



Institution:

- Belmont University: Thomas F. Frist, Jr. College of Medicine

Course Identity:

- Course: MDD 5895, Section 1 (Pilot Course): Research Elective
- Summer 2025
- Meeting time/Dates: June 9-August 1, 2025
- Class location: TBD
- Credit hours: 8 hours
- Elective Type: Non-Clinical
- Course Capacity: Based on the availability of research project sites

Faculty Name	Discipline	Email Address
Bin Liu (Course Director)	Pharmacology	Bin.liu@belmont.edu
Site Research Mentor	TBD	TBD

Course description:

The Research Elective is designed to provide students opportunities to develop critical skills in scientific research, research in evidence-based medicine, or humanities research. Students will participate in projects led by faculty at Belmont University, hospitals, and research institutions around the country. Research types include healthcare data science, practice-based improvement, biomedical research, and bioethics. Students will work with mentors to develop research questions, collect and analyze data (if applicable), and present their results at academic conferences. Students are encouraged to continue to work with their mentors to develop the project for publication in academic journals.

Course Learning Objectives: [See Appendix A](#)

Course Requirements/Outline for Class Schedule: [See Appendix B](#)

Relevant pre-requisites:

- Completion of Belmont University CITI training (<https://www.belmont.edu/irb/policies/citi-training.html>) and any additional training modules required by the sponsoring institutions.
- Possibly research projects may require an update-to-date immunization record.

Methods of instruction: Combo Delivery Method

Methods of Evaluation:

Evaluation will be based on student's participation in the research activities provided by the sponsoring institution and the scheduled activities with the Course Director, as well as the completion of the project's final product (i.e., Abstract, Poster and Longitudinal Plan).

Grading Policy: [See Appendix C](#)

The grading scale and policy **HERE:** [See Appendix D](#)

Appendix A

- RES1** Investigate a suitable, original, scholarly question with appropriate methodologies utilizing pertinent literature review and in collaboration with a mentor. (KP 2.1; KP 2.3; KP 2.4; ICS 4.1; PR 5.1; PR 5.3; PR 5.5; IPC 7.1; IPC 7.2)
- RES2** Analyze data or concepts to answer a scholarly question using appropriate methodologies. (KP 2.1; KP 2.2; KP2.3; KP 2.4; ICS 4.1; PR 5.1; PR 5.3; PR 5.5)
- RES3** Critique results, draw plausible conclusions, and suggest implications in the field. (KP 2.1; KP 2.2; KP 2.3; KP 2.4; ICS 4.1; PR 5.1; PR 5.3; PR 5.5; IPC 7.1; IPC 7.2; PPD 8.5)
- RES4** Demonstrate competency in the application of research ethics regarding data privacy and confidentiality, data integrity and the research record, scientific misconduct, and, where applicable, use of subjects or subject data. (KP 2.4; PR 5.1; PR 5.3; PR 5.4; PR 5.5; IPC 7.1; IPC 7.2)
- RES5** Communicate clearly, accurately, and concisely the findings of a scholarly project in a written form. (KP 2.1; KP 2.2; KP 2.3; KP 2.4; ICS 4.1; PR 5.1; PR 5.3; PR 5.5; IPC 7.1; IPC 7.2; PPD 8.5; PPD 8.6)
- RES6** Prepare for lifelong scholarly activity by interpreting medical, scientific, and humanities literature, formulating and evaluating hypotheses, applying research ethics, engaging in the scholarly process and communicating results. (PC 1.4; KP 2.3; KP 2.5; PR 5.1; PR 5.5; PPD 8.1)

Appendix B

Week One, June 9th – 13th			
Day 1, 06/09	1 hour	Asynchronous: Introduction	Bin Liu
Week 1	40 hours	Research Activities	Research Mentor
Week Two, June 16th – 20th			
Week 2	40 hours	Research Activities	Research Mentor
Week Three, June 23rd – 27th			
Week 3	30 mins	Bi-Weekly Check-In	Bin Liu
Week 3	40 hours	Research Activities	Research Mentor
Week Four, June 30th – July 3rd			
Week 4	40 hours	Research Activities	Research Mentor
Week Five, July 7th – July 11th			
Week 5	30 mins	Bi-Weekly Check-In	Bin Liu
Week 5	40 hours	Research Activities	Research Mentor

Week Six, July 14 th – 18 th			
Week 6	40 hours	Research Activities	Research Mentor
Week Seven, July 21 st – July 25 th			
Week 7	30 mins	Bi-Weekly Check-In	Bin Liu
Week 7	40 hours	Research Activities	Research Mentor
Week Eight, July 28 th – August 1 st			
Week 8	40 hours	Research Activities	Research Mentor
Week 8	60 min	Research Abstract Writing and Poster Preparation	Bin Liu
Week 8	30 min	Project: Longitudinal Plan	Bin Liu

Appendix C

Grading System: The grading system for the Individualization Phase nonclinical and clinical electives will be Pass-Fail. This approach emphasizes learning and competency-based assessment rather than comparative ranking.

Participation of sponsor's research activity: 35 points

Participation of scheduled activities: 15 points

Final product (abstract, draft poster): 50 points

Total: 100 points (all areas must be passed at 70%)

Assessment Methods:

- Participation
- Research or Project Assessment

Class Attendance Policy:

Attendance is encouraged for all learning activities, and it is the student's responsibility to be active learners in their medical school education. There are two types of attendance categories: Mandatory and Discretionary. Mandatory sessions are sessions where the experience in-person cannot be acquired by other methods. All mandatory sessions will be marked on the schedule and tracked.

Discretionary sessions are not tracked, but students are encouraged to attend. If students choose not to attend a discretionary session, they are responsible for the content and objectives presented and covered at that time.

There are times when a student may need to miss a mandatory session. All requests for a Dean's Excuse for an absence for any mandatory attendance activity require documentation and submission to the respective associate dean. See policy for more detail.