Systematic Course Review Process,  
Curriculum Committee, Doctor of Pharmacy Program  
University of Pittsburgh School of Pharmacy

The Doctor of Pharmacy Curriculum Committee is charged to implement a systematic curricular review process that enables the curriculum to change in anticipation of, or in response to, changes in the profession of pharmacy, and to continuously evaluate the objectives, content, and outcomes of courses to ensure that all curricular offerings support the mission of the School. The following systematic course review process is intended to provide help and support to faculty in order to assure quality in the curriculum.

- The Curriculum Committee will develop an annual schedule of courses to be reviewed. All courses will undergo review at least once every 4 years. At the beginning of each academic year, the schedule may be revised for significant changes in course structure or faculty.

- Courses may undergo either an “expedited” review process or a “full review” process as determined by the Curriculum Committee. “Full review” will be performed for: 1) new course offerings; 2) courses undergoing significant revisions in teaching methods, content, or faculty; and 3) courses that have experienced problems that might be resolved with the help of an independent review. Course faculty may also request “full review” in place of an expedited review process.

- Implementation of actions will occur within the next academic year.

- In a “Full Review” Process:
  - The Curriculum Committee Chair will convene a working group composed of two Curriculum Committee faculty members (1 representing science and 1 representing practice disciplines), a member of the Office of Education and a student member of the Curriculum Committee (who has completed the course). Faculty members not participating in the course but with expertise in subject matter may be added to the group. Outside reviewers with an interest in the subject matter, including alumni or faculty from other schools of pharmacy, may also be added to the working group to review the course whenever necessary. Faculty members who teach or coordinate the course under review may not be included in the working group.

  - The course review process should be completed in most cases within a one-month period.

  - Documents submitted for review include (but are not limited to):
    1. Course syllabi and course update forms from the course coordinator and participating faculty for the previous two years
    2. Course evaluations from the previous two years
    3. Copies of handouts, assignments, examinations (all or portions as requested by working group) and other relevant documents
    4. Peer assessments of teaching and learning methods used by various instructors within the course, when available
    5. Reviewers may request a summary of grade distribution for the course or individual assignments as needed.

  - The process will proceed as follows:
    - Course coordinator and course faculty will 1) complete the Course Review Rubric (attached) and 2) provide requested materials.
    - The working group will meet with the course coordinator and course faculty in a question and answer discussion session after reviewing the submitted materials.
    - Using a template developed for student input, the student member of the working group will conduct a Focus Group with a minimum of six selected students, with assistance of the Office of Education member.
After review of all relevant information, the working group will prepare a summary and suggestions for any needed actions.

The summary will be reviewed with the course coordinator and the Chair of the Curriculum Committee. Subsequently, the working groups will present its findings and recommendations to the Curriculum Committee for discussion and action.

In an “Expeditied Review” Process:
 o Documents submitted for review include (but are not limited to):
   1. Course syllabi and course update forms for the previous two years
   2. Course evaluations from the previous two years
   3. Copies of handouts, assignments, examinations (all or portions as requested by working group) and other relevant documents
   4. Peer assessments of teaching and learning methods used by various instructors within the course, when available

 o The process will proceed as follows
   • Course faculty will complete the Course Review Rubric (attached) as a self-evaluation for reflection and perspective and provide requested materials.
   • One faculty member of the Curriculum Committee will review materials, meet with course faculty, complete the evaluation rubric and prepare a summary and suggestions for any needed actions. The summary will be reviewed with the course coordinator and the Chair of the Curriculum Committee and presented to the Curriculum Committee for discussion and action.

SUGGESTED TIMELINE FOR EVALUATION

July
1. Curriculum Committee Chair will notify Department Chairs of courses to undergo course reviews for the upcoming academic year.
2. Curriculum Committee Chair will notify course coordinators of courses to undergo course reviews for the upcoming academic year.

Immediately following completion of class
1. Curriculum Committee Chair will request documents and materials for course review from course coordinators.
2. Curriculum Committee Chair will convene working group for course review.

One month following completion of class
1. Course coordinator will submit course review rubric, documents and materials to Curriculum Committee Chair.
2. Appointed working group will begin course review process.

May (for Fall term courses) or September (for Spring term courses)
1. Curriculum Committee working group will meet with course coordinator and faculty to discuss the results of the course review.
2. Working group will prepare final report of course review to present to Curriculum Committee.

June (for Fall term courses) or October (for Spring term courses)
1. Final report of the course review will be presented to the Curriculum Committee.
2. Curriculum Committee will provide additional feedback and approval of the course review and proposed changes.
EVALUATION CYCLE (Course Reviews to be concluded by June for Fall Courses, by October for Spring Courses)

2007 – 2008
Pharm 5215 & 5216 – Infectious Disease 1 & 2 (9/07)
Pharm 5321 – Advanced Pharmaceutical Care 2 (10/07)
Pharm 5319 – Neurology-Psychiatry (10/07)
Pharm 5116 & 5117 – Biochemistry 1 & 2 (5/08)

2008 – 2009
Pharm 5110 & 5111 – Professions of Pharmacy 1 & 2
Pharm 5112 & 5113 – Experiential Learning 1 & 2
Pharm 5219 – Drug Development 3
Pharm 5315 – Oncology Module
Pharm 5314 – Immunology
Pharm 5810 – APhA Immunization Certificate Program
Pharm 5813 – Acute Care Pharmacootherapy Simulation
Pharm 5801 – Pharmaceutical Care to Underserved Populations
Pharm 5814 – Global Health: Determinants and Application

2009 – 2010
Pharm 5210 & 5211 – Professions of Pharmacy 3 & 4
Pharm 5212 & 5213 – Experiential Learning 3 & 4
Pharm 5310 & 5311 – Professions of Pharmacy 5 & 6
Pharm 5312 & 5313 – Experiential Learning 5 & 6
Pharm 5806 – Pediatric Pharmaceutical Care
Pharm 5805 – Community Pharmacy Management
Pharm 5900 - 5903 – Pharmacy Administration elective series
Pharm 2510 & 2511 – Executive Boardroom Series
Pharm 5815 – Concepts of Managed Care

2010 – 2011
Pharm 5114 & 5115 – Anatomy & Physiology 1 & 2
Pharm 5118 – Principles of Drug Action
Pharm 5119 – Drug Development 1
Pharm 5218 – Drug Development 2
Pharm 5216 – Pharmacology of Cardiovascular Disease
Pharm 5225 – Advanced Pharmaceutical Care 1
Pharm 5400 – PharmD Seminar
Pharm 5809 – Principles and Techniques for Teaching

2011 – 2012
Pharm 5116 & 5117 – Biochemistry 1 & 2
Pharm 5215 & 5216 – Infectious Disease 1 & 2
Pharm 5223 – Gastroenterology / Nutrition
Pharm 5316 – Pulmonology / Rheumatology
Pharm 5318 – Endocrinology
Pharm 5321 – Advanced Pharmaceutical Care 2
Pharm 5319 – Neurology-Psychiatry
Pharm 5808 – Comprehensive Diabetes Management
Pharm 5811 – Clinical Nutrition
Template of Questions for Working Group Course Review

I. Curriculum Implications and Current Status
   - How does the course fit into the overall curriculum (e.g., curricular outcomes)? What curricular or programmatic needs is the course intended to meet?
   - What prerequisite skills, experiences or courses are needed in order to succeed in the course?
   - Describe course changes in the past 2 years. What led to these changes and how have these changes affected student learning?
   - Have any specific issues been associated with the course and, if so, how have they been resolved?

II. Learning Objectives
   - What are the formal, stated objectives of the course? How do these relate to curriculum outcomes and competencies students will need in their careers?
   - What other purposes or goals do the faculty, administrators, and other interested audiences have for the course?

III. Content
   - How are the various content elements related to the course objectives?
   - Which objectives receive the most coverage or emphasis? Why?
   - Which objectives receive minor coverage? Why?
   - Is the content sequenced or arranged? What is the rationale for the content sequence?
   - To what extent does fragmentation or lack of coherence appear to be a problem?
   - What information/content is duplicative to other courses taken before or after this course? Is the duplication warranted? Why?

IV. Instructional Strategies
   - What types of learning activities are used? What is the rationale for selection of these activities in light of the course objectives and curriculum outcomes?
   - Would additional types of activities enhance student learning?
   - What instructional materials are used? How effectively?

V. Evaluating Student Achievement
   - What instruments and procedures are used to collect evidence of student progress and achievement?
   - How well do the assessment procedures correspond to the course content and objectives? Which objectives or content areas are not assessed? Why?
   - How are the assessment results used? Are the results shared with the students within a reasonable amount of time?
   - How consistently are the assessment criteria applied from instructor to instructor and from term to term?
   - Is the amount of assessment excessive, about right, or insufficient?
   - How have course evaluation suggestions and information been used to improve the course in the past 2 years?

VI. Organization
   - Do faculty meet to discuss flow of material, overlap and common themes?
   - How well is the student workload distributed throughout the course?
   - Are the necessary facilities, equipment, and materials readily available and in good working condition when needed?

VII. Outcomes
   - At the end of the course, what evidence is there that students have achieved the stated objectives?
   - What objectives does the course help students meet the most? The least?
Template of Questions for Student Focus Group Course Review

I. Curriculum Implications and Current Status
   • Have any specific issues been associated with the course and, if so, how have they been resolved?

II. Learning Objectives
   • What goals and expectations do students have for the course? To what extent are these additional goals and expectations compatible with the stated course objectives?

III. Content
   • Which objectives receive the most coverage or emphasis? Why?
   • Which objectives receive minor coverage? Why?
   • To what extent does fragmentation or lack of coherence appear to be a problem?
   • What information/content is duplicative to other courses taken before or after this course? Is the duplication warranted? Why?

IV. Instructional Strategies
   • Would additional types of activities enhance student learning?
   • What instructional materials are used? How effectively?

V. Evaluating Student Achievement
   • How are the assessment results used? Are the results shared with the students within a reasonable amount of time?
   • How consistently are the assessment criteria applied from instructor to instructor and from term to term?
   • Is the amount of assessment excessive, about right, or insufficient?

VI. Organization
   • How well is the student workload distributed throughout the course?
   • Are the necessary facilities, equipment, and materials readily available and in good working condition when needed?

VII. Outcomes
   • At the end of the course, what evidence is there that students have achieved the stated objectives?
   • What objectives does the course help students meet the most? The least?
Use this rubric to evaluate the course and assist the instructor in improving the quality of instruction and learning.

Course: ____________________________________________________________

Reviewers: _________________________________________________________________________

Date completed: ___________________

<table>
<thead>
<tr>
<th></th>
<th>Meets Expectations</th>
<th>Needs Improvement</th>
<th>Does Not Meet Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course Syllabus</strong></td>
<td>The course syllabus follows the guidelines established by the Curriculum Committee including: a complete listing of faculty who teach in the course, course objectives, a class schedule, assessment methods, estimated student time budget, statement on disability, and academic integrity.</td>
<td>In general, the syllabus follows the guidelines established by the Curriculum Committee but some minor revisions are needed. <strong>Reviewer: list missing sections below</strong></td>
<td>The course syllabus does not follow the guidelines established by the Curriculum Committee. The syllabus format needs to be revised significantly in order to meet the guidelines.</td>
</tr>
<tr>
<td>Coordinator assessment</td>
<td>Meets ☐</td>
<td>Needs Improvement ☐</td>
<td>Does Not Meet Expectations ☐</td>
</tr>
<tr>
<td>Reviewers’ assessment</td>
<td>Meets ☐</td>
<td>Needs Improvement ☐</td>
<td>Does Not Meet Expectations ☐</td>
</tr>
<tr>
<td><strong>Relation of Course Ability Outcomes to Curricular Outcomes</strong></td>
<td>The course ability outcomes are clearly related to the curricular outcomes. It is easy to see how the course contributes to mastery of the curriculum outcomes.</td>
<td>In general, course ability outcomes relate to curricular outcomes. However, some are unclear or require clarification or re-wording for relevance. <strong>Reviewer: list outcomes that need to be clarified below.</strong></td>
<td>The course is not related to the curricular outcomes. It is difficult to see how the course contributes to mastery of curriculum outcomes.</td>
</tr>
<tr>
<td>Coordinator assessment</td>
<td>Meets ☐</td>
<td>Needs Improvement ☐</td>
<td>Does Not Meet Expectations ☐</td>
</tr>
<tr>
<td>Reviewers’ assessment</td>
<td>Meets ☐</td>
<td>Needs Improvement ☐</td>
<td>Does Not Meet Expectations ☐</td>
</tr>
<tr>
<td><strong>Clarity of Course Objectives</strong></td>
<td>Course objectives are stated with both knowledge acquisition and inclusion of higher order processes (application, synthesis, and evaluation).</td>
<td>Course objectives include knowledge acquisition and higher order processes (application, synthesis, and evaluation) but some objectives are unclear or could be more appropriately aimed at a higher (or lower) level of knowledge <strong>Reviewer: provide constructive improvements to course objectives below</strong></td>
<td>Course objectives are unclear or focus solely on knowledge acquisition.</td>
</tr>
<tr>
<td>Coordinator assessment</td>
<td>Meets ☐</td>
<td>Needs Improvement ☐</td>
<td>Does Not Meet Expectations ☐</td>
</tr>
<tr>
<td>Reviewers’ assessment</td>
<td>Meets ☐</td>
<td>Needs Improvement ☐</td>
<td>Does Not Meet Expectations ☐</td>
</tr>
</tbody>
</table>
# Course Review

## Alignment of Course Objectives and Assessment Methods

<table>
<thead>
<tr>
<th></th>
<th>Meets Expectations</th>
<th>Needs Improvement</th>
<th>Does Not Meet Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course objectives are mea...</td>
<td></td>
<td>Some learning obj...</td>
<td>Most learning objectives a...</td>
</tr>
<tr>
<td>Course assessments methods a...</td>
<td></td>
<td>Assessments methods are somewhat matched to course objectives.</td>
<td>Assessments methods are not matched to course objectives.</td>
</tr>
<tr>
<td>Reviewer: provide suggestions to align assessments to course objectives below</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Coordinator assessment**: Meets □ Needs Improvement □ Does Not Meet Expectations □

**Reviewers’ assessment**: Meets □ Needs Improvement □ Does Not Meet Expectations □

## Course Content

<table>
<thead>
<tr>
<th></th>
<th>Meets Expectations</th>
<th>Needs Improvement</th>
<th>Does Not Meet Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content is current and approa...</td>
<td></td>
<td>Some content is not current or not appropriate for a professional pharmacy student (too elementary or too difficult).</td>
<td>Content is not appropriate for a professional pharmacy student.</td>
</tr>
<tr>
<td>Emphasis of concepts and theories is appropriate.</td>
<td></td>
<td></td>
<td>There is excessive content that does not contribute to the education of a generalist practitioner.</td>
</tr>
<tr>
<td>Course concepts and content are reinforced as the term progresses.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reviewer: List course content that could be deleted or added below.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Coordinator assessment**: Meets □ Needs Improvement □ Does Not Meet Expectations □

**Reviewers’ assessment**: Meets □ Needs Improvement □ Does Not Meet Expectations □

## Integration of Pharmaceutical and Clinical Sciences

<table>
<thead>
<tr>
<th></th>
<th>Meets Expectations</th>
<th>Needs Improvement</th>
<th>Does Not Meet Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmaceutical and clinical sciences are well integrated and balanced in the course content. Both sciences are represented by faculty instructors within the course.</td>
<td></td>
<td>Content reflects only one of the science disciplines. Very little or no integration of pharmaceutical and clinical sciences. Only faculty from one science discipline are represented in the course.</td>
<td></td>
</tr>
</tbody>
</table>

**Coordinator assessment**: Meets □ Needs Improvement □ Does Not Meet Expectations □

**Reviewers’ assessment**: Meets □ Needs Improvement □ Does Not Meet Expectations □

# Course Review

## Meets Expectations

### Teaching methods
Instructor(s) makes an attempt to employ teaching methods in addition to lecture (cases, outside assignments, etc) to engage students in the course.
The teaching methods employed in the course are appropriate for meeting the course learning objectives.
The instructor(s) utilize innovative strategies in their teaching.

### Coordinator assessment
- Meets
- Needs Improvement
- Does Not Meet Expectations

### Reviewers' assessment
- Meets
- Needs Improvement
- Does Not Meet Expectations

### Expectations for student
Students are challenged to think and apply course concepts to problems in practice or the discipline.
The expectations are appropriate for a student at this level of education and experience.

### Coordinator assessment
- Meets
- Needs Improvement
- Does Not Meet Expectations

### Reviewers' assessment
- Meets
- Needs Improvement
- Does Not Meet Expectations

### Quality of Assessment
Students have opportunities to improve performance during the course.

### Coordinator assessment
- Meets
- Needs Improvement
- Does Not Meet Expectations

### Reviewers' assessment
- Meets
- Needs Improvement
- Does Not Meet Expectations

### Timing of Feedback
Assessment is frequent. Feedback to students is prompt and designed to promote learning.
Assessment is inconsistently provided or feedback to students is delayed.

### Coordinator assessment
- Meets
- Needs Improvement
- Does Not Meet Expectations

### Reviewers' assessment
- Meets
- Needs Improvement
- Does Not Meet Expectations

## Needs Improvement

### Teaching methods
Although the course primarily employs a lecture format, the instructor(s) use problem sets, cases or other learning methods to add to lecture.
Additional activities in delivery of course content and concepts may enhance learning.

**Reviewer:** Note ideas for improving teaching methods below

### Coordinator assessment
- Meets
- Needs Improvement
- Does Not Meet Expectations

### Reviewers' assessment
- Meets
- Needs Improvement
- Does Not Meet Expectations

### Expectations for student
Course expectations are too elementary or too sophisticated for a student at this level of education and experience.
Students do not apply course learning to practice or the discipline.

### Coordinator assessment
- Meets
- Needs Improvement
- Does Not Meet Expectations

### Reviewers' assessment
- Meets
- Needs Improvement
- Does Not Meet Expectations

### Quality of Assessment
Students have some opportunities to improve performances.

**Reviewer:** Note ideas for improving the quality of assessment below

### Coordinator assessment
- Meets
- Needs Improvement
- Does Not Meet Expectations

### Reviewers' assessment
- Meets
- Needs Improvement
- Does Not Meet Expectations

### Timing of Feedback
Students have no opportunities to improve performances.

**Reviewer:** Note ideas for improving the frequency of feedback below.

### Coordinator assessment
- Meets
- Needs Improvement
- Does Not Meet Expectations

### Reviewers' assessment
- Meets
- Needs Improvement
- Does Not Meet Expectations

## Does Not Meet Expectations

### Teaching methods
Additional teaching methods are needed to meet course objectives.

### Coordinator assessment
- Meets
- Needs Improvement
- Does Not Meet Expectations

### Reviewers' assessment
- Meets
- Needs Improvement
- Does Not Meet Expectations

### Expectations for student
Course expectations are unclear or inappropriate for a student at this level of education and experience.

### Coordinator assessment
- Meets
- Needs Improvement
- Does Not Meet Expectations

### Reviewers' assessment
- Meets
- Needs Improvement
- Does Not Meet Expectations

### Quality of Assessment
Students have no opportunities to improve performances.

### Coordinator assessment
- Meets
- Needs Improvement
- Does Not Meet Expectations

### Reviewers' assessment
- Meets
- Needs Improvement
- Does Not Meet Expectations

### Timing of Feedback
Students receive only a grade. No other feedback is provided.

**Reviewer:** Note ideas for improving the frequency of feedback below.

### Coordinator assessment
- Meets
- Needs Improvement
- Does Not Meet Expectations

### Reviewers' assessment
- Meets
- Needs Improvement
- Does Not Meet Expectations

---

Approved: July 2007
Revised May 2008; Jan 2009
## Course Review

<table>
<thead>
<tr>
<th>Availability of course faculty</th>
<th>Meets Expectations</th>
<th>Needs Improvement</th>
<th>Does Not Meet Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course faculty make themselves available to students for questions or discussions.</td>
<td></td>
<td>Course faculty are difficult to reach or delay responding to student requests for help.</td>
<td>Students are unable to reach course faculty.</td>
</tr>
<tr>
<td>Coordinator assessment</td>
<td>Meets ☐</td>
<td>Needs Improvement ☐</td>
<td>Does Not Meet Expectations ☐</td>
</tr>
<tr>
<td>Reviewers' assessment</td>
<td>Meets ☐</td>
<td>Needs Improvement ☐</td>
<td>Does Not Meet Expectations ☐</td>
</tr>
</tbody>
</table>

Please provide additional comments on this course that you think will help to improve teaching and learning.

*Reviewer's comments:*