PHA 6639 - Medication Therapy Management: A Respiratory Focus

Course Purpose:
The course is intended to familiarize students with the provision of MTM in patients with respiratory disorders that range from common to complex. The student will gain hands-on practice in the core elements of MTM for patients with neurologic disorders, including conducting a comprehensive medication therapy review, generating a personalized medication record, designing a medication-related action plan, making pharmacotherapy interventions, and documenting the MTM service. The curricular threads of advanced pharmacotherapy knowledge, communication skills, and essential MTM business principles will be emphasized.

Course credits: 3

Course Faculty and Office Hours
Course Coordinator:
Nancy Borja-Hart, PharmD, BCPS
Email: nlborja@yahoo.com
Phone: (904)525-4005

Office Hours
The Course Coordinator is available Mondays, Wednesdays, and Thursdays by appointment only. Please see Appendix A for a listing of all faculty members involved in this team taught course.

Place and Time of Class Sessions

Lectures are prerecorded and posted on the course website in the Sakai eLearning system. Lectures may be viewed at the student’s convenience. The course has one 1.5-hour live online learning session each week. Live sessions are conducted via Adobe Connect and will meet on Sunday evenings from 8 to 9:30 PM EST, or Monday evenings from 9 to 10:30 PM EST, depending on the assigned section.

How This Course Relates to the Learning Outcomes You Will Achieve in MS-MTM Program:
This course prepares the MS-MTM student to accomplish the following abilities and the related Student Learning Outcomes (SLOs) upon graduation: Demonstrate comprehensive knowledge related to a specific discipline within the pharmaceutical sciences. This course is one of a series that will prepare the student to demonstrate comprehensive knowledge in the area of medication therapy management.
Course Objectives

Upon completion of this course, the student will be able to demonstrate the ability to perform the following with respect to neurologic disorders:
1. Recognize areas of pharmacotherapy knowledge essential to the provision of MTM services.
2. Identify clinical practice guidelines and current scientific literature pertaining to the provision of MTM services.
3. Evaluate scientific literature for use in providing up-to-date, evidence-based, and cost-effective MTM services.
4. Communicate effectively with patients when providing MTM services.
5. Identify barriers to patient communication and design strategies to overcome those barriers.
6. Conduct a targeted or comprehensive medication therapy review (MTR).
7. Identify drug-related problems and recommend rational solutions based on a mastery of pharmacotherapy.
8. Create a personalized medication record for an individual patient receiving MTM services.
9. Design a medication-related action plan, taking into account patient abilities and preferences.
10. Educate patients regarding techniques to improve adherence, decrease the risk of adverse drug reactions, and maximize appropriate and safe medication use.
11. Communicate interventions effectively to physicians and other healthcare colleagues.
12. Document MTM services in a manner sufficient for following patient progress, monitoring patient outcomes, and completing billing statements.
13. Utilize sound business principles in the provision of MTM services.

Pre-Requisite Knowledge and Skills
The student must have successfully completed Foundations of MTM I and II.

Course Structure & Outline

Course Structure
The course is offered in a blended learning format that utilizes a combination of live online classroom instruction, self-directed learning (videos, readings, web-based learning), and hands-on experiential activities. To meet the standards for course credit assignment this three-credit course requires a minimum of 48 hours of classroom instruction or the equivalent. Since the face-to-face classroom instruction is less than 48 hours, a number of alternative instructional activities comprise the remainder of the equivalent content and serve to fulfill the curricular equivalency standard. Using a combination of live classroom instruction and alternative methods of instruction ensures that the requirements for course credit assignment are fulfilled. An outline of the course activities and their respective contribution to course credit assignment can be found in the accompanying course schedule document.

Course Outline/Activities

Refer to Appendix B for the course schedule and outline of activities.
Textbooks

Instructors may require additional readings such as clinical guidelines, review articles, book chapters, or websites. They may also provide additional resources to supplement the lecture material. Required or recommended readings will be listed under assignments and responsibilities on the course schedule. The readings will be available under the resources tab on the course website.

Active Learning Requirements
- Discussion board posting (3). All postings need to be done by Sunday evening prior to Adobe Connect session
- Weekly live online learning sessions (6)
- Journal Club
- Case studies- comprehensive medication review (1)
- Quality Assurance

Student Evaluation & Grading

Evaluation Methods

Assignments 25%
- Assignment 1 – Journal Club - 8%
- Assignment 2 – Comprehensive Medication Review- 8%
- Assignment 3 – Quality Assurance Write-up - 9%

Quizzes 10%
- Quiz 1 - 5%
- Quiz 2 - 5%

Class participation 15%
- Discussion board - 3%
- Adobe Connect sessions - 12%

Exams 50%
- Midterm exam - 25%
- Final exam - 25%

Grading Scale

Additional information on minus grades is available on the University of Florida website: http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html.

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<thead>
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<th>Percentage Range</th>
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<tr>
<td>A-</td>
<td>90.0-92.9</td>
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<tr>
<td>B+</td>
<td>86.6-89.9</td>
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<tr>
<td>B</td>
<td>83.3-86.5</td>
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<tr>
<td>B-</td>
<td>80.0-83.2</td>
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<tr>
<td>C+</td>
<td>76.6-79.9</td>
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<tr>
<td>C</td>
<td>73.3-76.5</td>
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<tr>
<td>C-</td>
<td>70.0-73.2</td>
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</table>
D+  66.6-69.9  D   63.3-66.5
D-  60.0-63.2  E   <60

Class Attendance Policy

Attendance at the weekly Adobe Connect sessions is mandatory. Students who miss an Adobe Connect session should contact the facilitator as soon as possible. Upon approval of the facilitator, students may make up a missed session by completing a brief written assignment.

Quiz/Exam Policy

The quizzes, midterm and final examination will be administered online. Online examinations may consist of multiple choice, short answer and/or case-based questions. Thus, online examinations necessitate skills in typing and using a computer. If you do not have strong keyboard skills, please do not delay in contacting the course coordinator. With early intervention you can be directed to Staff members who are equipped to review your needs. Please note that it takes time to build these skills and this is not something that can be done at the last minute. To maintain the highest standards of academic integrity, high stakes online examinations may require the use of a proctoring system. More information on the proctoring system may be found at: http://www.proctoru.com/

Exam grades will be posted within one week of the exam. Notice will be provided to the students if there will be a delay in posting of exam grades.

Students have one week after posting of the exam grades to challenge any exam question. No appeals will be accepted after one week. Written appeals must include the following: the question number, an evidence-based rationale for why the student feels their response is accurate. The exam will be regraded, in full, by a third party. Note: the score of a fully regraded exam may increase, decrease, or stay the same. The regraded score will be considered final.

Make-up Quiz/Exam Policy

Scheduled exams should only be missed for REAL EMERGENCIES. A student who misses an exam should notify the course coordinator via email within 24 hours. Students with an excused absence may be allowed to take a make-up exam. Make-up exams should be arranged with the course coordinator and administered within two weeks of the original exam date.

Policy on Old Quizzes and Assignments

Students will not be provided with old quizzes, exams, or assignments.

Assignment Deadlines

Please submit online assignments early to avert last minute issues with technology. Late submission of assignments will result in a point deduction and may result in a zero grade, depending on the assignment. Students who experience technical difficulty when submitting assignments electronically must notify the course coordinator as soon as possible.
General College of Pharmacy Course Policies

The College of Pharmacy has a website that lists course policies that are common to all courses. This website covers the following:

1. University Grading Policies
2. Academic Integrity Policy
3. How to request learning accommodations
4. Faculty and course evaluations
5. Student expectations in class
6. Discussion board policy
7. Email communications
8. Religious holidays
9. Counseling & student health
10. How to access services for student success

Please see the following URL for this information:
Appendix A: Directions for Contacting Faculty & Course Faculty List

Directions for Contacting Course Faculty
All questions pertaining to course logistics should be posted on the course logistics discussion board. Questions for individual lecturers should be posted on the discussion under the relevant topic, so that classmates may benefit from the discussion. Please do not email the lecturers directly unless directed to do so by the course coordinator.

Course Coordinator

Nancy Borja-Hart, Pharm.D., BCPS
nlborja@yahoo.com
Dr. Nancy Borja-Hart is currently a Pharmacist at Publix Pharmacy. She graduated from the University of Florida (UF) College of Pharmacy in 2005. Following graduation, she completed a one-year residency in Ambulatory Care at Nova Southeastern University College of Pharmacy and obtained a position as an Assistant Professor at the University upon residency completion. Previous work experiences include Assistant Director of Research at Medimix Specialty Pharmacy and Clinical Site Manager/Scientific Director at East Coast Institute for Research. She became a Board Certified Pharmacotherapy Specialist in 2008. Dr. Hart is an active member of pharmacy organizations on a state and national level. Her research interests include medication therapy management, ambulatory care, diabetes, immunizations, and women’s health.

Instructors

Maria Braden, PharmD, CPh
mariaecalifornia@yahoo.com
Dr. Braden is currently an Adjunct Professor at Nova Southeastern University Farquhar College of Arts and Sciences, teaching in the Math, Science, and Technology Department. She is also pursuing a Master of Science in Medical Education. Dr. Braden has practiced in community since graduating with her Doctor of Pharmacy from Nova Southeastern University College of Pharmacy, in 2008. She has practiced in multiple community-based pharmacy settings including remote verification, independent pharmacy, and traditional community pharmacy. Dr. Braden has pursued further expertise by obtaining certificates in Physical Assessment and Medication Therapy Management, as well as becoming a consultant pharmacist. Dr. Braden has been actively involved with transitional care, community health management, and providing outcomes focused pharmacist directed services including MTM, anticoagulation, and diabetes monitoring.
Cathy Clark, RRT, AE-C
Cathy.clark@bmcjax.com
Registered Respiratory Therapist (RRT) for 13 years and a Certified Asthma Educator (AE-C) since 2009. I have re-established the asthma program at Wolfson Children’s Hospital. My responsibilities include educating patients, families, and staff on the floors, PICU and ED. I am active in the Florida Asthma Coalition and the Association of Asthma Educators.

Lisa Clayville, PharmD
clayville@cop.ufl.edu
Dr. Clayville Martin received her Doctor of Pharmacy in 2007 from the University of Maryland, completed a PGY1 residency in Ambulatory Care at Florida Hospital Celebration Health, and joined the UF faculty in the fall of 2008. Dr. Clayville is a Clinical Assistant Professor in the Department of Pharmacotherapy and Translational Research at the University of Florida College of Pharmacy. She currently coordinates the immunization training of all UF PharmD students and has an MTM clinic at the Walt Disney World Resort in Lake Buena Vista Florida.

Angela S. Garcia, PharmD, CPh
asgarciapharmd@gmail.com
Dr. Garcia received her Doctor of Pharmacy from Nova Southeastern University College of Pharmacy, as well as, completed a Specialized Drug Information Residency. Currently, she is an Assistant Professor at Nova Southeastern University College of Pharmacy practicing in the Center for Consumer Health Informatics Research. Dr. Garcia is completing her Master of Public Health through Nova Southeastern University College of Medicine, where her directed focus of study and research is in public health informatics with a concentration in asthma self-management. She is a working member of the Florida Asthma Coalition, South Florida Asthma Consortium and has been a Community Champion in Asthma Management with Broward County Public Schools since 2008. Dr. Garcia has been a recipient of several honors of distinction including Distinguished Young Pharmacist (2011) and Golden Apple Excellence in Teaching (2011). She is a certified Immunizing Pharmacist, received her certificate in Medication Therapy Management and also holds a license to practice pharmacy in Kansas. Dr. Garcia is the Co-Director for the Women of HOPE/NSU Jamaica Medical Mission, which constitutes of an interdisciplinary team traveling twice annually to provide acute clinic care to indigent patients in rural areas of the island. She serves as a preceptor in Advanced Pharmacy Practice Experiences and co-precepts Field Experiences for students in the NSU MPH program. Her work has appeared in peer-reviewed journals, online textbooks, and in online publications, and she has partnered with practitioners from multiple health professions to provide didactic lectures, continuing education and grant collaborations.

Patricia Louzon, PharmD, BCPS
patricia.louzon@flhosp.org
Dr. Patricia Louzon received her Doctor of Pharmacy from the University of Florida College of Pharmacy in 2007. She completed a PGY-1 Pharmacy Residency and a PGY-2 Critical Care Specialty Residency at Orlando Regional Medical Center in Orlando, FL. Dr. Louzon joined Florida Hospital in Orlando in 2009 as a Critical Care Clinical Specialist. She is an active member of Society of Critical Care Medicine (SCCM), American Society of Health-System Pharmacists and Florida Society of Health-System Pharmacists. Articles by Dr. Louzon have been published in SCCM’s national newsletter and in Hospital Pharmacy. In addition to her position at Florida Hospital, Dr. Louzon is also a Clinical Assistant Professor, teaching at the University of Florida College of Pharmacy.
Maria Maniscalco, PharmD
maria.maniscalco@gmail.com
Dr. Maniscalco earned her Bachelors of Pharmacy in 1997 and practiced in a supermarket pharmacy while attending courses to complete her Doctor of Pharmacy degree in 2002 from St. John’s University, N.Y. She completed a Pharmacy Specialty Residency in Ambulatory Care from 2002-2003 with Dr Karen Whalen at Nova Southeastern University (NSU). Dr Maniscalco completed training and received certificates for the following American Pharmacist Association (APhA) programs: Asthma, Diabetes, Immunizations, Medication Therapy Management and NSU Physical Assessment Institute. Dr. Maniscalco is currently a Clinical Pharmacist for XLHealth Care Improvement Plus where she performs Medication Therapy Management via telepharmacy services. She, along with Mike Schuh, PharmD, MBA, are developers and co-ordinators of the APhA APPM Medication Management Special Interest Group (SIG) as well as she this past year, she created and is currently the Chair of the MM SIG Telehealth Committee. Since 2005, Dr. Maniscalco has served as a Board member of the South Florida American Lung Association and continues to volunteer her time to assist with community outreach programs such as a Asthma 101 and COPD Better Breathers club.

Jane McLaughlin-Middlekauff, PharmD, BCACP
janerpharm@yahoo.com
Dr. Jane McLaughlin-Middlekauff earned her Doctor of Pharmacy degree from Drake University in Des Moines, Iowa. She became a Board Certified Ambulatory Care Pharmacist (BCACP) in 2011. Dr. McLaughlin-Middlekauff was an Assistant Professor in the Department of Pharmacy Practice at Nova Southeastern University (NSU) and her clinical practice site at NSU Clinic Pharmacy offered Medication Therapy Management (MTM) and preventative care screenings. She had been an active duty United States Public Health Service (USPHS) Officer working for the Indian Health Service (IHS) in Anchorage, Alaska. During her six years at Alaska Native Medical Center (ANMC), she provided pharmacy services and education to Alaska Native and American Indian patients in the areas of pediatrics, family medicine and anticoagulation.

Charles Peloquin, PharmD
peloquin@cop.ufl.edu
Prior to coming to the University of Florida, Peloquin completed a hospital pharmacy residency at Duke University Medical Center, where he also served on the clinical staff. Peloquin completed a fellowship in Infectious Diseases and Pharmacokinetics at the Clinical Pharmacokinetics Laboratory, Millard Fillmore Hospital, Buffalo, N.Y. For 20 years, he was the Director of the Infectious Disease Pharmacokinetics Laboratory (IDPL) at National Jewish Medical and Research Center, Denver, CO. He now serves as Professor of Pharmacy and Medicine at UF, where the IDPL is now located. Peloquin and his lab are part of the UF Emerging Pathogens Institute. He also is a consultant to the FDA and CDC.

Karen R. Sando, PharmD, BCACP, CDE
ksando@cop.ufl.edu
Dr. Sando joined the UF faculty in September 2010. She earned an Associate of Arts in Pre-Pharmacy at St. Peters burg College in 2004. She went on to the University of Florida and graduated in 2008 with a Doctor of Pharmacy. After completing pharmacy school, she completed a residency specializing in Ambulatory Care through the University of Florida. After her residency, she worked for Shands Jacksonville in the UF Family Medicine clinic conducting pharmacy services in anticoagulation, pain management, and diabetes. Dr. Sando currently is the coordinator for clinical pharmacy services for Area Health Education Centers (AHEC). She offers pharmacist-run services in diabetes,
anticoagulation, hypertension, hyperlipidemia, and smoking cessation at a UF Health Family Medicine clinic outside of Gainesville, FL. Dr. Sando also serves as a preceptor for 4th year pharmacy students on ambulatory care rotation. She also serves as residency program director for a PGY-2 in ambulatory care.

**Michael J. Schuh, BS, PharmD, MBA**  
**schwaRx1@comcast.net**  
Dr. Schuh received a Bachelor of Science in pharmacy from the University of Florida in 1982. He obtained a Master’s of Business Administration from the University of Phoenix in 2001 and a Doctor of Pharmacy from Nova Southeastern University in 2006. Dr. Schuh holds a Florida Pharmacist Consultant License and a Florida Pharmacist license. He is the former Outpatient Pharmacy Operations Manager of Mayo Clinic Jacksonville and has managed various other chain and independent pharmacies in the state of Florida in his career. Dr. Schuh is a clinical, ambulatory pharmacist and an Assistant Professor of Pharmacy, Family and Palliative Medicine at Mayo Clinic Florida. Currently, he serves as the primary clinical provider and coordinator of Mayo Clinic Florida’s MTM pharmacy practice serving lung, kidney and liver transplant, bariatric, pain rehabilitation, and pharmacotherapy patients. On a national level he is past Chair of APhA’s Academy of Pharmacy Practice and Management Administrative Section and an APhA Congressional Key Contact. He has served as an active member of APhA’s MTM Task Force and is co-founder and co-coordinator of the new APhA Medication Therapy Management Special Interest Group. Dr. Schuh is also a Clinical Assistant Professor of Pharmacy Practice at the University of Florida, and holds clinical appointments at other leading universities.

**Jennifer Wellborn-Kim, PharmD, BCPS**  
**Jenniferkim06@gmail.com**  
Dr. Wellborn-Kim is currently a Board-Certified Clinical Pharmacy Specialist at Boca Raton Regional Hospital. She obtained her pharmacy doctorate from the University of Florida College of Pharmacy, and thereafter completed a PGY-1 pharmacy residency at Indian River Medical Center. Dr. Wellborn has gained teaching experience as an Assistant Professor of Pharmacy Practice at Nova Southeastern University College of Pharmacy and has also worked as a Clinical Pharmacy Coordinator at Coral Springs Medical Center.
## Appendix B. Schedule of Course Activities/Topics

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<th>Week</th>
<th>Module</th>
<th>Lecture Topic</th>
<th>Lecturer</th>
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<tr>
<td>1</td>
<td>Introduction to Respiratory</td>
<td>1.1 Course Intro/Expectations</td>
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<td>1.2 Meet the Experts</td>
<td>Whalen/Clark</td>
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<td>1.3 Practice Perspectives</td>
<td>Maniscalco</td>
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<td>2</td>
<td>Drug Literature Evaluation</td>
<td>2.1 Expanding on Methods &amp; Results</td>
<td>Garcia</td>
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<tr>
<td></td>
<td>Review</td>
<td>2.2 Data, Design, &amp; Biostatistics</td>
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<td>2.3 Applied Evaluation</td>
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<td>2.4 Clinical Interpretation</td>
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<td>Respiratory Disorders I</td>
<td>3.1 Assessment of Lung Function</td>
<td>McLaughlin-Middlekauff</td>
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<td>3.2 Asthma – Part I</td>
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<td>3.3 Asthma – Part II</td>
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<td>3.4 COPD</td>
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<td>Respiratory Disorders II</td>
<td>4.1 Allergic Rhinitis</td>
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<td>4.2 Smoking Cessation</td>
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<td>4.3 Pulmonary Arterial HTN</td>
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<td>Respiratory Illness in Practice</td>
<td>5.1 Respiratory Delivery Devices</td>
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<td>5.2 Business Thread - QA</td>
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<td>5.3 Anaphylaxis Management</td>
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<td>5.4 Respiratory MTM Cases</td>
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<td>Intro to Respiratory Infectious Disease</td>
<td>6.1 Immunizations I</td>
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<td>6.2 Immunizations II</td>
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<td>6.3 Influenza</td>
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<td>Respiratory Infectious Disease</td>
<td>7.1 Sinusitis/URI</td>
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### Assignments and Learning Responsibilities:

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<tr>
<th>Week</th>
<th>Reading Assignment</th>
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<tr>
<td>1</td>
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<tr>
<td>1/6-1/12 (5 hours)*</td>
<td>Review course syllabus</td>
<td>View all lectures for week 1</td>
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<td>MTM Core Elements. Version 2.0. on APhA webpage</td>
<td>Complete assigned readings</td>
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<td>Discussion board posting</td>
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<td>Adobe Connect session 1.5 hours</td>
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<td>2</td>
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<td>View all lectures for week 2</td>
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<td>1/13-1/19 (7 hours)*</td>
<td>Articles posted in Resources folder</td>
<td>Complete assigned readings</td>
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<td></td>
<td>Adobe Connect session 1.5 hours</td>
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<tr>
<td>3</td>
<td></td>
<td>View all lectures for week 3</td>
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</table>
| 1/20-1/26 (7 hours)* | 1. DiPiro Chapter 32 – Pulmonary Function Testing  
2. DiPiro Chapter 33 – Asthma; EPR-3 Guidelines  
3. DiPiro Chapter 34 – COPD; GOLD Guidelines | Complete assigned readings |
|       |                    | Adobe Connect session 1.5 hours |
|       |                    | Discussion board posting  
Complete assignments  
• Journal Club  
QUIZ |
| 4    |                    | View all lectures for week 4 |
| 1/27-2/2 (7 hours)* | 1. DiPiro Chapter 104 – Allergic Rhinitis  
|       |                    | Discussion board posting  
Adobe Connect session 1.5 hours |
|       |                    | MIDTERM EXAM |
| 5    |                    | View all lectures for week 5 |
| 2/3-2/9 (7 hours)* | 1. http://www.ahrq.gov/  
3. DiPiro Chapter 97 – Anaphylaxis; 2012 WAO Guidelines | Complete assigned readings |
|       |                    | Adobe Connect session 1.5 hours  
Complete assignments  
• Comprehensive med review |
| 6    |                    | View all lectures for week 6 |
| 2/10-2/16 (7 hours)* | 1. http://www.cdc.gov/vaccines  
2. DiPiro Chapter 118 – Influenza; Chapter 133 – Vaccines, Toxoids, and Other Immunobiologics | Complete assigned readings |
|       |                    | Adobe Connect session 1.5 hours  
Complete assignments  
• QA  
QUIZ |
| 7    |                    | View all lectures for week 7 and 8 |
| 2/17-2/23 (8 hours)* | 1. DiPiro Chapter 117 - Upper Respiratory Tract Infections  
3. DiPiro Chapter 121 - Tuberculosis | Complete assigned readings |
|       |                    | FINAL EXAM |

*Contribution to course credit assignment
All assignments will be released on Sakai at least two weeks prior to due date. Reading assignments not contained in the required text will be posted in the Resource folder designated for that week of class. **All assignments should be completed on an individual basis unless otherwise specified.**