

Scholarly Project Option for Advanced Integration Teaching/Scholarly Project Practicum

Purpose: To reinforce longitudinal integration in the VIC by revisiting foundations science with clinical perspective, and to encourage the development of students as physician-scholars by gaining an understanding of the processes and methods involved in scientific inquiry. A scholarly project polishes inquiry, analytical, and communication skills. It solidifies the foundation for lifelong learning by providing a background against which critical evaluation of data can be carried out.

Goals:

1. To provide students with basic skills in scholarship. (MK, PBL, P)^[2]
2. To revisit foundation sciences by scholarly activity. (MK, PBL)^[2]
3. To reinforce longitudinal integration in the VIC by revisiting foundation sciences with clinical perspective as applied to scholarship. (MK, PBL)^[2]

General Description: A research project may be in the basic or clinical sciences. The project should be of sufficient depth to allow the student to review appropriate background literature on the subject matter, leading to the development of a research question (and hypothesis) and methods designed to answer the question. Sound experimental and statistical design as well as subsequent analysis should be part of this process. A written manuscript and an oral or poster presentation are required.

Timing:

Please note: required scholarly project documents are currently being collected via **COMET > Teaching and Scholarly Project > Scholarly Project > Required Project Documentation & Submission**

The screenshot shows the COMET interface for 'Required Scholarly Project Documentation & Submission'. The left sidebar has a menu with 'Scholarly Project' highlighted in red. The main content area lists the following requirements:

- 1. Mentor Agreement Upload**
Attached Files: [mentor agreement information document 2018\(1\).docx](#) (12.677 KB)
Please upload documentation of your mentor's agreement to work with you on your proposed scholarly project. See attached form. When complete upload the form in COMET in the "Mentor Agreement Upload" assignment above.
- 2. IRB / Human Research Protocol Determination Document Upload**
Please upload a .pdf or .jpeg of your IRB Determination/Human Research Protocol Approval.
- 3. Scholarly Project Proposal Upload**
Please Upload a PDF of your Scholarly Project Proposal.
- Scholarly Project Manuscript Upload**
Once completed, please upload your project manuscript here by April, 5th 2020.

- The project must be completed and a manuscript submitted by **April 5, 2020**. Students must

present their work upon completion. One option for presentation is an oral or poster presentation at the University of Vermont Student Research Conference in April, 2020. Students may also (as an alternative to the UVM Research Conference) present their work at a forum approved of by the Scholarly Project course director so long as they are able to be assessed on their presentation (typically by a mentor or colleagues who attends the presentation). Approved forums for presentation may include grand rounds, professional meetings, or presentations to a community of colleagues. Students may elect one or more research months to complete the project, or they may complete it longitudinally in conjunction with other activities.

**Mentor and Project Selected* – The emphasis should be on the selection of a good mentor (who is a faculty member at UVM COM) and reasonable project. The scholarly project does not necessarily need to be in the student's chosen area of specialization. This deadline is to be sure each student is associated with a mentor, who is also responsible for guiding the process. It is crucial that projects are carefully limited and not overly ambitious in scope.

Project Delineated – The student should have a reasonable proposal, which outlines the research question and approach in some detail. This should include the following sections: hypothesis, specific aims, background, methods, planned statistical analysis, potential experimental problems, and references. It is required at minimum that all projects be submitted to the UVM Committee on Human Research or the Institutional Animal Care and Use Committee (IACUC; animal studies) is needed. (Online tutorials or animal training will also need to be completed.) A sample proposal can be found in the COMET Teaching and Scholarly Project course.

Project Complete – A complete project manuscript includes: a title page (with the student and mentor and IRB determination and number listed), abstract, introduction, materials and methods, results, discussion, conclusions (which may be integrated into the discussion), and references. The manuscript should be in the style of a journal selected by the mentor (the journal's "instructions for authors" should be submitted with the final report) and aim for "publication quality" (though submission and/or publication is *not* required). A signed letter (can be sent via email) including evaluation of the student's research practicum from the mentor is required along with the manuscript. Projects must be presented orally or in poster form by end of April.

Grading: Criteria for passing practicum include: (1) meet all deadlines, (2) complete the initial project outline, IRB determination and subsequent manuscript, (3) formal presentation, and (4) mentor evaluation.

*Adaptation of First Year Summer Research Projects to meet the Requirements of the Senior Project: Projects completed at UVM in the summer of first year through the Dean's Office Research Initiative may be expanded to become the practicum project. The mentor on record from the summer must agree to continue as mentor. The original project description must be submitted along with a description of any further work to be completed, including a revised IRB determination. A manuscript and presentation are required. All time lines are the same as indicated above.

^[2] **VIC Curriculum Competencies**

- Medical Knowledge (MK)
- Practice-based Learning and Improvement (BPL)
- Professionalism (P)