Doctor of Design Program

Guideline for the General Exam and the Prospectus

This guide addresses examination procedures during the first part of studies in the Doctor of Design (DDes) program at the GSD, meant as a guideline distributed to students and faculty advisors alike. The program's two stage exam process is designed to facilitate the first phase of study from entry into the program until the initiation of the actual thesis research and the eventual writing of the dissertation and the defense. Significantly different examination protocols require the consent of the program director who may consult the DDes council.

This document outlines the timeline, purpose and format of these first two exams. The general exam ascertains that the student has the knowledge needed to conduct the research, while the prospectus examines the actual research agenda and methodology.

General Exam

The general examination (GE) represents an important step in the process leading to the fulfillment of the DDes degree. It typically marks the end of two semesters of course work during which the student acquires the core knowledge in his/her chosen research field. The GE is ideally taken at the end of the second semester, but no later than at the end of the third semester. It is conducted by two current GSD faculty members, one of which is the student's primary advisor. Its main purpose is to ensure that the student has acquired a proper mastery of his/her domain of study, thus has a good knowledge of the basic facts pertaining to the domain, and an understanding of the fundamental issues at play within it. Of particular value for the unfolding research is the ability to organize the field such that the research problem/issues (which are later articulated in the proposal) can be readily understood.

Literature Review—Framing the Field: In some research fields (especially historical and theoretical research) it is common to choose a major and several minor fields. This distinction is not always made or emphasized in other areas where distinctions between research areas and topics are more common. A major (research area) usually covers a relatively broad field like the 'history of architecture from 1800 to the present,' the 'theories of urbanization in the nineteenth and twentieth centuries,' or 'digital fabrication.' More focused major fields are of course possible. Representative examples of minors (or research topics) chosen by students of the program in the past years include studies of 'Decorative Art, Design and the Object: History, Theory, and Debate: 1850-1930,' 'Modernity and Modernism in Latin America,' or 'Life Cycle Design.' In both the major and the minor (the area and the topic), the fundamental question is how to frame the field in order to propose a satisfying bibliography and a good set of questions epitomizing the approach he/she has chosen. There are of course no general answers to such a question. The following guidelines may however be useful.

When beginning to frame and organize the research field many students find it useful to identify a series of key references that will need to be included in the bibliography.[1] Following the identification of these

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[1] Majors dealing with modern architecture will include for instance classic books like Reyner Banham's *Theory and Design in the First Machine Age* or Kenneth Frampton's *Modern Architecture: A Critical History*. In technology

fundamental references, the student may choose to organize the broader field chronologically, geographically, or technologically, or thematically, and have that organization be reflected in the way the bibliography is being structured.[2] Further modes of organization may emerge as the student understands major and ongoing debates and themes that are being discussed in relation to the field. Most of these themes relate to certain types of chronological, geographic and cultural structures.

It is impossible to reach an exhaustive knowledge of a major field / research area at the stage of the GE. Even a minor field may prove far too extensive. **The real challenge is to choose a set of themes, fundamental enough to be considered as a reasonable mode of entry into the field, with their corresponding chronological, geographic, technical and/or cultural structures, knowing that the definition of these structures is as debatable as the questions themselves.** Reading, reflection and discussion with advisors represent the only way to arrive at an approach that is well suited to support the research interests. This approach should possess a strong degree of internal coherence, while enabling to describe most salient features of the field.

The general organization of the bibliography and of the literature review should reflect both the fundamental assumptions made on the relevant chronological, geographic, technological and cultural structures that orient the description of the field, and the themes retained by the student. Sources should appear in very limited numbers, the assumption being that the student will have read the relevant primary works during his preparation for the GE. The sources listed should be those works that provide an intimate knowledge of what is considered as absolutely essential to properly frame the field. Sometimes, these sources will be writings that have exerted an enormous influence.[3] At other times, one may pick a less essential source book or article because it exemplifies a very specific question that might remain otherwise not totally clarified. Other references may extend beyond the scope of the research field, but may be essential in order to properly position certain aspects of the research.[4] General references should be listed only when they provide a very specific element, either conceptual or methodological, that is considered as crucial by the student.

Exam Process: To prepare for the exam the student initially submits an annotated bibliography with no more than 50 references to his/her primary advisor, and possibly to a second GSD faculty member. As a next step a written literature review is created, providing summaries of relevant subdomains within the research fields. This document often emerges naturally from the annotated bibliography. While the student will be working primarily with his/her primary advisors he/she should be in contact and conversation with a second member of the GSD faculty, making sure that both agree with the scope and depth of the literature review. The organization of the field in the literature review may ultimately turn out to be provisionally. It can and often will change as the thesis work evolves.

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research a 'classic' might be considered Norbert Wiener's *Cybernetics: On Control and Communication in the Animal and the Machine*, Joseph Pine's *Mass-Customization*, or D'Arcy Thompon's *On growth and form.*

[2] If one takes modern architecture, what are the key chronological divisions usually mobilized to analyze its evolution? Are there debates regarding some of them? Have new propositions been made recently regarding the definition of the relevant periods to be considered? From history of architecture to urban studies, similar questions arise when dealing with geographic or cultural entities and boundaries. The definition of the non-Western by opposition to the West is among the most common and the most disputed of these boundaries.

[3] An example of such as source would be Le Corbusier's *Towards an Architecture*, or Rem Koolhaas' *Delirious New York*, for twentieth-century architectural theory.

[4] An example might be a book on the history of American society for a post-war American architecture field, a book on the history of technology when working on a topic in the materials area.

Approaching the exam the student may be asked to prepare a set of three–four questions to the two examining GSD faculty members, which they will review and often alter or rewrite entirely. Good questions often combine a set of relevant themes. It may be useful for that purpose to group various related sub questions in the same general question. Once the GE questions have been given to the student he/she has eight hours to provide the answers in writing, with normally no more than 3000 words, double-spaced, in 11 font size.

Two to four days after issuing the questions, the actual exam meeting is scheduled between the student and both GSD faculty members. During this meeting the student initially presents the answers to the questions, followed by questions and discussion. The GE is not public and its results will not be publicly available. The discussion often provides the foundation for the prospectus. At the end of the discussion, the faculty asks the student to withdraw. After a usually short deliberation, the faculty members decide on the outcome of the GE. The options are:

- <u>Pass:</u> the student demonstrates sufficient knowledge of the field, and the ability to organize it and clearly articulate the core aspects within it. Work on the prospectus can begin immediately.
- <u>Conditional pass without new exam:</u> some minor changes in the literature review or in the answers are necessary. Faculty may also require other additional writing to be submitted.
- <u>Conditional pass with new exam:</u> more substantial changes in the literature review and/or the answers are necessary. A new exam meeting has to be scheduled in order for the student to pass.
- <u>Fail:</u> Knowledge of the field is extremely fragmentary, its organization unclear and major contributions to the field have not been considered.

Prospectus

The aim of the prospectus is to provide a clear and well-organized presentation of the dissertation project. The prospectus is the blueprint that guides the work, constructs a logical sequence of research problems, questions and related methods such that the outcome has the promise of being an original contribution to a field (required for doctoral research). The prospectus should be written in such a way as to be comprehensible to specialists in your own field as well as to scholars from other disciplines, it is the first formal iteration of your intended research for your advisor and doctoral committee members.

Clarity and succinctness are essential. A good way to think about the prospectus is to see it as an introduction to the thesis or a grant proposal—both contain essentially similar elements. Students might find it useful to read a variety of introductions to academic papers and theses, or other books. While you will quickly discern that there is no single formula—some introductions begin with a citation or a historical event, others with a broad overview of the research field, yet others with a rhetorical question—a strong introduction will bring together a thesis statement, an argument for the importance of the subject in question, an overview of what has been done, and an explanation of the chosen methodological approach.

The prospectus should incorporate the following elements in a document, six to nine single-spaced pages, that is, approximately 2500 to 3500 words. This is exclusive of footnotes (which are optional) and a selected bibliography (which should range from an additional two to four pages). Your prospectus typically should contain sections similar to the ones listed below. Section titles and the order in which sections appear can change—please coordinate the organization of the prospectus closely with your advisors!

1. Thesis Title
   Even a preliminary title can be important as it sets the tone for your research project. It will most likely change over the course of the thesis work.

2. Thesis Abstract
   The thesis statement is arguably the most important part of the prospectus, as it is the first statement that those who are not acquainted with your project will read. The thesis statement is akin to a brief abstract. In one to three paragraphs, it should present as concisely and coherently as possible the research problem you are treating, characterize its significance, and provide a statement about what your expected findings and conclusions are likely to be. Clarity and succinctness are crucial here; if you aren't able to state your thesis clearly, then it all likelihood you are still apprehensive and somewhat confused about what you are after.

3. Research Area and Topic
   This sections is both explanatory and justificatory, it is an expanded introduction to your thesis. Outline your broader research area, thus the field of study your specific topic is part of, or embedded in. Then articulate your specific topic. Why is the knowledge you are proposing to produce relevant? For whom? This discussion normally reflects the organization of the literature review as discussed earlier (General Exam). At times this section also includes a concise background review, other times this overview is provided later on in the prospectus (see section eight).

4. Problem Statement and Research Questions
   Clarity on what research problem / issue you are working on is key to a successful thesis, and you will likely spend a significant amount of time on this aspect. What are research problems? The answers will differ depending on the research area, but often research problems are generalized problems either derived from a series of practical problems (typical for technology research), or they are generated by the lack of scholarly knowledge in certain important areas of study. Research problems always relate to a body of theory, they are relevant to a broader community of scholars, design professionals, or others, and they address certain researchable issues with great specificity. When deciding on your research problem(s) make sure that methods exist to address it (there are many interesting research problems which are not researchable for that reason). It is often helpful to formulate research questions (which are questions that require original research in order to develop answers). These questions should include and identify variables that point to key influences, constraints and parameters in the thesis investigation. Independent variables are those beyond your immediate control, while dependent ones can be controlled and the research often contributes on how and when this can or should be done.

5. Hypothesis
   In technology and other more science-based research it can be useful to think of the hypothesis as an expression of assumed relationships between independent and dependent variables. Other hypotheses can also put forward assumed theoretical constructs and outline likely historical / cultural / geographic or other relationships. The hypothesis should help you to decide on research methods—again you are most likely going to modify it as the thesis work progresses.

6. <u>Methodology</u>

   For any viable thesis project and problem research methods must exist that, realistically, can lead to a successful thesis within a reasonable time frame. The methodology sections outlines, often in chronologically form, the sequence of steps the student intends to take in undertaking the thesis research. It is often useful to identify several more or less distinct research phases (e.g. case studies, comparative studies, field work, surveys, different types of quantitative or qualitative analysis, experimentation/prototyping, various forms of evaluations etc.) with expected outcomes, and construct the sequence of methods such that findings can be expected to build cumulatively into the desired thesis knowledge. If your thesis relies on certain original sources, data or information make sure that you will be able to gain access to this material!

7. <u>Expected Contributions</u>

   This section describes the expected findings and their relevance to scholars, design and other practitioners, owners, developers, governments or other entities. In this context it may be helpful to think about the audience of your thesis—who will be interested in the outcome, and what do they care about?

8. <u>Background Overview</u>

   This section should review and offer a critical assessment of the major primary and secondary sources that pertain to your chosen problem. Primary sources are original materials, including works of art and architecture, sites, artifacts, treatises, diaries, correspondence, chronicles, novels, scientific experiments, official records and datasets, government documents and archives of unpublished papers. Primary sources typically date from the time period with which you are dealing. They present the first physical, oral, textual or numerical manifestation of original thinking, and they serve as the objects of—the evidence for—your study. Secondary sources, on the other hand, are interpretive accounts appearing after the fact. They offer a commentary on and an evaluation of a given set of works, events or discoveries. They are retrospective in nature, and so are written with the benefit of historical distance and contextual remove.

   Your aim here is to underscore links with and breaks from the work of other scholars, and not simply to summarize a list of references. In other words, how does your project intersect with what has already been done? What major examples have influenced your thinking? How do you see your own work as building upon and/or differentiating itself from previous scholarship? As you tackle these questions, keep in mind that you want to demonstrate familiarity with the studies that have contributed to the subject at hand and, by the same token, to show how you are making an original contribution to the field rather than simply replicating what has already been accomplished.

   A solid presentation of primary and secondary sources sits at the heart of a strong prospectus. This is the section in which you demonstrate not only that sources for your research exist but that you have some sense of what they may or may not reveal. Indicate where these sources are located, what they contain, what you think you can draw from them and how you think they will contribute to the broader arguments you will be making.

9. <u>Schedule</u>

   Propose a schedule that outlines how you envision the unfolding of the research and writing stages. Keep in mind that this timetable is necessarily provisional. It is helpful to think in terms

of semesters (spring, summer and fall), and to divide the calendar year accordingly. This will help you to outline your plans with a reasonable amount of time factored in for preliminary research, for travel to archives, libraries, sites and collections, for field work, experimentation and prototyping, and for the writing and revision of the dissertation itself.

10. Selected Bibliography (two to four additional pages)
    Append to your prospectus a bibliography of primary and secondary sources which you have selected because they are crucial to the subject of the thesis as you have conceived of it. This bibliography need not be annotated, and so should amount at most to two to four pages. This list of items is not meant to be comprehensive but, rather, illustrative of the dissertation content. It may be useful to divide the list into two sections so as to separate primary references from secondary references. In each section, references should be organized alphabetically by author according to a standard bibliographic format (you can consult the *Chicago Manual of Style* or the *MLA Handbook*). Subsections are optional, but if you feel this is a good means of clarifying certain aspects of your thesis, you can subdivide by type or by topic, making sure to alphabetize within each subsection.

It should be emphasized that there is much flexibility as to how exactly a prospectus is organized. Working with you advisors is key. Some advisors might also recommend to include a preliminary table of contents to summarize the structure of the dissertation. This preliminary table of contents provides prospective titles for each chapter or part as well as brief descriptive paragraphs fleshing out their content.

Exam Process: To prepare for the prospectus exam the student submits the written prospectus to at least two GSD faculty members and to a third person (that may or may not be from outside the GSD) at least one week ahead of the actual exam date. The examining committee consists of these three individuals, of which two have to be GSD faculty. The actual exam usually begins with a presentation of the prospectus by the student, followed by questions and discussions. The overall length normally does not exceed two hours, it is not public and its results will not be publicly available. At the end the student withdraws and the examining committee determines the outcome. Possible options are:

- Pass: thesis work can begin immediately
- Conditional pass without new exam: some minor changes in the prospectus are necessary. The student will be asked to submit the amended document to the examining committee.
- Conditional pass with new exam: more substantial changes in the prospectus are necessary. A new exam meeting has to be scheduled in order for the student to pass.

Failure is extremely rare because only students with a coherent and plausible prospectus are invited to take the exam. The thesis committee is officially established after the successful passing of the prospectus. It consists of at least three individuals, of which two have to be current GSD faculty. The primary advisor becomes chair of the committee. Committee members are obliged to meet at least once each semester as a group with the student, but individual interactions between DDes candidates (which is what doctoral students are called after successful passing of the GE and prospectus exam) and the advisors are expected.