



Twin Cities Campus
EMMD 7521 – Emergency Medicine Research
2024 - 2025

SYLLABUS STATEMENT: The purpose of this document is to provide clarity about clerkship expectations. Consider using this document as a guide for this clerkship, and to provide transparency and accountability for all.

CONTACT INFORMATION:

Clerkship Directors:

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Teaching Statement:

Through this clerkship, we hope to teach and encourage scientific curiosity and thought with a systematic approach learned in the Emergency Medicine context that can ultimately be used in many areas of medicine. It is our aim to serve as mentors and partners as students develop their own knowledge.

Clerkship Coordinator: Aimee J Donahue

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CLERKSHIP DESCRIPTION:

This course provides an introduction to Emergency Medicine research. Students will participate in a research project under supervision of Emergency Medicine clinician-researchers and research teams, ideally resulting in peer review publication. At the end of the rotation, students will be able to describe how to formulate a research question, describe common study designs, study methods, and data analyses used in Emergency Medicine research. Students will actively work with research teams to enroll subjects in research studies and participate in data collection.

Students must contact the Course Directors prior to registration for course approval.

Canvas Site: <https://canvas.umn.edu/courses/236134>

Clinical Sites: Hennepin County Medical Center, Regions Hospital

Prerequisites: None

Terms offered: S1-S4, F1-F4, SP1-SP4

Length of Clerkship: 4 weeks

CLERKSHIP LEARNING OBJECTIVES

Clerkship Learning Objective	Assessment (use AAMC assessment categories + clerkship language)	Graduation Competencies	Graduation Competencies Subdomain	Entrustable Professional Activities (EPAs)
1. Describe the steps in the development of a research question pertinent to emergency medicine.	Clinical Experience-ED Participation Discussion, Small Group Independent Learning	KP2 SC11	Knowledge for Practice Scientific and Clinical Inquiry	EPA7
2. Describe common research study designs, data collection methods, and methods of data analysis used in emergency medicine research	Clinical Experience-ED Participation Research Discussion, Small Group Independent Learning Journal Club	PC5 KP2 ICS3 P4 SC1 IPC1	Patient Care Knowledge for Practice Interpersonal and Communication Skills Professionalism Scientific and Clinical Inquiry Interprofessional Collaboration	EPA7 EPA9 EPA11
3. Explain the rationale, hypothesis, methods, data analysis, and limitations of the study he or she has been actively involved in.	Participation Research Discussion, Small Group Independent Learning Mentorship	PC5 KP2 P2 P4 SC1	Patient Care Knowledge for Practice Professionalism Scientific and Clinical Inquiry	EPA7 EPA9
4. Design a proposed emergency medicine research project (real or hypothetical)	Discussion, Small Group Independent Learning Mentorship	KP2 KP3 SC1	Knowledge for Practice Scientific and Clinical Inquiry	EPA7

Reference table:

Institutional Goals & Objectives	Entrustable Professional Activities	Methods of Instruction
UMN Competencies Required for Graduation	Refer to EPAs	Refer to AAMC Categories

GRADING AND ASSESSMENT:

The goal is to evaluate individual learning and performance of Clerkship Learning Objectives in this clinical rotation.

Assessment Grid:

Assessment	Contents	Grading Scale	Proportion of Grade
<i>Threshold Assessments – Need to pass all in order to pass the course</i>			
Research Project Completion	Clinical Curriculum	Pass/No Pass	N/A
Participation in Department Clinical Research	Clinical Curriculum	Pass/No Pass	N/A
Textbook Readings	Structured Curriculum	Pass/No Pass	N/A
EM Conference Attendance	Clinical Curriculum	Pass/No Pass	N/A
Research Meeting Attendance	Clinical Curriculum	Pass/No Pass	N/A
Monthly Journal Club	Clinical Curriculum	Pass/No Pass	N/A

CLERKSHIP OUTLINE AND CONTENT:

This rotation provides a general overview of clinical research in Emergency Medicine under the mentorship of a faculty member.

Students must obtain permission for registration to ensure assignment of a clinical project.

Prior to the start of the rotation, students should complete CITI training (Primary Category, GCP/ICH, COI, HIPAA) and OEQCR in person research training (HCMC). The required textbook for this rotation is *Designing Clinical Research* (Fourth Edition) by Hulley et al. It is expected the text will be completely read by the end of the rotation. The expected time commitment of this rotation is 40 hours per week. Due to the nature of Emergency Medicine, it is completely acceptable to work on projects outside of conventional day time hours. An example would be if a student wants to work an overnight shift screening and recruiting subjects for a condition that is commonly seen outside of daytime hours. Students are expected to work on campus and report hours to their assigned research faculty. The rotation grade is Pass/Fail.

Students will meet regularly, at least weekly, with the assigned faculty member to discuss project progress. Specific project work may include project design, IRB submission, subject screening and enrollment, obtaining consent, data collection, database management, chart review, data analysis, and/or manuscript preparation. Ideally a student's specific project work will result in peer review publication. Students will also be expected to assist with other projects during the rotation.

Students will also spend time with the ED clinical research team, including screening and enrolling subjects into ongoing studies with research and quality improvement volunteers, consenting subjects, and participating in data collection methods. Students will participate in research meetings, monthly Journal Clubs, and attend weekly Emergency Medicine conferences. There may be opportunities for students to observe laboratory research studies depending on what studies are ongoing.

Lastly, students will create a proposed research project during their rotation, starting with a research question and primary outcome, outlining how they would ethically address subject enrollment during the study, data collection methods, data analysis, and outcomes that might be found. This project may be completely theoretical or provide a framework for a future project.

Sample Clerkship Weekly Calendar

Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1	-Orientation Activities -Observe and participate in department clinical research	-Textbook reading -Specific project work -Observe and participate in department clinical research	-Textbook reading -Specific project work -Observe and participate in department clinical research	-EM Conference -Textbook reading -Specific project work	-Textbook reading -Specific project work -Observe and participate in department clinical research	Off	Off
2	-Check in with research mentor -Specific project work	-Monthly research faculty meeting -Specific project work -Monthly Journal Club	-Specific project work -Observe laboratory research study	-EM Conference -Specific Project work -Proposed research project work	-Specific Project work -Proposed research project work -Observe and participate in department clinical research	Off	Off
3	-Check in with research mentor, mid rotation review -Specific project work -Proposed research project work	-Specific Project work -Proposed research project work -Observe and participate in department clinical research	-Specific Project work -Proposed research project work -Observe and participate in department clinical research	-EM Conference -Specific Project work -Proposed research project work -Observe and participate in department clinical research	-Specific Project work -Proposed research project work -Observe and participate in department clinical research	Off	Off
4	-Check in with research mentor -Present proposed research project -Continue specific project work	-Specific Project work -Proposed research project work -Observe and participate in department clinical research	-Specific Project work -Proposed research project work -Observe and participate in department clinical research	-EM Conference -Specific Project work: wrapping up and creating long term plan	-Specific Project work: wrapping up and creating long term plan	Off	Off

Mid-Clerkship Review: Students will check in with their assigned faculty research mentor on a weekly basis. At the mid-Clerkship time point, it is expected students will have read the majority of the assigned textbook, assisted with study subject enrollment and data collection methods of ongoing studies in the ED, completed a substantial amount of work on their specific project and proposed research project (the latter project may be either theoretical or to be truly performed.)

Textbook for the Rotation:

“Designing Clinical Research, Fourth Edition.” Stephen Hulley, Steven R. Cummings, Warren S. Browner, Deborah G. Grady, Thomas B. Newman. Lippincott Williams & Wilkins 2013.

Clerkship Resources: See Canvas course “Resources” for most up to date list.

COURSE GUIDELINES AND POLICIES:

Attendance	Attendance Requirements for Courses, Clerkships and Exams
Remediation	Students who do not successfully complete the course will be referred to the Committee on Student Scholastic Standing for review and determination of appropriate remediation.
Mistreatment	Mistreatment and Harassment Policy and Reporting Information
Professionalism	Student Conduct Code
Intellectual Responsibility	Procedures for Reporting Ethics Violations to the Peer Review Committee can be found here , in the event that a student, faculty, or staff member witnesses a violation of the Statement of Intellectual Responsibility .
Disability Resources	Accommodation information can be found on the Disability Resource Center website or email drc@umn.edu . If you have, or think you have, a disability in any area such as, mental health, attention, learning, chronic health, sensory, or physical, please contact the DRC office (UM Twin Cities - 612.626.1333) to arrange a confidential discussion regarding equitable access and reasonable accommodations.
All Medical Education Policies	Twin Cities Medical Education Policies
*Syllabus Change	Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice.