PHA 6935  Medication Therapy Management: A Psychiatric Focus

Course Purpose:
The course is intended to familiarize students with the provision of MTM in patients with psychiatric disorders that range from common to complex. The student will gain hands-on practice in the core elements of MTM for patients with psychiatric 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 Hart, PharmD, BCPS
Email: nancy.hart@eastcoastresearch.net  Office: 3 Shircliff Way Suite 525; Jacksonville, FL 32204
Phone: 904.308.6885

Office Hours
The Course Coordinator is available Monday to Friday between 8 am and 5 pm 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 Elluminate and will meet on Sunday evenings from 8 to 9:30 PM, or Monday evenings from 9 to 10:30 PM.

How This Course Relates to the Learning Outcomes You Will Achieve in the 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 psychiatric 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**
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 (Appendix B).

**Course Outline/Activities**
Refer to Appendix B for the course schedule and outline of activities.

**Textbooks**
There is no required text for this course. The suggested reference text is DiPiro JT, Talbert RL, Yee GC, et al, eds. Pharmacotherapy: A Pathophysiological Approach, 8th ed. (ISBN 978-0-07-170354-3) – available via AccessPharmacy in the HSC database. Faculty may also utilize the DSM text which is available through PsychologyOnline within E-books in the HSC database.

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 (2)
- Weekly live online learning sessions (5)
- Case studies – comprehensive medication review (1)
- Journal evaluation (1)
- SOAPE note (1)

Student Evaluation & Grading

Evaluation Methods

Assignments 23%
- Journal Evaluation – 6.5%
- SOAPE Note – 6.5%
- Comprehensive Medication Review - 10%

Quizzes 15%
- Week 2 – 7.5%
- Week 5 – 7.5%

Class participation 12%
- Discussion board - 2%
- Elluminate sessions - 10%

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.

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
C  73.3-76.5  C- 70.0-73.2
D+ 66.6-69.9  D  63.3-66.5
D- 60.0-63.2  E  <60

Class Attendance Policy

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

Quiz/Exam Policy

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/

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, or if the question is of a personal nature, i.e., not related to clarification of course content.

Course Coordinator
Nancy Borja-Hart, PharmD, BCPS
nancy.hart@eastcoastresearch.net
Dr. Nancy Borja-Hart is currently a Scientific Director for East Coast Institute for Research in Jacksonville, Florida. 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 and obtained a position as an Assistant Professor at Nova Southeastern University College of Pharmacy upon residency completion. She became a Board Certified Pharmacotherapy Specialist in 2008. Dr. Hart is an active member of pharmacy organizations on a state and national level. Additionally, she is heavily involved in patient care screenings throughout South Florida. Her research interests include medication therapy management, ambulatory care, diabetes, immunizations, and women’s health.

Instructors
Ben Chavez, PharmD, BCPP
benjamin.chavez@hawaii.edu
Benjamin Chavez is an Assistant Professor in the Pharmacy Practice department. Before coming to the University of Hawaii at Hilo, Dr. Chavez was an Assistant Professor at Rutgers, The State University of New Jersey, Ernest Mario School of Pharmacy for 5 years. He is a board certified psychiatric pharmacist, and has practiced in both inpatient and outpatient psychiatric settings. His specialties include the treatment of schizophrenia, and child and adolescent psychiatry, including the pervasive developmental disorders. He now practices in the family medicine setting helping to manage patients with multiple conditions, including diabetes, hypertension, hyperlipidemia, and mental health. He is a licensed pharmacist in the state of Hawaii.

Paul Doering, M.S.
doering@cop.ufl.edu
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.
Megan Ehret, PharmD, BCPP  
[megan.ehret@uconn.edu](mailto:megan.ehret@uconn.edu)

Dr. Ehret completed her Bachelors and Pharm.D at the University of Toledo and then completed an ASHP accredited residency in Psychiatry Pharmacy Practice at the Louis Stokes Cleveland Veterans Affairs Medical Center. Additionally, she went on to complete a Clinical Psychopharmacology and Pharmacogenomics Fellowship at Nova Southeastern University in Fort Lauderdale, Florida. She recently completed a Masters in Clinical and Translational Research at the University of Connecticut Health Center. Upon her appointment at the University of Connecticut in 2006, she has focused her research efforts on the current practices for the treatment of patients with bipolar disorder and medication adherence. This work is focused at the Institute of Living/Hartford Hospital in Hartford, CT and in the correctional facilities throughout the state of Connecticut.

Clayton English, PharmD, BCPP  
[Clayton.english@acphs.edu](mailto:Clayton.english@acphs.edu)

Dr. English is currently an Assistant Professor of Pharmacy Practice at Albany College of Pharmacy & Health Sciences and a board certified psychiatric pharmacist at Fletcher Allen Health Care (FAHC) in Burlington, Vermont. Dr. English’s work at FAHC involves providing clinical pharmacy services for patients on FAHC’s two adult inpatient psychiatric units. Clinical services provided include, but are not limited to: psychopharmacology consultations, medication counseling, medication management and reconciliation, and therapeutic drug monitoring. In addition to providing clinical pharmacy services at FAHC, Dr. English is an Adjunct Assistant Professor in the Department of Psychiatry at the University of Vermont Medical School. He currently serves as a preceptor for psychiatry residents on their inpatient psychiatry rotation. He also serves as a preceptor for an elective rotation in psychopharmacology and as a preceptor in the outpatient psychopharmacology clinic. In conjunction with his clinical pharmacy services and teaching he provides at the hospital, Dr. English coordinates and teaches a variety of courses and lectures in the area of psychiatric therapeutics and substance abuse at Albany College of Pharmacy & Health Sciences. He is also a primary preceptor for 4th year pharmacy students on clerkship in inpatient psychiatry.

Patrick Finley, PharmD, BCPP  
[finleyp@pharmacy.uscf.edu](mailto:finleyp@pharmacy.uscf.edu)

Dr. Finley is a Professor of Clinical Pharmacy (in psychopharmacology and behavioral health) at the University of California at San Francisco within the Department of Clinical Pharmacy. At UCSF, Dr. Finley’s teaching, clinical, and research interests continue to focus upon the safe and efficacious use of psychotropic medications in a wide range of health care settings. Dr. Finley’s research interests in psychopharmacology span clinical, epidemiological, pharmacokinetic and health policy domains. Dr. Finley’s recent contributions to the medical literature include publications in *Biological Psychiatry, Journal of Clinical Psychopharmacology, Journal of Nervous and Mental Disease, Archives of Internal Medicine, Psychosomatics, Psychopharmacology Bulletin, Drug Safety, Formulary, Clinical Therapeutics, Journal of Managed Care Pharmacy, Clinical Pharmacokinetics, Pharmacotherapy, Annals of Pharmacotherapy,* and the *American Journal of Health-System Pharmacy.* He has written chapters in 12 different medical textbooks and currently serves as a referee and/or editorial board member for approximately 30 medical journals. Dr. Finley has spent much of the past decade developing collaborative care treatment models for depression which emphasize the role of clinical pharmacists as providers. His current practice is located in the UCSF Womens Health Center Primary Care Clinic. In
addition, he has been involved with several epidemiological studies analyzing the safety of antidepressants in children and adolescents, and recently embarked on a prospective investigation of risk factors associated with the development of postpartum depression. He is currently serving on the Parental Depression Committee of the National Academies.

Dwight D. Hart, PsyD
dwightdhart@live.com
Dr. Hart is currently a staff psychologist at Naval Branch Health Clinic Mayport, Naval Hospital Jacksonville, FL. He obtained his PsyD at Nova University (now Nova Southeastern University) in Ft. Lauderdale, FL in 1993. He completed an APA approved clinical psychology internship and follow-on psychology residency training at Naval Medical Center, Portsmouth, VA and became a licensed clinical psychologist in August 1994. He is licensed in Arizona (currently inactive license), Virginia and Florida. Until 2010, he was on active duty in the US Navy, and served at various hospitals and clinics, aboard three aircraft carriers and deployed to Iraq twice. He retired from the Navy in 2010 and has been at his current position since July 2011. Presently, he provides outpatient treatment services to active duty service members suffering from a broad range of mental health disorders including mood disorders, anxiety disorders (including posttraumatic stress disorder), substance use disorders and psychotic disorders.

Jodie Malhotra, PharmD
Jodie.malhotra@dhha.org
Dr. Malhotra is a Behavioral Health Clinical Pharmacy Specialist at the Denver Health Medical Center in Denver, Colorado. Dr. Malhotra received a Deerpath Academic Scholarship from Lake Forest College where she graduated with her Bachelor of Arts degree in Chemistry in May 2000. She then continued on to receive her Doctor of Pharmacy degree from Massachusetts College of Pharmacy in May 2004. She spent her first postgraduate year completing an ASHP accredited Pharmacy Practice Residency with an emphasis in Primary Care at the Cincinnati Veterans Affairs Medical Center. Subsequently, Dr. Malhotra completed a Psychiatric Pharmacy Practice Residency at the South Texas Veterans Health Care System. During her residency training she functioned as the Principle Investigator on various research projects involving controversial issues in mental health care. Dr. Malhotra was an Assistant Professor in Pharmacy Practice at the University of the Incarnate Word and an Assistant Professor in Pharmacy Practice and the Experiential Education Director at Regis University School of Pharmacy. Dr. Malhotra serves on numerous local, state and national committees, including 9Healthfair Medical Advisory Committee, President Elect of the Colorado Pharmacist Society, and the Chair of the College of Psychiatry and Neurological Pharmacists’ Programming Committee. Jodie is a member of the American Pharmacist Association (APhA), Colorado Pharmacists Society (CPS), National Alliance on Mental Health (NAMI), College of Psychiatric and Neurological Pharmacists (CPNP), and American Society of Health-System Pharmacists (ASHP).

Jehan Marino, PharmD, BCPP
mjehan@nova.edu
Dr. Marino is currently an Assistant Professor of Pharmacy Practice at Nova Southeastern University, College of Pharmacy and clinical faculty at Jackson Health System- Mental Health Hospital in Miami, FL. She obtained her PharmD at Bouvé Health Sciences, College of Pharmacy at Northeastern University in Boston, MA in 2004, and completed a Pharmacy Specialty Residency in Psychiatric Pharmacy at the
University of Texas at Austin and the University of Texas Health Science Center San Antonio in 2006. She became a Board Certified Psychiatric Pharmacist (BCPP) in December, 2007. She has reviewed and published in *Annals of Pharmacotherapy, Pharmacotherapy, Hospital Pharmacy, and Neuropsychiatric Disease and Treatment*. Presently, her research interests include combination treatment in patients with schizophrenia and attention deficit and hyperactivity disorder (ADHD), women’s health issues and mental health, clinical outcomes in psychiatric hospitals, drug-induced psychosis, and teaching innovations in pharmacy education.

Jose Rey, PharmD, BCPP
jomrey@nova.edu
Dr. Rey is an Associate Professor of Pharmaceutical Sciences at Nova Southeastern University’s College of Pharmacy, and core adjunct faculty at NSU’s Center for Psychological Studies and College of Allied Health in Fort Lauderdale, Florida. He is the clinical psychopharmacologist for the South Florida State Hospital. He is also the Director of the Psychopharmacology Residency at NSU. Dr. Rey’s research interests include psychopharmacology, co-morbid substance abuse with other psychiatric disorders, pain management with antidepressants and anticonvulsants, and clinical and pharmacoeconomic outcomes research with antipsychotics and antidepressants. He has presented his research at national and international meetings; has published original articles, abstracts, and reviews in peer-reviewed journals; and has been an invited speaker at local, state, national, and international meetings. He was selected as the Pharmacist of the Year (2000) by the South Florida Society of Health-System Pharmacists. He is a member of the College of Psychiatric and Neurologic Pharmacists, and the American Association of Geriatric Psychiatry. Dr. Rey received his doctor of pharmacy degree from the University of Florida and completed an ASHP-accredited specialty residency in psychiatric pharmacy practice at the Gainesville VAMC and Shands Hospital in Gainesville, Florida.

Tatiana Yero, PharmD, BCPP
tyero@lecom.edu
Dr. Tatiana Yero received her Doctor of Pharmacy degree from Nova Southeastern University College of Pharmacy in Fort Lauderdale, Florida. She went on to complete a Psychiatric Pharmacy Practice residency through Nova Southeastern University and South Florida State Hospital in Pembroke Pines, Florida. Dr. Yero is a Clinical Assistant Professor at the LECOM School of Pharmacy Bradenton campus. Her past clinical experiences involved providing pharmacy services to psychiatric units in several different settings, including hospitals, a state psychiatric facility, emergency rooms, and a Veteran's Affairs community-based outpatient clinic. Her teaching experience includes topics relevant to neuropsychopharmacology and alternative medicine. She is developing a clinical pharmacy service at Manatee Glens Hospital in Bradenton, Fl and precepts students at this location during their Psychiatry rotation. Dr. Yero's primary areas of interest include evaluation of the practice of polypharmacy in the treatment of schizophrenia/schizoaffective disorder and assessment of clinical outcomes in this population. Additional interests include alternative medicine, eating disorders, geriatrics, and mental illness in HIV patients.
## Appendix B. Schedule of Course Activities/Topics

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<thead>
<tr>
<th>Week</th>
<th>Module</th>
<th>Lecture Topic</th>
<th>Lecturer</th>
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<tbody>
<tr>
<td><strong>1</strong>&lt;br&gt;5/7-5/13</td>
<td>Introduction to Psych Communication Skills</td>
<td>1.1 Course Intro/Expectations 1.2 Meet the Experts 1.3 Practice Perspectives 1.4 Communication thread: Mental health</td>
<td>Borja-Hart Ehret/Rey Marino Hart</td>
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<tr>
<td><strong>2</strong>&lt;br&gt;5/14-5/20</td>
<td>Anxiety Depression</td>
<td>2.1 Med Mgmt in Anxiety Part I 2.2 Med Mgmt in Anxiety Part II 2.3 Med Mgmt in Depression Part I 2.4 Med Mgmt in Depression Part II 2.5 MTM Cases</td>
<td>Rey Rey Finley Finley Finley</td>
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<tr>
<td><strong>3</strong>&lt;br&gt;5/21-5/27</td>
<td>Psychosis Bipolar Disorder</td>
<td>3.1 Med Mgmt in Psychosis Part I 3.2 Med Mgmt in Psychosis Part II 3.3 Med Mgmt in Bipolar Disorder Part I 3.4 Med Mgmt in Bipolar Disorder Part II</td>
<td>Marino Marino Ehret Ehret</td>
</tr>
<tr>
<td><strong>4</strong>&lt;br&gt;5/28-6/3</td>
<td>Substance Abuse PTSD</td>
<td>4.1 Med Mgmt in Substance Abuse Part I 4.2 Med Mgmt in Substance Abuse Part II 4.3 Med Mgmt in PTSD</td>
<td>Doering Doering Malhotra</td>
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<tr>
<td><strong>5</strong>&lt;br&gt;6/4-6/10</td>
<td>OCD ADHD Tourette’s Mental Health Scales</td>
<td>5.1 Med Mgmt in OCD 5.2 Med Mgmt in ADHD Part I 5.3 Med Mgmt in ADHD Part II and Tourette’s 5.4 Mental Health Scales Part I 5.5 Mental Health Scales Part II</td>
<td>Malhotra Chavez Chavez Ehret Ehret</td>
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### Assignments and Learning Responsibilities:

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<tr>
<th>Week</th>
<th>Reading Assignment</th>
<th>Learning Responsibility</th>
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| 1 5/7-5/13 (6 hours)* | - Review course syllabus  
- Finley’s MTM article in Pharmacy Today | View all lectures for week 1  
Complete assigned readings  
Discussion board posting  
Elluminate session 1.5 hours |
| 2 5/14-5/20 (9 hours)* | Anxiety  
- DSM-IV-TR. Chapter 7. Anxiety Disorders.  
- Dipiro Chapter 80 Depression  
- TBD | View all lectures for week 2  
Complete assigned readings  
Elluminate session 1.5 hours  
Complete assignments  
- Journal evaluation: Depression rating scales and STAR*D |
| 3 5/21-5/27 (8 hours)* | Psychosis  
- Dipiro Chapter 76 Bipolar Disorder  
- Saxena et al: Mood stabilizers  
- Lewis et al: Bipolar disorder | View all lectures for week 3  
Complete assigned readings  
Elluminate session 1.5 hours  
**MIDTERM EXAM** (2 hours) |
| 4 5/28-6/3 (7 hours)* | Substance abuse  
- Dipiro Chapter 74 PTSD  
- Dipiro Chapter 80 OCD  
- Dipiro Chapter 80 | View all lectures for week 4  
Complete assigned readings  
Discussion board posting  
Elluminate session 1.5 hours  
Complete assignments  
- SOAPE note |
| 5 6/4-6/10 (10 hours)* | ADHD  
- Chavez et al.  
- Murray et al.  
- Pliszka et al.  
- Rapply et al.  
- Tourette’s  
- Kenney et al.  
- Mental Health Scales  
- Moller et al.  
- Picardi et al.  
- Furukawa et al. | View all lectures for week 5  
Complete assigned readings  
Elluminate session 1.5 hours  
Complete assignments  
- Comprehensive med review  
**QUIZ** |
Eating Disorders
- American Psychiatric Association: Chapter 12 Eating Disorders
- Dipiro Chapter 73
- Yager et al. Sleep Disorders
- Dipiro Chapter 81: Sleep Disorders
- Goodman & Gilman’s Chapter 17: Hypnotics and Sedatives

View all lectures for week 6
Complete assigned readings
FINAL EXAM (2 hours)