Guidelines for Thesis Preparation and Thesis Defense
 Upon completion of the research project to the satisfaction of the student's research advisor and Thesis Committee, the student must submit a formal MS thesis and abstract based on the research. The thesis and abstract must be prepared in a style and format specified by the guidelines below. The document should be first critiqued by the research advisor and revised before being submitted to the members of the thesis committee. The thesis advisor is responsible for ensuring that the thesis meets the style and format requirements. If deemed necessary the Thesis Committee may decide if the student must make revisions in the document(s) and/or perform further work in order to satisfactorily complete the research project. The Thesis Committee will then pass their comments and suggested revisions back to the student, who will make the necessary revisions. The student's research advisor will examine the revised document to ensure that the student has made the necessary revisions. The Thesis Committee must certify by a minimum of two-thirds affirmative vote of its membership that the document is ready for the thesis examination. Students must be registered for at least one research credit during the semester in which the thesis is being evaluated.

PREPARATION OF THE THESIS

This document sets forth rules for the preparation of all master's theses. However, additional requirements may be imposed by the thesis advisor and committee, as long as these additions do not conflict with those of this document. The thesis advisor is responsible for ensuring that the thesis meets the format and style requirements outlined below.

Organization
Each thesis or dissertation contains a preliminary section followed by its main body and the references and appendices.

Preliminary Section
The preliminary section of the thesis contains the title page, abstract, signed thesis approval form, list of figures, list of tables and a table of contents. This section should be numbered using lowercase Roman numerals (i, ii, iii, iv, …)

Title Page
The title should be concise, informative, and contain key words to facilitate indexing and searching. The date is the date on which final approval of the thesis or dissertation is granted and is identical to the date which appears on the Master's Thesis Approval Form. A sample title page appears below

Abstract
The abstract not exceed 350 words master's thesis. Abstracts are constructed using complete sentences and paragraph structure, with no embedded headings, bullets or tables. The third person, past tense is used. An abstract is written after the thesis work is completed. The abstract begins by stating the main
objective(s) and hypothesis of the thesis work in one or two sentences. The most significant methods used in the work are summarized. In most cases, two to three sentences should be sufficient for describing the methods. The main body of the abstract reports on the results and conclusions of the thesis work. The experimental findings are reported in the most concise and direct manner possible. The conclusion should be a concise analysis and interpretation of the results of the work. This section should make an impact on the reader so that it is clear what the outcome of the scientific work is and what it means.

**Master's Thesis Approval Form**
Upon completion of the thesis and successfully passing the thesis examination, the thesis approval form must be signed by the thesis advisor and all members of the thesis committee. The approval form should be included in the bound thesis.

**List of abbreviations and symbols**
All acronyms, symbols and abbreviations used in the thesis must be defined and listed

**List of figures**
Figure numbers, figure title and page number where the figure is located must be included

**List of tables**
Table numbers, title and page number where the table is located must be included

**Table of Contents**
The main body of the thesis includes different sections (see) below. The table of contents should list the various sections of the thesis, with titles and identify the page number(s) where these sections appear in the thesis.

**Main Body**
The body of the thesis must contain an introduction with a hypothesis and specific aims of the thesis project. The introduction is followed by a background and significance section, materials and methods, results and discussion, and conclusions. References and appendices follow the main body. When appropriate, care must be taken to secure from the copyright owners permission to reprint copyrighted material.

**Introduction: Hypothesis and Specific Aims**
The introduction must be a complete, but concise description of the thesis work, including a specific hypothesis and specific aims of the work. A summary of the experimental design used to achieve the specific aims should be included in the introduction.
Background and Significance
The thesis must contain a background section that summarizes relevant work that has been done in the area and its relationship to the project presented in the thesis. The background section should present work published in peer-reviewed journals relevant to the field of study and all reference to previously done work should be properly cited.

Materials and Methods
The materials and methods section includes a detailed description of all methods used in the experiments to complete the specific aims. Complete sentences (not bullets, not flowcharts, not abbreviations) must be used to describe the procedures that were done, although graphs, flowcharts or other diagrams may be used to supplement the text. Experimental descriptions should be in the format typically used in peer-reviewed journals in the field of study.

Results and Discussion
The results and discussion section of the thesis is the most important section. Results from each of the experiments described must be included. Results may be presented using tables, graphs or other diagrams but must be presented in text format as well. The results must be discussed in the context of the hypothesis and specific aims of the project and their relevance to previously published work in the area. Explicitly discuss whether the hypothesis is supported or not, and whether the specific aims were achieved, explicitly discussing and how the results support this claim.

Conclusion
Provide an overall conclusion that summarizes the successes and/or failures of the thesis project. Identify what more needs to be done in the area or future directions the project may take.

References and Appendices
All references cited in all sections of the thesis used must be included in this section. Proper bibliographic format is expected, using PUBMED standards. Only documented references may be used. “Web pages may be cited but the url and date must be included in the citation. Appendices may be used to provide additional documents or data that are important to material presented in the thesis but are supplementary to the main body of work. When such data are voluminous they are best presented as concisely as possible in one or more appendices. Appendices must be titled and are usually designated using uppercase letters (A, B, C). Appendices must be listed in the table of contents.
THESIS FORMAT

Printing
The thesis must be printed by a machine that produces true letter quality output. Type sizes of 12 characters per inch or point are acceptable. The same type size and style must be used throughout the text to insure uniformity of appearance. Bound copies of the thesis must be on white high-quality bond, minimum 20-pound weight, for purposes of microfilming and archival storage. Two bound copies of the thesis must be submitted (one for the ACPHS library and one for the department). Only one side of each page may be used for printing.

Spacing
The text of a thesis must be double spaced throughout with the exception of footnotes, references, and extended quotations, which are single spaced.

Margins
All margins must be one inch except the left, which must be 1.5 inches.

Pagination
There is no page minimum or limit to the MS thesis, however a typical MS thesis may be anywhere from 30 -100 pages long. Every page of a thesis is assigned a number, although a number may not appear on every page. The position of the page number must be consistent from page to page. Preliminary pages must be numbered consecutively using small Roman numerals (i, ii, iii, iv etc.). The remainder of the thesis or dissertation should have Arabic numerals (1, 2, 3, 4, etc.).

Tables and Figures
The term "table" is used to designate a portion of the thesis containing a columnar or other systematic arrangement of numbers, words, or symbols. The term "figure" refers to representations by graphs, charts, drawings, or photographs. Except in highly unusual circumstances, the word table or figure are used as descriptors rather than graph, picture, etc. Each table and figure must be numbered and have a legend with a maximum length of 40 words. The titles and legends of tables and figures should be concise and descriptive of the information presented in that table or figure. Tables and figures are constructed either horizontally or vertically, but comply with the required margins must be. Tables and figures are inserted in the text throughout the thesis and should be referred to and placed near the text as relevant. Tables and figures larger than the standard page size must be reduced by some reproduction method. All tables and figures must be of high quality and resolution and be fully legible.

Numbering
Tables are numbered sequentially with numbers appearing at the top of the table, preceding the title and separated from it by a period. Figures are numbered sequentially, with the number placed below the figure preceding the caption and
separated from it by a period. Structural chemical formulas are sequentially numbered, with the number centered under the formula. Chemical or mathematical equations are sequentially numbered, with the number enclosed in parentheses and placed at the right margin.

**Coloring**
Black and white figures are preferred. Colored figures must be of sufficient contrast such that information conveyed by different colors can be distinguished in black and white copies.

**Abbreviations**
Whenever possible abbreviations should conform to practice within a discipline. Lists of acceptable abbreviations are frequently included in journal Instructions to Authors information. Theses and dissertations should routinely use SI units and abbreviations, unless there is a compelling reason to prefer an alternative system of units. All unusual and unconventional abbreviations must be defined when first encountered in the thesis or dissertation and also included in the list of abbreviations and symbols in the preliminary pages (vide supra). The abbreviation "et al" may be used in the text to indicate the work of three or more authors. It is not permitted in the reference list.
Sample Thesis Title Page

Attempted Preparation of 2(-Aminotaxol Through the β-Lactam Synthon Method

by Hengqun Shen

Submitted to the faculty of the Albany College of Pharmacy and Health Sciences
in partial fulfillment of the Degree of Master of Science in Pharmaceutical Sciences

June 2005
THESIS DEFENSE (EXAMINATION)

The final thesis examination is an oral defense of the student's research and is also designed to establish the competency of the student in his/her major or related fields. After receiving the examination copy of the thesis and information regarding the date, time and room reserved by the graduate student, the Program Director will publicize the student's final examination. The Thesis Committee, chaired by the student's research advisor, will moderate the final examination. The entire examination committee must be present at the final examination. The final examination is normally structured in two parts. The first part is open to the “public” – all students and faculty members, as well as other individuals who have received permission from either the research advisor or the Program Director. The second part of the examination is restricted only to members of the examination committee. The student's Program Director and Department Chair, may also attend after notifying the research advisor.

In the first part of the examination, the student gives a formal presentation to explain his/her work and conclusions reached in the thesis work. Members of the general audience are given the opportunity to question the student after completion of the presentation. When the chair determines there to be no further substantive questions from the general audience, he or she will close the public part of the final examination and dismiss everyone except the student and the members of the examination committee. The committee will then discuss the student's research, thesis (asking appropriate questions) and evaluate his/her performance during the final examination. The student will then be excused and the committee will then vote on whether or not the thesis and final examination fulfills the requirements for this graduate degree. Only members of the Thesis Committee are eligible to vote, and at least two-thirds of the members of the Thesis Committee must cast affirmative votes in order to for the student to pass the thesis examination.

If the committee passes the student but decides that minor modifications of the thesis are required, the student must make these modifications and present them to his/her research advisor within two weeks of the date of the final examination. The research advisor must certify in writing to the Program Director and the thesis committee members that the student has satisfactorily performed the required modifications. The thesis and signed thesis approval form is then submitted to the Dean of the School of Graduate Studies. Concurrently, the final thesis is sent out to be bound. Typically students have four copies of the thesis bound. One bound copies for the thesis advisor, one bound copy for the department, one bound copy for the library and one bound copy for the student. Students must submit bound copies of the thesis to the thesis advisor, library and department. Students are responsible for the cost associated with having the thesis bound.

If the final examination results in failure, the student will be provided with a written report prepared by the examination committee with copies to the department chair, the Program Director and the Dean of the School of Graduate Studies outlining reasons for the failure and suggestions which may help to resolve the failure. The student is entitled
to a second examination which may only be scheduled after the research advisor certifies in writing to the Program Director that the student has resolved the problems which resulted in the failure. Failure of the second final examination will result in the student being dismissed from the graduate program without the graduate degree.
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**Thesis Committee:**

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3. | Printed Name | Signature | Date |
4. | Printed Name | Signature | Date |

**Program Director:**

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Please submit the completed and signed form to Martha A. Hass, PhD, Interim Dean of the School of Graduate Studies via email martha.hasss@acphs.edu