



Course Information

Course Number: MEID 830

Course Title: Service-Learning Internal Medicine and Pharmacy Interdisciplinary Health Research

Campus/Site: Houston

Term/Course Availability: Year-round Other: after long block 4 for MS3 or MS4 (mid Spring)

Number of Weeks: 4 weeks

Enrollment Capacity: 8 clerkship students (MS3 or MS4)

Instructor Details

Elective Director		Coordinator	
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Elective Director	
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Additional Teaching Faculty:

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Course Description

Course Type

<input checked="" type="checkbox"/> Clinical	<input type="checkbox"/> Non-Clinical	<input checked="" type="checkbox"/> Research
<input type="checkbox"/> Online	<input type="checkbox"/> Self-Directed	<input type="checkbox"/> Longitudinal
<input type="checkbox"/> International	<input type="checkbox"/> Open to Non-TAM COM Students (VSAS)	<input type="checkbox"/> Other- Click or tap here to enter text.

Course Prerequisites

This elective experience is designed for MS3 or MS4 medical students wishing to collaborate with a team of pharmacy professionals to address the healthcare needs of a vulnerable population of Harris County residents at high-risk for complications due to chronic illness using telehealth. After completing elective activities, students will write an IPE research paper based on collected survey patient data. Under supervision of the IPE team, students participating in clinical care of utilizing telehealth and interprofessional model will engage in reporting a healthcare quality improvement research project. Students are expected to write a scholarly research paper centered on health disparities challenges that they observed during patient encounters to satisfy all the course learning objectives. Students will incorporate in their final capstone research paper a literature review of the topic, instructor feedback, and information learned from mandatory course workshops.



- Matriculation to medical school
- Completion of Pre-clerkship (or basic science) Curriculum
- Completion of the following clerkships EM, IM, FM, OB/GYN PED, PSY, RAD SURG
- Other: Click or tap here to enter text.

Reporting Details

Students will report via zoom or in person as assigned at 8:00 am and will be given their days assignments as far as patient call loads, there will be weekly check-ins with interprofessional teams in addition to clinical work via telehealth.

Course Learning Outcomes & Objectives

1. To utilize patient chart review and history taking via telephone and video encounters that maximize accurate information from patient.
2. Students will collect and graph patient clinical data from vulnerable urban populations.
3. Students will write a formal research report describing major clinical findings and delineate a list of recommendations to improve patient care that considers their particular social determinants of health (SDOH) circumstances.
4. To utilize other resources that will validate information obtained from patient (i.e. refill hx from pharmacy records, patient’s caregivers).
5. To confirm each medication prescribed has appropriate indication, dose and directions for use.
6. To recognize/identify causes of non-adherence (i.e. financial, complicated regimen, health literacy, adverse drug effects).
7. To engage in interprofessional collaboration and education to develop a personalized treatment plan for patient that considers their individual social situation.
8. To develop strong communication skills and engage in shared decision-making with patients
9. To engage in self-assessment of interprofessional collaboration and education to improve patient care.

Principles and Guidelines for Curriculum Development:

<https://medicine.tamu.edu/policies/pdfs/principles-guidelines-curriculum-development.pdf>

*Objective – The student will be able to:	*Taught (T) and/or Evaluated (E):	*Assessment Method:	Notes/ Comments/ Explanation:	*MEPO’s
Review medical records to identify possible patients and potentially talk to patients about acceptability of recommendations including cost of adherence with recommendations.	T/E	AM02, narrative assessment	RE09	K3, K4, S8



Learn about the role of service programs as part of research in medicine: development and evaluation	T/E	AM02	U.S. Dpt of Health and Human Services 45 CFR 46	K4
Supports teamwork in an interdisciplinary service-learning clinical environment.	T/E	AM02, AM16, community needs assessment, project assessment	RE15	AB1, AB5, S13, K4
Self-Directive Learning	T/E	AM11, oral patient presentation		AB1, AB2, AB7
Develop an awareness of the psychosocial determinants of health in a low resource patient population	T/E	AM02, reflective essays	Community service	AB1, AB2, AB7
Identify a clinical need and create the health resources needed tailored to the low resource patient population.	E	AM02		S8, S9, S11
Learn how to collect and document patient clinical data and report community needs assessment research project	E	AM02		K4, AB1, AB2, AB3, AB7

Textbook and/or Resource Materials

Learning Resources

Distance Learning Synchronous

Interactions with patients primarily occur via interactive videoconferencing and non-electronic environments such as telephone conversations. Electronic medical records for the clinic outpatients will be evaluated by students prior to telehealth visit.

In person IPE-Medicine-Pharmacy workshops are scheduled as part of learning activities (see weeks 1-3)

Libraries

1. Clinical, Instructional and Pharmacy Faculty Member consultations
2. Clinical and Pharmacy Staff member consultations
3. Houston Methodist Clinical Library (<https://www.houstonmethodist.org/education/library-resources/>)
4. TAMU Medical Sciences Library (<https://msl.library.tamu.edu>)



Documents

5. AAMC Innovations in Health Technology Telehealth (<https://www.aamc.org/news-insights/innovations-health-technology-telehealth>)
6. AAMC Health Equity Research and Policy (<https://www.aamc.org/what-we-do/mission-areas/medical-research/health-equity>)
7. Social Needs Screening Tool (<https://innovation.cms.gov/files/worksheets/ahcm-screeningtool.pdf>)
8. Empathy quotient (EQ) (<https://innovation.cms.gov/files/worksheets/ahcm-screeningtool.pdf>)
9. Community Needs Assessment (https://www.cdc.gov/globalhealth/healthprotection/fetp/training_modules/15/community-needs_pw_final_9252013.pdf)

Grading Policy

<input checked="" type="checkbox"/> Clinical Evaluation Plus	The final course grade will be based in part on the following: attendance, professionalism, and ethical conduct of research , and completion of the elective learning objectives. At the end of the elective, these items will be evaluated using the COM Clinical DIG evaluation form.	
	Professionalism and Attendance: Medical students answers emails from faculty or coordinators, actively collaborates with team members in group activities and submits assignments on time	10
Week 1	<p><u>IPE Chart Review Activity 1: pre-telehealth intervention</u></p> <p>Goal is to become proficient tele-health interview techniques</p> <ul style="list-style-type: none"> - Review 10 retrospective in-person visit patient records (ensuring the IRB study inclusion criteria is met). - Observe pharmacist conduct patient interviews at hospital. - Attend IPE Pharmacist Workshop A – Pharmacotherapy discussion on common chronic disease states (i.e. diabetes mellitus, hypertension) and major barriers to medication adherence. <p><u>IPE Activity 1:</u></p> <p>Plan to call 10 patients per student telehealth telephone interviews with planned review of 1-2 patients under pharmacist supervision.</p> <ul style="list-style-type: none"> - Collect and analyze interview patient surveys. - De-brief pharmacist team to discuss recommendations for changes in pharmacotherapy regimens <p><u>Assignment Week 1:</u></p> <ul style="list-style-type: none"> - Summarize observations in notebook - Submit 1-page synopsis week 1 to course directors. 	20



Week 2	<p><u>IPE Research Talk Preparation 1:</u></p> <p>Attend IPE Pharmacist Workshop B—Pharmacotherapy discussion on common chronic disease states (i.e. dyslipidemia, chronic heart failure) and factors affecting patient medication adherence.</p> <p><u>Organize Survey 1 Set 1 Results:</u></p> <ul style="list-style-type: none">- Graph interview qualitative data set for 10 patients from Week 1- Prepare slides on data collection progress report including lessons learned in preparation for final research talk- Present mid-term findings to IPE team <p><u>Consult pharmacist team:</u> Discuss next steps for pharmacotherapy treatment</p> <p>Assignment Week 2:</p> <ul style="list-style-type: none">-Summary next steps week 2 in notebook-Submit <i>2-page Self-reflection essay</i> to course directions	20
Week 3	<p>Attend IPE IMED Physician Workshop C— discussion of state-of the-art telehealth treatments for chronic illness management.</p> <p><u>IPE Activity 2:</u></p> <p>Plan to call 10 patients per student telehealth telephone interviews with planned review of 1-2 patients under pharmacist supervision.</p> <ul style="list-style-type: none">- Collect and analyze interview patient surveys.- Read 2 peer-review literature on Social Determinants of Health (SDOH) thematic analysis to guide data presentation identified in consultation with HSC librarian.- De-brief pharmacist team to discuss recommendations for changes in pharmacotherapy regimens <p>Assignment Week 3:</p> <ul style="list-style-type: none">- Data survey analysis. Use community needs assessment to identify major SDOH themes in patient cohort that prevented medication adherence/seek care- Write first draft of final paper results section including summary from week 1 and week 2	20
Week 4	<p><u>Organize Survey 2 Results and Final Capstone Presentation:</u></p> <ul style="list-style-type: none">- Draft paper results section- Edit graphs/charts from collected patient and learner survey data using final format based on thematic analysis	30



	<p>Final Assignment Week 4:</p> <ul style="list-style-type: none"> - Submit <i>final research report (5 pages, double spaced)</i> to course directors. This report must integrate data charts, thematic analyses, and summative data analysis for the elective. A complete list of references must be included in the final paper (see details below). - Prepare a formal oral capstone talk 30 min talk to course directions - Complete IPE elective assessment survey. Deadline: last day of class. - For student wishing to continue this research in health disparities, they are highly encouraged to formalize their project by applying to TAMU-COM MSRPP Medical Scholar Researcher pathway. <p>Capstone Written Research Paper Assignment Guidelines: Each student will write a final IPE elective paper that will concretely discuss the major health care societal findings. This paper will also discuss the IPE recommendations based on pharmacy-medical team didactic workshops and thematic survey analysis. Exemplary case studies will illustrate SDOH situations of each patient and how their co-morbidities affect treatment plans. This paper is to have a maximum 7-pages in length or 5-pages minimum. The recommended font size is 11, Calibri, double spaced. Use of a citation management application is expected. Note that the final paper page count does not include the literature citations and supplemental materials.</p>	
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Grading Scale	
Satisfactory	Passing all mandatory assignments in outlined grading policy.
Unsatisfactory	Failure of 3 requirements in outlined grading policy.

Course Schedule

Table 1: Typical 4 -week block elective schedule

	Mon	Tues	Wed	Thurs	Fri
AM	8:00	8:00	8:00	8:00	8:00
PM	5:00	5:00	5:00	5:00	5:00

Call Schedule: Students must report to the IMED attending preceptor, pharmacist team, or designated resident at Houston Methodist every Monday morning in person for briefing of the week’s activities. Medical students must meet with Dr. Conover for a check-in videoconferencing session with the Attending and/or Pharmacist instructors to receive weekly feedback on ongoing activities and research data analyses and reports. Consultation with biostatistician will be arranged in week 3 of the elective after completion of the AHC HRSN mid-term survey.



Topics, Calendar of Activities, Major Assignment Dates

Medical students will meet the interprofessional team (including internal medicine faculty, internal medicine residents, clinical pharmacy faculty, and clinical pharmacy resident, TAMU faculty) the first day of the elective. Sessions may be virtual or in person depending on student’s or faculty campus site.

Table 2: Major Assignment Calendar of Activities

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1	Orientation Access to EMR	<u>IPE pharmacy workshop A</u> Plan and review patient EMRs (week 1 and 2)	Telehealth Visits: Data collection and documentation	Prioritize call schedule – Assign teams to call and follow-up weeks 2,3 and 4	Individual Self-reflection essay Deadline 5pm
Week 2	Brief IMED team and get group feedback	<u>IPE pharmacy workshop B</u> Plan and review patient EMRs (week 3 and 4)	Weekly Check-in IPE faculty ¹	<u>Evaluation 1 of customized pharmacotherapy regimens</u>	Mid-term data report Deadline 5 pm
Week 3	Complete AHC HRSN screen Complete Empathy survey	<u>IPE IMED workshop C</u> Community needs assessment		Statistics consultation Work on research report: make graphs, tables and/or figures	Draft final written elective Report and prepare slides
Week 4	Brief IMED Team and get group feedback	Survey initial data analysis Statistics consultation (optional)	<u>Evaluation 2 of customized pharmacotherapy regimens</u>	<u>IPE team self-evaluation</u> Final Oral presentation PM	Submit final elective report Deadline 5 pm

¹ Students will schedule individual or group 1:1 check-in meeting with pharmacy, internal medicine and/or medical education faculty. The recommended schedule order is pharmacy (week 1), internal medicine (week 2), research (week 3). IMED (blue), Pharmacy (red) and research (green). Bolded activities denote mandatory assignments.



Monday

Week 1: Orientation scheduling must be decided prior to the start of the elective, after OASIS registration, with the elective coordinator. Pharmacy faculty will review “Pharmacotherapy Questionnaire/Checklist” with medical students to describe pharmacy pre-interview expectations.

Weeks 2 and 4: Meet with IMED attending physician team present oral brief delineating week’s telehealth goals, concerns, and list the task of priorities.

Week 3: Students and pharmacy trainees will complete *AHC HRSN screening and empathy score tools*. Students will submit a 2-page self-reflection essay that describes the telehealth activities, satisfaction, short term outcomes and perceived impact to patients and their future inclusive health care practices.

Tuesday

Weeks 1 and 2: Each medical student must attend **IPE Pharmacist Workshops A and B**. Workshops will be led by pharmacy faculty centering on pharmacotherapy of chronic disease states (i.e., Diabetes mellitus, hypertension, dyslipidemia, chronic heart failure), as well as the major barriers and risk factors for medication nonadherence for the senior low resource adult patients with 1 or multiple co-morbidities.

Weeks 3: Each medical student must attend **IPE IMED Physician Workshop C**. Complete a *community needs assessment* survey based on results from the initial 10 patient cohort telehealth encounters.

Week 4: Data analysis community needs assessment survey.

Wednesday

Weeks 1, 2 and 3: Each student must check-in with IPE team to go over the list of all patients contacted. A list of issues will be catalogued to inform formulation of personalized patient IPE treatment plans.

Week 4: Evaluation by pharmacy faculty customized pharmacotherapy regimes.

Thursday

Weeks 2 and 4: each student must report out to HM IPE team the pharmacotherapy regime selected for each patient group during the previous week telehealth visit patient encounters. After giving oral reports to the IPE team, students must draft a report describing telehealth major findings.

Week 4: Complete IPE course student assessment survey. Prepare 30 min oral presentation to course Directions and get feedback from other team members on your written elective report.

Friday

Week 1: Write self-reflection essay (1 page). Deadline 5 pm.

Week 2: Draft mid-term clinical and pharmaceutical data report (2-pages).

Week 3: Draft Final IPE elective report (5-page word document, Calibri font size 11). Report must integrate data charts with clear thematic analyses and a 200-word summative reflection.

Week 4: Final edits to final IPE research written report. Deadline 5 pm.

University Policies

Attendance Policy

The university views class attendance and participation as an individual student responsibility. Students are expected to attend class and to complete all assignments.

Please refer to [Student Rule 7](#) in its entirety for information about excused absences, including definitions, and related documentation and timelines.

<http://student-rules.tamu.edu/rule07>. TAMHSC – COM student handbook states: Students who miss more than 20% of an elective for any reason (2 weekdays during a 2-week rotation or 4 weekdays for 4-week rotation) will require a remediation plan. Time for unexcused absences may have to be made-up/remediated at the discretion of the Elective Director.

Makeup Work Policy

Students will be excused from attending class on the day of a graded activity or when attendance contributes to a student's grade, for the reasons stated in Student Rule 7, or other reason deemed appropriate by the instructor.

Please refer to [Student Rule 7](#) in its entirety for information about makeup work, including definitions, and related documentation and timelines.

Absences related to Title IX of the Education Amendments of 1972 may necessitate a period of more than 30 days for make-up work, and the timeframe for make-up work should be agreed upon by the student and instructor" ([Student Rule 7, Section 7.4.1](#)).

"The instructor is under no obligation to provide an opportunity for the student to make up work missed because of an unexcused absence" ([Student Rule 7, Section 7.4.2](#)).

Students who request an excused absence are expected to uphold the Aggie Honor Code and Student Conduct Code. (See [Student Rule 24](#).) Remediation will be required if student fails the course due to lack of Medical Knowledge, Professionalism or Ethical issues. Failure will result in student retaking the course.

Academic Integrity Statement and Policy

"An Aggie does not lie, cheat or steal, or tolerate those who do."

"Texas A&M University students are responsible for authenticating all work submitted to an instructor. If asked, students must be able to produce proof that the item submitted is indeed the work of that student. Students must keep appropriate records at all times. The inability to authenticate one's work, should the instructor request it, may be sufficient grounds to initiate an academic misconduct case" ([Section 20.1.2.3, Student Rule 20](#)).



You can learn more about the Aggie Honor System Office Rules and Procedures, academic integrity, and your rights and responsibilities at aggiehonor.tamu.edu.

NOTE: Faculty associated with the main campus in College Station should use this Academic Integrity Statement and Policy. Faculty not on the main campus should use the appropriate language and location at their site.

Americans with Disabilities Act (ADA) Policy

Texas A&M University is committed to providing equitable access to learning opportunities for all students. If you experience barriers to your education due to a disability or think you may have a disability, please contact Disability Resources in the Student Services Building or at (979) 845-1637 or visit disability.tamu.edu. Disabilities may include, but are not limited to attentional, learning, mental health, sensory, physical, or chronic health conditions. All students are encouraged to discuss their disability related needs with Disability Resources and their instructors as soon as possible.

NOTE: Faculty associated with the main campus in College Station should use this Americans with Disabilities Act Policy statement. Faculty not on the main campus should use the appropriate language and location at their site.

Title IX and Statement on Limits to Confidentiality

Texas A&M University is committed to fostering a learning environment that is safe and productive for all. University policies and federal and state laws prohibit gender-based discrimination and sexual harassment, including sexual assault, sexual exploitation, domestic violence, dating violence, and stalking.

With the exception of some medical and mental health providers, all university employees (including full and part-time faculty, staff, paid graduate assistants, student workers, etc.) are Mandatory Reporters and must report to the Title IX Office if the employee experiences, observes, or becomes aware of an incident that meets the following conditions (see [University Rule 08.01.01.M1](#)):

- The incident is reasonably believed to be discrimination or harassment.
- The incident is alleged to have been committed by or against a person who, at the time of the incident, was (1) a student enrolled at the University or (2) an employee of the University.

Mandatory Reporters must file a report regardless of how the information comes to their attention – including but not limited to face-to-face conversations, a written class assignment or paper, class discussion, email, text, or social media post. Although Mandatory Reporters must file a report, in most instances, you will be able to control how the report is handled, including whether or not to pursue a formal investigation. The University's goal is to make sure you are aware of the range of options available to you and to ensure access to the resources you need.



Students wishing to discuss concerns in a confidential setting are encouraged to make an appointment with [Counseling and Psychological Services](#) (CAPS).

Students can learn more about filing a report, accessing supportive resources, and navigating the Title IX investigation and resolution process on the University's [Title IX webpage](#).

NOTE: Faculty associated with the main campus in College Station should use this Title IX and Statement on Limits of Liability. Faculty not on the main campus should use the appropriate language and location at their site.

Statement on Mental Health and Wellness

Texas A&M University recognizes that mental health and wellness are critical factors that influence a student's academic success and overall wellbeing. Students are encouraged to engage in proper self-care by utilizing the resources and services available from Counseling & Psychological Services (CAPS). Students who need someone to talk to can call the TAMU Helpline (979-845-2700) from 4:00 p.m. to 8:00 a.m. weekdays and 24 hours on weekends. 24-hour emergency help is also available through the National Suicide Prevention Hotline (800-273-8255) or at suicidepreventionlifeline.org.

College and Department Policies

COM Professionalism and Integrity Statement (Academic Honesty and Plagiarism)

All College of Medicine students are required to comply with the student code of conduct and the academic integrity and honesty standards published in each component's Student Handbook. Disciplinary action will be taken in accordance with the policies of each component. Students found guilty of Academic Dishonesty will receive an "F"/Unsatisfactory in the course. For a full list of actions qualifying as academic dishonesty, please review the College of Medicine Student Handbook at <http://medicine.tamhsc.edu/student-affairs/docs/handbook.pdf>.

Mistreatment of Students

The College of Medicine is committed to providing a positive learning environment in which students can meet their academic goals based on mutual respect in the teacher/learner relationship. Both parties must be sensitive to the needs of others and differences in gender, race, sexual orientation, religion, age or disability. As outlined in the Student Handbook under the section titled Standards of Conduct in the Teacher-Learner Relationship, belittlement, intimidation and humiliation are unacceptable for effective learning and undermine self-esteem. Breaches involving student mistreatment may result in a faculty or staff member being sanctioned or the loss of faculty and/or staff appointment. These policies address student mistreatment involving College of Medicine employees, residents, affiliate staff, or patients. Mistreatment may be reported through the College of Medicine online form at <https://medicine.tamhsc.edu/about/professionalism/conduct-awareness.html#tab-panel-5>. For a full list of reporting avenues, please refer to the Student Handbook under the Mistreatment Policy.



Exposure and Occupational Hazard

The Needle Stick Policy and Bloodborne Pathogen Exposure information for Medical Students may be accessed in the Student Handbook at: <http://medicine.tamhsc.edu/student-affairs/docs/handbook.pdf>

Note: More information is available on the aforementioned topics to all students on the College of Medicine website.

E-mail Access and FERPA

The College of Medicine is communicating all official information to students through the students' TAMHSC e-mail accounts. Please check the account frequently during the semester for updates. This course is supported with web-based and/or e-mail activities. In order to take advantage of these additional resources and participate fully in the course, you have been assigned an e-mail address by the Texas A&M Health Science Center. This e-mail address is for internal use only, so that faculty may communicate with you and the entire class. By registering for this course, you are agreeing to allow your classmates to have access to this e-mail address. Should you have any questions, please contact the TAMU's Office of the Registrar at 979-845-1031.

The Family Educational Rights and Privacy Act of 1974 (FERPA), which the HSC complies fully, is intended to protect the privacy of education records, to establish the rights of students to inspect and review their education records and to provide guidelines for the correction of inaccurate or misleading data through informal and formal hearings. Students also have the right to file complaints with the Family Educational Rights and Privacy Act Office of the Department of Education in Washington, D.C., concerning alleged failures by the HSC to comply with the act.