UNLV | HONORS COLLEGE

RESEARCH AND CREATIVE HONORS

Useful Tips for Your Honors Thesis/Project

FINDING AN ADVISOR

Considerable groundwork must be done before you can register for HON 498. Once you have decided on one or more potential topic areas, then you are ready to interview potential advisors. Talking to more than one person will be useful in helping you to determine if a given topic is feasible and if this person would be both qualified and willing to work with you. Your decision about a topic should be worked out as you talk with potential advisors. As you discuss general areas of interest with potential advisors, they can tell you how they could help you, suggest sources and lines of inquiry, and help you focus and define the problem.

Having an interesting topic may not be sufficient; you still need to find someone who is both qualified and willing to serve as your advisor. If no one is willing to work with you on your project, then you need to postpone your work on that fascinating idea. Remember that you are negotiating to establish the relationship that may well determine the success of your thesis. Thus the search for an advisor warrants considerable time and effort.

At the beginning stage the advisor can offer encouragement and information about useful sources and provide guidance toward specific problems in your topic area that need investigation. The advisor may also help you to select an appropriate research methodology. As you develop your research plan, the advisor can critique your ideas by asking critical questions, alert you to potential difficulties, and help you to narrow the problem you are trying to solve. As you gather information, you can talk with your advisor about how the information coheres and what it means. Obviously, your advisor will comment on written drafts once you are in the writing phase of the project.

As a thesis researcher, you are asking for valuable time from an advisor whose responsibility is to offer guidance in formulating your topic, in designing a strategy for collecting data and finding resources, and in analyzing your conclusions. Busy professionals and scholars are willing to invest time and energy in you and your topic because they share common interests with you. What you propose to work on will benefit the advisor as well as you: your work will feed your advisor's scholarly or professional interest. Your thesis work may even contribute to your advisor's scholarly endeavors.

Even if your thesis work does not make such specific contributions to the advisor, your interaction can offer the advisor new information and new insights. A successful relationship with an advisor will help you both. You will want to ask your potential advisors how they can help you and how your work on this topic will benefit them.

Keep in mind that most faculty members, like students, are particularly interested in endeavors that are academically challenging and ambitious. Despite this interest, you must recognize that some people will neither have the time to work with you, nor see enough benefit for themselves. Faculty members are busy; they may well turn you down. In any case, you have the right to explore the possibility with them as well as to ask whether someone is willing to become your advisor.

Faculty members, for instance, are required to hold office hours; that is certainly an appropriate time to discuss their serving as your advisor. Likewise, that you have spoken with someone about serving as your

advisor does not commit you to them: you have the right to decide that someone you have interviewed is not the person you want as an advisor.

Before you make an appointment with a potential advisor, make sure that you have ideas to discuss. Plan an agenda. Focus potential topics into two or three written research questions. You will learn more and have a better chance of convincing the person to serve as your advisor if you demonstrate a serious effort to prepare for the interview. This interview is also an opportunity for you to demonstrate your initiative and responsibility for the project. Because faculty members go on leave and have commitments that make them unavailable for particular blocks of time, you will need to make sure that the advisor will be available through the entire thesis process.

Your advisor will provide scholarly guidance, but you must remember that you are responsible for initiating contact, for seeking advice, and for bringing in progress reports and drafts of chapters. Because the purpose of a thesis requirement is to help you develop the ability to do independent scholarly work, the margin between success and failure of the thesis is at least partially the amount of initiative and responsibility for independent work that you assume.

TIME MANAGEMENT

Time is vitally important in all aspects of the thesis work, and an effective time-management program must be developed and adhered to in order to assure the timely completion of the many tasks involved in writing a thesis. One of the purposes of the thesis requirement is to provide you with an opportunity to develop time-management skills that are important to success in any line of work.

The Proposal Meeting provides a checkpoint in the process to ensure you are making satisfactory progress toward completing your thesis. The Proposal Meeting is held at the end of the semester in which you are registered for HON498.

Deadlines must be established for the completion of several sequential and overlapping tasks. Such deadlines must be realistic and, once set, are not subject to alteration except in response to extraordinary circumstances. Dealing with deadlines is an experience in self-discipline. How you manage your time and deal with its attendant pressures will determine the quality of your experience in doing the thesis work.

Be sure to budget more than enough time for each stage of the project and to seek help from your Faculty Advisor or the Honors College whenever you need it. Keep in mind that each phase of the project will take longer than you expect or hope it will take.

BUDGETTING

While this project is not likely to be a costly one, you should at least recognize that you might incur some expenses. A budget is part of any research plan, and like any researcher, you will have some costs in producing your thesis. As you develop your intellectual agenda, you will want to consider as well the costs of carrying it out.

You will probably incur expenses in conducting the research. You may choose to print or photocopy many journal articles or government publications. You may need to buy books, purchase reports from the government, or buy some other materials. You may need to cover travel expenses to use a library or an archive somewhere else, or to conduct field observations at a research site. For those in the sciences, engineering, clinical practice or many areas of the social sciences, considerable financial demands may accompany your project. If this is the case, you should carefully discuss these needs with your Faculty Advisor to be sure you have the resources to complete your work.

The Honors College will help you to keep your actual costs to a minimum by assisting with some of the expenses associated with producing your final documents. The Honors College will make three copies of your thesis, one for the Honors College and two for you (you should give a copy to your advisor). The final copy will be archived in the Lied Library, with your permission. You may want additional copies to include in a portfolio of your work that you show to prospective employers or for family members. You may also choose to make more copies for other people who have contributed substantially to your research. Thus, you will have photocopying and binding costs.

DATA COLLECTION AND INITIAL DATA ANALYSIS

A project the size of the honors thesis sometimes feels overwhelming. To avoid this feeling, you need to stay focused on the task at hand. Once you have articulated a research question, chosen an advisor, and formulated a plan and a budget, you may be tempted to continue tinkering with the plan. Because of fear, frustration, or avoidance, you may be tempted to refine the plan, redirect it, or even dump it altogether and start over. Some rethinking may be necessary, but you may also be avoiding the threatening aspects of entering a new phase of the project. Every stage of this thesis process, whether it is research design, data collection, data analysis, or writing, is likely to feel at least a little threatening when you first encounter it. Unfamiliar and difficult phases of a project are often formidable. Remaining at the stage where you have been working for a while is much more comfortable than advancing into the unknown and untried. Wanting to stay with the familiar and avoid the difficulties of the new is normal, but you need to find a way to let go and press forward.

Special Library Privileges

Students who are registered for HON498 or HON499 are allowed to check out books for a semester at a time. This privilege is provided to help students work efficiently on their projects and is the same library privilege extended to graduate students at UNLV.

Data Collection

Some of your data will come from print sources such as articles, books, or government publications. Different researchers collect data from these sources in different ways. Some make note cards; others photocopy everything they find or download everything they find electronically. Others take notes or type quotations and summaries into computer files.

Use whatever system works for you. You will, however, want to make sure that your notes or files are labeled by title or topic so you can retrieve the appropriate material when you need it later. This feature is important during the honors thesis project, but will prove even more important in later work when you have bigger projects or more of them going at once. Your notes or files need to be clearly marked with all the reference data, so you can cite your sources accurately without having to retrace your steps unnecessarily in the library or in journal databases.

Accuracy in your references, especially page references for each quotation, is crucial. Other data may come from activities such as interviews, surveys, field observations, or experiments. Each of these methods has its own protocols for recording citations; make sure that you know the standard ways for capturing data if you undertake any of these methods. Your advisor can explain data collection methods or refer you to appropriate sources and models.

Initial Data Analysis

After you have collected a substantial amount of data and reflected on the material, read through all your notes, records, and reflections. You will want to mull this material over, looking for elements that interest you or emerging patterns. Always write down your thoughts and insights; even a good word or phrase may help you later. Free writing for a short period of time is also a useful means to generate ideas.

From this point on, you will likely move back and forth between data collection and data analysis. You may see patterns and/or associations that will lead you to new questions and you will likely be driven to collect

different information in order to test a hunch or explore a relationship. Analyzing your new data will lead you to tentative conclusions and probably require that you collect more data to see if your conclusions are valid. This process will probably continue throughout the project, right up to the final paragraph you write.

Documenting Sources
The fundamental rule in documentation is to indicate clearly what material you are using from a source and to provide enough information to allow readers to find that source themselves. The second rule in documentation is to use the appropriate format. There is no one right format; there are only formats which have been agreed upon in particular situations. Formats vary between fields, within fields, and from journal to journal. You will want to discuss the issue of format with your advisor. It is valuable for you to have an APA or MLA manual or both. If you cannot afford it, much information can be found on line, and the Library has abbreviated versions of the requirements on a spindle near the circulation desk.

Footnotes and Endnotes
You must avoid plagiarism. Plagiarism is the use of another author's exact words without attribution. This is a serious form of academic dishonesty that will not be tolerated in the Honors College.

WRITING

You may find that each stage of this thesis project is hard to start and hard to leave behind when the time to go on to the next stage arrives. That feeling is normal for a research project of this scope. Cleaning the bathroom, for instance, may suddenly seem more urgent than tackling the computerized indexes in the library. This trepidation often occurs when it is time for writing. Collecting more data is a particularly seductive distraction from sitting down to write; researchers can easily justify the need for more information.

For many of us, writing is an activity filled with conflict. It may feel like a performance that we are in danger of failing. Although we have written successfully enough in our academic lives to bring us this far, we may have vivid experiences in our past where our writing failed to meet a teacher's expectations and we never understood why. When we write, we may feel exposed on the page, vulnerable to criticism without being present to defend ourselves. This feeling can stop us from writing, especially about something that is as important to us and demanding as this thesis project. Or to protect ourselves from that feeling of vulnerability, we may distance ourselves emotionally from the writing we do, divesting ourselves so we feel we do not care what happens to it. This emotional state, which Marx might analyze as the alienation of the worker from his or her work, makes it extremely hard to sustain the energy needed to actually write a document of the length you will need to write for your thesis.

You may find, therefore, that the work of writing this thesis reveals a complex set of feelings and perceptions that you have about writing and about yourself as a writer, and you may need some specific tools or strategies to get yourself started or keep yourself going. On the other hand, writing is, for most of us, the best way to crystallize ideas in a form that demonstrates comprehension and to communicate with an interested reader. Writing can sometimes also consist of an energetic momentum of creativity and excitement; cherish those moments!

However, it is always good to go back to your narrative (usually after a period away from the text) to check to see if your enthusiasm has taken you beyond ideas or views that can be sustained (and ultimately defended) as part of your project.

Strategies

1. Be aware of your feelings about the task and about yourself. If you feel anxious, tense, frustrated, or whatever, you probably have a good reason why you feel that way. Perhaps the feelings stem from previous experiences with writing. By writing those feelings down, you may be able to see how feelings that are blocking you from proceeding may not really fit the current situation.

2. Acknowledge that writing is hard and complicated work. Some people may find writing easy. We do not know any. First-person accounts and research studies of professional writers, including academic writers like your professors, show that they often struggle with their writing, reworking what they have written over and over, making frequent and major changes in it, hitting dry spells. This manual you are reading was pounded out over a period of months, with numerous revisions both large and small. So if writing is hard for you, you have plenty of company.

3. Start producing before you are ready. Producing something in writing before you actually feel ready to write is often a good way to get moving, to prime the pump or tap your understanding of your issue. Here are several ways to do this:

    a) Focused "Free writing." "Free writing" is a technique in which, for a limited period of time (10 or 15 minutes), you write down everything you can think of as fast as you can. If you are a reasonably good typist, do it at the computer; if you are faster with a pen, do it on paper. As a way to approach writing the thesis, you can focus a different free write on each of the major issues or concepts with which you will be dealing. Since your goal here is to write quickly rather than carefully, the text you produce will probably not be good enough to put into the thesis. What you write will have value as a first run at articulating what you know, at linking ideas together, and it may serve as a starting point, which you can expand into a section of the thesis.

    b) Teaching your thesis research to a friend. Sometimes we find words for our ideas much more easily and clearly by talking rather than by writing. If you have a friend who is willing to listen to you and ask you questions, you may find it useful to teach your research to that friend. One useful technique is to compress each proposed chapter into a sentence or two and then to explain that idea more fully. Another useful technique is to take specialized terms that are crucial in your subject area and explain their meaning. As you teach the core ideas of your thesis to your friend, you will probably say things you can then write down. Like the focused free writing above, these are techniques that tap what you already know but have not yet articulated clearly to yourself.

    c) Use a draft/revision process to your advantage. If you know that most serious writing goes through multiple drafts with multiple revisions, you can focus your energy more usefully. If you start on a paragraph or a section and get hung up trying to get it right, tell yourself that the first draft does not have to be good--it just has to be done. Once you have written a draft, even if some of the research is incomplete, the ideas unclear, the language fuzzy, you have at least some scaffolding you can expand and modify later. If a particular part becomes frustrating, leave some blank space with a note to yourself in brackets about what you will need to put in there, and go on to the next part that you are prepared to write. You can come back and fill in that part later.

4. Use your outline but do not be hog-tied by it. Your outline will divide your thesis into logical chunks and provide a structure for each chunk. As you continue to research, and even as you write, you may find that you need to revise your outline. You may see new issues that you need to include; you may need to frame your issues differently or put them in a different order for greater

effectiveness. The outline is a tool to help you generate your document; it should change as your view of the document changes.

5. Use time to your advantage. Start writing early enough to have time to get stuck, to misfire, to dump whole sections and start over, and to revise. You should schedule regular writing time for yourself. Generating and maintaining momentum are crucial. You should work in blocks of time that are at least several hours in length, and you should try to do some work, if not every day, then at least several days a week. Whenever a long break in the process of writing a major piece like your thesis occurs, you will need to use some extra time to get back into it, to figure out what you have done and what you need to do next. Maintaining a regular writing schedule will minimize your down time.

6. Set sub-deadlines for you. You will have several major deadlines, one for giving a full draft to your advisor and another for handing in the final draft. Working backward from those deadlines and using your outline, set for yourself sub-deadlines for each chapter or section you plan to write. Give yourself a margin of error to cope with unexpected difficulties. Breaking this large task down into manageable chunks and relating those chunks to the time you have available can make the difference between finishing without undue stress or with panicked all-nighters.

7. Shift modes of thinking. You will need to shift between various modes or ways of thinking: recognize the difference between playing with ideas and working with them, between generating ideas and judging them. For example, most writers move into a less critical mode when they are brainstorming or generating new material and into a more critical mode when they are revising and editing older material. Some writers establish a daily rhythm, beginning a writing session by critically revising what they wrote the day before, then consciously shifting to a less critical, more playful frame of mind to produce new material. You may also find yourself shifting your focus. At some times you may be focusing your attention on the topic you are exploring, asking yourself what its elements are and how they are related. At other times you may be focusing on the readers to whom you are attempting to communicate, asking yourself what they know, what they need to know, and how your information needs to be framed and presented to make sense to them.

8. Circulate drafts. Try to generate drafts quickly so that readers have time to respond. Give drafts to more than one reader. In addition to your advisor, give a draft to friends, roommates, or anyone else who is willing to be a critical reader and make suggestions. Perhaps you can arrange to exchange drafts with other students doing senior projects. Professional writers take advantage of editors to get feedback and guide their revisions; you should too.

MAJOR DIVISIONS IN A PAPER

The following divisions of a major paper are applicable to writings in most disciplines:

Title Page: This page typically contains at least the following information: the title of your thesis, your name, your major, your advisor's name, the names of your committee members, and the date of completion. The title page is one of the most important features of any professional document because readers use titles to decide which documents are likely to be relevant to their own particular research or needs, and therefore which documents are worth retrieving for further examination. Your title may be the very last thing you write: it may not be jazzy or elegant, but it needs to be precise and comprehensive about what your thesis covers.

Abstract: Your abstract should begin with a definitive statement of the problem or project. Its purpose, scope and limit should be clearly delineated. Then, as concisely as possible, describe research methods and design, major findings, including the significance of the work, if appropriate, and conclusions. Students whose thesis involves "creative" work (original, fine art, music, writing, theatre or film production, dance,

etc.) should describe process and production, indicating the forms of documentation on file as "thesis" material. Please have your advisor review your abstract for organization, content, grammar and spelling before submission.

Acknowledgments: Virtually no scholarly work is done by an individual working totally alone. All of us draw on others and are influenced by them as we research and write. Perhaps an experience in earlier life predisposed us to work on a given topic, perhaps an article we read or a lecture we heard crisply and clearly organized a problem for us, perhaps conversations with advisors or friends helped clear the mud from our thoughts, perhaps some organization supplied us with funding that enabled us to do our work. Whatever the contributions we received, this section allows us to acknowledge them.

Table of Contents: This shows the major sections and subsections of the document and the page number on which each begins. It will be one of the last sections you finish, so you can provide accurate pagination for all of the other sections.

Table of Illustrations: This lists each table and figure in your thesis, by table or figure number and by title, and gives the page number on which each is found. Like the Table of Contents, it will be one of the last tasks you complete.

Introduction: In this chapter you define your problem or issue and show why it is worth pursuing. Often this section discusses the context of your issue.

Major Sections: The chapters following the introduction will be divided into the major blocks of thought articulated in the thesis.

References or Works Cited: Following immediately after the last chapter of text, this section contains the full bibliographic data for every source cited in the text or illustrations. Only those sources cited in the thesis itself should be included. If a source was useful to you, cite it in the text and put it in the references; if it was not useful, do not put it in either one. Your advisor will be able to help you follow the style appropriate to your discipline. Either the APA or MLA citation styles are commonly used.

Appendices: The Appendix or Appendices contain those items which you feel might be valuable for someone using your thesis, but which are either too lengthy or too peripheral to embed directly in the text. Examples might include a policy statement, a questionnaire you developed, the transcript of an interview you conducted, or other supporting material.

Spend some time looking over already completed Honors Theses to familiarize yourself with what is expected.

PRIMARY VS. SECONDARY SOURCES

Sources are divided into two types: primary sources and secondary sources. You will draw on both.

Primary sources are the raw data that scholars use. You may generate some of your own primary material--results of a survey you conduct, for example, or the transcript of an interview you carry out, or notes from experiments that you perform. You will also find primary material collected in the library and in other places such as an organization's files or an archive. Examples of such sources would be census data, statistical data collected by government agencies, historical documents, and original manuscripts such as letters, novels, poems, or plays.

Secondary sources are perhaps more familiar to you. These have already passed through the filters of an investigator's mind; they are analyses or syntheses of primary material. A report on the trends of acid rain over the last decade is one example; most journal articles and scholarly books would be classified as secondary sources. Secondary sources establish relationships and offer conceptual frameworks for

interpreting their data; they can help you better understand and interpret the information you get from primary sources. Part of your responsibility in doing this project is becoming familiar with the secondary material so that you do not duplicate the efforts and work that have already been done in the field.

Sources in Print. Many of your sources will be printed publications, and these can be divided into at least four types: reference works, popular sources, scholarly material, and government publications.

Reference works may be a good place to start. For example, the library contains many specialized encyclopedias, such as the Encyclopedia of Environmental Control Technology or the Encyclopedia of World Problems and Human Potential. You may be able to locate articles in one or more of these specialized encyclopedias that relate to your probable thesis topic. From the article you can get an overview of issues to consider, perhaps the names of organizations or individuals who play important roles in relation to your topic; a sketch of relevant history, technology, or economics; and almost always a list of references for further study. Keep in mind, however, that encyclopedias serve you best during the early stages of your research when you seek background material, and not when you are more knowledgeable about your topic.

Popular sources (websites, newspapers, magazines, or books written for a large, general audience) may provide some useful information or allow you to track recent developments in your issue. Popular sources, however, must be used judiciously in a scholarly work such as your thesis. Articles, for example, may be written by journalists who do not fully understand the issue about which they are writing, and while the extremely short lag time between the occurrence of an event and the publication of news about the event allows you to get very recent information, it also generally prevents the analysis of context necessary for a fuller understanding.

A scholarly article or book is written by someone who studies the issue as part of his or her profession; in addition, it has passed through a quality control process called peer review. This means that before accepting the work for publication, the publisher has sent the manuscript to other respected members of the author's field, who agree that its methodology is appropriate and its findings are important enough to be worthy of publication. While this process does not guarantee that the article or book is correct, it does increase the likelihood that the work contributes significantly to knowledge in the field. Your thesis needs to be built on a solid foundation of scholarly work. Scholarly books are typically (but not always) published by university presses (such as the University of California Press) or by groups such as the National Research Council (publishing through the National Academy Press). Scholarly articles appear in scholarly journals (ranging from general journals such as Science or Nature through somewhat more tightly focused journals such as Ecology or PMLA to highly specialized journals such as Journal of Wildlife Management, Eighteenth-Century Studies, or the Annual Review of Entomology. You can tell if a journal is scholarly if it is published by a professional society and if its guidelines for publication include a peer review process. For most thesis topics, scholarly journals will be more important than books because they are more focused and more current.

Government publications may include laws and regulations relating to your topic; environmental impact reports or other reports published by local, state, or federal government or by international organizations such as the United Nations; or testimony by experts in Congressional hearings.

One of the best ways to find sources is to read a recent paper in a scholarly journal on your subject of interest. That paper or article will cite other published materials, which you can then locate. Works that are frequently cited are typically important works that you should investigate for yourself. The library has many tools designed to help researchers find the resources they need. Four of the major tools are indexes, abstracts, citation indexes, and the catalogue.

Indexes list in alphabetical order subjects, authors and titles of articles from a set of periodicals in a particular field. Examples range from the Readers' Guide to Periodical Literature (for popular magazines) to

the Public Affairs Information Service (PAIS) Bulletin (for social science sources) to more specialized indexes such as the Population Index (for articles specifically on population issues).

Abstracts are organized much like indexes, dividing their coverage into various subjects and providing author and title citations for articles on each subject. In addition, however, for each citation they provide an abstract or summary (usually 100-200 words) of the key features of the article being cited. This abstract is essentially the same as the abstract you will write for your thesis. Thus by using an abstract (such as Environment Abstracts or Dissertation Abstracts), you can locate not only potential sources but also quickly evaluate them, deciding whether they are likely to be worth the trouble of tracking them down.

Citation indexes like the Science Citation Index and the Social Science Citation Index are useful if you have found an excellent source, which is a few years old. The citation index will provide references for all the articles in a wide range of journals that have referred to or cited your source since it was published. Thus you can track the more recent work that has built upon your original source. While the references in articles or books take you back in time to the earlier sources used by the author, the citation index can take you forward in time to later sources that cite the author.

The catalogue is the basic listing of all the books the library owns, all the periodicals to which it subscribes, and most of the other resources it has collected. All acquisitions since 1981 are on the on-line catalogue computer system; earlier works may or may not be on the computer. The on-line catalogues can tell you if the library has a book. Material that the library does not possess can be retrieved through Interlibrary Loan. This process can take from two weeks to several months, depending on the difficulty of access to the source and the volume of other requests waiting to be processed.

Electronic journal databases. The Library subscribes to a large number of electronic journal databases which can give you instant access to abstract in your field as well as full-text articles.

Once you find a source, skim it quickly. You might look at the abstract, the figures and tables, the introduction and the conclusion, and the works cited. You need to decide if it is relevant to your topic, if it appears to offer something significant in understanding your topic, and if it is written at a level that you can understand.

Your job during the early stages of your library search is not to absorb everything you read, but simply to find out what is available to you. You are in essence conducting a reconnaissance mission, a preliminary search to help you get a sense of the boundaries to your topic and to make sure that enough material is available for you to proceed. Try to briefly explore as many potential sources and indexing materials as you can. Seriously consider the different directions that your material may be leading you. If you find a useful book, check it out and look up the references it cites. When you find good articles, save them and make sure that you get the full reference. You will certainly want to take advantage of the expertise of the reference librarians; their knowledge of research tools can save you valuable time in locating sources.

Make an appointment with a reference librarian to discuss your topic.

DOCUMENTATION OF SOURCES

Many students are unsure when to cite sources and when not to cite them. You want to give credit where it is due; yet you also want to write your thesis without a citation for each sentence. A good way to develop a sense of how much to cite and when to cite is to look at the patterns of citation in the journal articles you are reading. The principle followed by scholars working in a field is not to cite anything which is common knowledge within the field; they do cite specific information that comes from particular sources. You want to understand the field within which your thesis is situated well enough to distinguish common knowledge from specific knowledge. Your obligation is, of course, to cite specific knowledge and applications of language or ideas.

For example, when students begin working in a field like environmental studies and take lower division environmental studies courses, they are introduced to such concepts as ecosystems, environmental unity, and ecological succession. If they attempt at that time to write about those concepts, they might feel obliged to cite the textbook that introduced them to those subjects. By the time they are ready to begin an honors thesis/project, however, they recognize these ideas are widely understood without pinning them to a source. The same principle applies to whatever narrower field the thesis is located within. You can use the common understandings of the field without citing them, even if they are initially new to you and introduced to you through a particular source.

Be sure to cite the following:

- *Numbers:* Cite the source of numbers that you did not generate.
- *Research results:* If you are discussing the outcome of a particular study, cite the author.
- *Particular formulations or conceptualizations*: If you are quoting an author directly, borrowing a particular line of argument, or replicating a particular research methodology, cite your source.

In general, cite sources if you are using material they have originated.

Using Sources

Using sources is, of course, a much trickier issue than just documenting them. Your thesis will rely heavily on the work of others; all intellectual work does. Your problem is to use the content and language of your sources in the proper way. Sometimes a thesis writer will discover a source that seems to provide all the information he or she can use; most of the resulting thesis would be based on that source. Or perhaps two or three sources cover different aspects of the issue, so that each chapter rewrites a different source. Such theses would probably be unsuccessful because they reflect inadequate work on the student's part. Relying on a single source is an error because no one source tells the whole story; often sources disagree about questions of fact and about interpretations of fact. If they do not disagree, they may provide different slants, different contexts, different connections; or they may simply corroborate each other, which in itself is important information. If you only have a single source for a major part of your thesis, you will need to look further and uncover a number of other sources.

In those very rare cases where only one or two sources dealing with your topic exist or in those more common cases where you have been able to find only one or two sources, regardless of how many exist, you will need to reformulate your question to bring other points of view to bear on it. You may need to broaden your question, to examine it as an instance of a larger type. Or you may need to look for analogues in other library locations, references, or data systems. In any case, the thesis must synthesize different sources, bringing them together to shed light on your questions. Your questions and answers constitute the center of your thesis; a good thesis will reflect your mind at work answering those questions through your sources rather than simply repackaging a good source or two.

Sometimes a student encountering the work of a professional writer will feel the inadequacy of his or her own language. The temptation here is to quote long passages from the source, with or without quotation marks. Resist that temptation. Even if the author said it beautifully, you will learn more in the effort to assimilate the source into your own language.

Quoting, Paraphrasing, and Summarizing

There are three ways of using the work of another: direct quotation, paraphrase, and summary. In good research writing, direct quotation is rarely used, only when the language of the source itself is essential for the point you are making. Quoting specific language would be necessary when discussing poetry, a law enumerating a list of activities which are required or prohibited, or a statement by a public figure. Citing a specific passage may also prove valuable when the author's statement is exceptionally clear or powerful. Short quotations are, of course, enclosed in quotation marks, and they must be embedded within your own sentence. Longer quotations (of more than three lines) should be blocked. The convention of blocking a

quotation may vary from discipline to discipline, but generally blocked quotations are indented five or ten spaces and single-spaced. The block indentation indicates that the passage is a quotation; thus quotation marks should not be used.

A paraphrase, which is used a little more often than direct quotation, restates the ideas of the passage in the researcher's own words. By far the most common use of a source, especially in scientific and technical writing, is the summary, which condenses the relevant point into a few words. Often several sources, which converge on the same point, can be summarized in the same sentence.

WRITING AN ABSTRACT

The abstract of your thesis will probably be the most widely read part of your whole thesis. The abstract will be read by other students, by faculty, and by those interested in researching your topic. Therefore, it is crucial to write the abstract well.

An abstract tells your readers the essence of your thesis in 100-200 words. The abstract should contain the title of the thesis and your full name; state briefly the research problem, question, or hypothesis; describe the methods and procedures used in gathering information or studying the problem; and give a condensed summary of the findings and recommendations of your study. Most readers of abstracts are looking for documents that are relevant to their own research; thus they will skim your abstract among many others. As you write the abstract, keep in mind the rapidly reading researchers skimming for materials relevant to their projects; clearly and precisely identify your topic, research ideas and methods, and conclusions by using key words.

The abstract is not the place to tell about your experience writing the thesis, your uncertainties, struggles, and successes or failures; if you want to talk about your own process, put it in a separate preface or use it to explain the help of the people you thank in your acknowledgments section. Although every word in your entire thesis should be carefully chosen, the limited space of the abstract accentuates the importance of being precise and concise.

EDITING

After you have written and revised your draft of a major section, you will want to carefully edit it. You will want to attend first to those things that most affect readers; that determine how they will work their way through your document or find what they need to know. Review the titles of the entire thesis and of individual chapters to determine if they convey precisely what the section contains. Make sure that captions of illustrations, headings, and sub-headings are appropriate and that introductions introduce what you actually wrote. Conclusions should move beyond restating the thesis and the points made in the body of the paper. Only after you have fixed what you can at these levels do you move on to things that carry less weight with readers.

Edit for precision. Make sure that your writing says what you intend it to say. Remember that brevity is always a virtue. You do not want to waste your readers' time. Be concise; ruthlessly prune wordiness. If you can make your point in fewer words, do it.

Your final presentation copy should be as close to perfect as humanly possible. Clean up every surface error; produce a draft worthy of a professional presentation. Read every page carefully to catch grammatical mistakes, typos or misspellings, and punctuation errors. You may want to persuade a friend who is skilled in these areas to help you clean up your copy. Errors in grammar, punctuation, and spelling do not usually interfere in communicating your meaning, but they do have a powerful impact on your credibility as a writer, especially in professional communication situations. Errors of this sort carry a social and professional stigma: many readers see them as the mark of a careless writer and a careless thinker.

GRAPHICS

While much of any thesis will consist of the words you write, often a strong thesis will also make careful use of visual elements, recognizing that we process information visually as well as verbally. Visual tools can be as simple as white space on a page, setting off an indented list, or indicating the breaks between sections of a chapter.

Illustrations are more complex tools, divided into two categories and labeled as such: information (whether numbers or other kinds of data) organized into an array of rows and columns are called a **table**; any other illustration (a map, photograph, drawing, histogram, line graph or any other kind of chart) is called a **figure**. Illustrations can more economically present data than mere words, can more clearly show relationships, and can precisely and clearly show the essence of complex data. Visually organizing your data is useful not just for your readers; it can also help you make sense of what you have found. In fact, many scholars begin writing by constructing their tables and figures. Once they know what their graphics show, they can figure out what else they need to say. If you reproduce an illustration from a source, if you adapt an illustration from a source, or if you create your own graphic using data from a source, your illustration must include a full reference to the source in your list of references at the end of the thesis.

Graphics are also useful in support of your oral presentation. These can usually be conveyed through PowerPoint. However, you will often need to redesign for your oral presentation the graphics you produced for your thesis. Tables and figures presented in the text are often more complicated than similar graphics presented to an audience; readers have more time than members of an audience to study illustrations and interpret them. Graphics in your presentation must be simple enough (and large enough) to be seen and interpreted quickly by viewers in the back of the room. Do not flood your audience with visuals; no more than one slide per minute is a good rule.

THESIS DEFENSE AND ORAL EXAMINATION

The oral presentation or reading is a public address performed before an audience of interested students, invited guests, the Dean or Associate Dean of the Honors College, and committee members. Your advisor will introduce you to the audience. This presentation should last 15-20 minutes. Your advisor will then excuse the audience and you will meet with your committee members and the Dean or Associate Dean of the Honors College. At the end of a Q&A session with the committee the student will be excused for a period of time of time while the committee confers. At the conclusion of that period of time the student will be invited back into the room and a final recommendation will be made.

Projects emphasizing the creative or performing arts rather than traditional academic endeavors must also include a public presentation and oral examination. Obviously the nature of the project will dictate the type of presentation, but the thesis defense and oral examination process remains the same. At the conclusion of the examination, the committee will consider the quality of your honors thesis/project, public presentation, and examination and then reach a consensus about your grade for HON 499. Only students who receive an A will be eligible for *summa cum laude*.

DISSEMINATING YOUR RESEARCH RESULTS

As you approach the end of your Research and Creative al Honors thesis, you can congratulate yourself on your accomplishment. You have developed a measure of expertise that you can share with a wider range of people. This process of distributing research results is the justification for society supporting research institutions like ours. Here are at least three ways you can distribute your findings:

1. You will probably want to have a copy to show to potential employers or graduate programs to which you apply. It shows what you have learned and demonstrates the skills used to accomplish this research process.
2. Depending on your topic, you may be able to identify local organizations or individuals who could use your findings and who would want a copy of the thesis.
3. A range of publications might be interested in publishing your thesis in its entirety or excerpted, condensed, or revised. Your advisor may be able to suggest several appropriate possibilities for publication.

You may think of presenting your results at a national or international conference. Your Faculty Advisor can help with this. Your thesis will be archived electronically in the Lied Library and accessible to the public and other researchers.

As you finish your thesis, you may feel that it is less like a neatly wrapped package and more like a house full of spaghetti, with strands leading off in every direction. That is a normal feeling at the end of a major research project. Most projects of this nature feel like they have been untimely ripped from the author. Actually you have developed an understanding of an issue in such depth and detail that you see how it is connected to many other issues, and therefore multiple paths for further investigation have unfolded before you. Perhaps the most important consequence of your research project is the effect it has on you as it pushes you down some of those paths in the future. If so, we wish you well as you continue your inquiries.