

# Evidence Based Practice

Out-Analyze | Out-Problem Solve | Out-Communicate

PHAR 6782

Credits: 1.8

Syllabus: Fall 2020

This course adheres to the items listed in the [College of Pharmacy Central Syllabus](#)

Course Link: <https://canvas.umn.edu/courses/139940>

Zoom Link: Link embedded in each module

InteDashboard Link: Use link sent to you during registration

## Meeting Times & Location

Day	Time	Duluth Room	TC Room
Thursday	10:10 - 12:05	The Langworthy/Luczak ZALC ( <i>Zoom Active Learning Classroom</i> )	

Technology Help	Phone: 612-301-4357 Email: <a href="mailto:help@umn.edu">help@umn.edu</a>	Phone: 218-726-8847 Email: <a href="mailto:itsshhelp@d.umn.edu">itsshhelp@d.umn.edu</a>
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## Detailed Course Schedule

See Canvas site for class schedule

## Course Communication

Course details and updates will be communicated via email, the course website, and/or announcements in class. Please check your email and the website daily during this course and connect with a classmate for any in-class announcements if you are unable to attend class.

## Statement of Commitment to Equity, Support, and Inclusion from Drs. Langworthy and Luczak

- We commit to providing academic support to individual students or student groups that seek further assistance with course material for PHAR6782: Evidence Based Practice. Please contact Dr. Langworthy and/or Dr. Luczak if you need help with this course material.
- We want our classroom to be a space for all voices, from all cultures, races, ethnicities, genders/gender identities, sexual orientations and backgrounds. We are open to feedback and suggestions if there is ever any question or issue in this regard.

- We are happy to serve as listeners and advocates when students experience bias from faculty, students, or others in the College community. You would have our commitment that we would not share this information unless you asked us to.
- As faculty, we are committed to identifying our bias and educating ourselves appropriately. This commitment includes receiving feedback and suggestions from the student body in order to expand our awareness knowing that what we do at the College and in our practices affects our learners and patients.
- We would be happy to serve as a conduit to connect our learners to pharmacists/faculty/researchers of color, from the LGBTQ+ community, or from other races, ethnicities or cultures if you would like to make connections and seek mentoring from others about their journey.

## Instructional Team

<b>Course Directors</b>	<b>Diana R. Langworthy, Pharm.D., BCPS</b> Assistant Professor Department of Pharmaceutical Care & Health Systems UMN College of Pharmacy – Twin Cities 7-174 Weaver Densford Hall 308 Harvard St. SE Minneapolis, MN 55455 Phone: 612-301-1490 Email (preferred): <a href="mailto:dlangwor@umn.edu">dlangwor@umn.edu</a> Virtual connections: by appointment	<b>Tiana Luczak, Pharm.D.</b> Pharmacogenomics Postdoctoral Fellow <i>Adjunct Assistant Professor</i> Department of Pharmacy Practice and Pharmaceutical Sciences UMN College of Pharmacy - Duluth 130 Life Science 1110 Kirby Drive Duluth, MN 55812 Phone: 218-343-2869 Email: <a href="mailto:lucza006@d.umn.edu">lucza006@d.umn.edu</a> Virtual connections: by appointment
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	<b>Sarah Westberg, PharmD, BCPS</b> Professor, UMN College of Pharmacy - TC Email: <a href="mailto:swestber@umn.edu">swestber@umn.edu</a>	
<b>Guest Speakers</b>	<b>Melissa Carlson, PharmD</b>	<b>Natalie Roy, PharmD,</b>
	<b>Heather Blue, Pharm.D., BCPS, BCGP</b>	
<b>Teaching Assistants</b>	<b>Yingbo Huang</b> Teaching Assistant Email: <a href="mailto:huan1958@umn.edu">huan1958@umn.edu</a>	<b>Joseph Broughton, PharmD</b> Teaching Assistant   PGY2 Oncology Resident Email: <a href="mailto:joseph.broughton@slhduluth.com">joseph.broughton@slhduluth.com</a>

## Overview of the Course

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### Course Description

The Evidence-Based Practice (EBP) course has been designed to facilitate acquisition and application of evidence based practice knowledge and skills. Evidence based practice involves the use of the best available evidence, clinical expertise, and patients' values to make complex pharmacy-related decisions. In order to facilitate these EBP skills for learners, this course will reinforce the evidence appraisal process which includes the ability to ask relevant questions, acquire appropriate evidence, critically appraise the evidence, and apply it to a pharmacy scenario.

Students in this course will be guided through critical appraisal of a variety of study designs and will be asked to apply these critical appraisal skills individually and in groups to solve problems. Application of EBP skills will be achieved through the use of Team Based Learning, in-class activities, and journal clubs. Students will also be exposed to discussions and activities surrounding clinical reasoning through "grey areas" in patient care and shared decision making to incorporate patient values into the EBP process.

By the end of this course, students will have had multiple opportunities to apply EBP skills to pharmacy scenarios and will be further prepared for use of these skills during APPE rotations and clinical practice.

### Course Format

The Evidence Based Practice course is delivered using a variety of teaching and learning strategies which include, but are not limited to, Team Based Learning (TBL), traditional lectures, and in-class student presentations. The course will meet for a 2-hour session once weekly in a synchronous session for most weeks, however there may be some weeks where the content/session will be achieved asynchronously. Assessment of student knowledge will be conducted through the use of graded assessments as a part of TBL (iRATs, tRATs and application activities), literature appraisal quizzes to reinforce key appraisal concepts, journal club written and oral presentations, reflections, and a final group application activity. See below in Assessments/Grading for more details.

### Course Goals & Learning Objectives

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<b>Goal/Objective</b>
<b>Foster evidence-based practice skills in students through exposure to critical literature appraisal and application</b>
Objective 1: Use established methods to identify, select, appraise, and apply literature to a defined question or problem [Domain 6; Competencies 6.0, 6.1, 6.2]
<b>Promote learners' ability to identify and define clinical questions in pharmacy scenarios</b>
Objective 2: Identify a problem in clinical or scientific practice and formulate a well-constructed question that will frame investigations of the question [Domain 6; Competencies 6.0, 6.1]
<b>Advance clinical decision making abilities through developing evidence-based solutions to "grey area" pharmacy problems</b>
Objective 3: Construct evidence-based solutions to complex pharmacy problems that do not have a clear-cut answer [Domains 1, 2, 6; Competencies 1.1c, 2.2, 6.0, 6.1, 6.2]
<b>Cultivate effective/concise written and oral communication skills through synthesis and dissemination of practice solutions</b>
Objective 4: Summarize literature appraisal and clinical/practice/scientific implications in effective, concise written form [Domain 5; Competencies 5.3]
Objective 5: Demonstrate effective communication of evidence-based conclusions through logical and concise verbal presentation to peers [Domain 5; Competencies 5.3]
Objective 6: Provide constructive peer feedback for team participation and oral presentations [Domain 4; Competencies 4.3, 4.9]

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## **Prerequisites**

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The Evidence Based Problem Solving course will build on literature searching/appraisal knowledge and skills you have gained in the following courses:

PHAR 6700 – Becoming a Pharmacist

PHAR 6704 – Foundations of Social & Administrative Pharmacy (SAPh)

PHAR 6706 – Foundations of Pharmaceutical Care

PHAR 6710 - Pharmaceutical Care Skills Lab I

In addition, this course will integrate the use of these skills with scenarios that pertain to the pharmacy profession (i.e. patient care, managed care, health-systems, etc...), therefore prior course knowledge will be drawn upon to build learners' comprehensive approach to Evidence Based Practice.

Lastly, students will apply written and oral communication skills that have been learned through pre-pharmacy and earlier pharmacy coursework to present written/oral conclusions for application activities, journal clubs and critical topics.

## **Course Requirements**

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### **Our Expectations of Learners**

As a future pharmacist and dedicated lifelong learner, active participation in your education at the College of Pharmacy is essential to success in this course and in your future careers. These are our expectations of learners in this course:

1. Come prepared to class
  - a. The success of active learning and Team Based Learning hinge on student preparedness and engagement during application activities.
  - b. Watch any pre-class modules and complete pre-class readings to prepare for your Readiness Assessment Process and for engagement in application activities
  - c. Be thorough in your preparation for presentations (written and oral) – your ability to answer questions about your appraisal of the evidence will guide evaluation of your analysis/presentation
2. Students should have reasonable access to reliable internet with an internet enabled device
3. Students should join with audio and video when able to increase engagement during class sessions. Please remain professional during zoom interactions as you would if you were in class
4. Participate in class. Proactive class participation enhances the efficiency of discussion, and we truly appreciate it!
5. Use technology respectfully/professionally during class sessions
  - a. We expect use of electronic devices in class will be done in a way that shows respect for fellow students, the instructor, and the learning activities that are occurring in the classroom, and that is consistent with professional behavior
  - b. Please do not use your devices (computers, iPads, smartphones, etc.) in a way that removes you from active engagement in the learning process (for example, reading assignments for other courses, internet surfing, online shopping, etc...)
  - c. Students should put away electronic devices when they are not being used in appropriate, class-related activities, such as intermittent note-taking
6. Ask for help if you need it! We want you to be successful in this course, and more importantly, with these skills moving forward into your careers. Reach out if you're struggling, confused, or just want some additional information or perspective 📧

## Course Materials

### Course Charge Information

There will be a \$25.00 course charge for the semester for the online TBL platform, InteDashboard. This platform will be used for all TBL courses (Infectious Disease, Topics, and EBP) for the semester - therefore this charge applies across courses for the semester but is being housed in the EBP course.

### Electronic Handouts and Materials

Course notes and materials will be provided in electronic formats whenever possible through the Canvas site/InteDashboard. Whenever possible, course material will be posted at least 1 week in advance of a lecture, or earlier if available. Please review materials posted in advance of the class period to ensure preparedness for upcoming week and for in-class activities. This may include required readings, required e-modules/lectures, and other optional resources.

### Computer/Technology Requirements

1. This course will use Canvas to distribute resources and host course information
2. This course will use InteDashboard as the online TBL platform
3. Internet-enabled device and home internet capable of accessing the internet in order to access class sessions and course resources during class (i.e. Canvas, InteDashboard, library resources, internet, etc...)

### Assessments & Grading

Title/Description	Points Possible	% of Course Grade
<b>TBL Modules (72 points per module) - 6 modules with lowest 2 module grades dropped</b> iRAT (24 points) tRAT (24 points) App Activity (24 points)	<b>Total: 288 points</b>	<b>36%</b>
<b>Journal Club - Individual</b> 1. Written handout (90 points) 2. Oral presentation (70 points)	<b>Total: 160 points</b>	<b>20%</b>
<b>4 x Literature Appraisal Quizzes (30 points each)</b>	<b>Total: 120 points</b>	<b>15%</b>
<b>Assignment reflections</b> 1. "Navigating the Gray" (16 points) 2. Research injustices (16 points)	<b>Total: 32 points</b>	<b>4%</b>
<b>Putting it all together - Group</b>	<b>Total: 120 points</b>	<b>15%</b>
<b>Peer TBL Grade</b> 1. Midpoint (40 points) 2. Final (40 points)	<b>Total: 80 points</b>	<b>10%</b>
<b>Final Grade</b>	<b>800</b>	<b>100%</b>

## Assessment Descriptions

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### Team Based Learning (TBL)

There will be six TBL sessions throughout this course. The TBL Module consists of an individual readiness assessment test (iRAT), a team readiness assessment test (tRAT), appeals, and an application activity. After each TBL session, there will be an SBAR video submission whereby one member from each team will record a BRIEF recommendation based on the application activity and submit this on Canvas. Students will then provide feedback to one other student who presented to their team (instructions will be provided for each session). There will be 2 points allotted to the video SBAR submission & feedback and all TBL team members must “present” at least once. For the purpose of this course, students will receive grades for iRATs and tRATs, and application activities. The lowest **TWO** of six TBL module grades will be dropped. Students will be asked to provide peer TBL feedback at midpoint and end of course for each team member.

### Journal Club Presentation

There will be one required journal club assignment during this course. This will be an individual assignment and will require development of a written handout and delivery of a 10-minute, oral presentation to fellow classmates. Students will select from one of five pre-specified journal articles and will work within their group to make sure that no two group members select the same article. Students will be provided with a Journal Club Handout template to use for the written portion of the assignment and will also be given an oral presentation rubric to aid them in preparing for their brief oral presentation of their article.

Students will be asked to review any pertinent background information or prior relevant studies as it relates to the content in the article, critically appraise the article (i.e. determining appropriateness of study design, methods, analysis, etc...), develop an assessment of strengths and weaknesses, and finally generate a conclusion/practice implication statement. Students will then present their findings to their group in a “roundtable” format and will receive written feedback from their peers upon completion to generate their oral presentation grade. Journal club handouts will be graded by course faculty/teaching assistants using a rubric.

### Biostatistics/Appraisal Quizzes

There will be four biostatistics/literature appraisal quizzes throughout the semester designed to reinforce common biostatistics and literature appraisal concepts. Students will be allowed 2 attempts for each quiz. These quizzes will be open note, open resource and should be completed as an individual. There will be no pre-work or lectures for these quizzes, you will be required to utilize your own resources and prerequisite knowledge to figure out the answers.

### Putting it All Together – In-class Assignment

The final in-class session will involve students working in groups to “put it all together”. Groups will be assigned a practice challenge and will work together for the 2-hour session to develop their PICO question, develop a search strategy, acquire evidence, appraise the evidence, and apply it to the practice challenge. Groups will be asked to write up their solution and submit it to the Canvas site at the end of class. Assignments will be graded by course faculty/teaching assistants using a rubric.

### Overall Course Grade

The overall course grade will be determined by the results of 4 TBL Modules (iRAT + tRAT + application activity), 1 journal club written and oral presentation, 1 group “putting it all together” in-class assignment, 4 quizzes, two reflections, and two peer TBL feedback grades. Overall grade will be adjusted after the lowest two TBL Modules are dropped.

### Assignment Due Dates/Presentation Dates

All assignment due dates and exam dates will not be changed from those printed in the course schedule. Should the University be closed due to an unforeseen event, the assignment due date or presentation date will be rescheduled.

## Statement on Penalties for Late Work

All assignments must be turned in on time. Any unexcused late assignments will result in a 10% reduction in the grade for every 24 hours it is late. Late work may be accepted in certain circumstances such as emergencies and other unforeseen events. It is imperative you contact the course director before the due date for more information. Contacting the course director after the due date will preclude any allowance for late work.

## Missing Grades and/or Grade Discrepancies

Students are responsible for checking the Canvas gradebook for missing grades and/or grade discrepancies. If a potential inaccuracy is identified students have one week from the day/time the grade is posted to notify the course director. After one week, requests to change grades will not be honored.

## Make-Up Policy

Make-up in-class graded activities (TBLs, journal clubs, group presentations) will not be offered except under the following circumstances: illness, verified by a licensed professional; a family emergency, verified by the professional in attendance; or a University-sponsored event, verified by the sponsoring organization. Additional circumstances will be considered at the discretion of the course director, but are not likely to be granted. If a student is unable to attend the scheduled graded activity, the course director must be notified (by email) at least 24 hours in advance of the class time (where possible). If you do not receive a reply to your request prior to the class time, please do NOT assume that your request has been granted; contact us again to confirm that your request was received and processed. If an acceptable circumstance or adequate documentation is not provided, a grade of zero on the assignment will be assigned. Unless there are extenuating circumstances, students must contact the course director within 24 hours of the missed assignment in order to be considered for a makeup. Depending on the circumstances, the make-up assignment date will not be more than one week after the original date and will if possible occur before the original date.

- TBL Sessions:** The iRATs will start on time - questions missed due to tardiness or a lack of appropriate device will be forfeited. If a student receives a  $\emptyset$  for the iRAT a  $\emptyset$  will also be recorded for the tRAT. Students will receive a score of zero for the TBL module if it is missed. Since the lowest two TBL modules will be dropped, we will not offer points for TBL modules that are missed for an excused reason. If more than two excused absences are required, the course directors will handle this make-up scenario at their discretion. In the event that you are attending a virtual conference, if you are able to view recorded sessions at a later time, we would encourage you to attend class to avoid missing important team discussions and learning.
- Journal Club and Final Putting it All Together Exercise:** If there is an excused absence for the Journal Club assignment or excused tardiness for submitting it late, students will turn in written material/s by the newly agreed upon due date per the course director(s). Students will need to set up a time to do a one-on-one presentation with knowledgeable course faculty or staff - as arranged by the course director.
- Literature Appraisal Quizzes:** Make-up quizzes for students who unintentionally overlooked the due date/time (and/or without an accepted circumstance as above) will not be granted. Students must arrange with the course director(s) time to make up the quiz for an excused absence.

## Course Letter Grades

A total of 800 points can be obtained on in-class activities, quizzes, and projects as indicated above. A percentage will be calculated and grades will be assigned as follows:

Grade	A	A-	B+	B	B-	C+	C	C-	D	F
%	100-93	92-90	89-87	86-83	82-80	79-77	76-73	72-70	69-60	59-0

**Rounding of grades:**

Final grades will be rounded based on common rounding practices – grades with a 0.5 or higher will be rounded up.

**Minimum Passing Level**

As per the Academic Standing Committee Policy, students who receive a grade below C- in this course must successfully repeat the course before advancing to *fourth* year courses.

**Disability Accommodations:**

Any student with a documented disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) who needs to arrange accommodations must contact the course director within the first week of the course. Students who do not present documentation from Disability Services a minimum of one week before an assessment will adhere to the original/traditional expectations for that assessment.

Please contact Disability Services to quantify and arrange the necessary accommodations:

Twin Cities: <http://ds.umn.edu/> 612-626-1333

Duluth: <http://www.d.umn.edu/access/> 218-726-8217

All discussions concerning this issue will remain confidential. English as a second language is not considered a disability by the College of Pharmacy, and this course will not accommodate requests for additional exam time based on this criterion.

**Honor Code and Classroom Etiquette:**

Each student is bound by the honor code which defines academic misconduct as any unauthorized act which may give a student an unfair advantage over other students, including but not limited to: falsification, plagiarism, misuse of test materials, receiving unauthorized assistance and giving unauthorized assistance. Specifically, each student will be required to do their own work on all assignments and exams (online or written) unless otherwise advised by the course instructors. For exams or other assessments that are not returned to students by the instructors, it will be considered a "misuse of test materials" and therefore a violation of the honor code to copy, scan, photograph or otherwise re-construct such assessment content.

You signed the following statement upon accepting placement in the University of Minnesota College of Pharmacy: "I hereby affirm that I have read and understood the provisions and stipulations of the University of Minnesota Pharmacy Student Code of Ethical Responsibility and Professional Behavior."

The Code was established in the belief that central to any intellectual and professional endeavor is an atmosphere of mutual trust and respect, based on individual maintenance of community standards. Your professional community starts here at the College of Pharmacy with your peers, faculty, preceptors, staff and administrators. It is our expectation that you will exhibit professional behavior towards other students and faculty in the classroom at all times. In turn, we will treat you with the professional respect you deserve.

**Course/Faculty Evaluation:**

Students will have an opportunity to complete online course evaluations for course instructors as well as the overall course. We value your opinion. It's our intention to provide a good backdrop for educational and professional development. To accomplish this it is vital that our students provide us with constructive assessment of our progress so far.

**Recording Policy:**

For information relevant to the recording policy for this course, please refer to the following link.

<http://z.umn.edu/recordingpolicy>