RES 124
Respiratory Pharmacology

LECTURE SYLLABUS
Fall SEMESTER 2015

INSTRUCTOR: Helen Grim M.S.  
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grimhelena@JCmi.edu
Outline of Instruction

Division: Allied Health  
Area: Respiratory Care  
Course Number: RES 124  
Course Name: Respiratory Pharmacology  
Prerequisite:  
RES 110 Respiratory Care Techniques II  
RES 114 Cardiopulmonary Pathophysiology I.  
RES 115 Clinical Practice I  
Credits: 2

Course Description/Purpose

This course provides an overview of general pharmacology with an emphasis on drugs used in the critical care management of cardiopulmonary conditions.

WEEKLY SCHEDULE

Class meeting times: Monday ................. 10:30 AM - 12:30 PM  
Office hours: Monday ...................... 9:00 AM - 10:00 AM, and Tuesdays 10am-4pm  
.................................................. (and additional times by appointment)

Educational/Course Outcomes

The course goals and objectives incorporate specific Associate Degree Outcomes (ADOs) established by the JC Board of Trustees, administration, and faculty. These goals are in concert with four-year colleges, universities, and reflect input from the professional communities we serve. ADOs guarantee students achieve goals necessary for graduation credit, transferability, and professional skills needed in many certification programs. The ADOs and course objectives addressed in this class include the following:

Cognitive  
Each student will be expected to:

- Compare and contrast the indications, contraindications, side effects, and standard and maximum adult dosages for common bronchopulmonary drugs.

ADO 7

Academic Honesty Policy: If there is any suspicion of academic dishonesty, JC’s Academic Honesty Policy will be followed and appropriate action will be taken, up to and including assigning a failing grade for the paper, project, report, exam, or the course itself (whichever is deemed necessary). To see the policy, visit: http://www.jccmi.edu/policies/Academics/Policies/1004.pdf.

Incompletes Policy: (Excerpt from JC Policy) “A student may request an incomplete from the instructor. The incomplete will be granted only if the student can provide documentation that his or her work up to that point is sufficient in quality, but lacking in quantity, due to circumstances beyond the student’s control. Furthermore, a written plan for making up the missing work within one semester must be completed by the student. Final determination of whether an incomplete will be given is the instructor’s decision.”

Class Conduct: Please recognize that all students have an equal right to a quality classroom experience. Behavior that would adversely affect the rights of another student (i.e. side conversations, disruptive actions, etc.) will result in those responsible being asked to leave for the remainder of the period and losing credit for any work that is missed.

Classroom expectations: There are three expectations that will be enforced in the classroom:

1. First, attendance is very important to successfully learn and retain lecture information. Therefore attendance in class all day, every day is expected and encouraged. According to the JC Respiratory Care Program Student Handbook, student responsibilities include “taking an active role in the learning process”, and one cannot do this if you are not there
and participating in discussion and class activities. The student will be responsible for contacting the instructor to obtain any make up material needed as a result of the absence. In order to facilitate preparation of such materials, the student will probably best contact the instructor as much in advance as possible via email or phone prior to class time if there is any expected absence or any makeup material needed. Then the student will need to contact the instructor after the absence to obtain any missing materials. As for notes or other content covered during class, it is the student’s responsibility to gather such material, so going to the instructor and asking for any handouts or materials is the student’s responsibility. Also, having a fellow student from whom the student can get such notes is vital in the event of an absence.

In addition, the JC Respiratory Care Program Student Handbook will be followed closely pertaining to classroom behavior. As stated in the Handbook, "Responsibilities borne by the student in maintaining an optimal learning environment include treating other students, instructors, respiratory therapists, and co-workers (e.g. nurses) with the respect afforded to fellow health care professionals." Mutual respect between the instructor and all students is expected at all times. Disrespect and other disruptive behaviors which inhibit the teaching and learning to which the entire class is entitled will not be tolerated. Any incidents will be handled in keeping with the disciplinary policy spelled out beginning on p. 16 of the JC Respiratory Care Program Student Handbook, and appropriate action taken up to and including class expulsion.


3. Thirdly, assignments or take home quizzes are expected to be handed in on the appropriate due date (which shall be one week from when they are given out in class). They may be handed in any time on the due date up to 4 pm with no penalty. In general, assignments that are late will be subject to a late penalty (5 pts/day deducted from the final grade for that assignment, for up to 8 days late to give a maximum of –40 pts for turn-ins late by one week; assignments turned in later than 8 days will lose an additional 10 pts/week).

Getting Extra Help: (Besides visiting me during office hours)

It can be very frustrating when you do not understand concepts and are unable to complete homework assignments. However, there are many resources available to help you with your study of respiratory care.

- CENTER FOR STUDENT SUCCESS: Tutors (plus additional services for academic success) can be accessed by calling 796-8415 or by stopping by the Center for Student Success, Potter Center, Federer Room C. Arrange to get regular assistance from a tutor. Students requiring special assistance (including those affected by the Americans with Disabilities Act) should contact the Center for Student Success. This is the first step in acquiring the appropriate accommodations to facilitate your learning.

- STUDY GROUP: Find a study partner or a study group. Sometimes it helps to work through problems with another person.

- JETNET: There will be material posted there to help students and allow them to ask questions of the instructor and/or the group.

- EMAIL: The best and quickest way to get a hold of me, besides attending class, of course.

- Redo problems from tests and homework assignments, particularly ones that you got wrong or have trouble understanding. Remember that you must crawl before you can walk. Similarly, you must have a good handle on the basics of respiratory care before you can master the advanced concepts.

EVALUATION

If an accommodation is needed due to a documented disability—physical, learning, or otherwise—contact the Center for Student Success in Walker Hall (796-8415). Accommodations may be provided depending on the disability.

Testable material for unit and final exams will include unit objectives, questions, and the oral review questions from relevant task analyses. Most testable material for unit and final exams is indicated in unit objectives but can also be based
on relevant review questions from RES 104/114 or information previously covered in RES 110, and may include additional material as covered in class outlines and lecture.

**A no show/no call for any scheduled or announced exam/quiz may result in a test grade of zero.** Notification of a desire to schedule a make-up test is to be received prior to the time of the original exam to be routinely eligible for a makeup exam. I may be notified directly or via voice-mail message at (517) 796-8640. By course policy, all first make-up exams lose 8 points from the final grade, a subsequent make-up exam loses 16 points, and a third requested make-up loses 24 points.

Course points are derived from unit quizzes, exams and a comprehensive final exam.

The **tentative** system for evaluation will consist of:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td>Exams</td>
<td>70%</td>
</tr>
<tr>
<td>Quizzes/</td>
<td>10%</td>
</tr>
<tr>
<td>Journal:</td>
<td></td>
</tr>
<tr>
<td>Final:</td>
<td>20%</td>
</tr>
</tbody>
</table>

**GRADING**

There will be weekly online quizzes covering each class’ content. The Quizzes will be available for one week only starting on the Monday the content was covered to the following Sunday and can be taken several times. The highest score will be applied to your grade.

There will be 3 exams plus one final exam. The final exam is comprehensive.

To pass RES 124 the final course average score must be ≥ 76%.

Final Course Average Score = (total pts earned/total pts possible) x 100

**Grading Scale for All Respiratory Care Courses:**

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Score Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0</td>
<td>93 - 100</td>
</tr>
<tr>
<td>3.5</td>
<td>89 - 92</td>
</tr>
<tr>
<td>3.0</td>
<td>84 - 88</td>
</tr>
<tr>
<td>2.5</td>
<td>80 - 83</td>
</tr>
<tr>
<td>2.0</td>
<td>76 - 79</td>
</tr>
<tr>
<td>1.5</td>
<td>73 - 75</td>
</tr>
<tr>
<td>1.0</td>
<td>68 - 72</td>
</tr>
<tr>
<td>0.5</td>
<td>64 - 67</td>
</tr>
<tr>
<td>0.0</td>
<td>Below 64</td>
</tr>
</tbody>
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**Exam Content**

- **Exam one:** Chapters 1-5
- **Exam two:** Chapters 6,7,9,10
- **Exam three:** Chapters 6,7,9,10
- **Final Exam:** Chapters 8,11,12,13,14,16

Students will be expected to complete an evaluation of the course on-line in JetNet at the conclusion of the semester.

In addition to lecture, class participation will be encouraged through discussion, learning games and review of clinical scenarios in order to reinforce class content.

**REQUIRED TEXT**

### RES 124 Respiratory Care Pharmacology TENTATIVE Calendar

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9/7</td>
<td>No class, Labor Day</td>
</tr>
<tr>
<td>2</td>
<td>9/14</td>
<td>Review of Syllabus, Chapter 1 Introduction to respiratory care pharmacology, Chapter 2 Principles of Drug Action, Online Drug quiz</td>
</tr>
</tbody>
</table>
| 3    | 9/21 | Chapter 3 Administration of Aerosolized Agents  
Chapter 5 The CNS & PNS  
**Journal Club Article Notification Due- Monday 9/21**  
Online Quiz |
| 4    | 9/28 | Chapter 4 Calculating Drug Doses  
Online Quiz |
| 5    | 10/5 | MSRC, Exam 1 Chapters 1-5 During RES120 lecture on Wednesday October 7  
On own – videos on JetNet,  
Chapter 6 Adrenergic bronchodilators  
Chapter 7 Anticholinergic bronchodilators  
Online Quiz |
| 6    | 10/12| Chapter 9 Mucus – Controlling Drug Therapy  
Chapter 10 Surfactant Agents  
Online Quiz |
| 7    | 10/19| Chapter 11 Corticosteroids in Respiratory Care  
Chapter 12 Non-steroidal Antiasthma Agents  
Online Quiz |
| 8    | 10/26| **Exam 2 over Chapters 6,7,9,10**  
Class activity – **Journal club presentations** |
| 9    | 11/2 | Chapter 13 Aerosolized anti-infective Agents  
Chapter 14 Antimicrobial Agents  
Online Quiz |
| 10   | 11/9 | Chapter 8 Xanthines  
Chapter 16 Selected Agents of Pulmonary Value (pulmonary HTN, COPD drugs)  
Online Quiz |
| 11   | 11/16| **Exam 3 over Chapters 8,11,12,13,14,16**  
Class Activity- **Journal Club Due** |
| 12   | 11/23| Chapter 18 Skeletal Muscle Relaxants  
Chapter 20 Drugs affecting the CNS  
**Literature Review Due**  
Online Quiz |
| 13   | 11/30| Chapter 21 Vaspressors, Inotropes and Antiarrhythmic Agent  
Chapter 22 Drugs affecting Circulation: Antihypertensives, Antianginals, Antithrombotics  
Online quiz |
<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
</table>
| 14   | 12/7| Chapter 19 Diuretic Agents  
*Literature presentations*  
Final Review |
| 15   | 12/14| Final Exam |