Scholarly Projects Purpose Statement

Scholarly Projects is an in-depth investigation of topics of interest to medical students during the course of their undergraduate medical education (UME) experiences with the goal of creating critical thinkers and lifelong learners. Students who complete Scholarly Projects will be able to think critically about complex clinical problems; expand beyond the established curriculum to investigate topics and problems in more depth; identify, define, and answer important questions relevant to clinical practice and healthcare delivery; and work effectively within a learning community. Students will also understand and apply principles of professionalism, ethics, communication, and collaboration while pursuing their projects.

Scholarly Project Goals

- Identify an important scientific or clinical question for investigation.
- Assess, evaluate, and apply scientific literature relevant to the question.
- Formulate a project hypothesis based on current evidence and concepts in the field.
- Learn appropriate approaches to addressing the question that are based on methodologic standards in the relevant fields of study.
- Design, conduct, and interpret results of your own project based on the question and hypothesis.
- Identify project relevance to medicine and healthcare.
- Communicate effectively in oral and written form.
- Apply ethics and professionalism throughout the project.

Associated Competencies

Scholarly Projects provides students the opportunity to learn and be assessed on **eight** School of Medicine UME competencies:

Competency Domain: Practice-based Learning and Improvement (PBLI)

- **PBLI 1**-Demonstrate skills necessary to support independent lifelong learning and ongoing professional development by identifying one's own strengths, deficiencies, and limits in knowledge and expertise, set learning and improvement goals, and perform learning activities that address gaps in knowledge, skills or attitudes.
- **PBLI 2**-Participate in the education of peers and other healthcare professionals, students and trainees.
- **PBLI 7**-Participate in scholarly activity thereby contributing to the creation, dissemination, application, and translation of new healthcare knowledge and practices.

Competency Domain: Interpersonal and Communication Skills (ICS)

- **ICS 6**-Effectively communicate with colleagues, other health professionals, and health related agencies in a responsive and responsible manner.

Competency Domain: Professionalism and Personal and Professional Development (PPPD)

- **PPPD 3.** Demonstrate a commitment to ethical principles pertaining to provision, withholding or withdrawal of care, confidentiality, informed consent, and business practices, including conflicts of interest, compliance with relevant laws, policies, and regulations.

- **PPPD 9**-Demonstrate accountability by completing academic and patient care responsibilities in a comprehensive and timely manner.
- **PPPD 10**-Demonstrate trustworthiness that engenders trust in colleagues, patients, and society at large.

System-based Practice and Interprofessional Collaboration (SBPIC)

- **SBPIC 4**-Effectively work with other healthcare professionals to establish and maintain a climate of mutual respect, dignity, diversity, integrity, honesty, and trust.

Scholarly Projects Structure

A scholarly project is conducted throughout the student's time of enrollment in the UME program. There are three phases:

Phase	Description	Credit Awarded
Developing the Scholarly Project Proposal course Competencies: PBLI 1, 7; PPPD 3, 9; SBPIC 4	12 hours of sessions total (large and small group sessions plus work outside of class); must be completed and approved prior to beginning subsequent steps of the scholarly project (data collection, analysis, etc.)	1 credit (36 hours total)
Scholarly Project work Competencies: PBLI 1, 7; ICS 6; PPPD 3, 9, 10; SBPIC 4	Student is supported by a concentration lead and project mentor throughout the project. Students can enroll in Scholarly Project coursework in various ways depending on the type of project: ○ Full-time work on project (1, 2, 3, and 4 week options) ○ Part-time or intermittent work on project	6 credits (= 216 hours of effort) total minimum; no maximum amount, although all other graduation requirements must also be fulfilled. Course credits for Scholarly Project work are allocated during an academic term on either a full-time or part-time basis during the week, or term, as follows: **Full-time:** student works full-time on the scholarly project during the week(s); 1 credit = 36 hours effort per week for 1 week. **Part-time:** student is working part-time on the scholarly project during the academic term, and may also be enrolled in other courses or clinical experiences during the same

		time period; 1 credit = 36 hours effort over entire 11-12 week term, or other combinations.
Scholarly Project Capstone Yearly event held in May; a second time may be added as needed Competencies: PBLI 2, 7; ICS 6; PPPD 3, 9; SBPIC 4	Students prepare and present their scholarly projects to university community	1 credit
	TOTAL	8 credits (minimum)

Scholarly Projects Leadership and Contacts

Director, Scholarly Projects

Heidi Nelson, MD, MPH Research Professor and Vice Chair, Medical Informatics and Clinical Epidemiology nelsonh@ohsu.edu

Scholarly Projects Concentration Leads

Peter Mayinger, PhD Basic Science/Biomedical Engineering Lead Associate Professor, Medicine mayinger@ohsu.edu	**Mark Baskerville MD, JD, MBA** Law/Business/Policy Lead Assistant Professor, Anesthesiology and Perioperative Medicine baskervi@ohsu.edu
Lisa Silbert, MD, MCR Clinical Research Lead Associate Professor, Neurology silbertl@ohsu.edu	**Erik Fromme MD, MCR** Ethics/Quality Improvement/Education Lead Associate Professor, Medicine, Radiation Medicine, and Nursing frommee@ohsu.edu
Eneida Nemecek MD, MS, MBA Clinical Research Lead Associate Professor, Pediatrics nemeceke@ohsu.edu	**Craig Warden, MD, MPH, MS** Epidemiology/Community/Global Health Professor, Emergency Medicine and Pediatrics wardenc@ohsu.edu

Scholarly Projects Coordinator

To be determined, coming soon!

Attendance Expectations

Students training to become physicians are expected to be present and actively engaged in their education. Regular attendance and punctuality for all required sessions and activities are essential in demonstrating your professional development as an aspiring physician. Not only will your own learning be enhanced by attending all required sessions and activities, but your classmates and faculty instructors and mentors will count on your participation to enrich their learning. This focus on being present is analogous to what will be expected of you during your residency training, and ultimately, your professional practice as a physician.

Required Texts and Materials

Equipment: Equipment needs will vary by project.

Books: *Designing Clinical Research* 4th Ed (Hulley, Cummings, Browner, Grady, Newman). Electronic book available through the OHSU Library.

Dress Code in Scholarly Projects Activities

The dress code will vary depending on the nature of individual projects. Your dress should appropriately match the professional setting in which you are working (i.e., laboratory, patient care setting, business office, etc.).

Scholarly Projects Grading and Student Assessment

Your final grades for all credits associated with the Scholarly Project will be either "Pass" (P) or "No Pass" (NP) and these grades will be listed on your official University Transcript. Students must meet benchmarks in order to progress, and final grades will be given after all benchmarks are attained in each phase as outlined below. Note that within each phase, benchmarks are not necessarily sequential.

Assessments

Phase	Benchmarks
Developing the Scholarly Project Proposal course (1 credit)	• Identify a project topic and mentor; complete the Scholarly Project Mentor/Student Agreement Form and submit it on the Sakai site. • Identify a scholarly project concentration lead that best fits your topic of interest and type of project. • Attend 12 hours of large and small group sessions of the Developing the Scholarly Project Proposal course. • Perform a formal literature search with the assistance of the Scholarly Projects librarians on the project topic; record the data sources, search dates, search terms, and yield. • In conjunction with the project mentor, submit all Institutional Review Board (IRB) forms and/or other regulatory forms for the project, as applicable. • Outline a plan to complete any special training required for the project (e.g. human subjects, regulated products, etc.) and describe it in the project proposal, as applicable. • Outline a project timeline that explicitly describes when the project work will be conducted and when major goals will be achieved; ensure that the timeline aligns with upcoming scheduled clinical blocks and other activities. • Describe the project deliverable or product that will be evaluated at the end of the project. • Complete a project proposal that includes all components listed in the checklist provided during the course; obtain approval by the project mentor and concentration lead; submit the final version on the Sakai site.
Scholarly Project work	• Execute the project activities described in the approved project proposal.

(6 credits minimum)	• Provide monthly progress reports to the project mentor and concentration lead once project work has begun. • Provide proposal addendums for important changes in the project (e.g., changes in protocol, modification of timeline, etc.). • Accomplish major goals of the project as identified in the project proposal and as determined as acceptable by the project mentor. • Complete a draft of a report summarizing the project according to the Scholarly Projects template (e.g., purpose, methods, results, conclusions).
Scholarly Project Capstone event (1 credit)	• Finalize the report by completing further analysis, interpretation, literature reviews, as needed. • Complete the Scholarly Project Mentor/Student Completion Form and submit it and the final report to the Sakai site; obtain approval by the concentration lead. • Prepare a presentation for the Capstone event (e.g., poster, oral presentation, demonstration) in accordance with Scholarly Projects guidelines for presentations. • Present your scholarly project to the university community.

Remediation

Scholarly Projects is a required component of the UME Curriculum. Activities of Scholarly Projects are organized into three sequential phases, each of which contains specific benchmarks. Benchmarks within each phase must be completed to pass and before progressing to the next phase. Each phase is graded as Pass/No Pass and passing all three is required for graduation. Students who do not pass any phase of the Scholarly Projects will be required to remediate as directed by the associated Scholarly Project concentration lead and Director of Scholarly Projects.

Student progress is based on whether benchmarks have been met. These will be tracked and evaluated by the topic-specific faculty concentration lead in partnership with the project mentor. If they determine that a student has not met benchmarks and is not likely to meet them with additional focused effort, the Scholarly Projects director and the student's concentration lead will propose a remediation plan that will involve the project mentor and other relevant individuals as appropriate, constituting the student's remediation team. The Director of Scholarly Projects will notify the Associate Dean for Undergraduate Medical Education in the event a student requires remediation for their Scholarly Project. The Associate Dean for Undergraduate Medical Education will then refer this student to the Medical Student Progress Board who will accept or modify the proposed remediation plan for the student.

Development of Student Remediation Plan: The remediation plan will be based on specific deficiencies in meeting benchmarks or competencies, and remediation activities will be targeted to resolving them.

1. All students requiring remediation will receive a Remediation Information Sheet from the Scholarly Projects director. See "communication" section below.
2. The remediation team will provide appropriate support as needed to meet the missed benchmark.
3. The project mentor and the concentration lead will work individually with the student as needed to aid in the student's areas of deficiency.

Communication Process:

1. Identify students requiring remediation for any phase or benchmark based on project tracking by the concentration lead and project mentor.
2. Identify student's area(s) of deficiency.
3. Concentration lead to contact the Scholarly Projects director with the following:
    a. Name of student who requires remediation.
    b. The process for remediation.
    c. Remediation plan for the student to improve comprehension of the identified topic and to facilitate completion of the benchmark.
4. Scholarly Projects director will notify the student and the Associate Dean for Undergraduate Medical Education that the student has not passed a phase of the scholarly project, specific areas of deficiency, and the proposed remediation plan.
5. The Associate Dean will then refer this information to the Medical Student Progress Board who will either accept or modify the remediation plan. The Associate Dean will then communicate this decision in writing to the student, their portfolio coach, the Scholarly Project director and concentration lead.
6. Scholarly Projects director and concentration lead will contact the student requiring remediation, cc'ing the student's project mentor, with the final remediation plan including:
    a. Specific deficiency and benchmarks affected.
    b. Key concept areas.
    c. Remediation Information Sheet including the key areas to study, remediation details including expected completion of benchmarks and expected time for evaluation by project mentor and concentration lead.
7. After the student successfully completes the remediation and all benchmarks have been met, this information will be communicated to the student by the Scholarly Project director, who will also notify the Associate Dean for Undergraduate Medical Education. The student's official university transcript will then show that the scholarly project remediation has been passed.
8. All original benchmark evaluation results, as well as remediation assessments, are tracked by the UME program and Associate Dean for UME. All communications to students regarding their overall progress/status in the MD program will come from the Associate Dean for Undergraduate Medical Education.

Accommodations

Our program is committed to all students achieving their potential. If you have a disability or think you may have a disability (physical, learning, hearing, vision, psychological) which may need a reasonable accommodation, please contact Shelby Acteson, Director of Student Access at 503-494-0082 or email: studentaccess@ohsu.edu to discuss your needs. Because accommodations can take time to implement, it is important to have this discussion as soon as possible. All information regarding a student's disability is kept in accordance with relevant state and federal laws.

Student Evaluation of Course Instructors, Concentration Leads, and Project Mentors

You are expected to complete evaluations of course instructors, concentration leads, project mentors and the Scholarly Project experience as a whole. Your perspective on your educational experience is crucial for feedback and continued improvement for individual teacher effectiveness as well as for the curriculum overall. In addition, student evaluations of faculty are important for faculty annual reviews as well as promotion and tenure decisions. The student's identity is never included on evaluations, including written comments.

You will receive auto-generated email notifications with a link to the Sakai site for evaluations. Failure to complete your evaluations on time is contrary to professionalism expectations for medical students. As such, a Professionalism Monitoring Form may be submitted to one of the Assistant Deans for Student Affairs for students who have not completed their required evaluations.

Inclement Weather Procedures

Inclement weather procedures can be found in the Medical Student Handbook on the Student Portal. For scheduled course activities, in the case of inclement weather, instructions will be posted to the Sakai Announcement space by 6:00 am.

Copyright Information

Every reasonable effort has been made to protect the copyright requirements of materials used in this curriculum. Recording (video and/or audio) by students of class sessions is strictly prohibited. Materials from in-class sessions will be available on Sakai for all students enrolled in Scholarly Projects following each presentation. Copyrighted material will be kept on reserve in the library or made available online for student access. Copyright law allows for making one personal copy of each article from the original article. This limit also applies to electronic sources.

Academic Honesty, Examination Confidentiality, Scholarship and Clinical Performance

Medical students are responsible for their own academic work. Students are expected to have read, embrace, and practice principles of academic honesty as presented in the Medical Student

Handbook. The School of Medicine reserves the privilege of retaining only those students who, in the judgment of the faculty and dean's office, satisfy the requirements of honesty, scholarship and clinical performance necessary for the safe practice of medicine. The Medical Student Handbook has information about academic standards, probation, and disciplinary policies and procedures.

Syllabus Change and Retention

This syllabus outlines the procedures that guide this course, and was prepared with the best information available at the time of creation. It is subject to change and will be updated as needed. Students will be informed of any changes to the originally posted syllabus through Sakai. Students are responsible for the information contained within this syllabus. This document should not be construed in any way as forming the basis of a contract.

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