MPS Proposal Guide

ABOUT THIS GUIDE

This guide will help you determine if you are conducting a **hypothesis-based project** (collecting and analyzing original data) or a **non-hypothesis-based project** (working on and developing tools or projects without original data collection). Discuss this guide with your Committee Chair and Internship Supervisor during the project planning period. Once confirmed, follow the guidelines below for the correct internship proposal type.

PROJECT TYPES

Hypothesis-Based Project

Project description

What will you do? What will your activities be? What are your deliverables?

What methods are you using to collect your data or create your project?

Example method details that you may need to include are:

- What research question are you trying to answer?
- What is your study location, species, population?
- How will you be you collecting data? What tools, skills, or materials do you need to collect your data?
- What kind of data are you collecting (e.g., information about public attitudes, or about fish stress hormones)?
- What sample size are you aiming for? How and how often will you sample?
- How are you planning on analyzing this data? What program are you going to use? What (if any) statistical tests will you be using? (Laboratory analyses, R, GIS, regressions, t-test)

Required first steps and approvals:

- Will you be collecting data from **people**? How? **IRB** protocol information?
- Will you be working directly with **animals** to collect data? How? **IACUC** protocol information?

Non-Hypothesis-Based Project

Project description

What will you do? What will your activities be? What are your deliverables?

What methods are you using to collect your data or create your project?

Example method details that you may want to include are:

- What organization are you working with?
- What need(s)/problems have you and/or your organization identified?
- What further information do you need to properly plan to address this need? How will you gather this information?
- What is your current preliminary plan? What activities will you undertake? What will you produce/create/refine? (These are your “activities” and “outputs”). How many times/how often will you do this?
- How will you know if you have successfully addressed the need? Are there any quantitative (numerical) or qualitative indicators that you have succeeded? Will you measure and document these? How?
- What are the long-term goals for this project and/or the organization and how does your work fit into that larger picture?

Required first steps and approvals:

- Will you be collecting data from **people**? How? **IRB** protocol information?

What literature review topics does this project encompass?
What background do you need to understand your topic fully?

Hypothesis-Based

Example: for a project looking at the conservation effects of pollution on snook in Biscayne Bay, you would need to consider the following review topics:

1. The biology and conservation of snook (and their relatives)
2. Effects of pollution on fish (especially snook and their relatives, but depending on available data, this could also be much broader)
3. Existing scientific literature on Biscayne Bay, with a focus on pollution and/or fish.

Non-Hypothesis-Based

Example: for a project where you are conducting outreach with businesses about single-use plastic pollution, review areas would include:

1. Best practices for outreach to businesses
2. Research into business sustainability decision-making
3. Review of causes and consequences of plastic pollution

For Both Project Types

The minimum number of peer-reviewed scientific sources relevant for your project is determined by your committee.

It is recommended to include at least eight peer-reviewed scientific sources relevant for each review topic (recommended formatting: APA style).

Review topic one:
Source list
One-page summary synthesizing key insights from your review and how they relate to your project

Review topic two (repeat as necessary):
Source list
One-page summary synthesizing key insights from that review and how they relate to your project

Task schedule and timeline for deliverables

Some options for creating this schedule include a Gantt chart, a project timeline, a logic model, etc. These can be made in Excel following these templates:

Gantt chart template
Project timeline template
Logic model template