Course Purpose: Provide pharmacy students with a comprehensive understanding of Medication Therapy Management and how to provide this service in a safe, timely, efficient, effective, equitable and patient-centric manner. The course will provide insight into the role of payer, provider, practice site, reimbursement, performance improvement, patient characteristics and pharmacotherapy needs play in conducting the comprehensive medication review and creating a Personal Medication List, Medication Action Plan and physician communication.

Course Faculty and Office Hours

Course Coordinator:
David Angaran, MS, FSHP, FCCP
Clinical Professor
Department of Pharmacotherapy & Translational Research
Office: Room 2222 ECOB Bldg. 1608
Phone: (352) 273-6231
Email: angaran@cop.ufl.edu

Course Co-Coordinator:
Karen D. McLin, PharmD
Director, MTM Communication and Care Center
Pharmacotherapy and Translational Research
University of Florida College of Pharmacy
352-273-6878 (office)
352-273-9658 (fax)
kmclin@cop.ufl.edu
http://mtmccc.pharmacy.ufl.edu

Office Hours
Office Hours: 4-5 PM EST on Wednesday and by appointment

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. There will be two, 1.5 hour, online class meetings per week. During that time case discussions will be reviewed that cover the assigned readings, lectures and cases.
How This Course Relates to the Learning Outcomes You Will Achieve in the Pharm.D. Program:

This course prepares the Pharm.D. student to accomplish the following abilities and the related Student Learning Outcomes (SLOs) upon graduation:

**Domain 2 – Essentials for Practice and Care**

2.1. Patient-centered care (Caregiver) - Provide patient-centered care as the medication expert (collect and interpret evidence, prioritize patient needs, formulate assessments and recommendations, implement, monitor and adjust plans, and document activities).

**Domain 3 - Approach to Practice and Care**

3.1. Problem Solving (Problem Solver) – Identify and assess problems; explore and prioritize potential strategies; and design, implement, and evaluate the most viable solution.

**Course Objectives**

Upon completion of this course, the student will be able to:

- Detail the current and possible future status of Medication Therapy Management programs
- Compare and contrast Part D MTM vs. other MTM programs and the various providers
- Describe the content and purpose of the Comprehensive Medication Review, Personal Medication List and Medication Action Plan
- Provide MTM services for any mode of information collection and exchange
- Adapt the MTM practice model to the practice site, payer, provider, patient centric needs and business plan
- Create an MTM plan that will deliver the service in a safe, timely, efficient, effective, equitable and patient-centric manner
- Provide MTM documentation that is clear, concise, credible, convincing and risk management appropriate
- Apply motivational interviewing skills to patient interviewing.
- List barriers to providing MTM, in the various practice settings, with proposed solutions.
- Create a MTM minimum data set for a disease state.

**Pre-Requisite Knowledge and Skills**

- Rising 3-PD year

**Course Structure & Outline**

**Course Structure:**

Twice a week on line, Adobe Connect, 1.5 hour group discussion sessions.
1) Chapter Video: Each assigned chapter from the MTM text will have a 50 minute video lecture done for viewing one week prior to the online discussion.
2) Case study: Each lecture will have a case study for completion by the students and discussion
3) Online class sessions: Twice a week. Discussion of case which supports the assigned chapter.
4) Instructors: See Appendix B

Quizzes
1) 10 multiple choice questions posted on line.
2) Once a week and covers 2 chapters.
3) Posted on line for 2 hours.

Course Outline/Activities: See appendix B.

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
- Flipped classroom design:
  o Lecture pre-recorded and viewed by student prior to class
  o Student completes case that requires application of content of recorded lecture
  o On-line classroom: Using case as discussion focus, in addition to other clarifying information
- Case studies that require:
  o Creating an MTM practice model that is appropriate for the case practice setting, business plan and patient characteristics
  o Creating a Personal Medication List, Medication Action Plan and Physician communication
  o Applying written and verbal communication skills
  o Using performance measures to assess and improve MTM practice
  o Applying pharmacotherapy, business and performance measures to conducting the comprehensive medication review
- Pharmacotherapy problem solving
Create a therapeutic plan that is adapted to, not only the disease(s) but the patient’s socio-economic status, values, and personal preferences.

Feedback to Students
- Cases will be graded
- Case discussion session responses and dialogue
- Written comments on assignments
- Discussion board

Students will be provided written feedback on all assignments via the eLearning system. In general, written feedback can be expected within one week of assignment submission. In addition, students may schedule an appointment with the facilitator and/or instructor if they wish to obtain more detailed verbal feedback. Feedback on exams and quizzes will be available via the eLearning system after 12 noon on the day following the exam or quiz.

Student Evaluation & Grading

Evaluation Methods

Written Assignments 30%
- MTM practice Model 2.5%
- Comprehensive Medication Review 10%
- Personal Medication List 5%
- Medication Action Plan 5%
- Physician communication 5%
- Care plan 2.5%

Quizzes 30%
- Week 2 - 5%
- Week 3 - 5%
- Week 4 - 5%
- Week 5 - 5%
- Week 6 - 5%
- Week 7 - 5%

Exams 40%
- Midterm Exam - 15%
- Final Exam - 25%

Grading Scale

Additional information on minus grades is available on the University of Florida website: 

A 93-100  A- 90.0-92.9
B+ 86.6-89.9  B  83.3-86.5
B- 80.0-83.2  C+ 76.6-79.9
Class Attendance Policy

Students can miss one of the on-line case discussions. Notification of absence, by email, is required a minimum of 2hrs before class. For each class missed, beyond 1, will result in a 5% reduction in the grade.

Quiz/Exam Policy

The quizzes, midterm exam and final 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/

Quiz 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 quiz grades.

Students have one week after posting of the quiz 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
11. Faculty Lectures/Presentations Download Policy

Please see the following URL for this information:

Complaints
Should you have any complaints with your experience in this course please contact your course coordinator. If unresolved, contact the COP Senior Associate Dean-Professional Affairs. For unresolved issues, see:
http://www.distancelearning.ufl.edu/student-complaints to submit a complaint.
Appendix A: Directions for Contacting Faculty & Course Faculty List

Course Coordinator:
David Angaran, MS, FSHP, FCCP
Clinical Professor
Department of Pharmacotherapy & Translational Research
Office: Room 2222 ECOB Bldg. 1608
Phone: (352) 273-6231
Email: angaran@cop.ufl.edu

Directions for Contacting Course Faculty
Course faculty may be contacted through the use of their e-mail. Phone contacts and in person meetings are at the discretion of the instructor.

Instructors
Teresa E. Roane, PharmD, BCACP Clinical Assistant Professor email: troane@cop.ufl.edu

Anna Hall, PharmD, BCACP Clinical Assistant Professor email: ahall@cop.ufl.edu

Heather Hardin, PharmD, BCACP Clinical Assistant Professor email: hhardin@cop.ufl.edu

Karen D. McLin, PharmD Director, MTM Communication and Care Center kmclin@cop.ufl.edu

David Angaran, MS, FASHP, FCCP Clinical Professor email: angaran@cop.ufl.edu

Karen Whalen, Pharm.D. BCPS, CDE Clinical Associate Professor email: whalen@cop.ufl.edu

Alexander Miguel, Pharm D Staff MTM Center email: amiguel@cop.ufl.edu
### Appendix B. Schedule of Course Activities/Topics

<table>
<thead>
<tr>
<th>Week</th>
<th>Instructor</th>
<th>Learning Activities/Topic</th>
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</thead>
<tbody>
<tr>
<td>1a</td>
<td>Angaran</td>
<td>Introduction to Course, Meet students/instructors</td>
</tr>
<tr>
<td>1b</td>
<td>Angaran</td>
<td>MTM Overview Chapter 2</td>
</tr>
<tr>
<td>2a</td>
<td>Roane</td>
<td>MTM Practice Model Chapter 3</td>
</tr>
<tr>
<td>2b</td>
<td>Hall</td>
<td>Quality Performance Improvement Chapter 4, Quiz on-line: Chapter 2/3</td>
</tr>
<tr>
<td>3a</td>
<td>McLin</td>
<td>Payer perspective Chapter 5, Quiz on line: Chapter 4</td>
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<tr>
<td>3b</td>
<td>Angaran</td>
<td>Physician perspective Chapter 6</td>
</tr>
<tr>
<td>4a</td>
<td>Hardin</td>
<td>Comprehensive Medication Review Chapter 7, Quiz on line: Chapter 5/6</td>
</tr>
<tr>
<td>4b</td>
<td>Angaran</td>
<td>Documentation Chapter 9</td>
</tr>
<tr>
<td>5a</td>
<td>Alexander</td>
<td>Communication Chapter 8, Quiz on line: Chapter 7/9</td>
</tr>
<tr>
<td>5b</td>
<td>Miguel</td>
<td>Reimbursement Chapter 10</td>
</tr>
<tr>
<td>Mid</td>
<td>Angaran</td>
<td>Material from Weeks 1-4</td>
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<tr>
<td>Term</td>
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<tr>
<td>Exam</td>
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<tr>
<td>6a</td>
<td>Whalen</td>
<td>Minimum Data Sets Chapter 12, Quiz on line: Chapter 8/10</td>
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<tr>
<td>6b</td>
<td>Whalen</td>
<td>MDS Diabetes Chapter 21</td>
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<tr>
<td>7a</td>
<td>TBD</td>
<td>MDS Heart Failure Chapter 25, Quiz on line: Chapter 12/21</td>
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<tr>
<td>7b</td>
<td>Whalen</td>
<td>MDS Hypertension Chapter 27</td>
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<tr>
<td>8a</td>
<td>TBD</td>
<td>MDS COPD Chapter 17, Quiz on line: Chapter 25/27</td>
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<tr>
<td>8b</td>
<td>Angaran</td>
<td>Complicated patient Chapter 11</td>
</tr>
<tr>
<td>Final</td>
<td>Angaran</td>
<td>Material from Weeks 5-8</td>
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<tr>
<td>Exam</td>
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Instructors role:

- **Video lecture of assigned chapter (50 minutes):** Posted on line at least 2 weeks prior to class
- **Prepare Case that requires the student apply the information presented in the Video Lecture of the chapter (Posted 2 weeks before on line session is due):** Video and case should be posted at the same time.
  - 400 word, 12 point, case background description
  - No more than one page total
  - 5 questions to be answered: Short answer, not multiple choice.
  - PPT overview of case, questions answers and additional slides you want to emphasize or expand on material
- **On line class meeting**
  - Purpose: Discussion of case
  - Use PPT and review case
- **Quiz:** Completed 2 weeks before class.
  - Short 3 sentence max, stem for questions.
  - 5 multiple choice questions on chapter/case
  - 5 choices per question
  - 1 correct answer.
- **Mid Term and Final Exam:** 2 weeks prior to Mid Term and Final Exam
  - Final exam is cumulative but you will only write for either mid or final exam, not both
  - 4 sentence max, stem.
  - 5 multiple choice questions on chapter/case (Different than Quiz questions)
  - 5 choices per question
  - 1 correct answer.
- **Student Communication**
  - Answer questions, by e mail or phone.
    - About your presentation, case, quiz and exam
    - Referred from discussion board, by TA