New Scholarly Project Description
To start with Class of 2026

1. **Description.** Each student will be required to complete a scholarly project for FRCT. Many students will complete a hypothesis-driven biomedical or clinical research project. Other hypothesis-driven projects are also available, including quality improvement, medical education, or public health/public policy projects. Other scholarly projects may also be accepted if they satisfy the criteria described below (see proposal and final report).

2. **Mentor selection.** Each student must select a faculty mentor who will guide them during their project. Several resources are provided to help students with mentor selection. These include an extensive list of possible mentors with their research descriptions, a Mentor Workshop, several Mentor Roundtables in targeted areas, and several small group advising sessions. In addition, a faculty member of the Office of Student Research can meet with each student one-on-one and provide additional advice on mentor selection.

3. **Project proposal.** Together with their mentor, students will develop a plan for their scholarly project. A 3-page (maximum) description of the proposed project must be submitted to the course for approval. If students complete a PRISM application (or similar application requiring a research plan) and perform that project, the PRISM application can satisfy this course requirement. This proposal is due in May of first year. If for any reason students cannot meet this deadline, they must email the Course Director and request an extension. In all cases, the proposal should be submitted before beginning work on a project that will be used to fulfill the FRCT requirement. ***The proposal must include the following elements.***

    a. **Clear goals.** The project should have clear goals, a hypothesis, and specific aims. The proposal should explicitly state the basic purposes of the work and define specific, measurable, and achievable objectives. Important questions in the field should be identified, and the goals should be feasible, novel, and relevant.
    b. **Background and significance.** Briefly summarize the scientific background of the proposal. Critically evaluate existing knowledge, and specifically identify gaps that the project is intended to fill. Discuss any necessary skills you bring to the project. Be sure to indicate how the specific aims, and goals, were derived from the background. State concisely the importance of the project and its broad, practical implications.
    c. **Methods.** Discuss the experimental design and procedures to be used to accomplish the goals and specific aims. Describe the tentative sequence and timetable of the investigation. Include the means by which data will be analyzed and interpreted. Emphasize your role in this phase of the project.
    d. **Literature cited.** References should appear as consecutively numbered citations in the text rather than alphabetically. Each citation should include the names of all authors, title of the article, name of the journal or book, year of publication, volume number, and page numbers for articles, chapters, or sections of books.

4. **Mentor Declaration Form.** The student's mentor must submit a Mentor Declaration Form, which can be found on MedScope. This form is also required prior to starting the research project.

5. **Background work.** Most students will conduct their research during the summer between years one and two. However, other time frames are possible. If the mentor agrees, the research can be spread longitudinally over several years. In some circumstances, the research can be performed during a third- or fourth-year research elective. Note that there is no specified amount of time that must be spent on this component of the project. We recommend the equivalent of approximately 8 weeks of fulltime work.

6. **Final report.** A manuscript resulting from the scholarly activity that is submitted for publication with the student as the first author will be accepted as the final report. If a manuscript is not submitted, students are expected to share their results in the format of a scientific manuscript, including Abstract, Introduction, Methods, Results, Discussion and References (5-6 pages, excluding figures and references). If the scholarly activity was outside of biomedical and clinical research, the final report should follow the format of a manuscript in that field. All final reports will be reviewed based on the following criteria:

    a. **Significant results or outcomes.** Describe the outcomes achieved and demonstrate how the outcomes (significant or not) add to what is already known about the topic. In the discussion, answer these questions:
        i. Were the goals achieved?
        ii. Does the work add consequentially to the field?
        iii. Are additional areas opened for further exploration?

    b. **Effective presentation.**
        i. Does the scholar use a suitable style and effective organization to present the work?
        ii. Is the message presented with clarity and integrity?
        iii. Is evidence communicated systematically?
        iv. Are outcomes or other aspects of measurement discussed?

    c. **Reflective critique.** Address the following questions:
        i. Does the report include a thoughtful assessment of the work's limitations?
        ii. Are the next steps/future directions of the work outlined?
        iii. Does the scholar critically evaluate their work?
        iv. Does the scholar bring an appropriate breadth of evidence to their critique?
        v. Does the scholar describe what was learned and what difference it makes?