# Masters Thesis Committee Guidelines for Community Partners

Environmental Science M.S. CSU Monterey Bay

#### **Background & Purpose**

Each student enrolled in the CSU-Monterey Bay Environmental Science (ENSCI) Master of Science degree program must complete a written thesis. The minimum thesis committee comprises two <u>Environmental</u> <u>Science M.S. tenure-track faculty</u> and an external community member with expertise in the specific field of study. The external reviewer typically comes from academia, industry, or agency with ties to natural resource management and policy.

If you agree to serve on a graduate thesis committee, you are participating in a time-honored tradition of guiding the next generation of applied environmental scientists. Your input is highly valued, and it has a long-lasting impact on the students with whom you work. Your service is critical to the success of our program, and is gratefully appreciated by our students and faculty.

This document provides general guidelines to help you understand your role as a thesis committee member.

#### **Overview and Schedule**

In summary, the typical responsibilities of the external committee member include:

1) Read, and comment on, a draft thesis proposal that has already undergone internal review;

2) Expect quarterly updates during research from the student; these updates ensure you are kept abreast of the research progress and to maintain good communication. After research is started, unforeseen issues arise. Students may need to modify methods to properly address their research questions. Thus, these updates may request the acknowledgement of changes or questions of how to proceed where your expertise is unique and highly valued.

- 3) Read, and comment upon, the thesis report, hopefully just once or twice,
- 4) Approve a passing thesis product and attend the public thesis defense.

The ENSCI masters program starts with admission in the fall. Although we encourage a faster pace, successful students *must* have an accepted research proposal by the end of the second fall semester. They need to pass that milestone as part of the requirements to become a "candidate" for the master of science degree. This deadline is set by the general CSU system. Advancement to candidacy will be based upon committee consensus that the proposal is of passing quality. Thereafter, the external committee member might be sporadically called upon to give advice on certain aspects of the research. It is the intent of the ENSCI faculty to honor your voluntary service by limiting your exposure to early drafts where basic editing is still required. It is our goal to exploit your higher advisory skills to guide content, rather than formatting and grammatical editing. It is our hope that the quality of the thesis you first read will require minor adjustments, rather than major redirection. If the thesis you read requires substantive changes, further drafts will be required before a passing thesis is completed and signed. The final part of your participation would be to be attend the public thesis defense where the committee makes final recommendations for the written report and critiques the presentation. Your name and signature will appear on the signature page of the completed thesis, which will be publically available through the CSUMB library, and from the SNS web site. The work of the committee can be done by phone, email, or in brief meetings. Teleconferencing, or remote participation, will be arranged for out-of-town committee members who cannot attend the defense seminar.

Table 1: Timeline for Two-Year Thesis Track

TIME	EVENT	RESPONSIBILITY
YEAR 1 Fall	Student enters the program, begins to develop research ideas, forms thesis committee.	Agree to serve on committee, pending successful proposal
YEAR 1 Spring	Formal proposal started	Comment on proposal
YEAR 2 Fall	Formal proposal completed Advance to candidacy Thesis Research & Writing	Sporadic consultation Approve a passing proposal
YEAR 2 Spring (+ additional semesters as needed)	Writing and Defense	Comment on thesis Attend public defense of thesis Approve a passing thesis

# **Details of Student Progress and Committee Work**

# YEAR 1 Fall

Our students start the program in the fall of their first year and explore thesis topics. By the end of this semester, it is our hope that each student will be focused enough to have selected two in-house thesis advisors. In consultation with those advisors, an external committee member may have been identified. Depending upon how focused the student is, s/he might contact you before the end of the year to determine your availability to act as the external committee member. Your early participation in the proposal process is encouraged.

### YEAR 1 Spring

Students are expected to begin a formal thesis proposal near the end of spring semester. At this stage, they work in close consultation with their primary advisor and attend a course specifically designed to guide the proposal writing process. You will read a draft of the proposal once the advisor and student agree that the proposal is good enough to circulate to the full committee for review and comments. This process may be iterative if substantial content issues need to be resolved.

### YEAR 2 Fall

Students are expected to complete a formal thesis proposal by the end of fall semester. As soon as the proposal is approved, the student commences thesis research closely guided by their primary advisor. The student who is in good academic standing and has an approved thesis may advance to candidacy at that time.

### YEAR 2 Spring (+ additional semesters as needed)

Students have been completing their research objectives and writing sections of their thesis as part of their work. Perhaps they have sent you a section or two to review to get early input in advance of collating the final document. At some point, they will deliver a draft of their thesis to the committee. The student does not receive a "grade" on the thesis portion of their education. It is either a passing thesis, or it needs revision. Your job is to evaluate it in terms of the minimum criteria of a passing thesis. Additionally, it would be common practice to offer advice on how to improve the work toward excellence. Once the committee agrees that the

thesis is close to complete, the student will schedule a public defense that will accommodate the schedules of all committee members.

# Thesis Expectations and Evaluation Criteria

The ENSCI program is an "applied science" program where our research is typically driven by community needs. We provide sound science to stakeholders involved in environmental decision making. The theses coming from our program should fit that general objective.

We have asked the students to divide the thesis into three main parts.

1) An introduction;

2) A publishable manuscript; and

3) Ancillary appendices as needed (e.g. tabulated data sets that are too large to include in the body of the manuscript).

The second part is the kernel--a publishable document that is ready to be sent to a peer-review journal for evaluation, or to a resource manager as a strong technical report. The first section is an expanded introduction to the project providing broader policy context for the scientific work. This section is a broader literature review, and a place to capture the policy implications that would not fit in a succinct journal article. The third section is a series of appendices with full data sets, photographs, original software code, and other components that would not be practical to publish in a journal.

### Evaluation Standards and Criteria

There are two parts to evaluating ENSCI theses. First, we determine if the work surpasses the minimum thesis requirements. Second, we add comments that drive the thesis toward excellence. Below we list some general guidelines for assessment criteria. At this time, it is up to committee consensus to determine whether or not a specific thesis has met the minimum standards for passing.

1. Title Is the title reasonably short, descriptive and correctly worded?

2. Statement of the Problem

Is the need for the research study adequately established?

Is the discussion of previous related research adequate?

Is continuity with previous research made clear and is there evidence of a satisfactory literature search? If the thesis contains a hypothesis or hypotheses, are these clearly stated?

Are the basic assumptions involved in the solution of the problem made clear? Are they defensible?

3. Research Method

Is the method of solution logically sound and of publishable quality?

Are the data collected adequate for the solution of the problem, and are they available?

Is any peculiar sampling appropriately accounted for?

Are the assumptions involved in the procedure made clear?

Are the necessary assumptions defensible?

4. Analyses and Results

Do the analyses follow an explicit logic?

Have the statistics or model comparisons been appropriately analyzed and presented?

#### 5. Conclusions

Are the conclusions justified by the evidence submitted?

Do the conclusions answer the questions or the issues raised in the statement of the problem? Do the conclusions indicate practical recommendations or have defined policy implications? Do the conclusions provide useful information in the context of applied science?

#### 6. Form and Style

Is the writing accurate, and precise, and clear?

Are the references to authority adequately and correctly documented with the proper reference style? Has the thesis been written to follow the Graduate Committee style requirements?