

**ELECTIVE NAME:**

Research

**COURSE NO:**

HM 691

**DESCRIPTION:**

Fourth year CHM students are eligible to take up to two four-week research electives. These are full-time clerkships, with the normal expectation of a 40-hour week. This provides students with the opportunity for an intense hands-on, research experience during which they can learn all aspects of conducting research through involvement in either an established or student-initiated research project. Students may choose to use their elective experience to explore an interest in research and potential specialty areas, build their resumes for residency selections, and develop research skills that can advance clinical and/or research careers. It involves 1) participating in the conduct of actual research under the direction of a Faculty Research Mentor and 2) completing individualized assignments, with guidance from the Community Research Director, related to research in general, such as submitting a research proposal and a final summary of the research experience.

If research is being conducted outside of the Grand Rapids community, the student must have a research mentor in the location where the work is taking place. This is required to ensure proper supervision and guidance throughout the research elective.

**EXPECTATIONS & REQUIREMENTS:**

Students who are accepted for a research elective are expected to work on their research project *40 hours per week for the duration of the elective, 160 hours total.*

- Student must complete the Research Elective Application including a 2-3 page narrative of the Research Proposal and Plan. Poorly written proposals will not be approved.
- Student must submit a completed and signed Research Mentor form
- Research work must be worthy of a passing grade
- Research should be conducted during regularly scheduled semesters
- Research Mentor will be responsible for guiding the intellectual course of the student's work
- Attend a weekly mentoring session with the Research Mentor where project progress and the next week's activities are discussed
- Institutional Review Board (IRB) approval must be granted before data collection involving human subjects begins
- Completion of Responsible Conduct of Research modules
- Complete a Research Summary at the end of the elective that includes a revised version of the research proposal and plan (application instructions section), a description of the activities and results of the research elective activities
- Evaluation form completed and signed by the Research Mentor and submitted to the Community Campus Research Director or Community Administrator. The Community Campus Research Director is responsible for reviewing and giving approval for a passing grade.

## APPLICATION INSTRUCTIONS:

- Prepare a Research Proposal and Plan and submit it to your Community Campus Research Director. Make sure your Research Mentor has reviewed and approved your proposal and plan. The document should be a 2-3 page narrative that includes the following:
  - **Background and Significance** - describe the problem you will address; why the research is important based on preliminary literature review with citations; and describe how your research will contribute to new knowledge.
  - **Specific aims** – state the research question you will try to answer and the goal of your research; describe in specific, measurable terms what you will investigate; state your hypothesis.
  - **Student’s role in the research** – describe specific activities you will be involved in during the project and the knowledge and experience you will gain.
  - **Preliminary studies** – describe research that you have already conducted on the topic
  - **Research design and methods** – describe how you will conduct the research; whether the study is retrospective or prospective; whether you will gather primary data or use secondary data; describe the primary outcome measures and independent variables; discuss how subjects will be recruited and the target number of subjects, the inclusion and exclusion criteria, and human subjects protections; and describe how the data will be collected, managed and analyzed.
- If you are conducting research involving living human subjects in any capacity, material of human origin, or existing data originally collected from human subjects, you will need to obtain human subjects approval from the IRB of the institution where you will be conducting the research. If the project does not have IRB approval yet, or you are not sure whether IRB approval is required for your project, contact the IRB or your Community Campus Research Director.
- All students conducting research need to complete Responsible Conduct of Research (RCR) modules PRIOR to starting the project. For more information about RCR go to <http://research.chm.msu.edu/studentpage/stuelecform.php>. Provide verification of RCR training to Faculty Mentor to include as part of evaluation.
- The Research Elective must be approved by the Research Director for your campus. Email the project narrative and Research Elective Application form to your Community Campus Research Director or Community Administrator to request approval. Research Electives **MUST BE APPROVED** by the Community Campus Research Director prior to the start of the rotation. Failure to complete and submit the required paperwork and receive approval prior to the start of your rotation may result in no credit being earned for the experience.

## PROCEDURE & GUIDELINES CHECKLIST:

### 2 months prior to the scheduled month:

- Contact Mindy Nienhouse who will provide a Research Elective packet and electronic forms.
- Contact Dr. Thompson, Interim Community Research Director, to discuss the proposed research and determine an individualized plan including topics, mentors and process for satisfying the elective requirements.
- After speaking to Dr. Thompson, contact the Research Mentor to discuss the proposed research, the student’s specific role, a timeline for the project, a schedule to meet regularly, and expectations of both the mentor and student.

**1 month prior to the scheduled month:**

- Complete the Research Elective Application and meet with Dr. Thompson for a final approval/sign off.

**Within 1 month after the elective concludes:**

- Submit a summary of the project and what has been accomplished during the elective period to the Research Mentor for review and feedback. Revise with Mentor recommendations.
- Have your Research Mentor complete and sign the Evaluation of Student Performance form.
- Send the final summary and evaluation form to Mindy Nienhouse
- Community Research Director will approve, sign and send summary and evaluation form to Mindy who will then process forms in order to receive credit.
- Students will be encouraged to present their findings in abstract, poster, presentation or manuscript form. The Research Mentor and Community Research Director will facilitate manuscript development and submission for publication.

**EVALUATION:**

Research paper will be critiqued by mentor and community research coordinator. The final grade will be given by the Associate Dean for Research.