1.0 INTRODUCTION

This document is intended to provide guidelines for undertaking your thesis and convey the faculty's expectations of you. Because each thesis is unique, it is impossible to produce a step-by-step guide, but this advice provides a framework for your efforts. This document was written by Richard Willson, Ph.D. FAICP with the advice of the faculty. Individual faculty will surely deviate from this advice, and for good reason, but this document is our best advice at this point.

Your thesis will be a stimulating, culminating experience in your graduate education. It is an opportunity to address a challenging problem in depth and your calling card if you decide to pursue a Ph.D. You have freedom selecting a topic and research approach (sometimes it may seem like too much freedom). Also, because you are not paid for your thesis, you don't owe allegiance to a client’s point of view.

Completion of your thesis is evidence to future employers of your interests and your intellectual, communication, and project management skills. The research design and implementation skills that you develop while completing your thesis will be of value throughout your career. Planners are notorious for ignoring past research and reinventing the wheel. Just knowing how to conduct a literature review will put you ahead of many of your peers. Even if you do not go on to have a research career, your thesis experience will make you a more discerning user of others' research. Finally, an outstanding thesis can be the basis for a publication, ensuring your contribution to the field.

Students who meet regularly with their chairperson in URP 6960 find it a unique and challenging experience. They enjoy the process. Unfortunately, avoiding your thesis is very easy to do. This practice has been perfected by thousands of students before you. You will complete your degree in a timely and satisfying manner if you think about a thesis topic before you enroll in URP 6902. Give yourself plenty of time to refine and, inevitably, narrow your topic.

If you have a topic and potential committee members in mind as you take your course work, you can identify and screen potential topics, review previous research, assess data availability, and do some groundwork in class papers. You will also have adequate time to obtain comments on the topic from potential committee members, planners, and other interested parties.
The next section contains an overview on what we think a thesis is and what it is not. Subsequent sections provide advice on the initial steps in completing your thesis, procedures for setting up and working with your committee, and a sample schedule. Then there is a brief discussion of the process for selecting a topic, developing a research hypothesis, and choosing a research methodology. Finally, I offer tips and warnings.

2.0 WHAT A THESIS IS/WHAT A THESIS IS NOT

Many students have misconceptions about the thesis. Some believe it is like a book. It is not. A book usually synthesizes numerous individual research projects, and is therefore, more general. A thesis is narrower, organized around one or a small group of questions or hypotheses. A thesis is:

… A thesis is the written product of a systematic study of a significant problem. It identifies the problem, states the major assumptions, explains the significance of the undertaking, sets forth the sources for and methods of gathering information, analyzes the data, and offers a conclusion or recommendation. The finished product evidences originality, critical and independent thinking, appropriate organization and format, and thorough documentation. Normally, an oral defense of the thesis is required.\(^1\)

To this basic definition, we add that a thesis displays your ability to communicate effectively in writing and orally. If you cannot write in a logical and clear manner, you cannot complete your thesis. If you are worried about your writing abilities, see the Graduate Coordinator well before you begin the thesis to discuss remedial steps you can take. Your oral abilities are tested in your thesis defense where you must summarize your research findings and respond to your committee's questions regarding your research.

To accomplish the above with sufficient depth and rigor, you will focus the research topic more narrowly than you might initially suspect. A thesis advances knowledge in a narrow area beyond that accomplished by other scholars. The single biggest problem that students have is not defining a sufficiently narrow topic. The topic must be narrow so that you can rigorously address it. A narrow topic means that you can conduct original research, not just rehash others' work.

Many students fear a narrow topic because it seems initially that they couldn't possibly write "x" pages on such a narrow topic. But once you have started your research, you will find that there is plenty to write, because only when you have started will you discover all the issues that must be addressed. A caveat to the narrowness recommendation is that the topic must be of sufficient interest to be appropriate for a thesis. If there is not a substantial problem or issue, then you don't have a topic.

The emphasis on depth and rigor does not mean that a thesis must be quantitative. Qualitative research is equally valid, but must be undertaken in a logically organized manner. Although you may suspect otherwise, qualitative research is in some ways more difficult that quantitative research because the standards for judging the validity of the findings may be difficult to establish.

\(^1\) Title V, Section 40510 definition for California State University system.
A thesis is not a plan. Plans generally memorialize goals and policies. Although plans may contain or be based on research, original research is not their primary purpose.

A thesis is not a book. A book is broader and usually doesn't include the latest research findings. Thesis research might be summarized to form a single chapter in an edited book.

A thesis is not just the documentation of an interesting story or an exposition of an interesting idea. A thesis must be grounded in the current literature, representing an extension or addition to existing knowledge, or a challenge to that knowledge.

Except under exceptional circumstances, a thesis is not an integration of preexisting knowledge. However, a thesis may be an integrated application of existing knowledge to a new problem.

A thesis is not a work product from your planning job. It is, however, appropriate to use data sources and contacts you may have at work. For example, if you are collecting data for a Specific Plan at work, you could use that data to explore a more focused research question.

Be modest about the breadth of your research and ambitious about the level of detail you will pursue.

There is some tension between this advice and our course work. We teach you to look at planning issues comprehensively—to be concerned with physical, social, and economic aspects of a problem. Good planners in the field do this. We also have a curriculum that draws from economics, political science, philosophy, history sociology, geography, and other fields. As a result, some students approach the thesis as if it is a large plan. This often causes difficulties because you will define too broad of a topic. Problems with broad topics include excessive generalizing, a lack of proof, and a lack of organizational structure. The project will become unmanageable. You may feel lost, unable to find a place to start, and certainly unable to finish.

3.0 INITIAL STEPS

Early in the program, you should begin the following steps:

• identify your general research interests;
• identify multiple potential topic areas;
• identify alternative research questions within those topic areas;
• conduct a preliminary literature review in those topic areas;
• seek the advice of faculty who have expertise in the subject area; and
• talk to planners about their reaction to the topics.

Reading and writing are two essential methods for exploring topic areas. Read the Journal of the American Planning Association and other applicable journals to determine the status of current research in your field. Examine the articles for their hypotheses, methodologies, key findings, and literature reviews. A very recent article in your topic area can ease the search for the important references in that area because they should be cited in that article. By reading these articles, you can assess the range of opinions and findings that exist. Attend an American Planning Association conference or seminar and track down those who have an interest in your potential research. Get their comments.
You may feel that there is no other research in your area, but you almost certainly are wrong. Find the important journals in your field, undertake a keyword search for journal articles and reports, and obtain professional and governmental reports. You will have to do a literature review as part of your thesis, so this is time well spent. A reference librarian in the Cal Poly library can assist you in conducting literature reviews.

Writing is also an essential tool for exploring your topic. Sometimes it is difficult to begin writing because you don't know where to start. Initially, view writing as a process for exploring ideas rather than an activity that produces a final product. Try writing a series of paragraphs describing a problem or question that interests you and is relevant to planning. Write a series of these—at least ten. Picasso reworked canvasses repeatedly, often destroying what appeared to be beautiful work. You should expect to spend quite a bit of time and encounter some dead-ends in finding a suitable and interesting topic.

The next step is to evaluate the list of potential topics you have generated. Among the criteria you may use to select your topic are:

- your personal interest in the research question
- its relevance to planning research and practice;
- the availability of data or cases to study and your master of associated methods; and
- your ability to complete the research in a reasonable amount of time.

4.0 SETTING UP AND WORKING WITH YOUR COMMITTEE

You establish a committee of three faculty members to guide you in your research and evaluate your work. Each committee member must sign the thesis form before the graduate coordinator approves it. It is your responsibility to select the proper committee. A good committee begins with the proper chairperson. Obviously, you want the chair to be knowledgeable in your subject area. You must also be able to get along with and easily communicate with that person, and make sure they are available in your timeframe. Your other committee members should hold relatively similar views on the basic direction and methodology of your research. Your chair may be able to suggest other appropriate committee members.

It is advisable to approach potential committee members before you enroll in URP 6960. That way, you will be able to quickly proceed once you enroll. You must submit the thesis form, signed by each committee member, to the graduate adviser by the third week of the semester in which you first enroll in URP 6960.

You should plan to meet with your chair at least once every two weeks. This gives your chair a chance to help you make key decisions in your work. If you don't let your chair know what is happening, you could make decisions that will cause problems later on. The other advantage to frequent meetings is that they give you a schedule that makes it easier to set aside time for the

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2 Your committee may also be composed of two department faculty members and an approved planning practitioner or expert in your field. That person should be committed to spending the time to review draft work, attend your defense, and review and approve the final document.
thesis. It is very easy to defer work on the thesis as other pressures assert themselves. One of your first tasks is to develop a schedule listing key tasks, dates for completion, and submittals to your chair and committee.

You place yourself and your committee in a difficult position if you do most of your work "in private" without their advice. Students who attempt to do this usually submit a thesis that is unacceptable. You need advice at all the key steps in the process—formulating hypotheses, designing the methodology, collecting and analyzing data, and forming conclusions. The closer and more regularly you work with your committee, the less likely you will face major revisions in the end.

You will not work as closely with your other committee members as you do with your chair. However, the other committee members should review your hypothesis statement(s), methodology, data sources, and preliminary conclusions. If they do not review your progress, problems could emerge at your defense that could have been addressed more easily earlier in the process. A useful initial tool for communicating with your committee members is to develop a one-page statement that summarizes the research hypotheses, the relevance of the topic, the methodology, and an outline of the chapters. Regularly update your summary as you undertake your research.

5.0 SCHEDULE

The following identifies a typical schedule for a student completing the degree in two years.

Year 1  
Fall semester: Complete URP 5210. This methods course will help you understand research design. Also, identify research topics, potential committee members, and do some background research.

Spring semester: Consider taking electives that provide knowledge and skills in your prospective thesis topics.

Year 2  
Fall semester: Enroll in URP 5230 and URP 6902;

Winter break. Prepare to hit the ground running by working on literature, methodology, and investigating the available of needed data.

Spring: Enroll in URP 6960 with your chair. The Graduate Guide provides more information on deadlines.

Some students take more than two years to complete the program. In this case, follow the Year 1 advice, follow the Year 2 recommendations except enroll in 6960 the year you intend to graduate.

6.0 PROCESSES FOR SELECTING RESEARCH HYPOTHESES AND METHODOLOGIES

One way to start your thesis is to identify some general hypotheses for your research. In statistics, the term hypothesis has a specific meaning that you will address in your methods classes. For this
document, we use hypothesis generally to refer to an *a priori* statement about a relationship. For example, you may define a general research hypothesis as follows:

- The quality of local jurisdiction sea level rise adaptations plans is a function of exposure to risk and community affluence; or
- Permitting housing development in an industrial zone damages the performance of the industrial district by reducing operational flexibility resident complaints; or
- Rent control has the effect of reducing housing construction, leading to higher housing costs for non-rent controlled units.

The research may also be designed around a question. Here are some, paraphrased from a recent issue of the *Journal of Planning Education and Research*:

- Does living in a neighborhood with high-quality public transit influence travel behavior later in life, even if you move to a neighborhood with worse transit service? DOI: 10.1177/0739456X1795744
- Do parking maximums deter housing development? DOI: 10.1177/0739456X16688768
- To what extent do form-based codes differ from conventional zoning in integrating sustainable design principles? DOI: 10.1177/0739456X17692653
- Can “cleaned and greened” lots take on the role of public greenspace? DOI: 10.1177/0739456X16688766

The key to these statements is that they contain an initial assessment of a research question or a focused question. To say you will study the rational comprehensive method or study the effect of parking subsidies is not enough. You should define, based on your initial research, your expectation of the result of your research. This enables you to be much more focused. If the evidence doesn't support your initial hypothesis, that is an important research finding in itself. These statements must be made with knowledge of previous research in this area. For example, you may choose to support or refute the commonly held knowledge in a subject area.

You will review a variety of methodologies in your research methods classes (URP 5210 and URP 5230). Because these courses are so crucial to research design, you should take them early. This will provide you with experience in formulating hypotheses, developing research designs, and exploring various analytic techniques. The sooner you have this knowledge, the sooner you can clarify your thesis options.

You may have defined an appropriate thesis topic if you can: 1) articulate a concise hypothesis or research question; 2) identify where your project fits within the literature; 3) establish the relevance and interest of the topic; 4) determine that the data needed is available or can be obtained; and 5) articulate a methodology. Then you must get comments from faculty and your prospective chair.