Course Coordinators:

Shawn D. Anderson, Pharm.D.
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Course Instructors

Edith Arthur, Pharm.D.
After completing pre-pharmacy coursework at the University of Georgia, Dr. Edith Kavanaugh Arthur went on to graduate in 2006 with honors from Mercer University's Southern School of Pharmacy in Atlanta, Georgia. Following graduation, Arthur moved to Birmingham, Alabama to pursue a post-graduate year one pharmacy practice residency at the University of Alabama Birmingham Hospital. After completion of her residency, Arthur accepted a position at Shands Jacksonville Medical Center as an inpatient practitioner, specializing in internal medicine and nephrology. Over the last five years at Shands, Dr. Arthur has continued to develop her practice and further her education. In June of 2011 Arthur was awarded the preceptor of the year by the pharmacy residency class.

Eric Dietrich, Pharm.D.
Dr. Dietrich is a Post-doctoral Fellow in the Departments of Pharmacotherapy and Translational Research and Community Health and Family Medicine, Colleges of Pharmacy and Medicine. Eric has lectured for the University of Florida College of Pharmacy for Pharmacotherapy II and III and is currently involved with research projects in anticoagulation and the treatment of high blood pressure. Eric is a member of the American College of Clinical Pharmacy (ACCP), APhA, FSHP, and is a reviewer for the Annals of Pharmacotherapy. Eric also precepts third and fourth year University of Florida College of Pharmacy students for their Ambulatory Care rotation at the Fourth Avenue Family Medicine Clinic located in Gainesville, FL.

Paul Doering, M.S.
Paul Doering is a Distinguished Service Professor, Emeritus in the Department of Pharmacotherapy and Translational Research at the University of Florida's College of Pharmacy. For 28 years he was the Director or Co-Director of the statewide Drug Information and Pharmacy Resource Center at the Health Sciences Center, University of Florida. Over the years, Professor Doering has received numerous honors and awards. He was awarded Teacher of the Year five separate times and in 2007 he was named a member of the University of Florida’s Academy of Distinguished Teaching Scholars. Paul is now enjoying his “retirement” years and is continuing his work with students and pharmacists through lectures, seminars, and other such things.

Fallon Enfinger, Pharm.D., CDE
Dr. Enfinger is a Clinical Assistant Professor at Lake Erie College of Osteopathic Medicine (LECOM) School of Pharmacy in Bradford, FL. She received her Doctor of Pharmacy degree from the University of Florida College of Pharmacy St. Petersburg campus in 2008. She completed a specialized pharmacy residency in Ambulatory Care through the University of Florida & Shands Eastside Community Practice in Gainesville, Florida in 2009. Her clinical experience includes managing several pharmacotherapy clinics including diabetes, hypertension, hyperlipidemia,
anticoagulation, and polypharmacy. She has developed and implemented a new pharmacotherapy clinic within Bayfront Medical Center's Family Medicine Residency program and recently became a Certified Diabetes Educator (CDE). Her teaching experience includes lecture topics relevant to primary care pharmacotherapy (diabetes, men's health, urinary incontinence, gout, pregnancy and lactation), health literacy and health disparities; she also precepts student pharmacists for their ambulatory care rotations.

**Erica M. Fernandez, Pharm.D., BCPS**
Dr. Fernandez is a Critical Care Pharmacy Specialty Resident at the Malcom Randall VA. Dr. Fernandez graduated from the University of Florida. She completed her first year residency at Malcom Randall VA with concentrations in critical care and infectious disease. She is currently completing her second year residency in critical care at the Malcom Randall VA. Her interests include nosocomial infectious diseases affecting the critical care population and advanced life support pharmacological management. She was a guest lecturer for the pharmacotherapy course at UF, presenting on acute renal failure.

**Reginald F. Frye, Pharm.D., Ph.D.**
Reginald F. Frye is an associate professor in the Department of Pharmacotherapy and Translational Research at the University of Florida College of Pharmacy. Before holding his current position, he was on the faculty at the University of Pittsburgh School of Pharmacy. The focus of his clinical research program is on evaluating factors that contribute to variability in drug response through modulation of drug metabolizing enzymes and transporters. Such factors may influence response by affecting the ability of an individual to eliminate or metabolize drugs and include genetics (pharmacogenetics), age, and disease states (e.g., liver disease, heart failure, and renal disease). He has published more than 100 peer-reviewed research publications and several book chapters. Dr. Frye is an editorial board member for journals including Pharmacotherapy and has been a reviewer on NIH study sections. The pharmaceutical industry, private foundations, and the NIH have funded his research.

**Michael Gillette, Pharm.D., BCPS, BCACP**
Dr. Gillette is a post-doctoral fellow specializing in cardiovascular pharmacotherapy at the Malcom Randall VA Medical Center in Gainesville, FL. He previously received his Pharm.D. from Nova Southeastern University before going on to complete a pharmacy practice residency with an emphasis in acute care at the Malcom Randall VA Medical Center. He is board certified in both pharmacotherapy and ambulatory care and has served as the guest lecturer for the renal failure case at the University of Florida.

**Lisa Inge, Pharm.D., BCPS, BCACP, AAHIVE**
Dr. Inge is a Clinical Associate Professor, she joined the UF faculty as the Assistant Director of the Jacksonville campus in 2004. She earned a Bachelor of Science in Medical Technology at the State University of New York Plattsburgh with a 14 month clinical internship component completed at Duke University Medical Center. After practicing at Duke as a clinical microbiologist for a number of years, she completed her Doctor of Pharmacy at Campbell University College of Pharmacy in 2000. She then completed an infectious disease residency at the Mayo Clinic in Rochester, Minnesota. After her residency, she worked for Shands Jacksonville as an ambulatory pharmacist with her clinic position in the UF CARES/Rainbow Center, an HIV clinic serving over 900 patients including women and children. After two years she took a grant supported position as the full-time clinical pharmacist in the UF CARES/Rainbow Center while working part-time for the UF College of Pharmacy in Jacksonville as facilitator faculty. In 2004, she took a full-time faculty position in her current position.

**Larry Lopez, Pharm.D., FCCP**
Dr. Lopez joined the faculty of the University of Florida College of Pharmacy in September, 1979, after completing requirements for his post-baccalaureate Doctor of Pharmacy degree. Before accepting the faculty appointment he had worked as a community pharmacist and a hospital pharmacist for nearly 10 years. He received his high school diploma in 1964 from Jesuit High School in Tampa, Florida and his Bachelor of Science in Pharmacy from the University of Florida College of Pharmacy in 1969. Dr. Lopez retired from the faculty on November 30, 2011, after 32 years of service.

While a member of the faculty Dr. Lopez was responsible for teaching a number of topics related to the pharmacotherapy of both general internal medicine and cardiovascular disorders for the Colleges of Pharmacy and Medicine. He also maintained a clinical practice in Internal Medicine and Anticoagulation at that same hospital for the last 10 years of his appointment. Dr. Lopez served as Chairman of the Department of Pharmacy Practice from January, 1997 until July, 2002, Associate Chair of the same department from July, 2002, until July, 2011, when he once again assumed the position of Department Chairman until his retirement later that year. Dr. Lopez is married to Patricia Garrett, a teacher of French at Buchholz High School in Gainesville, Florida. They have two children, Lisa Marie, a Certified Dietician with the Alaska Native Medical Center in Anchorage, Alaska, and Laura Michelle (deceased).
Dr. Lopez’s research revolved primarily around clinical evaluations of new therapeutic modalities for management of myocardial ischemia and/or congestive heart failure. He received over 30 grants and contracts for support of his work in these areas and published approximately 130 abstracts, articles, monographs, and chapters on these and other topics as well. Dr. Lopez has been recognized for his research accomplishments by being named as a Fellow of the American College of Clinical Pharmacy and the American Society of Hypertension. He was Board Certified as a Pharmacotherapy Specialist in October, 2004.

**Michael J. Schuh, Pharm.D., MBA**

Dr. Schuh has more than 25 years experience managing pharmacies and small businesses. Dr. Schuh received a Bachelor of Science in Pharmacy from the University of Florida in 1982. He obtained a Masters of Business Administration from the University of Phoenix in 2001 and Doctor of Pharmacy from Nova Southeastern University in 2006. Dr. Schuh has a Florida Pharmacist Consultant License and a Florida Pharmacist license and has authored or co-authored many publications.

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. Currently Dr. Schuh is an ambulatory/outpatient pharmacist at the Mayo Clinic and former Vice President of Operations and Finance for Advanced Audio-Medical, Inc. He is an active member of the Northeast Florida Society of Health System Pharmacists, Florida Society of Health System Pharmacists, Duval County Pharmacists Association, and Florida Pharmacy Association. On a national level he is current 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 cofounder and co-coordinator of the new APhA Medication Therapy Special Interest Group. For 2011 he was appointed to the National Quality Forum’s Evaluation Advisory Panel.

Dr. Schuh has received academic appointments of Assistant Professor of Family and Palliative Medicine and Assistant Professor of Pharmacy at the Mayo College of Medicine, Clinical Assistant Professor of Pharmacy Practice at the University of Florida and also serves as an Adjunct Professor and Coordinator of the new University of Florida Master of Science in Pharmacy Medication Therapy Management program. He is a Clinical Associate Professor at Wingate University, Clinical Assistant Professor at Palm Beach Atlantic University, Sullivan University and Clinical Assistant Professor at Virginia Commonwealth University. Outside of pharmacy, he is an Adjunct Professor of Nutrition Health and Wellness, Business Management and Nursing Pharmacology at DeVry University. His interests are Medication Therapy Management, Entrepreneurship, Ambulatory Care, Pharmacy Administration and Management, Pharmacy Business Models and Structure, Pharmacoeconomics, Pharmacy/Business Interfacing, and participating in local, state and national pharmacy organizations.

**Lisa Vandervoort, Pharm.D.**

Dr Vandervoort received her Doctor of Pharmacy degree from the University of Florida College of Pharmacy in 1995 and completed a Pharmacy Practice Residency at Shands Hospital at the University of Florida in 1996. She spent 10 years as the Clinical Specialist in Infectious Disease/Internal Medicine at Orlando Regional Medical Center. For the past 5 years Dr Vandervoort has been a Clinical Assistant Professor at the University of Florida both at the Orlando Campus and with the WPPD program. Her primary interests include pharmacokinetics, infectious disease and internal medicine.

**Katherine Vogel Anderson, Pharm.D.**

Dr. Vogel Anderson earned her Bachelor of Science degree in biochemistry, with a minor in math, from the Florida State University in 1999. In 2003, Dr. Vogel Anderson graduated with her doctorate of pharmacy degree from the University Of Florida College Of Pharmacy. Following this, Dr. Vogel Anderson completed a primary care pharmacy residency at the Malcom Randall Veterans Affairs Medical Center in Gainesville. After her residency, Dr. Vogel Anderson accepted a clinical pharmacy specialist position at the same VA, in the pharmacotherapy clinic, where she specialized in anticoagulation management. She held this position for five years, before transferring to the VA geriatric primary care clinic, where she managed anticoagulation, hypertension, and diabetes, among other disease states, as part of a multi-disciplinary health care team. Dr. Vogel Anderson joined the Gainesville UF faculty in April, 2010. In addition to her teaching responsibilities, Dr. Vogel Anderson practices at the Shands Internal Medicine Outpatient Clinic, where she manages an anticoagulation/pharmacotherapy service.

**Karen Whalen, Pharm.D., BCPS, CDE**

Dr. Whalen received her Doctor of Pharmacy degree from the University of Florida. She then completed a Pharmacy Practice Residency at the Moses Cone Health System in Greensboro, North Carolina. Subsequently, she completed a Primary Care Residency at the James A. Haley Veterans’ Hospital in Tampa, Florida. Dr. Whalen joined the faculty of the University of Florida College of Pharmacy in 2008 as Assistant Director of the St. Petersburg Campus. Currently, she is a Clinical Associate Professor in the Department of Pharmacotherapy and Translational Research.
and Director of the MS-MTM Program. Prior to joining the faculty at University of Florida, Dr. Whalen was an Associate Professor of Pharmacy Practice at Nova Southeastern University for twelve years. Dr. Whalen is a Board Certified Pharmacotherapy Specialist and a Certified Diabetes Educator. She is an active in local, state, and national pharmacy associations, and is a past president of the Florida Pharmacy Association.

Debbie Wilson, Ph.D.
Dr. Wilson has educational backgrounds in Linguistics (MA 1999) and Pharmacy Health Care Administration (PhD 2004). Dr. Wilson’s Veterans Administration (VA) Health Services Research and Development (HSR&D) Post-Doctoral Fellowship (2005-2008) training program at the VA Rehabilitation Outcomes Research Center of Excellence was focused on developing knowledge in shared decision-making among providers and patients. She is an Affiliate Clinical Assistant Professor in the University of Florida (UF) Department of Pharmaceutical Outcomes and Policy and Coordinator of the UF College of Pharmacy course Professional Communications in Pharmacy. Dr. Wilson has worked in community and nuclear pharmacy settings as a Pharmacy Technician. Dr. Wilson’s research interests have focused on pharmacy professional roles (skills mix), professional expertise, shared decision-making and patient empowerment. She is well versed in qualitative and quantitative research methodology in pharmacy health care administration, with emphasis on instrument development and validation. She has participated in eight funded studies (1 PI & 2 co-PI).

Course Description

The course introduces the student to principles of medication therapy management in patients with renal disorders.

Prerequisites

The student must have successfully completed Foundations of MTM I and II

Course Credit Assignment

The course is offered in a blended learning format that utilizes a combination of face-to-face classroom instruction, on-line 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 Goals

The course is intended to familiarize students with the provision of MTM in patients with renal disorders that range from common to complex. The student will gain hands-on practice in the core elements of MTM for patients with renal 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 Objectives
Upon successful completion of this course, the student will be able to demonstrate the ability to perform the following with respect to renal 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.

**Required Text**


**Required and Recommend Readings/Resources**

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.

**Course Policies**

1. **Course Communication**
   All course communication, except for personal communications, will occur through the discussion board on the course website. Announcements will also be posted on the course website on Sakai as needed. Discussion boards will be organized by lecture topic and questions should be posted in the appropriate location. The discussion board will be reviewed and questions answered within 3 business days after the posting. Please follow these guidelines regarding use of the discussion board:
   - Look for the appropriate discussion forum for your question from the list of available discussion boards.
• Review previous postings and announcements prior to initiating a posting to avoid duplications.
• Keep all postings professional. Postings will be reviewed for professionalism.
• Personal concerns should be communicated directly to the course coordinator via email (and not posted on the discussion board). Course-related emails that are not of a personal nature will be referred back to the discussion board for posting.
• Do not use the discussion board to broadcast complaints, discuss personal issues, or discuss topics not associated with the course.
• Check for new discussion board postings on a daily basis whenever possible. To do so, click on the Discussion Board tab within the Sakai course website.
• Anonymous postings are not permitted.
• Failure to follow the Discussion Board rules may result in a revocation of privileges of Discussion Board use.

2. Late Assignments
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.

3. Faculty and Course Evaluations

Faculty Evaluations. You will receive an email from the Curricular Affairs Office requesting that you complete the faculty evaluations. If the course is team-taught, you will receive emails during the semester to alert you when to evaluate the faculty members. Please complete your faculty evaluations by the specified date and time by logging in with your GatorLink account at the following site: https://evaluations.ufl.edu

Faculty evaluations are important feedback for your course instructors and the University and receive major consideration in the tenure and promotion process. Your input via evaluations can make a difference in our College’s teaching activities, so participate, evaluate and our College will be better for it.

The online faculty evaluation system is completely anonymous. When you submit an evaluation, the system marks that you have submitted an evaluation for the section (so you cannot submit multiple evaluations), but from that point on, there is no connection between you and the evaluation data. Faculty evaluations also provide useful information for students. The results of your evaluation input are made available to all students in future semesters at: http://www.aa.ufl.edu/aa/evaluations/search/

Course Evaluations. In the last few weeks of the course, you will receive an email with directions for completing a course evaluation. Note, course evaluations provide feedback that is different from the Faculty evaluations and both are very important to continuous improvement of our program. Course evaluations are used by the College to identify how to improve the how the course is designed and delivered. Therefore, our Courses will be better through your completion of these evaluations. You will complete Course Evaluations via a website that is different from Faculty Evaluations. These evaluations are also anonymous.
4. **Academic Honesty**
   The University considers cheating as giving or taking any information or material of academic work considered in the determination of a course grade. Academic dishonesty includes, but is not limited to: copying graded homework assignments from another student; working together with another individual on a take-home test or homework when specifically not permitted by the instructor; looking or attempting to look at another student's test paper during an examination; sharing information about an examination with another student; and plagiarism.

   The University of Florida academic honesty policy will be strictly enforced. Academic dishonesty will not be tolerated. The complete policy and procedures for processing alleged academic dishonesty are provided in the Student-Faculty Handbook for the College of Pharmacy. This handbook is located on the College of Pharmacy web site: [http://www.cop.ufl.edu](http://www.cop.ufl.edu). You are expected to abide by the procedures set forth in this document. Additional information regarding academic honesty guidelines can be located at: [http://www.dso.ufl.edu/studentguide/studentrights.php](http://www.dso.ufl.edu/studentguide/studentrights.php).

5. **Accommodating Disabilities**
   Physically impaired students and students with learning disabilities such as hearing impairment, visual impairment, dyslexia or other specific learning disabilities such as sensory deficit or sensory-motor coordination problems should cooperate with the faculty and staff in addressing these problems in order to meet academic standards. It is the student’s responsibility to notify the faculty member IN ADVANCE if they believe that they need special accommodations for testing and/or completion of assignments. Retroactive accommodations cannot be granted if a student notifies the faculty AFTER said exams or assignments have taken place. Students with disabilities are encouraged to register with the Disability Resource Center in the Dean of Students Office. Please visit the following URL for more information: [http://www.dso.ufl.edu/drc](http://www.dso.ufl.edu/drc).

**Examination Policies**

1. **Online Examinations**
   The 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/](http://www.proctoru.com/)

2. **Missing Exams**
   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.

3. **Posting of Exam Grades**
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.

4. **Exam Rebuttals**
   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.

**Evaluation Techniques:**

- Assignments 25%
  - Patient Handout - 5%
  - Comprehensive Medication Review - 10%
  - Marketing advertisement - 10%

- Quizzes 10%
  - Week 3 - 5%
  - Week 6 - 5%

- Class participation 15%
  - Discussion board - 3%
  - Elluminate sessions - 12%

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

**Grading:**

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

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<td>A-</td>
<td>90.0-92.9</td>
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<td>B+</td>
<td>86.6-89.9</td>
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**Student Honor Code**

The conduct of all students is expected to conform to the standards of academic integrity as described in the University of Florida Honor Code. In adopting this Honor Code, the students of the University of Florida recognize that academic honesty and integrity are fundamental values of the University community. Students who enroll at the University commit to holding themselves and their peers to the high standard of honor required by the Honor Code. Any individual who becomes aware of a violation of the Honor Code is bound by honor to take corrective action. A student-run Honor Court and faculty support are crucial to the success of the Honor Code. The quality of a University of Florida education is dependent upon the community acceptance and enforcement of the Honor Code.
THE HONOR CODE: We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied:

“On my honor, I have neither given nor received unauthorized aid in doing this assignment.”