of the completed manuscript must be provided to the MPH-VPH Coordinator and to the Graduate Studies Office.**

## GRADUATION REQUIREMENTS SUMMARY

### IN ORDER TO GRADUATE, YOU MUST:

1. Register for a minimum of 3 graduate credit hours in the quarter in which you intend to graduate. These hours will be under your advisor's individual studies number (VPM 999). The Graduate Studies Office (GSO) will provide you with the call number, only if the **Culminating Project Proposal Approval form** has been submitted and approved (See Appendix A).
2. Complete an *Application to Graduate* form (available online and from the GSO). Fill out your personal information and have it signed by your academic advisor; contact the GSO if you have any questions about the form. Return form to the GSO for the graduate studies chair's signature. This form must be filed with the Graduate School no later than **the second Friday of the quarter** you intend to graduate, and **is valid for that quarter only**. Submitting this application indicates that you expect to complete all degree requirements that quarter. If you do not, you will need to complete a new *Application to Graduate*.
3. Meet the requirements noted in the *Graduate School Handbook* :
 

**Responsibility II.5.13.2. . . the student:**

  1. *must have earned a cumulative point-hour ratio of at least 3.0 for all graduate credit hours taken at this university (ref.II.4.1)*
  2. *must have fulfilled all additional requirements published by the Graduate Studies Committee [essentially, the core and elective courses required for the degree]*
  3. *must have final grades for all courses received in the University Registrar's Office by the deadline published*
  4. *must have fulfilled all other requirements by the deadlines established by the Graduate School*

**End of Quarter II.5.13.3**

*A student who does not meet published graduation deadlines but who does complete all degree requirements by the last business day prior to the first day of classes for the following quarter may graduate the following quarter without registering or paying fees.*
4. The Graduate School graduation deadlines for each quarter are available from the Graduate School ([http://www.gradsch.ohio-state.edu/Depo/PDF/Calendar/Grad\\_deadlines.pdf](http://www.gradsch.ohio-state.edu/Depo/PDF/Calendar/Grad_deadlines.pdf) ) or from the GSO.
5. A *Master's Examination* form will automatically be provided to your academic advisor after your *Application to Graduate* form has been filed with the Graduate School. The *Master's Examination* for the MPH-VPH is your culminating project. In response to any direction from your culminating project committee, you must revise your document until the committee finds it satisfactory, making sure that the Graduate School deadlines are met. Upon successful completion of your culminating project, your committee will sign off on your form. Take the first copy to the Graduate School (247 University Hall) and give the GSO the second copy for your file and an additional copy must be also provided to the MPH-VPH unit.

***Plan ahead, give yourself plenty of time, and make sure you are aware of all the deadlines.  
These are not negotiable!***

## INTEGRATIVE WRITING PROJECT

The integrative writing project for the MPH specialization in Veterinary Public Health is an opportunity for intensive study of a topic, which is usually in the form of design and implementation of interventions, program planning and implementation, evaluation of programs, delivery of services, policy analysis, or comprehensive case analysis.

Project types:

There are several forms of the integrative writing project. The adviser will discuss individual expectations with the student, but these general descriptions about some integrative writing project possibilities may be helpful:

- **Comprehensive Case Study**  
The student may write an original case study of a scope to permit integrative use of skills gained in the curriculum. The adviser will establish the format and expectations, particularly the concern for scope and opportunity for integration. A typical comprehensive case study would require analyzing a real situation, identifying issues, and applying appropriate methods to arrive at recommendations. A typical case study might be a critical review of a specific public health intervention decision.
- **Program Planning and Implementation/Program Evaluation**  
This option provides students with an opportunity to take a principal role in planning or evaluating a veterinary public health project for a community or agency. This option focuses on the planning, implementation, analysis, and the interpretation of a veterinary public health project or program. A typical program planning/evaluation project might be designing animal and/or human health programs related to veterinary public health topics.
- **Policy Analysis**  
This sort of project concentrates on critical review of an actual or proposed policy intervention (which may include a proposal of the student's own design). The methods of inquiry may include traditional data analysis, but should also demonstrate an ability to undertake qualitative analysis. This will involve critical reading, and may include key informant interviews and other sources. A typical policy analysis might be a review of proposed legislation or administrative rule.
- **Community Assessment**  
This option provides students with an opportunity to take a principal role in planning a community assessment. This option involves an assessment for a community agency/organization. A typical community assessment might be reviewing the knowledge and/or handling of veterinary public health topics in a specific professional group.

When preparing the culminating project, the student should follow the format below. Due to the variety of project types, the student may alter this format to pertain to their project with the approval of their academic advisor.

## **Cover Page (Appendix C)**

### **Abstract/Executive Summary**

An abstract is a brief summary of approximately 250 words. The major components are: Purpose, Methods/Approach, Expected Results, and Resource Requirements. An executive summary is an expanded version of the abstract and is typically one to two pages in length.

### **Table of Contents**

The table of contents lists all the major topical areas of the document with the corresponding page numbers.

### **Introduction**

The introduction should state the basic rationale for the project. What does the student propose to do and why is it important? The introduction should also contain the following components:

*Literature Review.* Place the project in the context of what is already known about the topic by reviewing relevant research. A literature review is a synthesis of what researchers/scholars have written about a topic organized according to a guiding concept. The purpose is not to list as many articles as possible, but rather to demonstrate the student's ability to recognize relevant information, to synthesize the information and evaluate it according to the guiding concept that the student has identified for his/her project. The literature review should set the proposed project in context, provide background on the problem to which the student is responding and the approach he/she is taking, and discuss any gaps in the literature that the student has identified. Remember to define specific terms that will be used in the text of the report and remember to "tell a story".

*Agency/Organization Description.* This section presents the agency/organization on whose behalf the project is proposed. It should include a graphic presentation of the organizational structure and a discussion of how the project fits in with mission and other programs of the agency/organization. If relevant, this section may include historical information or discussion of interorganizational relationships.

*Theoretical/Conceptual Framework.* This section will vary depending on the type of integrative writing project the student chooses to do, but should generally flow from the literature review. In general, the student needs to describe the model they are using and why it applies to their project.

*Goals and Objectives.* The project goals and objectives define the scope and the direction of the project. Goals are broad timeless statements that include all aspects of a program. Objectives outline in measurable terms the specific outcomes or products of the student's work. For example, objectives of an intervention program might be specific changes that will occur in the target population in a designated time frame as a result of the student's program.

### **Methods**

In this section it should be described the approach used to address the project questions or reach the goals and objectives. Examples of what this section may include are a discussion of the project target population, instruments that may be used, potential data collection methods, project implementation plans, a plan for data analysis and evaluation, etc. A project schedule should be

included, describing step-by-step the activities carried out to develop the project; identifying any “deliverables” obtained in every step.

### **Budget (depending on CP)**

Provide a narrative description and justification of the resources required for the project, including both personnel and other resources. Construct a simple budget showing the resources by category with expected expenditures; if the project requires more than one year, show the division of expenditures by period.

### **Results and Discussion**

In this section the final product obtained should be described and inserted as an appendix. The student should also describe how this product will be delivered and used by the agency/organization, and the potential impact this will have in the target population. Limitations of the product should also be presented in this section, as well as recommendations and future projects.

### **References**

All literature and personal communications cited in the proposal must be listed in the reference section. References should follow a standard format approved by the advisor.

### **Acknowledgement**

### **Appendices**

Anything not included in the text of the report that is important for understanding the project should be attached as an appendix. All appendices must have references within the text of the project report and must be included as part of the table of contents.

## GRANT PROPOSAL

Many public health professionals have occasion to seek funding for design and implementation of interventions, evaluation of programs, delivery of services, or research. For that reason, one of the possible culminating experience project options for students in the MPH-VPH Program is the preparation of a grant proposal.

In order to be appropriate for this purpose, a grant proposal should be more than a simple “boilerplate” request for funds to continue operations of an existing program. At a minimum, the proposal should require some basic elements, including design of a program, intervention, evaluation, or service; a justification of the proposed approach based on a careful **literature review and/or other evidence** (analysis of preliminary data); and a budget with appropriate justification. If the student wishes to receive eight credit hours rather than four for this project, he/she will need to select a topic that permits a fairly significant effort, probably with a more substantial element of literature review and justification of their approach.

It is expected that the grant proposal be “real” in the sense that the student has a specific target funding source, whether he/she actually submits the proposal for review by the sponsor or not, and an agency or organization under whose auspices the work described in the grant proposal would be conducted. As part of the proposal for the project the student is required to provide a copy of the Request for Proposals (RFP) to which he/she is responding, or other evidence of the priorities and expectations of the target sponsor. The choice of funding source is up to the student, but typical choices would include federal and state agencies (CDC, NIH, ODH, USDA, ODA, etc.), national foundations (Robert Wood Johnson, Pew, Kellogg, Melinda & Bill Gates Foundation, etc.), other non-profit organizations (American Cancer Society, Red Cross, CVM, Farmers’ Association, etc.), or various local foundations and organizations (Columbus Foundation, Columbus Medical Association Foundation, Osteopathic Heritage Foundation, etc.). Remember that the academic advisor must approve the topic for the project. In addition, it is strongly advised that the student update their committee members on a regular basis, to avoid any unwelcome surprises.

The student should follow the format and requirements established by the sponsor agency or organization in their Request for Proposals. If this format does not include or follow the structure provided below, then the student should add such sections as part of their culminating project.

### **Cover Page (Appendix C)**

### **Abstract/Executive Summary**

An abstract is a brief summary of approximately 250 words. The major components are: Purpose, Methods/Approach, Expected Results, and Resource Requirements. An executive summary is an expanded version of the abstract and is typically one to two pages in length.

### **Table of Contents**

The table of contents lists all the major topical areas of the document with the corresponding page numbers.

## **Introduction**

The introduction should state the basic rationale for the project. What does the student propose to do and why is it important? The introduction should also contain the following components:

*Literature Review.* Place the project in the context of what is already known about the topic by reviewing relevant research. A literature review is a synthesis of what researchers/scholars have written about a topic organized according to a guiding concept. The purpose is not to list as many articles as possible, but rather to demonstrate the student's ability to recognize relevant information, to synthesize the information and evaluate it according to the guiding concept that the student has identified for his/her project. The literature review should set the proposed project in context, provide background on the problem to which the student is responding and the approach he/she is taking, and discuss any gaps in the literature that the student has identified. Remember to define specific terms that will be used in the text of the report and remember to "tell a story".

*Agency/Organization Description.* In this section the student should describe the agency/organization to which he/she is submitting the grant proposal. It should include a graphic presentation of the organizational structure and a discussion of how the project fits in with mission and other programs of that agency/organization. If relevant, this section may include historical information or discussion of interorganizational relationships.

*Theoretical/Conceptual Framework.* This section will vary depending on the type of integrative writing project the student chooses to do, but should generally flow from the literature review. In general, the student needs to describe the model they are using and why it applies to their project.

*Goals and Objectives.* The project goals and objectives define the scope and the direction of the project. Goals are broad timeless statements that include all aspects of a program. Objectives outline in measurable terms the specific outcomes or products of the student's work.

## **Materials and Methods**

The approach used to address the project questions or reach the goals and objectives. Examples of what this section may include are a discussion of the project target population, instruments that may be used, potential data collection methods, project implementation plans, a plan for data analysis and evaluation. Limitations should also be presented in this section.

## **Project Schedule**

Provide a step-by-step schedule of the activities necessary to carry out the student's project, indicating when they will begin and end. Identify any "deliverables" and their due dates.

## **Budget**

Provide a narrative description and justification of the resources required for the project, including both personnel and other resources. Construct a simple budget showing the resources by category with expected expenditures; if the project requires more than one year, show the division of expenditures by period.

**References**

All literature and personal communications cited in the proposal must be listed in the reference section. References should follow a standard format requested from the agency/organization.

**Appendices**

Anything not included in the text of the report that is important for understanding the project should be attached as an appendix. All appendices must have references within the text of the project report and must be included as part of the table of contents.

## **APPLIED RESEARCH PROJECT**

The MPH-VPH program permits general applied research projects in order to provide students with an opportunity to pursue an area of interest through their own research. An applied research project ordinarily includes data analysis of some sort in order to permit hypothesis testing or evaluation. Therefore, it is expected that most research projects will be of one of two types: (1) investigation of a research question expressed in traditional hypothesis form, or (2) evaluation of a program, diagnostic technique, treatment, intervention, etc. Some have described this sort of research project as a “mini-thesis.” It is correct that some research projects approved for this purpose could probably also function as a master’s thesis. However, the expectations of scale and completeness are less than that of the thesis, perhaps at the level that one might use for a “pilot study” or generation of preliminary data. Nevertheless, the student is expected to use appropriate methods and provide interpretation suitable for the approach taken.

The applied research project might be conceptualized as closer to the research activities carried out in the field of practice rather than those done in academic settings.

As with the grant proposal option, the student will need to discuss potential topics with the advisor and agree on both the topic and the appropriate credit hours. Because the research project need not be a response to a specific sponsor, the student is not required to identify an RFP or target funding source; however, if he/she has any interest in expanding the scope of their research that might be a useful step.

The details of the final report for this type of project are provided below. The sections listed should be included in most cases; however, modification may be appropriate for particular topics. In such cases, the student should provide some rationale for departure from the typical structure and have the adviser’s approval.

### **Cover Page (Appendix C)**

### **Abstract/Executive Summary**

An abstract is a brief summary of approximately 250 words. The major components are: Purpose, Methods, Results/Outcomes, Conclusions, and Implications. An executive summary is an expanded version of the abstract and is typically one to two pages in length.

### **Table of Contents**

The table of contents lists all the major topical areas of the document with the corresponding page numbers.

### **Introduction**

The introduction should state the basic rationale for the project. What is the basic research or evaluation question and why is it of interest? The introduction should also contain the following components:

*Literature Review.* A literature review is a synthesis of what researchers/scholars have written about a topic organized according to a guiding concept. The purpose is not to list as many articles

as possible, but rather to demonstrate the student's ability to recognize relevant information, to synthesize the information and evaluate it according to the guiding concept that the student has identified for his/her project. The literature review should include relevant information to the main topic of the applied research providing background on the problem and discussing any gaps in the literature that the student has identified. Remember to define specific terms that will be used in the text of the report and remember to "tell a story".

*Goals and Objectives.* The project goals and objectives define the scope and the direction of the project. Goals are broad timeless statements that include all aspects of a program. Objectives outline in measurable terms the specific outcomes or products of the student's work.

*Agency/Organization Description.* If relevant, describe the agency/organization involved in the project. This should include a graphic presentation of the organizational structure and a discussion of how the project relates to the mission and other programs of the agency/organization.

### **Materials and Methods**

Describe what materials, methods, and procedures were used to collect and analyze data.

### **Ethics**

If human or animal subjects were present in the study, the student must address how they were treated. Please note that if human subjects or their private information are involved in any way in his/her research, they will need to have their proposal reviewed by the OSU Institutional Review Board before they begin any data collection. Similarly, if animal subjects are involved in any way in the student's research, he/she will need to have ILACUC protocol approved. ***This is not optional, and failure to follow appropriate procedures could expose the student to legal liability and threaten his/her ability to use their work to meet degree requirements!***

### **Results**

The findings should be presented in this section. Describe the results of the data analyses. All tables and figures should be referred to within the text. If a table or a figure is used from another source there needs to be a reference citation. If possible, tables and figures should be placed within the text; larger tables and figures may be included in an appendix.

### **Discussion, Conclusions and Recommendations**

Discussion of the findings (interpretation of the data) as they relate to the project questions, goals, and objectives should be presented in this section. Implications and importance of the findings should be also included. Conclusions that refer to the objectives and hypothesis establish for the student's research should be included and discussed. Recommendations for use of the findings and for future research should also be presented in this section.

### **References**

All literature and personal communications cited in the proposal must be listed in the reference section. References should follow a standard citation format as indicated previously.

### **Acknowledgement**

**Appendices**

Anything not included in the text of the project report that is important for the understanding of the design, implementation, or conclusions of the project should be attached as an appendix. For example: instruments, consent forms, timeline, surveys, etc. All appendices must have references within the text and must be included as part of the table of contents.

## **THESIS OPTION**

Students choosing the thesis option are usually planning to pursue a career in research and/or academia. Students will use skills in research design and data analysis. Usually, completion of a thesis option will entail working with original data. Students are expected to analyze data specifically collected for the thesis option or analyze a previously existing data set. A thesis option typically is organized as follows:

- Cover Page (Appendix C)
- Abstract
- Table of content
- Chapter 1 Introduction
- Chapter 2 Literature Review
- Chapter 3 Material and Methods
- Chapter 4 Results
- Chapter 5 Discussion, Conclusions and Recommendations
- References
- Appendices

The sections mention above should follow the guidelines listed below:

### **Abstract/Executive Summary**

An abstract is a brief summary of approximately 250 words. The major components are: Purpose, Methods, Results/Outcomes, Conclusions, and Implications. An executive summary is an expanded version of the abstract and is typically one to two pages in length.

### **Table of Contents**

The table of contents lists all the major sections and chapters of the document with the corresponding page numbers.

### **Introduction/Purpose**

The introduction should state the rationale for the project. What is the basic research or evaluation question and why is it of interest? The hypotheses or problem statement should be described in this section, including the objectives and goals for this research.

### **Literature Review**

A literature review is a synthesis of what researchers/scholars have written about a topic organized according to a guiding concept. The purpose is not to list as many articles as possible, but rather to demonstrate the student's ability to recognize relevant information, to synthesize the information and evaluate it according to the guiding concept that he/she has identified for their project. The literature review should include relevant information to the main topic of the thesis, as well as to identify any gaps in the literature. Remember to define specific terms that will be used in the text of the student's report and remember to "tell a story".

### **Materials and Methods**

Describe what materials, methods, and procedures were used to collect and analyze data.

### **Results**

The findings should be presented in this section. Describe the results of the data analyses. All tables and figures should be referred to within the text. If a table or a figure is used from another source there needs to be a reference citation. If possible, tables and figures should be placed within the text; larger tables and figures may be included in an appendix.

### **Discussion, Conclusions and Recommendations**

Discussion of the findings (interpretation of the data) as they relate to the project questions, goals, and objectives should be presented in this section. Implications and importance of the findings should be also included. Conclusions that refer to the objectives and hypothesis establish for the student's research should be included and discussed. Recommendations for use of the findings and for future research should also be presented in this section.

### **References**

All literature and personal communications cited in the proposal must be listed in the reference section. References should follow a standard citation format as indicated previously.

### **Appendices**

Anything not included in the text of the project report that is important for the understanding of the design, implementation, or conclusions of the project should be attached as an appendix. For example: instruments, consent forms, timeline, surveys, etc. All appendices must have references within the text and must be included as part of the table of contents.

If human or animal subjects were present in the study, the student must address how they were treated. Please note that if human subjects or their private information are involved in any way in the student's research, he/she will need to have their proposal reviewed by the OSU Institutional Review Board before they begin any data collection. Similarly, if animal subjects are involved in any way in the student's research, he/she will need to have IACUC protocol approved. ***This is not optional, and failure to follow appropriate procedures could expose the student to legal liability and threaten his/her ability to use their work to meet degree requirements!***

Students choosing a thesis option should plan to present their work at a national meeting and submit it for publication. The Graduate School has additional requirements for a Master's Thesis option and some different forms are required. These requirements can be found in the Graduate Student Handbook: <http://www.gradsch.ohio-state.edu/html/PDF/Handbook.pdf>.

Appendix A

THE OHIO STATE UNIVERSITY COLLEGE OF PUBLIC HEALTH  
Master of Public Health-Veterinary Public Health Specialization  
Culminating Project Proposal Approval Form

\_\_\_\_\_, \_\_\_\_\_ has my permission to  
Name Student ID

enroll in VPM 999 for \_\_\_\_\_ credit hours for the purpose of the MPH culminating project.

**An initial enrollment for up to 4 credit hours may be approved before the culminating project proposal is complete. Students should discuss the distribution of credit hours across quarters with their adviser, the GSO staff, and the VPH Coordinator before finalizing registration. Approval for increasing enrollment to a total of 8 credit hours can only be done after a project proposal has been completed and judged appropriate for this level of credit.**

***Signature required for approval:***

Faculty Advisor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

=====

Project Type: \_\_\_\_\_

Project Title: \_\_\_\_\_

\_\_\_\_\_

Primary Faculty Advisor: \_\_\_\_\_ (Print Name)

Secondary Faculty Reader: \_\_\_\_\_ (Print Name)

**Project Description:**

Attach an additional sheet with a description of the proposed project. If the project is a grant application, indicate the target funding source, and also attach a copy of the Request for Proposals (RFP) or other documentation of the sponsor's requirements.

***Signatures required for approval:***

Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Faculty Advisor Signature: \_\_\_\_\_ Date: \_\_\_\_\_

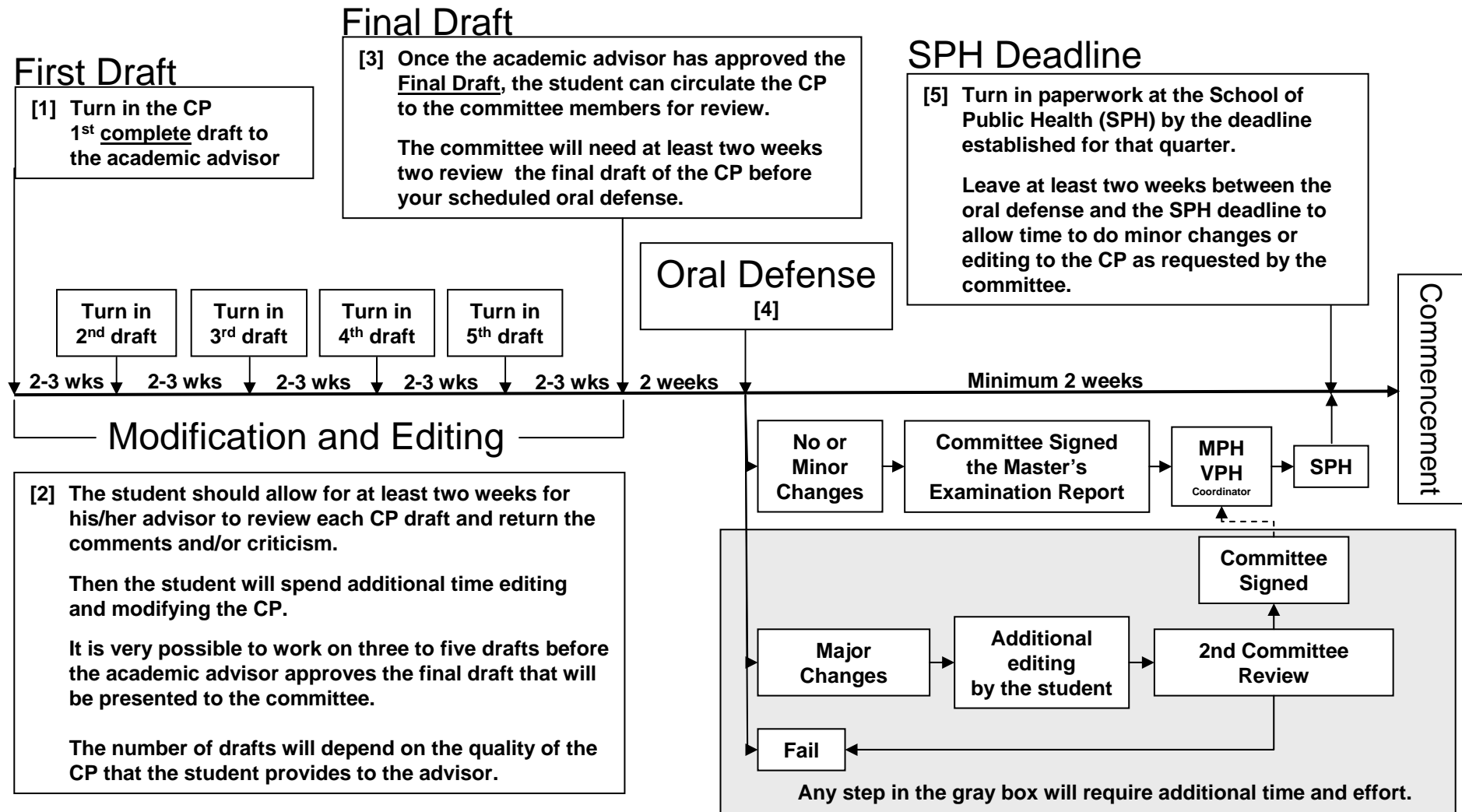
***Please return the completed form to Judy Dawson.***

**Approved**

Rev. 10/2006

# TIMELINE FOR REVIEW PROCESS OF THE CULMINATING PROJECT

**Note:** If the student does not have the 1<sup>st</sup> draft of the culminating project ready or close to completion before the quarter in which he/she is planning to graduate, the student needs to discuss with his/her advisor if it is still feasible to complete the culminating project (CP) by the different deadlines.



Master of Public Health  
Veterinary Public Health Specialization

**Title**

Student Name, degree(s)

Advisor Name, degree(s)  
Committee Member Names (with degree(s))

Submitted in Partial Completion of Requirements for  
the Master of Public Health Degree at  
The Ohio State University

Date of Oral Defense