

**CAPP VII  
Pharmacotherapy  
Clinical Seminar  
Manuscript Manual**

**May 2010 - April 2011**

**Auburn University  
Harrison School of Pharmacy**

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## **DESCRIPTION**

***Pharmacotherapy Manuscript*** - This project begins during the last year of pharmacy school (P4 year) while students are involved in the Advanced Practice Experience (APE). As students progress through APE, they will identify relevant topics or therapeutic controversies pertinent to the profession of pharmacy. Students will identify a topic, research the topic, and prepare a manuscript for publication in a peer-reviewed biomedical journal. Students will have the support of an advisor. The preparation of the manuscript offers an opportunity for students to practice sharing pertinent therapeutic information in the form of written communication, which they may find themselves doing in the future. The project should instill the importance of communicating drug information within the profession of pharmacy.

## **PURPOSE**

The aim of the manuscript, as well as the platform presentation, is to encourage fourth year pharmacy students to be self-directed and critical thinkers about topics related to drug therapy. Within the current profession of pharmacy it is essential that practitioners be able to communicate effectively both verbally and in writing. Through the APE, students are required to communicate with patients, peers, preceptors, and other health care providers on a regular basis. However, it is also important for students to be able to analyze current literature and apply it to patient care. The manuscript gives students the opportunity to apply all of these skills in a written document. Both the platform presentation and the development of the manuscript help prepare PharmD graduates with skills needed to effectively communicate up-to-date drug information with other pharmacists and health care providers in a non-verbal manner.

## ABILITY OUTCOMES AND OBJECTIVES

Outcomes	Tasks (Level)	Instructional Methods	Methods for Assessment
<p><b>Maintain and Enhance Competence through Self-Initiated Learning</b>  <i>(Maintenance of individual competence via self-initiated learning is a core responsibility of professionals)</i></p>	<p>Review and critically evaluate the literature to keep current on therapeutic / practice issues (Level 1)</p> <p>Use regular self-assessment and peer assessment to identify learning needs and self-directed learning efforts (Level 1)</p> <p>Identify and use resources to stay current and meet learning needs (e.g., professional library, pharmacy organizations, journals, and listservs) (Level 1)</p>	<ul style="list-style-type: none"> <li>• Advisor/Student reflective discussions</li> <li>• Written communication</li> <li>• Comprehensive literature search</li> <li>• Completion of the manuscript</li> </ul>	<ul style="list-style-type: none"> <li>• Manuscript Evaluation Form</li> </ul>
<p><b>Develop Practice and Leadership</b>  <i>(Graduates are expected to exhibit leadership qualities in developing and improving their practices and their own careers)</i></p>	<p>Establish professional credibility, demonstrating professionalism (Level 2)</p>	<ul style="list-style-type: none"> <li>• Advisor/Student discussions</li> <li>• Responsibilities and interaction during advisor/student meetings</li> </ul>	<ul style="list-style-type: none"> <li>• Manuscript Evaluation Form</li> </ul>

**ABILITY OUTCOMES AND OBJECTIVES**

Outcomes	Tasks (Level)	Instructional Methods	Methods for Assessment
<p><b>Advance the Profession</b>  <i>(Graduates are expected to actively work to advance the profession of pharmacy and the pharmaceutical care model of practice)</i></p>	<p>Educate current and future health care professionals (mentoring, peer teaching) to influence their decisions, share responsibility, and maintain effective working relationships (Level 1)</p> <p>Establish and maintain professional collaborations (Level 1)</p> <p>Evaluate own and peer's behavior against professional standards and take appropriate actions (Level 1)</p> <p>Advocate professional improvements (Level 4)</p>	<ul style="list-style-type: none"> <li>• Completion of the manuscript</li> </ul>	<ul style="list-style-type: none"> <li>• Manuscript Evaluation Form</li> </ul>

## MANUSCRIPT ADVISORS

Manuscript advisors are full-time faculty members who may not reside in the students' assigned rotation region. An attempt will be made to match student and faculty interests whenever possible. Advisors will provide guidance throughout the year by assisting with the review and approval of manuscript topics, review of drafts and the final written assignment, as well as determining if the assigned student(s) followed the timeline established for the manuscript process. A complete list of office addresses including telephone numbers and email addresses for the advisors are provided on E-value. Manuscript advisors will be communicated to students by May 14, 2010. *If you have questions that your advisor cannot answer, please contact the course coordinators not OEL.*

## PROJECT TIMELINE AND ACTIVITIES (*Please see Appendix A—"Manuscript Activity Checklist"*)

Students are expected to initiate dialogue with their advisors in a timely fashion in order to meet all deadlines, to discuss possible manuscript topics, and to review drafts and the final version of the manuscript. *Please realize that the following deadlines outlined are MINIMUM deadlines students are expected to meet and a student's advisor may require earlier deadlines that would supersede these.*

**Areas of interest.** All students should submit 3 areas of interest to *both* course coordinators (Dr. Liles – [aml0003@auburn.edu](mailto:aml0003@auburn.edu); Dr. Starr – [jas0003@auburn.edu](mailto:jas0003@auburn.edu)) via Groupwise e-mail by **May 1 at 5pm**.

Students working individually can provide up to three areas of interest and should be listed in order of preference. Students completing the project in pairs should only submit one list, as a pair, of 3 areas of interest. These should not be specific topics but general areas of interest such as nephrology, infectious disease, diabetes, hypertension, etc.

**IRB.** All students must complete the Institutional Review Board (IRB) training **6 months prior to assigned due date** if their manuscript involves data from human subjects. **Please see Appendix B for complete instructions.** A copy of the certificate indicating completion of training should be given to the assigned advisors. All manuscripts requiring IRB approval must have their IRB application submitted **6 months prior to the assigned due date.**

**Topic Approval.** Each student must receive approval from their advisor **6 months prior to assigned due date.** The topic should involve a pharmacotherapy issue that students have researched, synthesized, and evaluated using the biomedical literature. After the initial topic idea has been approved by their

advisor, each student must submit a detailed description of the manuscript idea including some references along with a tentative timetable for completion. **Please see Appendix C for “Choosing a Manuscript Topic”.**

**Publication Requirements.** Prior to the first draft deadline, students should choose a peer-reviewed pharmacy journal (or other appropriate peer-reviewed journal) and locate their publication requirements. Some examples include: *Annals of Pharmacotherapy*, *Pharmacotherapy*, and *American Journal of Health-System Pharmacy*. The manuscript must follow the publication requirements for the chosen journal.

**Outline Approval.** After the pharmacotherapy topic is approved, each student should complete an outline of their manuscript and submit it to his/her advisor for assessment and feedback. This outline should include an outline of all major sections to be included in the manuscript as well as the journal in which the students will be using to meet publication requirements. Students should submit an outline to their advisor **3 months prior to assigned due date**. For students completing the manuscript project in pairs, this outline must indicate which section(s) are being completed by each individual student.

**Written Manuscript Drafts.** After the pharmacotherapy topic is approved, each student must complete 2 written drafts of the manuscript and submit these to the advisor for assessment and feedback. The advisor will assist the student with the evaluation of biomedical literature to ensure the development of a clear, concise pharmacotherapy issue, an extensive search strategy, and appropriate evaluation of pertinent literature. The first written draft should be submitted to the advisor **2 months prior to the assigned due date**. The second written draft should be submitted to the advisor **1 month prior to the assigned due date**. Final manuscript due dates will be assigned by advisors and provided to students by June 30, 2010. Both the platform presentation and manuscript must be completed by April 1, 2011.

## **WORKING IN PAIRS**

Students may choose to complete the manuscript project in pairs. If they choose to do this, *both* students must e-mail *both* course coordinators (Dr. Liles – [aml0003@auburn.edu](mailto:aml0003@auburn.edu); Dr. Starr – [jas0003@auburn.edu](mailto:jas0003@auburn.edu)) via Groupwise e-mail by **May 1 at 5pm**. Students do not need to be assigned to the same region in order to work on a manuscript together. Once students have decided to work in a pair, they will not be permitted to change to working on individual manuscripts.

## **METHODS OF EVALUATION (Please see Appendix D—“Manuscript Evaluation Form”)**

The faculty advisor will determine the manuscript grade, which will be based on meeting the timetable outlined above as well as the overall completed manuscript. Please note that manuscript evaluation forms are available on E-Value.

- Any student receiving a grade below 70 percent on the manuscript must repeat this portion of the course within 4 weeks OR as deemed appropriate by the advisor and course coordinators. The grade assigned in the repeat manuscript will be averaged with the grade from the first manuscript to calculate the final grade. Students receiving a final course grade lower than a "C" must repeat the entire course.
- The advisor and course coordinators will determine what is appropriate when a manuscript should be repeated with regard to re-writing the same topic or whether a new topic with a new timeline will be necessary.
- Students who consistently exhibit a lack of initiative (i.e. limited follow-up with advisor), time management (i.e. missed deadlines), or organization that compromises the timely completion of the manuscript can expect a reduced final course grade.

## **GRIEVANCES**

Students who feel they are receiving unsatisfactory faculty advising should contact the course coordinator immediately. Any unresolved problems between a student and a participating faculty member concerning the application of course policies should be reported first to the course coordinator. Any subsequent problems concerning course policies, procedures and grading should be addressed according to the process outlined in the Student Academic Grievance Policy found in the Tiger Cub.

## **SPECIAL NEEDS**

Students who need special accommodations in class, as provided for by the American Disabilities Act, should arrange a confidential meeting with the instructor during office hours the first week of classes - or as soon as possible if accommodations are needed immediately. You must bring a copy of your Accommodation Memo and an Instructor Verification Form to the meeting. If you do not have these forms but need accommodations, make an appointment with the Program for Students with Disabilities, 1244 Haley Center, 844-2096.

***Appendix A***  
Manuscript Activity Checklist

### **Manuscript Activity Checklist**

Activities	Deadline Date	Date Completed	Advisor Sign-Off
Working in pairs (if applicable)	May 1, 2010		
Areas of Interest	May 1, 2010		
IRB training (if applicable) ( <b><u>6 months</u> prior to assigned due date</b> )			
Topic Approval with description and tentative timetable ( <b><u>6 months</u> prior to assigned due date</b> )			
IRB Application, if necessary ( <b><u>6 months</u> prior to assigned due date</b> )			
Outline approval ( <b><u>3 months</u> prior to assigned due date</b> )			
First Written Draft ( <b><u>2 months</u> prior to assigned due date</b> )			
Second Written Draft ( <b><u>1 month</u> prior to assigned due date</b> )			
Final paper due			

***Appendix B***  
***IRB Training Instructions***

**READ AND PRINT THESE INSTRUCTIONS**

**CITI INSTRUCTIONS FOR AUBURN UNIVERSITY RESEARCHERS**

To register, go to <http://www.citiprogram.org/>.

1. At “**New Users**”, click on [Register Here](#).
2. In the “Participating Institutions” drop-down menu, choose “Auburn University” (Be sure to click “submit” or other command buttons on each page.)
3. Select your Username and password – Please use your **Auburn username**/global ID. Do not use your AU password, but **create a new CITI password** containing at least 8 characters. (Be sure to save this information in a safe location.)
4. Use your **Auburn University e-mail address** as your preferred e-mail address.
5. The next page is requesting personal information. Complete all sections with an asterisk (\*).
6. The following page contains instructions for “CITI Course Enrollment Procedure”. Go to the bottom of this page and select the one of the three main Learner Groups that applies to you. Choose the one that most closely describes the kind of research you will be doing – this should be Group 2, Biomedical, general. In addition, select one or more of the additional modules in the second group that specifically apply to your research – this does not apply to you unless required by the institution where you are completing your project. (If you are unsure of which learner group to select, please contact your advisor).
7. On the next page, you can select another organization with which to be affiliated. For research purposes at Auburn University only, select “No”. You may need to select the institution where you are completing your project if required by that institution.
8. The next page will be the “Learner’s Menu”. In the “My Courses” section, you can begin the course through the red link under “Status”. You will see a list of the required modules as well as the date and score you received for any modules already completed. After you read the educational information provided in a module, you will take a quiz covering that information.
9. Log out when you are ready to quit. When you want to log back in, use your Auburn username and the new password you selected for CITI.
10. Notes:
  - a. You do not have to complete all modules at one time. Total time commitment should be three to six hours.
  - b. You must complete the courses in order and you must pass each module with at least an 80% score. When you have completed all of your required courses, print the completion report, keep the original for your records and forward a copy to your advisor and the regional coordinator.

- c. **To have a protocol approved after August 1, 2008, you must attach a completion certificate.** You will need to take the CITI course when your certificate expires in 5 years.
  - d. From the “Learner’s Menu” page, you can also do the following:
    - i. Edit or change your address (first section)
    - ii. Affiliate with another institution (first section)
    - iii. Change your username or password (first section) (keep your AU username!)
    - iv. Check to see if any continuing education credits apply (there will be no continuing education credits applicable from Auburn University).
    - v. View Auburn University instructions page. These are general CITI instructions only.
    - vi. You can print a completion report through the link under “Completion Reports”.
    - vii. You can add a course or update your learner group.
    - viii. Other options are available at the bottom of the page.
11. For technical problems, contact [citisupport@med.miami.edu](mailto:citisupport@med.miami.edu). For questions regarding other issues, contact the Office of Human Subject Research at [hsubjec@auburn.edu](mailto:hsubjec@auburn.edu), 334-844-5966.

***Appendix C***  
Choosing a Manuscript Topic

## Choosing a Manuscript Topic

- 1) Decide on the type of manuscript you want to develop. Examples include an extension of your platform topic, doing an original research project, review articles, case reports, or other acceptable manuscript options suitable for publication deemed appropriate by your advisor.
- 2) List 3 to 4 areas of interest: (These may be therapeutic, management, pharmacoeconomic, ethics issues, practice issue, patient education) - Be as specific as possible: a class of drugs, a specific disease state, a specific intervention, or issue.
- 3) Rank the issues from above for your interest level. *(Remember you will do a lot of work on this; it needs to be something you are interested in.)*
- 4) Do a Medline search for your topic – begin by limiting it to the last 5-7 years of literature, English language, human subjects, age range (if appropriate). If you get too many articles to begin with – also limit to recent review articles or the core AIM journals to reduce the number.
- 5) Pull any recent research studies on the topic. Before you go any further, read these. If it is still something about which you would like to write – look in the literature to make sure that there are other studies you will be able to use for comparison. (Check the bibliographies of review articles or the primary article of interest – they should review pertinent literature)
- 6) STOP!!!!!!! Discuss the topic with your advisor and get it approved. It must be approved by your advisor.

***If you are still having trouble identifying a topic. Work through the initial steps of this process and set up a meeting with your advisor – at least two weeks prior to the topic deadline!***

***Appendix D***  
Manuscript Evaluation Form

# Manuscript Evaluation Form

**Student:** \_\_\_\_\_ **Evaluator:** \_\_\_\_\_ **Date:** \_\_\_\_\_

0 Remediation Required	1 Needs Significant Development	2 Needs Development	3 Competent	4 Exceeds Expectations
The student is unable to satisfactorily complete basic and routine tasks despite directed questioning. The preceptor must complete the task.  Remediation is necessary.	The student requires guidance/several minutes of directed questioning to complete basic and routine tasks.	The student requires guidance/directed questioning to complete complex tasks; independently completes basic and routine tasks.	The student requires limited prompting to complete complex tasks; independently completes basic and routine tasks.	The student independently completes most complex tasks; independently completes all basic tasks.  Proficiency demonstrates readiness for entering the profession and become an independent practitioner.

### Introduction (10%)

- The student communicates the purpose for writing the paper.
- The student is able to capture the attention of the audience by heightening their interest in the topic.
- The student clearly states the clinical question or purpose for writing the paper.
- The student provides sufficient background to introduce the topic.

0 Remediation Required	1 Needs Significant Development	2 Needs Development	3 Competent	4 Exceeds Expectations
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Evaluator Comments:

### Organization (5%)

An organized approach is used in delivering the information. Specifically:

- Points of discussion are clearly emphasized.
- Figures and tables are clearly explained.
- Smooth transitions are made when moving to new points of discussion.
- The length of the paper is appropriate – within the given guidelines for the assignment.
- Title chosen is appropriate and within publisher's guidelines.

0 Remediation Required	1 Needs Significant Development	2 Needs Development	3 Competent	4 Exceeds Expectations
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Evaluator Comments:

# Manuscript Evaluation Form

## Paper Content (30%)

The paper topic is covered in an in depth and thorough manner. Specifically:

- The topic is more in depth than tertiary literature.
- The literature search of the topic was complete.
- Each discussion point is supported with specific data (e.g.primary literature).
- The student was able to compare and contrast data from several sources.
- The student synthesized, integrated, and evaluated information from the literature rather than reporting general results or general conclusions.
- The student accurately analyzed the studies presented, including any major strengths or deficiencies.
- IF a case is presented – all pertinent points in patient course are accurately described.
- IF a research project is presented:
  - i. Topic is unique, interesting, and innovative.
  - ii. Scientific rigor of study/project is adequate.
  - iii. Study results are valid and well conceived.

<b>0</b> Remediation Required	<b>1</b> Needs Significant Development	<b>2</b> Needs Development	<b>3</b> Competent	<b>4</b> Exceeds Expectations
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Evaluator Comments:

## Summary (15%)

- During the conclusion, the discussion points are clearly summarized.
- The student made specific recommendations including recommendations for future research in the area (if appropriate).
- The student related the information back to the introduction/rationale.
- The student discussed the clinical application of the information discussed.

<b>0</b> Remediation Required	<b>1</b> Needs Significant Development	<b>2</b> Needs Development	<b>3</b> Competent	<b>4</b> Exceeds Expectations
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Evaluator Comments:

## Manuscript Evaluation Form

### Conforms to Journal Manuscript Requirements (5%)

- The student provides the completed manuscript checklist from the appropriate journal.
- References are formatted in the appropriate method.
- The student follows the style guidelines provided by the journal including page formatting, word limits, abstract, title page, etc.

0 Remediation Required	1 Needs Significant Development	2 Needs Development	3 Competent	4 Exceeds Expectations
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Evaluator Comments:

### Writes a clear and concise technical paper (20%)

- Provides accurate and concise information.
- Uses correct grammar, spelling, and syntax.
- Writes in a professional tone and avoids plagiarism.

0 Remediation Required	1 Needs Significant Development	2 Needs Development	3 Competent	4 Exceeds Expectations
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Evaluator Comments:

### Displays the habits, attitudes and values of a professional (15%)

- Recognizes self-limitations and responds appropriately.
- Assesses one's knowledge independently.
- Manages time appropriately and efficiently.
- Demonstrates a self-motivated character (i.e. initiates activities to complete them; functions independently).
- Displays a sense of reliability and responsibility (i.e. meets deadlines without prodding, can be counted on).
- Hears, respects, and accepts the comments of others.
- Demonstrates appropriate interpersonal and intergroup behaviors.
- Accepts criticism and reacts in a professional manner.
- Demonstrates accountability (i.e., holds oneself liable for tasks).

0 Remediation Required	1 Needs Significant Development	2 Needs Development	3 Competent	4 Exceeds Expectations
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Evaluator Comments:

## Manuscript Evaluation Form

### Step 1: Calculate a Mean Score

Determination of Final Score/ Grade							
	RR (0)	NSD (1)	ND (2)	C(3)	EE(4)	X % Weight	= Subtotal
Introduction						X (0.10)	
Organization						X (0.05)	
Paper Content						X (0.30)	
Summary						X (0.15)	
Conforms to Journal Requirements						X (0.05)	
Writes a clear and concise technical paper						X(0.20)	
Displays the habits, attitudes and values of a professional						X(0.15)	
<b>TOTAL SCORE</b>							

### Step 2: Convert Mean Score to a Percentage Grade:

<b>Rubric for converting a mean score to a percentage score</b>	4.0 = 100%	3.2 = 87%	2.4 = 78%	1.6 = 62%	0.7 = 36%
	3.9 = 98%	3.1 = 86%	2.3 = 76%	1.5 = 60%	0.6 = 29%
	3.8 = 97%	3.0 = 85%	2.2 = 74%	1.4 = 58%	0.5 = 22%
	3.7 = 95%	2.9 = 84%	2.1 = 72%	1.3 = 56%	0.3 = 15%
	3.6 = 93%	2.8 = 83%	2.0 = 70%	1.2 = 54%	0.2 = 8%
	3.5 = 92%	2.7 = 82%	1.9 = 68%	1.1 = 52%	0.0 = 0%
	3.4 = 90%	2.6 = 81%	1.8 = 66%	1.0 = 50%	
	3.3 = 88%	2.5 = 80%	1.7 = 64%	0.8 = 43%	

### Step 3: Round the Percentage Score to a Letter Grade: \_\_\_\_\_

- A = 90 - 100
- B = 80 - 89.9
- C = 70 - 79.9
- D = 60 - 69.9
- F = < 60