Texas Tech Health El Paso
Medical Education

Scholarly Activity and Research Program Mentor Manual:

A Guide to Getting Started

Foster School of Medicine
Texas Tech Health El Paso

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PURPOSE OF THIS HANDBOOK

The purpose of this handbook is to review the commitments that a mentor agrees to once they decide to take on students from the Foster School of Medicine (FSOM). The SARP Team aims to outline the roles and responsibilities of mentors in this handbook by describing student required assignments and mentor required duties.

Service as a SARP Mentor for a FSOM medical student has several expectations:

- Assisting students in selecting and refining a research topic.
- Helping develop a clear research question and objectives.
- Provide expertise in research design and methodology.
- Guide students through the process of data collection, analysis, and interpretation.
- Schedule regular check-ins to monitor progress and address any issues.
- Be available for consultations and provide timely feedback on students' work.
- Provide constructive criticism on drafts of proposals, research papers, and presentations.
- Motivate students and provide encouragement throughout the research process.
- Help build students' confidence and foster their independence as researchers.
- Assisting in review or scoring of other students SARP Project Plans, Final Reports and Poster presentations
- Serving as a judge in the SARP Distinction in Research and Scholarship (DIRS) committee and/or on the SARP Mini-Grant Committee.

By meeting or surpassing these expectations, mentors will effectively support students in successfully completing their research projects and fulfilling the SARP requirement at the Foster School of Medicine.

WHAT IS SARP?

Mission

The mission of the Scholarly Activity and Research Program (SARP) is to promote the self-efficacy and professional identity development of future physician scientists by providing mentorship opportunities, didactic and experiential learning in research activities, providing financial support for travel funding and grant support for internal research by Foster School of Medicine (FSOM) medical students and Texas Tech Health El Paso faculty.

Vision

The vision of SARP is to promote a positive environment for didactic and experiential learning in research to promote the self-efficacy and professional identity development of future physician-scientists and by infrastructure development, establishment of thematic research pipelines, promoting multidisciplinary research collaboration, integrating education and research, launching a distinction program in molecular medicine, promoting scholarly activities, securing funding and support, and continued evaluation and adaptation.

Overview

The Foster School of Medicine Scholarly Activity and Research Program (SARP) Course allows medical students to design and execute independent research or scholarship under the guidance of faculty mentors (Texas Tech Health El Paso faculty or approved faculty associated with other institutions). A wide variety of topics and research areas are available in three broad categories, allowing for a project to be tailored to a student's background and interests: 1) basic clinical and translational research; 2) epidemiology, community-based, behavioral, public, and environmental health; and 3) medical humanities, qualitative research, and medical education research. All projects must comply with federal and institutional requirements (e.g., IRB, IBC and IACUC).

The overall goal of the SARP Course is to engage and educate medical students about the process of addressing a scholarly or research question. This hands-on experience will increase the student's awareness and appreciation of the importance of research in providing the basis for evidence-based medical knowledge. This course will expose students to new ideas and mentorship and help them develop skills to strengthen their medical training and broaden their perspective on how new knowledge is obtained and disseminated. The SARP Course encourages students to seek a deeper understanding of biology and disease processes through a scholarly approach that will make them stronger physicians and valued members of the medical community.

The SARP Course is completed during a student's time at FSOM. Research or scholarship pursued before matriculating to the FSOM cannot be used directly to fulfill this requirement; however, a student can continue working on earlier projects or with a previous mentor. In this case, clear documentation explaining how the SARP activities are extensions of any prior work

must provide sufficient detail about the continuation of work as an FSOM student. Students participating in group projects (where two or more students work with a single mentor) should identify a distinct hypothesis or research question that can distinguish their contribution and provide for an independent SARP Final Report and SARP Poster. Please note that case reports and narrative reviews are not acceptable SARP Course Projects; however, systematic reviews and metanalyses are appropriate as they are based on a research question and should follow PRISMA guidelines. (https://www.prisma-statement.org/)

Educational Methods and Learning Experiences

The SARP Course focuses on the student/mentor relationship. Once a good match is made, the mentor is expected to closely guide the student in developing the Project Plan, be actively involved in executing the project, and help the student develop the Final Report and Poster. To optimize the mentor/student experience, a faculty mentor is restricted to a maximum of five new MS1 students each year.

SARP mentors will review each assigned component of the SARP Course (Project Plan, Final Report and Poster) and provide the student with narrative feedback. The criteria for assessing these assignments are based on the SARP Course Goals and Objectives outlined below.

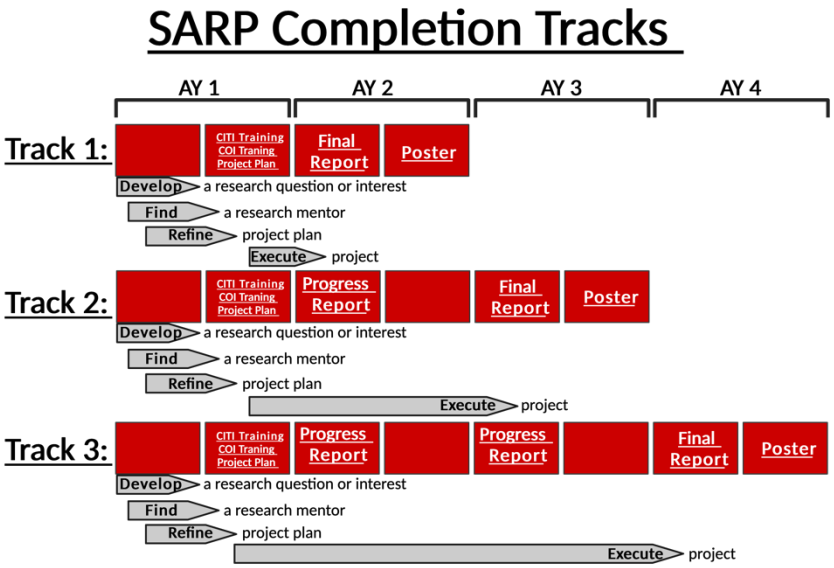


Figure 1

Components of SARP

The SARP requirement is a 3-credit course consisting of three 1-credit components:

- One credit is for the selection of a mentor, preparation, and submission of a Project Plan and completion of CITI Training; completing two Progress Reports for Track 2 completion or completing four Progress Reports for Track 3 completion.
- Selection of a mentor and preparation of the Project Plan is due at the end of the first year.
- One credit for project execution and submission of the Final Report
- One credit for a Poster Presentation.

SARP Course Goals and Objectives:

Overall course objective: Students will demonstrate understanding and application of the scientific method through completion of an independent research project.

Goal 1: Develop physician scholars through a rigorous scholarly activity and research experience.

- Objective 1: Students will apply the scientific method by developing a research question or project theme, identifying a faculty mentor, and completing all requirements for the SARP Course.
  (PGOs 2.6, 4.2, 4.3, 5.1, 5.6, 5.7, 7.4).

Goal 2: Develop skills for scholarly and research projects including the pursuit, assimilation, and transmission of knowledge to others.

- Objective 2: Students will learn how to search the literature, identifying previous knowledge and theory that provides context and relevance for their project.
  (PGO 2.6).
- Objective 3: Students will submit a Project Plan following scientific principles, including a rationale, specific aims, methods, analysis, and timeline.
  (PGOs 2.6).
- Objective 4: Students will choose and employ adequate methods for the acquisition and statistical analysis of data and information for their project.
  (PGOs 2.6, 5.2).
- Objective 5: Students will submit a Final Report of their project, providing a concise summary of the project execution, data acquisition and analysis, and conclusions.
  (PGOs 2.6, 5.2).
- Objective 6: Students will demonstrate clear and effective communication skills (oral and written) in the presentation of their project.
  (PGOs 4.2, 4.3, 5.6, 5.7).

Goal 3: Incorporate professionalism and ethical principles in scholarly activity and research.

- Objective 7: Students will learn about protection of human and animal subjects involved in research.
  (PGO 2.6).
- Objective 8: Students will learn and exhibit ethical principles in the design and execution of their projects.
  (PGO 2.6).
- Objective 9: Students will exhibit attitudes and behaviors consistent with professional conduct of research and scholarship.
  (PGOs 2.6, 4.2, 4.3, 5.1, 5.6, 5.7).

- Objective 10: Students will submit each assignment by the deadline and respond to all communications and feedback in a timely and professional matter.
  (PGOs 4.2, 4.3, 5.1, 5.6, 5.7).
- Objective 11: Students will collaborate generously and professionally with their mentor, faculty, students, and staff during completion of their research project.
  (PGOs 4.2, 4.3, 5.1, 5.6, 5.7, 7.4, 8.1)

Goal 4: Develop knowledge and skills in the pursuit of self-directed learning, life-long learning and self-efficacy in research and scholarship.

- Objective 12: Students will learn principles of self-directed and life-long learning and apply these to the design and execution of their projects.
  (PGOs 2.6, 3.1, 3.3)
- Objective 13: Students will learn the principles of self-efficacy, monitoring and sharing personal progress through self-evaluation and reflection, and SARP Course evaluation. (PGOs 3.1, 3.3, 4.2, 4.3, 5.1, 5.6, 5.7, 8.1, 8.2, 8.3, 8.4).

TTUHSC EP FSOM Program Goals and Objectives

Knowledge for Practice		
Educational Program Objectives		Outcome Measures
KP-2.6	Demonstrate an understanding of and engagement in the creation, dissemination and application of new health care knowledge.	• Research or Project Assessment (SARP Project Plan Evaluation Rubric, SARP Final Report Evaluation Rubric, SARP Poster Presentation Rubric) • Narrative Assessment (SARP Mentor Evaluation)
Practice-Based Learning and Improvement		
Educational Program Objectives		Outcome Measures
PBL-3.1	Identify gaps in one's knowledge, skills, and/or attitudes, and perform learning activities to address them.	• Research or Project Assessment (SARP Project Plan Evaluation Rubric, SARP Final Report Evaluation Rubric) • Narrative Assessment (SARP Mentor Evaluation)
PBL-3.3	Accept and incorporate feedback into practice.	• Research or Project Assessment (SARP Project Plan Evaluation Rubric, SARP Final Report Evaluation Rubric • Narrative Assessment (SARP Mentor Evaluation)

PBL-3.6	Participate in the education of patients, families, students, trainees, peers, and other health professionals.	• Research or Project Assessment (SARP Final Report Evaluation Rubric • Narrative Assessment (SARP Mentor Evaluation)
Interpersonal and Communication Skills		
Educational Program Objectives		Outcome Measures
ICS-4.2	Communicate effectively with colleagues and other health care professionals.	• Research or Project Assessment (SARP Project Plan Evaluation Rubric, SARP Final Report Evaluation Rubric, SARP Poster Presentation Rubric) • Narrative Assessment (SARP Mentor Evaluation)
ICS-4.3	Communicate with sensitivity, honesty, compassion and empathy.	• Research or Project Assessment (SARP Project Plan Evaluation Rubric, SARP Final Report Evaluation Rubric, SARP Poster Presentation Rubric) • Narrative Assessment (SARP Mentor Evaluation)
Professionalism		
Educational Program Objectives		Outcome Measures
PRO-5.1	Demonstrate sensitivity, compassion, integrity and respect for all people.	• Research or Project Assessment (SARP Project Plan Evaluation Rubric, SARP Final Report Evaluation Rubric) • Narrative Assessment (SARP Mentor Evaluation) • Exam – Nationally Normed/Standardized, Subject (CITI training certification exam-Human Subject Research training)
PRO-5.2	Demonstrate knowledge of and appropriately apply ethical principles pertaining to patient privacy, autonomy and informed consent.	• Exam – Nationally Normed/Standardized, Subject (CITI training certification exam-Human Subject Research training, Informed Consent Training)
PRO-5.5	Demonstrate and apply knowledge of ethical principles pertaining to health care related business practices and health care administration, including compliance with relevant laws, policies,	• Exam – Nationally Normed/Standardized, Subject (CITI training certification exam-

	regulations and the avoidance of conflicts of interest.	Human Subject Research training, Informed consent training)
PRO-5.6	Demonstrate honesty and integrity in all professional and academic interactions.	• Narrative Assessment (SARP Mentor Evaluation)
PRO-5.7	Meet professional and academic commitments and obligations.	• Narrative Assessment (SARP Mentor Evaluation)
Interprofessional Collaboration		
Educational Program Objectives		Outcome Measures
IPC-7.4	Recognize and respond appropriately to circumstances involving conflict.	• Narrative Assessment (SARP Mentor Evaluation)
Personal and Professional Development		
Educational Program Objectives		Outcome Measures
PPD-8.1	Recognize when to take responsibility and when to seek assistance.	• Narrative Assessment (SARP Mentor Evaluation)
PPD-8.2	Demonstrate healthy coping mechanisms in response to stress and professional responsibilities.	• Narrative Assessment (SARP Mentor Evaluation)
PPD-8.3	Demonstrate flexibility in adjusting to change and difficult situations.	• Narrative Assessment (SARP Mentor Evaluation)
PPD-8.4	Utilize appropriate resources and coping mechanisms when confronted with uncertainty and ambiguous situations.	• Narrative Assessment (SARP Mentor Evaluation)

WHAT MENTORS NEED TO KNOW

The Mentor's Role in SARP

A SARP mentor fulfills several key roles, providing guidance on research topics, methodology, and project design while helping students develop clear and feasible research questions. They educate students on research techniques, data analysis, scientific writing, and ethical research practices, offering instruction on compliance with regulations. Additionally, mentors provide emotional support, encouragement, and motivation, helping to build students' confidence. Serving as role models, they demonstrate professionalism and integrity, balancing clinical duties with research activities. Mentors also facilitate access to institutional resources, connect students with experts and collaborators, and provide constructive feedback on project plans, final reports, and poster presentations. Additionally, SARP mentors advise on career paths in academia, research, or clinical practice and assist with networking and professional development. SARP mentors advocate for students' research efforts within the institution and externally at professional forums through publication and presentations. By fulfilling these roles, mentors help students navigate the complexities of research, foster their professional growth, and contribute to the advancement of medical knowledge and practice.

Mentor Responsibility and Expectations

Mentors are responsible for providing guidance, support, expertise, helping students navigate their curricular research requirement and successful completion of SARP. A mentor must be willing to take the time to help a student develop a plan for a SARP Project and make sure that the research being done is meaningful to the student and their future. It is important to remember that SARP mentors will be working with students with varying levels of experience in research and scholarship. It is important to remember the potential time commitment required mentor a student through the completion of their SARP project. Expectations should be thoroughly discussed between the mentor and mentee early in the relationship. The time commitment of serving as a SARP mentor could be highly variable depending on the research project and the number of students being mentored at a time.

Furthermore, SARP mentors are expected to assist students in selecting and refining their research topics, developing clear research questions, and guiding them through the design and methodology of their projects. They provide educational support by teaching research techniques and ensuring ethical standards are met. Ensure regular meetings are held to monitor progress, and the mentor offers timely feedback on proposals, research papers, and presentations. Additionally, mentors support students' professional development by advising on career paths, helping develop professional skills, and providing encouragement and motivation throughout the research process.

Benefits of Becoming a Mentor

Becoming a SARP mentor for a medical student at FSOM is a voluntary role however serving as a mentor to a Foster School of Medicine offers numerous benefits, including enhanced professional development, leadership, and teaching skills, along with a deeper understanding of the subject matter. It expands the mentor's professional network and opens doors to collaborations and future research opportunities. Personal satisfaction arises from guiding and witnessing students' successes, while the advancement of medical knowledge is bolstered by fresh perspectives and innovative thinking from students. Mentorship enhances the mentor's reputation within the academic and medical community, potentially leading to recognition through awards and publications. It fosters reciprocal learning, keeping mentors updated with the latest advancements, and supports institutional missions of education and research. Ultimately, mentorship plays a crucial role in shaping competent future healthcare professionals and identifying future leaders in medicine and research.

Mentor Availability and Workload

A SARP mentor should be available to support and guide up to five students per graduating year (MS1, MS2, MS3, and MS4). This means a mentors could potentially have up to 20 students conducting research under their mentorship. However, mentors must ensure they have the time, patience, and availability to take on students in a SARP Mentor Role. It is important for mentors to check their schedules and personal timelines before committing to mentoring students.

The workload as a mentor includes reviewing their student project proposal (Project Plan) prior to submission and providing feedback and direction, assisting in the completion of the students Final Report, and guiding the creation of the SARP Poster, which will be presented, judged, and scored by other faculty members at an annual SARP symposium. Mentors must have time to help students achieve their deadlines. A student's grade and research experience depend significantly on the mentor's participation and guidance.

Requirements to be a SARP Mentor

Texas Tech Health El Paso

Any faculty at Texas Tech Health El Paso is eligible to serve as a SARP mentor. All mentors must have a faculty appointment at Foster School of Medicine, Francis Graduate School of Biomedical Sciences, Hunt School of Dental Medicine, or Hunt School of Nursing. Residents, fellows, and post-docs are ineligible to serve as primary SARP mentors but may serve as a co-mentor under the direction of a faculty member.

External Mentors

Mentors outside of Texas Tech Health El Paso must be aware that student research completed in fulfillment of SARP requirements must present a poster at an annual SARP symposium internal to Texas Tech Health El Paso. External mentors must be faculty at another university or institution, or hold a terminal degree (D.O., D.M.D., D.D.S., M.D., Pharm.D., Ph.D., etc.) and be

associated with a hospital or established clinical practice. Any exception must be approved by the SARP team. If research is to be conducted on humans or animals, the external mentor is responsible for ensuring the SARP student is in compliance with the external mentors' institutional regulations and ethical guidelines. Further details regarding external SARP mentor is detailed in the policy for external SARP Mentors.

Policy for External SARP Mentors

Introduction

To promote safe, equitable, and meaningful scholarly experiences for Texas Tech University Health Sciences Center El Paso (TTUHSCEP) Paul L. Foster School of Medicine (PLFSOM) students participating in research projects outside their home institution, the following materials establish the policies, expectations, and processes for external research engagement. These documents ensure that research mentors not affiliated with TTUHSCEP or PLFSOM, hereafter referred to as "SARP external mentors," uphold the same standards of professionalism and student support required within PLFSOM. They also provide students with clear mechanisms for seeking guidance and reporting concerns.

To further safeguard student academic and personal well-being, the student will select or the Scholarly Activity and Research Program (SARP) will appoint an internal mentor, a TTUHSC El Paso faculty member, to each student conducting external research. This internal mentor serves as a consistent institutional point of contact, offering guidance and advocacy throughout the research experience and helping to address or redress any issues, including concerns about mistreatment, as defined by the PLFSOM Student Mistreatment Policy, in a timely and appropriate manner.

Compliance with these policies is essential to uphold the integrity of the SARP and ensure a supportive, respectful learning environment for all participants.

External SARP Mentor Expectations

The roles, responsibilities, and expectations of a SARP mentor are described in more detail in the Scholarly Activity and Research Program Mentor Manual. The following summary briefly outlines the roles and responsibilities:

Student Treatment

An external SARP mentor will provide a supportive, respectful, and professionally appropriate environment. I will not engage in mistreatment, exploitation, discrimination, harassment, or retaliation of any kind.

Educational Standards

An external SARP mentor will structure the project to provide the student with meaningful scholarly engagement aligned with the stated learning objectives.

Oversight Responsibilities

An external SARP mentor will meet with the student regularly, provide timely feedback, and monitor the student's progress throughout the project.

Communication with PLFSOM
An external SARP mentor agrees to communicate any concerns, major project changes, or significant student issues to PLFSOM SARP leadership promptly.

Compliance
I have reviewed and agree to adhere to PLFSOM's mistreatment policy and professionalism standards.

Termination of Mentor-Mentee Relationship
I understand that if there are credible concerns about mistreatment or professional misconduct, the mentoring relationship may be terminated immediately, and I may be barred from future participation.

Internal SARP Mentor Expectations
The internal mentor functions as a point of institutional continuity and advocacy during the student's participation in off-campus research activities. The following summary briefly outlines the roles and responsibilities:

Providing Support and Guidance
Serve as a readily available point of contact for the student throughout the research experience, offering guidance and support, particularly in the event of concerns about mentor-mentee dynamics, professionalism, or mistreatment.

Monitoring for Student Well-being
Maintain periodic check-ins with the student to ensure their academic and professional experience remains positive, appropriate, and aligned with the expectations of the Scholarly Activity and Research Program (SARP).

Responding to Concerns
If a student raises concerns related to mistreatment, unprofessional conduct, or project misalignment, the internal mentor will promptly notify and consult with SARP leadership. The internal mentor may also provide direct support to the student as appropriate.

Respecting External Project Autonomy
The internal mentor will not interfere with the day-to-day conduct or intellectual direction of the external research project unless issues of mistreatment or professionalism arise. In such cases, their role is to help assess the situation and contribute to a resolution in collaboration with SARP leadership.

THE MENTOR-MEDICAL STUDENT RELATIONSHIP

Research and scholarship are integral parts of medical education and professional development. A successful research experience requires a productive and collaborative relationship between mentors and medical students.

The Role of a Mentor

Advisor

The mentor provides expert guidance on research design, methodology, and the scholarly process. This includes helping the student formulate research questions, develop study protocols, and navigate the complexities of data analysis. The mentor supports the student in identifying and accessing necessary resources, including funding, data, and research tools.

Teacher

The mentor educates the student on essential research skills and knowledge. This includes training in specific techniques, understanding ethical considerations, and developing critical thinking skills. Providing constructive feedback is a key role. The mentor reviews the student's work regularly, offering insights and suggestions to improve the quality and rigor of the research.

Role Model

The mentor demonstrates professional and ethical behavior, serving as a role model. This includes showing integrity in research practices, fostering a respectful and inclusive environment, and balancing research with other professional responsibilities.

Expectations of the Mentor

Accessibility

Mentors should be available for regular meetings and discussions. They should respond to the student's queries in a timely manner and provide consistent support throughout the research process.

Encouragement and Constructive Feedback

Creating a supportive and encouraging atmosphere is crucial. The mentor should motivate the student, celebrate successes, and provide emotional support during challenges. The mentor offers constructive and developmental feedback, helping the student refine their research questions, methodologies, and presentations. This feedback should be specific, actionable, and aimed at fostering growth.

Responsibilities of the Mentor

Guidance and Resources

Help the student develop a clear research plan, including specific goals, timelines, and milestones. Assist the student in securing necessary resources such as funding, access to data, and research tools.

Professional Development
Encourage and support the student's participation in conferences, workshops, and networking opportunities. This exposure helps in broadening the student's understanding and professional network. Ensure that the research adheres to ethical guidelines and institutional policies. The mentor is responsible for guiding the student through the ethical review process and ensuring compliance with all relevant regulations.

The Role of a Student

Learner
The student is primarily a learner, acquiring the knowledge and skills necessary for conducting research and scholarship. This involves active engagement in learning opportunities provided by the mentor.

Researcher
The student actively engages in the research process, including data collection, analysis, and interpretation. This hands-on involvement is crucial for developing practical research skills.

Collaborator
The student works effectively with the mentor and other members of the research team. Collaboration and communication are key to the success of the research project.

Expectations of a Student

Proactive Engagement
The student should take initiative in the research process, seeking guidance and feedback when needed. This includes identifying areas where they need additional support and actively pursuing learning opportunities.

Time Management
Managing time effectively is essential. The student must balance research activities with other academic and clinical responsibilities, ensuring that each receives appropriate attention.

Commitment
Demonstrating dedication to the research project is crucial. The student should meet deadlines, maintain a high standard of work, and show persistence even when faced with challenges.

Responsibilities of the Medical Student

Preparation

The student should come prepared to meetings with progress updates, questions, and discussion points. Another responsibility is regularly document and track the progress of the research project. This includes maintaining a log of completed tasks, ongoing activities, and future plans. The student should stay updated on relevant literature and advancements in the field. This involves regularly reading and summarizing new research articles, and integrating this knowledge into the project.

Skill Development

The student should actively seek opportunities to develop research skills, such as statistical analysis, literature review, and scientific writing. The student should utilize resources provided by the mentor and seek additional training as needed.

Dissemination of Research

The student should contribute to the dissemination of research findings through presentations, publications, and other scholarly activities. This is a crucial part of the research process and helps in advancing medical knowledge.

Professionalism and Ethical Conduct

The student must show respect to the mentor and all members of the research team. This includes valuing diverse perspectives and contributions, and maintaining a collaborative and supportive environment. Clear and professional communication is essential. The student should communicate regularly with the mentor, provide updates on progress, and promptly address any issues or concerns. The student should be reliable and dependable, meeting deadlines, attending scheduled meetings, and following through on commitments. The student must maintain confidentiality of all research data and findings, adhering to institutional policies and ethical standards. Any breaches of confidentiality should be reported immediately to the mentor and appropriate authorities. The student must demonstrate integrity in all aspects of their research activities, including accurate reporting of data, acknowledgment of sources, and honesty in all communications and actions as well as adhering to ethical guidelines and institutional policies.

SARP MINI-GRANT PROGRAM

The SARP Mini-Grant program at the FSOM is designed to support research projects conducted by medical students as part of their Scholarly Activity and Research Program (SARP) requirements. This competitive funding opportunity provides support to projects mentored by faculty members, focusing on direct research-related expenses such as materials, supplies, fee-related research support, and participant incentives. Faculty mentors applying on behalf of their student mentees should ensure the project plan is complete and submitted by the specified deadline. Applications must be submitted by the faculty mentor and completed in full, detailing a concise overview of the project, itemized costs, and budget justifications. The review process involves a diverse committee of faculty members who evaluate the proposals based on set criteria. The program requires annual progress reports and a final performance report upon project completion. This initiative not only facilitates students' engagement in scholarly activities but also supports the faculty's mentorship roles, fostering a collaborative research environment. Only faculty at Texas Tech Health El Paso are eligible to apply for and receive a SARP mini grant. For any queries, applicants can contact the SARP administration via email at SARP-ELP@ttep.edu.

APPENDIX

In this section, you will find appended versions of detailed guidelines and grading rubrics (when applicable) for each aspect of the SARP course that your student will be responsible for completing during SARP. Please note these guidelines can also be found with the course syllabus and on the SARP web page on the Foster School of Medicine Department of Medical Education website. Please use these resources to help your student put together your required course components.

Project Plan and Grading Rubric

Guidelines for the SARP Course Project Plan (PSAP 5401)

The Project Plan is a submission to fulfill the first credit of the three credit SARP Course requirement. The Project Plan must be developed with the help of your SARP Course project mentor and needs to describe your project in enough detail to allow a reviewer of the document a clear understanding of your research question or hypothesis, the specific aims of the project, what methods you will use to address these aims, what data, or information you will acquire and what analytic approaches you plan to use. Further, a detailed timeline of the project needs to be included.

Project Plan Points of Emphasis

- For access to the SARP Syllabus, Guidelines, and additional information, please visit the SARP Website.
- If you have any questions or concerns about your SARP Course Project Plan, don't hesitate to contact the SARP Course Faculty Co-Directors or the SARP Director.
- Your SARP Course project mentor is responsible for helping you develop your project in all its aspects. **Work proactively to develop a solid working relationship with your mentor** to maximize both the success of your project and your professional development.
- It is **essential** to engage in conversations with mentors before including them in the Project Plan.
- The Project Plan needs to be authored by you, representing original work. You must take ownership of the Project Plan and be responsible for its content.
- Group projects are allowed (with up to 5 students working with a single mentor); however, each student should clearly identify a unique research question or hypothesis that can distinguish their contribution and provide for an independent Project Plan, Final Report, and Poster presentation, in fulfillment of the SARP Course credits.
- The SARP Course is designed to provide scholarship / research to enhance your medical school experience, and credit will be given for **work done while you are enrolled at the FSOM**. Scholarship or research pursued before matriculating to the FSOM cannot be used directly in fulfillment of the SARP Course requirement; however, continuing work on earlier projects, potentially continuing work with a previous mentor, is allowed if you clearly document how your SARP Course activities are extensions of such previous work.
- Please note that **case studies or narrative reviews are not considered sufficient to meet the SARP Course Project requirement**. However, meta-analysis or systematic reviews are acceptable. For information on different types of scientific reviews, please see this helpful publication: A typology of reviews: an analysis of 14 review types and associated methodologies.

- An excellent resource to become familiar with is the ***AMA Style Manual***, which provides comprehensive guidelines for preparing uniform technical documents. A full PDF version is available: https://authorservices.wiley.com/asset/Wiley-AMA-Style-Manual.pdf
- Your Project Plan must be submitted electronically. You will receive emails reminding you of this deadline. Your SARP project mentor will receive a notification requiring acknowledgement of their mentoring responsibility.
- For those with external mentors, students must have permission to present external work at the SARP symposium.

Project Plan Contents

Your SARP Course Project Plan should contain the following elements:

- Title of Project, a concise sentence or phrase to describe the overall project.
- Mentor name and contact information

Be certain to work closely with your mentor on developing your Project Plan.

Project Background and Significance

This should be a concise introduction to the topic of your project and include citations of primary literature to support the development of your ideas, providing a logical foundation for your research question or hypothesis.

Research Question or Hypothesis

This is a one sentence statement of the project's overall focus as an explicit research question or hypothesis to be addressed.

Specific Aims with Rationale

The Specific Aims should be a small set of concise one- or two-sentence summaries of what you expect to achieve in executing your SARP Course project. A short paragraph should accompany each Specific Aim to provide a rationale for how the Aim addresses the project's research question or hypothesis.

Methods

This will be a short description of the methods (employing techniques, materials, databases, surveys, etc.) you intend to use to directly accomplish your Specific Aims.

Analysis

This section describes the methods you will use to analyze your data. For basic research and community / epidemiology projects, this could include a description of the statistical methods to be employed. For a medical humanities or ethics project, this might involve narrative or reflective analysis.

Compliance

If your SARP Course project requires compliance approval for using human subjects (IRB), animals (IACUC), or biohazardous materials (IBC), it is your responsibility to work with your mentor to document these in your Project Plan and **clearly describe what compliance is in place or the schedule for obtaining compliance**. Please note **no data collection should occur without compliance documentation being approved by the institution**.

Timeline

Provide a timeline for executing your SARP Course project and when you expect to submit your Final Report. There are 3 tracks to complete your SARP Course project: choose one for creating a timeline for this Project Plan document. However, you can change your Track, if necessary, by submitting a Progress Report. For example, if you submit your Project Plan expecting to complete your SARP Course by Track 1, you can change to Track 2 by submitting a Progress Report on the due date for the Track 1 Final Report. The diagram below outlines the three available Tracks and schedules:

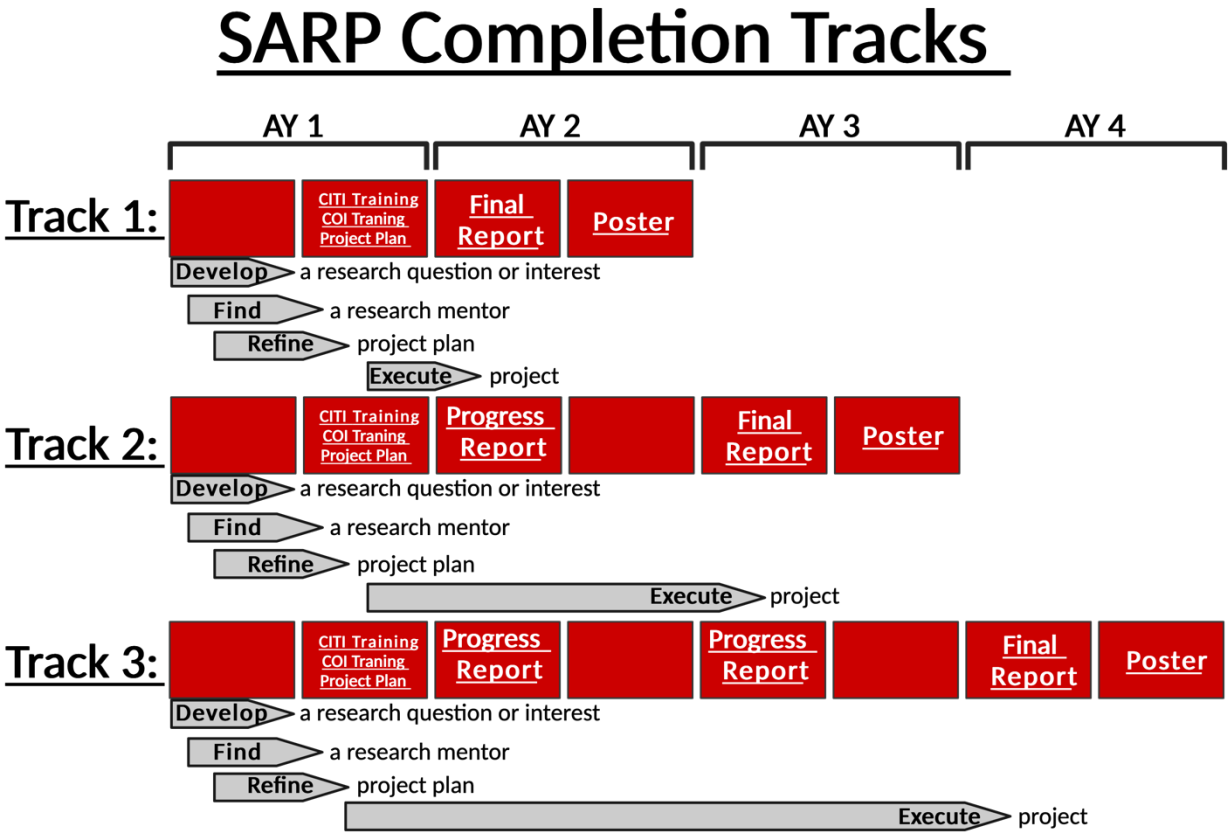


Figure 1

Additional considerations for developing your Project Plan:

- Your Project Plan will be assessed by a faculty member using a grading rubric available in the SARP Syllabus. Review this assessment rubric so you're familiar with how elements of your Project Plan will be graded.

- Be certain to **work closely with your mentor** on project planning and obtain and incorporate feedback on all drafts and the submitted Project Plan.
- Provide relevant citations and a bibliography using the format suggested in the ***AMA Style Manual***.

Be certain to read the cited references so the Project Plan has scholarly integrity.

- Edit your Project Plan carefully:
  - Proofread (suggestion: have a naïve reader look at your final draft).
  - Check spelling
  - Check grammar: punctuation, sentence structure, subject-verb agreement (plural or singular), tense consistency, etc.
  - Be certain your SARP Course project mentor is actively involved in this process.
- If you are **accepted to a summer research program** that does not provide explicit information about your mentor or project, work with the program directors so you can submit a 'placeholder' Project Plan by the deadline and propose a date you will submit a complete Project Plan.

Integrity Issues

- Students are required to demonstrate a high level of intellectual and personal integrity during all activities related to completion of the SARP Course, in alignment with their professional identity formation as physicians. This includes communicating clearly and honestly and treating all staff, students, faculty and other participants with respect and dignity.
- Write your own reports. Do not plagiarize, and if significant content derives from published materials, cite appropriately. ChatGPT or other Artificial Intelligence-derived content used in any component of your submitted assignments for the SARP Course must be clearly identified.

Submitting the SARP Course Project Plan:

In addition to the Project Plan contents described, your Project Plan requires a Cover Page that includes the following information and format:

- Heading: SARP Course Project Plan
- Student name and R-number
- Expected graduation class (e.g., C2029)
- Student email address
- Date
- Title of SARP Course project
- Mentor name and affiliation
- Mentor email address
- Expected completion date for the SARP Course (i.e., choose Track 1, 2, or 3).

The entire Project Plan document, including a Cover Page needs to be submitted electronically. Instructions for submission will be available through emails and on the SARP Website. Please use the following format for naming the submitted Project Plan PDF:

Last name_First name_C2029_Project_Plan_04.15.2025

Your Project Plan must be submitted electronically. You will receive emails reminding you of this deadline. Your SARP project mentor will receive a notification to acknowledge their mentoring responsibility and must sign off on the Project Plan for the submission to be considered complete.

Grading of the SARP Course Project Plan

Consult the syllabus for the grading criteria listed under the SARP components.

SARP Course Objectives for Project Plan:

The following SARP Course Objectives are addressed by completing the SARP Course Project Plan:

- Objective 1: Students will apply the scientific method by developing a research question or project theme, identifying a faculty mentor, and completing all requirements for the SARP Course.
- Objective 2: Students will learn how to search the literature, identifying previous knowledge and theory that provides context and relevance for their project.
- Objective 3: Students will submit a Project Plan that follows scientific method principles, including a research question or hypothesis, specific aims, rationale, methods, analysis, and timeline.
- Objective 4: Students will choose and employ adequate methods for the acquisition and statistical analysis of data and information for their project.
- Objective 6: Students will demonstrate clear and effective communication skills (oral and written) in the presentation of their project.
- Objective 7: Students will learn about protection of human and animal subjects involved in research.
- Objective 8: Students will learn and exhibit ethical principles in the design and execution of their projects.
- Objective 9: Students will exhibit attitudes and behaviors consistent with professional conduct of research and scholarship.
- Objective 10: Students will submit each assignment by the deadline and respond to all communications and feedback in a timely and professional matter.
- Objective 11: Students will collaborate generously and professionally with their mentor, faculty, students, and staff during completion of their research project.
- Objective 12: Students will learn principles of self-directed and life-long learning and apply these to the design and execution of their projects.

- Objective 13: Students will learn the principles of self-efficacy, monitoring and sharing personal progress through self-evaluation and reflection, and SARP Course evaluation.

SARP Project Plan Assessment Rubric

Reviewer Grading Rubric for SARP Course Project Plan	
Instructions for Reviewer: Please use the following category descriptors to give the student feedback on the quality of his/her project. This rubric is meant to provide the student with a feel for how well they did relative to both their peers and your expectations for a project at this stage of their career. Additionally, please provide narrative feedback regarding the strengths of the project plan as well as any areas where you see potential for improvement.	
Student Name:	
Student Mentor:	
Project Title:	
Project Background and Significance	
Needs Improvement	The project theme or significance is missing or poorly defined. Supporting evidence from the literature is missing or inadequate, failing to provide relevant background information or context.
Satisfactory	The project theme or significance is present but lacks clarity or specificity. Supporting evidence from the literature is present but may lack depth or fails to address key sources or perspectives.
Excellent	The project theme or significance is clearly defined, focused, and demonstrates originality and relevance to the field of study. Supporting evidence from the literature is comprehensive, demonstrating a thorough understanding of existing knowledge in the field and critically analyzing relevant sources.
Research Question or Hypothesis	
Needs Improvement	The research question or hypothesis is missing or poorly defined. Supporting evidence from the literature is missing or inadequate, failing to provide relevant background information or context.
Satisfactory	The research question or hypothesis is present but lacks clarity or specificity.
Excellent	The research question or hypothesis is clearly defined, focused, and demonstrates originality and relevance to the field of study.
Rationale and Specific Aims	
Needs Improvement	The rationale for the research or project aims are weak or unclear, lacking justification for significance or relevance.
Satisfactory	The rationale for the research or project aims is somewhat clear but lacks strong justification or fails to link aims to the research question or project theme.

Excellent	The rationale for the research or project aims is well-justified, logically presented, and convincingly argues for the importance and relevance of the proposed work.
Project Design and Methods	
Needs Improvement	The project design is missing or poorly described, lacking key components or not aligned with the research question or project aims.
Satisfactory	The project design is present but lacks some details.
Excellent	The project design is clear, well-structured, and demonstrates a comprehensive understanding of the research methods and procedures necessary to address the research question or project aims.
Analysis Plan	
Needs Improvement	The analysis plan is missing or insufficiently described, lacking clarity or failing to align with the research question or project aims.
Satisfactory	The analysis plan is present but lacks detail or fails to explain the appropriate statistical or analytical methods.
Excellent	The analysis plan is well-defined, appropriate for the research question or project aims, and demonstrates a sound understanding of statistical or analytical methods.
Writing	
Needs Improvement	The proposal is poorly written, containing numerous grammatical errors, lack of organization, and incoherent structure. Citations are non-existent or inconsistently formatted, or inappropriate.
Satisfactory	The proposal is generally well-written but contains some grammatical or structural issues that affect clarity or readability. Citations present and appropriate with mostly consistent formatting.
Excellent	The proposal is well-written, clear, and effectively communicates the research question or project aims, methods, rationale, and findings. Citations present and appropriate with consistent formatting.
Overall Project Plan	
Needs Improvement	There are significant concerns regarding the quality of this project plan. There are significant concerns regarding the research and academic integrity, including potential ethical issues
Satisfactory	The project plan provides sufficient information but there are minor concerns or oversights. The proposal demonstrates awareness of research and academic integrity, but there are minor concerns or oversights.

Excellent	The project plan is well-justified, logical, and convincingly presented effectively communicating all aspects of the plan. The proposal shows a strong commitment to research and academic integrity, including appropriate ethical considerations, transparent data collection and analysis, and accurate and consistent citations.
If a reviewer classifies your overall Project Plan as “needs improvement” consult with your project mentor to revise your Project Plan based on the reviewer provided feedback.	
Reviewer Comments:	

Final Report and Grading Rubric

Guidelines for the SARP Course Final Report (PSAP 6401)

The Final Report is a submission to fulfill the second credit of the SARP Course requirement. The Final Report must be developed with the help of your SARP Course project mentor and needs to describe the results of your project in enough detail to allow a reviewer of the document a clear understanding of your research question or hypothesis, the Specific Aims of the project, what methods you used to address these aims, what data, or information you acquired and what analytic approaches you used. Finally, a concise description of conclusions, limitations, and possible further work for the project needs to be included.

Final Report Points of Emphasis

- For access to the SARP Syllabus, Guidelines, and additional information, please visit the SARP Website: SARP Website.
- If you have any questions or concerns about your SARP Course Final Report, don't hesitate to contact the SARP Course Faculty Co-Directors or the SARP Director.
- Your SARP Course project mentor is responsible for helping you develop your Final Report. **Work proactively with your mentor** to maximize both the quality of the Final Report and your professional development.
- The Final Report must be authored by you, representing original work. You need to take ownership of the Final Report and are responsible for its content. Do not simply copy and paste a published manuscript.
- Refer to the ***AMA Style Manual***, which provides comprehensive guidelines for preparing uniform technical documents. A full PDF version is available:
- Your Final Report must be submitted electronically. You will receive emails reminding you of this deadline. Your SARP project mentor will receive a notification requiring acknowledgement of their mentoring responsibility.

Final Report Contents

Your SARP Course Final Report should contain the following elements:

- Title of Project
- Mentor name and contact information

Be sure to work closely with your mentor on developing your Project Plan. Your mentor will formally sign-off on the cover page.

Project Background and Significance

This should be a concise introduction to the topic of your project and include citations of primary literature to support the development of your ideas, providing a logical foundation for your research question or hypothesis.

Research Question or Hypothesis

This is a one sentence statement of the project's overall focus as an explicit research question or hypothesis to be addressed.

Specific Aims with Rationale

The Specific Aims should be a small set of concise one- or two-sentence summaries of what you expect to achieve in executing your SARP Course project. A short paragraph should accompany each Specific Aim to provide a rationale for how the Aim addresses the project's research question or hypothesis.

Methods

This will be a short description of the methods (employing techniques, materials, databases, surveys, etc.) you intend to use to directly accomplish your Specific Aims. This section will also describe the methods you used to analyze your data.

Results

The results section includes the relevant findings of your SARP Course Project. This section consists of your figures with appropriate captions and tables.

Discussion

The discussion portion of your Final Report explores the implications, significance, and context of the research findings. Below is a list of topics often included in a discussion:

- **Interpretation of Results**: This is the core of the Discussion section. It involves interpreting what the results mean in the context of the study's hypotheses or research question. This may include explaining how the findings support or contradict previous studies or theories.
- **Contextualization with Previous Research**: The findings should be compared with the relevant literature. For example, discussing how the results align with, extend, or challenge existing knowledge in the field.
- **Explaining Unexpected Results**: If there were any surprising or unexpected findings, these should be addressed. The discussion might explore possible reasons for these results and how they fit into the broader context of the field.
- **Limitations of the Study**: Every study has limitations, and these should be honestly and clearly stated. This may include methodological limitations, constraints on generalizability, or potential sources of bias.
- **Implications of the Findings**: Discuss the implications of the results for the field, practice, policy, or future research. This is where the broader impact of the research is explored.
- **Suggestions for Future Research**: Based on the findings and limitations, the Discussion should suggest areas for further study. This helps to set the stage for future work in the field.

- **Theoretical and Practical Relevance**: If applicable, discuss how the findings contribute to the theoretical understanding of the topic and any practical applications of the research.

Conclusions

Summarize any conclusions you were able to make. Also comment on any limitations of your study and how your work could be extended.

Compliance

Attach any compliance documents (IBC, IACUC, IRB – exempt or non-exempt) to the assignment submission portal.

Student contribution to the project

Include a brief description of your involvement in all aspects of the project and what contributions were provided by others.

Additional considerations for developing your Final Report:

- Your Final Report will be assessed by a faculty member using a grading rubric available in the SARP Syllabus. Review this assessment rubric so you're familiar with how elements of your Final Report will be graded.
- Be certain to **work closely with your mentor** on project planning and obtain and incorporate feedback on all drafts and the submitted Final Report.
- Provide relevant citations and a bibliography using the format suggested in the ***AMA Style Manual***.
- Be certain to read the cited references so the Final Report has scholarly integrity.
- Edit your Final Report carefully:
    - Proofread (suggestion: have a naïve reader look at your final draft).
    - Check spelling.
    - Check grammar: punctuation, sentence structure, subject-verb agreement (plural or singular), tense consistency, etc.
    - Be certain your SARP Course project mentor is actively involved in this process.

Integrity Issues

- Students are required to demonstrate a high level of intellectual and personal integrity during all activities related to completing the SARP Course, in alignment with forming their professional identity as physicians. This includes communicating clearly and honestly and treating all staff, students, faculty, and other participants with respect and dignity.
- Write your own reports. Do not plagiarize, and if significant content derives from published materials, cite appropriately. ChatGPT or other Artificial Intelligence-derived content used in any component of your submitted assignments for the SARP Course must be clearly identified.

Submitting the SARP Course Final Report:

In addition to the Final Report contents described, your Final Report requires a Cover Page that includes the following information and format:

- Heading: SARP Course Final Report
- Student name and R-number
- Expected graduation class (e.g., C2029)
- Student email address
- Date
- Title of SARP Course project
- Mentor name and affiliation
- Mentor email address
- Signature lines for the student and mentor

The entire Final Report document, including a Cover Page, needs to be submitted electronically. Your SARP mentor must sign off on the Final Report for the submission to be considered completed. Instructions for submission will be available through emails and on the SARP Website. Please use the following format for naming the submitted Final Report PDF:
Last name_First name_C2029_Final_Report_10.03.2025

Your Final Report must be submitted electronically. You will receive emails reminding you of this deadline. Your SARP project mentor will receive a notification requiring acknowledgement of their mentoring responsibility.

Grading of the SARP Course Final Report

Consult the syllabus for the grading criteria listed under the SARP components.

SARP Course Objectives for the Final Report

The following SARP Course Objectives are addressed by completing the SARP Course Final Report:

- Objective 1: Students will apply the scientific method by developing a research question or project theme, identifying a faculty mentor, and completing all requirements for the SARP Course.
- Objective 2: Students will learn how to search the literature, identifying previous knowledge and theory that provides context and relevance for their project.
- Objective 4: Students will choose and employ adequate methods for the acquisition and statistical analysis of data and information for their project.
- Objective 5: Students will submit a Final Report of their project, providing a concise summary of the project execution, data acquisition and analysis, and conclusions.
- Objective 6: Students will demonstrate clear and effective communication skills (oral and written) in the presentation of their project.
- Objective 7: Students will learn about protection of human and animal subjects involved in research.

- Objective 8: Students will learn and exhibit ethical principles in the design and execution of their projects.
- Objective 9: Students will exhibit attitudes and behaviors consistent with professional conduct of research and scholarship.
- Objective 10: Students will submit each assignment by the deadline and respond to all communications and feedback in a timely and professional matter.
- Objective 11: Students will collaborate generously and professionally with their mentor, faculty, students, and staff during completion of their research project.
- Objective 12: Students will learn principles of self-directed and life-long learning and apply these to the design and execution of their projects.
- Objective 13: Students will learn the principles of self-efficacy, monitoring and sharing personal progress through self-evaluation and reflection, and SARP Course evaluation.

SARP Final Report Assessment Rubric

Reviewer Grading Rubric for SARP Course Project Final Report	
Instructions for Reviewer: Please use the following category descriptors to give the student feedback on the quality of his/her project. This rubric is meant to provide the student with a feel for how well they did relative to both their peers and your expectations for a project at this stage of their career. Additionally, please provide narrative feedback regarding the strengths of the final project report as well as any areas where you see potential for improvement.	
Student Name:	
Student Mentor:	
Project Title:	
Research Question or Project Theme	
Needs Improvement	The research question or project theme is missing or poorly defined.
Satisfactory	The research question or project theme is present but lacks clarity or specificity.
Excellent	The research question or project theme is clearly defined, focused, and demonstrates originality and relevance to the field of study.
Literature Review	
Needs Improvement	The literature review is missing or inadequate, failing to provide relevant background information or context.
Satisfactory	The literature review is present but lacks depth or fails to address key sources or perspectives
Excellent	The literature review is comprehensive, demonstrating a thorough understanding of existing knowledge in the field and critically analyzing relevant sources.
Rationale and Specific Aims	
Needs Improvement	The rationale for the research or project aims is weak or unclear, lacking justification for its significance or relevance.
Satisfactory	The rationale for the research or project aims is somewhat clear but lacks strong justification or fails to link aims to the research question or project theme.
Excellent	The rationale for the research or project aims is well-justified, logically presented, and convincingly argues for the importance and relevance of the proposed work.
Project Design	
Needs Improvement	The project design is missing or poorly described, lacking key components or not aligned with the research question or project aims.

Satisfactory	The project design is present but lacks detail or coherence, missing important information or failing to address potential limitations.
Excellent	The project design is clear, well-structured, and demonstrates a comprehensive understanding of the research methods and procedures necessary to address the research question or project aims.
Analysis	
Needs Improvement	The analysis is missing or insufficiently described, lacking clarity or failing to align with the research question or project aims.
Satisfactory	The analysis is present but lacks detail or fails to explain the appropriate statistical or analytical methods.
Excellent	The analysis is well-defined, appropriate for the research question or project aims, and demonstrates a sound understanding of statistical or analytical methods.
Writing	
Needs Improvement	The final report is poorly written, containing numerous grammatical errors, lack of organization, and incoherent structure.
Satisfactory	The final report is generally well-written but contains some grammatical or structural issues that affect clarity or readability.
Excellent	The final report is well-written, clear, and effectively communicates the research question or project aims, methods, rationale, and findings.
Research and Academic Integrity	
Needs Improvement	There are significant concerns regarding the final report research and academic integrity, including potential ethical issues, lack of transparency, or improper citation practices.
Satisfactory	The final report demonstrates awareness of research and academic integrity, but there are minor concerns or oversights.
Excellent	The final report shows a strong commitment to research and academic integrity, including appropriate ethical considerations, transparent data collection and analysis, and accurate and consistent citations.
Overall Project Final Report	
Needs Improvement	There are significant concerns regarding the quality of this final report. There are significant concerns regarding the research and academic integrity, including potential ethical issues
Satisfactory	The final report provides sufficient information but there are minor concerns or oversights. The report demonstrates awareness of research and academic integrity, but there are minor concerns or oversights.

Excellent	The final report is well-justified, logical, and convincingly presented effectively communicating all aspects of the plan. The report shows a strong commitment to research and academic integrity, including appropriate ethical considerations, transparent data collection and analysis, and accurate and consistent citations.
If a reviewer classifies your overall Final Report as “needs improvement” consult with your project mentor to revise your Final Report based on the reviewer provided feedback.	
Reviewer Comments:	

Poster Presentation and Grading Rubric

Guidelines for the Poster Presentation (PSAP 7401)

The Poster Presentation is the final credit of the three-credit SARP Course requirement. The Poster Presentation must be developed with the help of your SARP project mentor. The Poster Presentation is the capstone element of your SARP Course Project and should be a concise summary of your research question or hypothesis, the specific aims of the project, what methods you used to address these aims, your project's results, conclusions, and ethical statement.

Poster Presentation Points of Emphasis

- Your SARP Course project mentor is responsible for helping you develop your Poster Presentation in all its aspects. **Work proactively to develop a solid working relationship with your mentor** to maximize both the success of your project and your professional development.
- The Poster Presentation needs to be created by you, representing original work. You need to take ownership of the Poster Presentation and are responsible for its content. This needs to be a new poster created specifically for the SARP Symposium.
- Your Poster Presentation will be presented at the SARP Symposium and will be assessed by several reviewers according to the Poster Presentation rubric available on the SARP Website, in the Appendix and also on Elentra.
- Your poster will be presented at the Annual SARP Symposium. Poster templates are available from the Texas Tech Health El Paso Office of Institutional Advancement.

Poster Contents

Your SARP Course Poster should contain the following elements:

- Title of Project
- Author List and affiliations
    - Please list all authors and the respective affiliations that participated in your SARP Course Project. By convention as presenter, you should be listed as first author, and your mentor should be listed as the final author.

Background/Introduction

This should be a concise introduction to the topic of your project providing a logical foundation for your hypothesis or research question.

Hypothesis or Research Question

This is a one sentence statement of the project's overall focus stated as an explicit hypothesis, or a specific research question to be addressed.

Specific Aims with Rationale

The specific aims should be concise one- or two-sentence summaries of what you expected to achieve in executing your project.

Materials and Methods

This will be a short description of the methods (employing techniques, materials, databases, surveys, etc.) you used to directly accomplish your Specific Aims. Graphical representations of your methods or workflow may take some effort to design but it will save you space and are often more visually appealing.

Results

This section is where you will include the relevant findings of your SARP Course Project. This section should include your figures with appropriate captions and tables. Remember that figures are usually more appealing than tables and tables although often appropriate can be difficult to read at a distance.

Conclusions

This should typically be one or two sentences or bullet points. When presenting your poster, you should spend some time explaining the implications and significance of your findings to the audience as your ideas may help change practice or generate further research.

References

Include references where information is cites but it important but use citations sparingly.

Ethics statement and Funding

If your SARP Course project requires compliance approval for using human subjects (IRB), animals (IACUC), or biohazardous materials (IBC) please include a statement that this project was approved and provide a protocol number. If this project did not require institutional compliance, a statement attesting to that fact should be provided. If your project was funded by a grant, please add a statement acknowledging the funding source.

Additional considerations for your Poster Presentation:

- Your Poster Presentation will be assessed by a faculty member using a rubric available in the SARP Syllabus and on the SARP Website. Review this assessment rubric so you're familiar with how elements of your Poster Presentation will be graded.
- Be certain to **work closely with your mentor** on Poster Presentation and obtain and incorporate feedback Poster Presentation.
    - Practice your presentation with your lab, colleagues, friends, etc. Ensure you can explain all aspects of your poster, remember there is a question answer session as part of the presentation.

- Provide relevant citations using the format suggested in the ***AMA Style Manual***.
- Be certain to read the cited references so the Poster Presentation has scholarly integrity.
- Edit your Poster Presentation carefully:

  - Proofread (suggestion: have a naïve reader look at your final draft).
  - Check spelling
  - Check grammar
  - Check the accuracy of your figures (do you have titles and labeled axes)
- Be certain your SARP Course project mentor is closely involved in this process.
- Be sure to include a Texas Tech Health El Paso institutional logo as well as a logo from your mentor's institution (if your project was done outside of Texas Tech Health El Paso).
- During the group sessions, you must be present for the entire duration of the presentations. We encourage you to arrive early, and more specific details will be provided prior to the event.
- For posters presented in person, SARP will print the posters and will be available for pick up prior to presentation day. Submission of posters will be needed one week in advance of presentation day.

Integrity Issues

Students are required to demonstrate a high level of intellectual and personal integrity during all activities related to completion of the SARP Course, in alignment with their professional identity formation as physicians. This includes communicating clearly and honestly and treating all staff, students, faculty and other participants with respect and dignity.

Grading of the SARP Course Poster Presentation

Consult the syllabus for the grading criteria listed under the SARP components.

SARP Course Objectives for the Poster Presentation:

The following SARP Course Objectives are addressed by completing the SARP Course Poster Presentation:

- Objective 1: Students will apply the scientific method by developing a research question or project theme, identify a faculty mentor, and complete all requirements for the SARP Course.
- Objective 2: Students will learn how to search the literature, identifying previous knowledge and theory that provides context and relevance for their project.
- Objective 4: Students will choose and employ adequate methods for the acquisition and statistical analysis of data and information for their project.
- Objective 5: Students will submit a Poster Presentation for their project, providing a concise summary of the project execution, data acquisition and analysis, and conclusions.
- Objective 6: Students will demonstrate clear and effective communication skills (oral and written) in the presentation of their project.
- Objective 7: Students will learn about protection of human and animal subjects involved in research.
- Objective 8: Students will learn and exhibit ethical principles in the design and execution of their projects.

- Objective 9: Students will exhibit attitudes and behaviors consistent with professional conduct of research and scholarship.
- Objective 10: Students will submit each assignment by the deadline and respond to all communications and feedback in a timely and professional matter.
- Objective 11: Students will collaborate generously and professionally with their mentor, faculty, students, and staff during completion of their research project.
- Objective 12: Students will learn principles of self-directed and life-long learning and apply these to the design and execution of their projects.
- Objective 13: Students will learn the principles of self-efficacy, monitoring and sharing personal progress through self-evaluation and reflection, and SARP Course evaluation.

SARP Poster Presentation Assessment Rubric

Reviewer Grading Rubric for SARP Course Poster Presentations	
Instructions for Reviewer: Please use the following category descriptors to give the student feedback on the quality of his/her project. This rubric is meant to provide the student with a feel for how well they did relative to both their peers and your expectations for a project at this stage of their career. Additionally, please provide narrative feedback regarding the strengths of the poster and presentation as well as any areas where you see potential for improvement.	
Student Name:	
Student Mentor:	
Project Title:	
Poster Appearance	
Needs Improvement	The poster is visually unappealing, cluttered, or difficult to read. The formatting, color scheme, and layout hinder understanding and engagement.
Satisfactory	The poster is moderately visually appealing, but improvements could be made in terms of organization, clarity of visuals, and legibility of text.
Excellent	The poster is visually appealing, well-organized, and effectively utilizes appropriate visuals, fonts, colors, and layout to enhance comprehension and engagement.
Poster Content	
Needs Improvement	The content of the poster is incomplete, lacking in depth, or fails to address key aspects of the research project.
Satisfactory	The content of the poster is present but lacks coherence, contains inaccuracies, or includes irrelevant information.
Excellent	The content of the poster is comprehensive, accurate, and effectively presents the research project, including the research question, methodology, results, and conclusions.
Presentation and Communication	
Needs Improvement	The presenter fails to effectively communicate the research project, lacking organization, clarity, and engagement. The presentation lacks structure and coherence.
Satisfactory	The presenter communicates the research project but with limited clarity, relying heavily on reading from the poster, lacking engagement with the audience
Excellent	The presenter effectively communicates the research project, engaging the audience with a clear and well-structured presentation. They demonstrate strong verbal and non-verbal communication skills and provides additional insights beyond the poster content.

Response to Audience Questions	
Needs Improvement	There are significant concerns regarding the research and academic integrity, including potential ethical issues, lack of transparency, or improper citation practices.
Satisfactory	The poster demonstrates awareness of research and academic integrity, but there are minor concerns or oversights.
Excellent	The poster shows a strong commitment to research and academic integrity, including appropriate ethical considerations, transparent data collection and analysis, and accurate and consistent citations.
Overall Project Poster Presentation	
Needs Improvement	There are significant concerns regarding the quality of this poster presentation. There are significant concerns regarding the research and academic integrity, including potential ethical issues
Satisfactory	The poster presentation provides sufficient information but there are minor concerns or oversights. The poster presentation demonstrates awareness of research and academic integrity, but there are minor concerns or oversights.
Excellent	The poster presentation logical, and convincingly presented effectively communicating all aspects of the plan. The poster presentation shows a strong commitment to research and academic integrity, including appropriate ethical considerations, transparent data collection and analysis.
If a reviewer classifies your overall Poster Presentation as “needs improvement” consult with your project mentor and SARP Directors to determine a plan for remediation.	
Reviewer Comments:	

Guidelines for the Progress Report

Progress Reports are due for students completing their SARP Course by Track 2 or Track 3 (Figure 1). Progress Reports provide concise updates on the status of your SARP Course project and must be approved by your SARP Course project mentor.

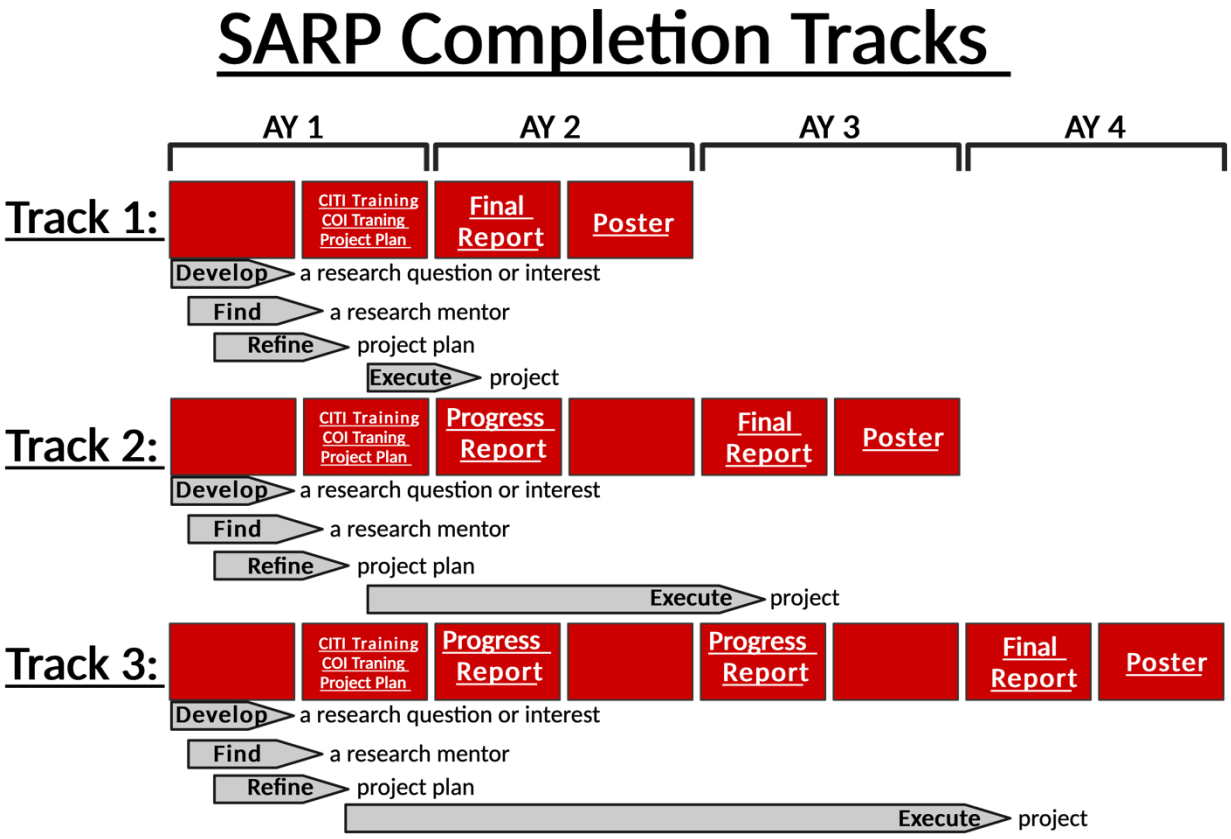


Figure 1

Progress Report Points of Emphasis

- If you have any questions or concerns about your SARP Course Project Progress Report, don't hesitate to contact the SARP Course Faculty Co-Directors or SARP Director via SARP-ELP@ttep.edu. Deadlines and additional information are available on the SARP Website.
- Your SARP Course project mentor is responsible for approving your Progress Report. **Work proactively to develop a solid working relationship with your mentor** to maximize both the success of your project and your professional development.
- Your Progress Report must be submitted electronically through the REDCap portal. You will receive an email invitation prior to the deadline. You need to submit 2 Progress reports for completing the SARP Course by Track 2, and 4 Progress reports for completing the SARP Course by Track 3 (see Figure 1).

Your SARP Course Progress Report will be submitted through REDCap and contain the following elements:

- Student name and R-number
- Expected graduation class (e.g., C2027)
- Student email address
- Date
- Title of SARP Course project
- Mentor name and affiliation
- Mentor email address
- Compliance update
- Project tasks completed to date
- Expected completion date for the SARP Course

Be certain to work closely with your mentor on completing Progress Report.

Project Information on Record

This information should correspond to the title of the project for which you previously submitted a Project Plan. If you are changing projects or working with a new mentor on the same project, you need to submit a Project Change Request (form available in the Syllabus Appendix, on the SARP Website, and on Elentra).

Compliance

If your SARP Course project requires compliance approval for using human subjects (IRB), animals (IACUC), or biohazardous materials (IBC), it is your responsibility to work with your mentor to document these in the Progress Report. **Clearly describe what compliance is in place or the schedule for obtaining compliance**. Please note **no data collection should occur without compliance documentation being approved by the institution**. The letter from the IRB, IBC and/or IACUC must be up to date and include your name on the protocol.

Project Tasks

Here is where you will check off what portions of your project are completed (Literature Review, Specific Aims, Data Collection/Review, Data Analysis, Final Report, and Poster Presentation). Briefly describe the progress for each unfinished element with particular regard to the completion of each Specific Aim.

Anticipated Completion

Select an anticipated completion time for submission of the Final Report and Poster Presentation.

Additional Details

There is a free response space in REDCap where you can include any details you think the SARP team should be aware of regarding your project.

Additional considerations for developing your Progress Report:

- Your Progress Report will be assessed by the SARP team but is not graded. This Progress Report is a means to maintain accountability for progressing through the SARP course requirement and to make the SARP team aware of any potential issues with completion of your SARP Course project and serves as formative feedback regarding progress of a SARP Project.
- Be certain your SARP Course project mentor is actively involved in this process.

Integrity Issues

- Students are required to demonstrate a high level of intellectual and personal integrity during all activities related to completion of the SARP Course, in alignment with their professional identity formation as physicians. This includes communicating clearly and honestly and treating all staff, students, faculty and other participants with respect and dignity.

SARP Course Objectives for the Progress Report:

The following SARP Course Objectives are addressed by completing the SARP Course Progress Report:

- Objective 1: Students will apply the scientific methods by developing a research question or project theme, identifying a faculty mentor, and completing all requirements for the SARP Course.
- Objective 6: Students will demonstrate clear and effective communication skills (oral and written) in the presentation of their project.
- Objective 7: Students will learn about protection of human and animal subjects involved in research.
- Objective 9: Students will exhibit attitudes and behaviors consistent with professional conduct of research and scholarship.
- Objective 10: Students will submit each assignment by the deadline and respond to all communications and feedback in a timely and professional matter.
- Objective 11: Students will collaborate generously and professionally with their mentor, faculty, students, and staff during completion of their research project.

Guidelines for Project Change Request

The Project Change Request is designed to provide notification for a change in the status of your SARP Course project. This change in status can occur due to several circumstances. Each scenario is described below, along with the corresponding information you will need to submit as a Project Change Request.

1. You are continuing to work on the same project as described in your original Project Plan, but with a new mentor.
    - In this case, you need to complete a REDCap form with the new mentor's name and contact information, briefly describe why you have a new mentor, and update your expected project completion date (choose Track, see Figure 1). If project requires an IRB, IBC, or IACUC forms, you need to ensure your new mentor is listed on these documents.
2. You are continuing to work with the same mentor (as documented in your Project Plan) but want to switch to a new project.
    - In this case, you will describe why you are switching to new project.
    - This Project Change Request also requires a new Project Plan to be submitted according to the Project Plan guidelines. This new Project Plan will be reviewed and assessed by a faculty member using the grading rubric available in the SARP Syllabus.
    - You will need to update your expected project completion date (choose Track, see Figure 1).
    - If the new project requires an IRB, IBC, or IACUC forms, you need to ensure your new mentor submits these documents and adds you to the application(s).
3. You want to change to a new SARP Course project and a new mentor.
    - In this case, you need to describe why you are switching to new mentor and a new project.
    - This Project Change Request also requires submitting a new Project Plan according to the Project Plan guidelines. This new Project Plan will be reviewed and assessed by a faculty member using the grading rubric available in the SARP Syllabus.
    - Update your expected project completion date (choose Track, see Figure 1).
    - If the new project requires an IRB, IBC, or IACUC forms, you need to ensure your new mentor submits these documents and adds you to the application(s).

Project Change Request Points of Emphasis

- There is no deadline for submitting a Project Change Request; however, you should submit as soon as possible after your SARP Course project trajectory changes, ensuring to keep SARP administration current, and to obtain any useful guidance or advice and IRB, IBC, and/or IACUC documents submitted for completing your SARP Course requirement.
- Access to the Project Change Request can be requested from the SARP Email. Once received a REDCap link will be sent to you for completion.
- The SARP Syllabus, Guidelines, and additional information can be found on the SARP Website.

- If you have any questions or concerns about your SARP Course Project Progress Report, don't hesitate to contact the SARP Course Faculty Co-Directors or SARP Director via SARP-ELP@ttep.edu

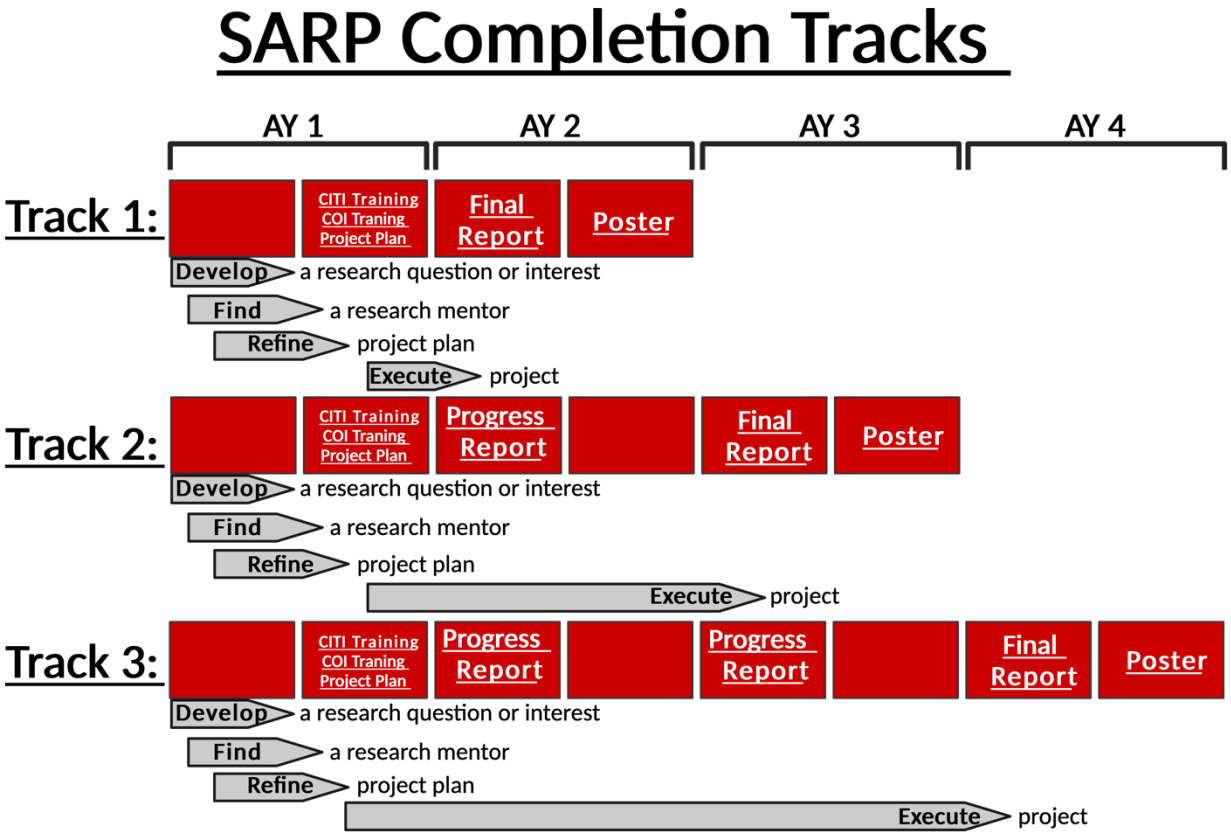


Figure 1

SARP Course Objectives for the Progress Change Request:
The following SARP Course Objectives are addressed by completing the SARP Course Project Change Request:

- Objective 6: Students will demonstrate clear and effective communication skills (oral and written) in the presentation of their project.
- Objective 9: Students will exhibit attitudes and behaviors consistent with professional conduct of research and scholarship.
- Objective 10: Students will submit each assignment by the deadline and respond to all communications and feedback in a timely and professional matter.

SARP External Mentor Information Form

This form is intended for research mentors who are not affiliated with Texas Tech University Health Sciences Center El Paso (TTUHSC El Paso) or the Paul L. Foster School of Medicine (PLFSOM), but who will serve as scholarly project supervisors for PLFSOM medical students conducting research outside the institution.

Completion of this form enables the Scholarly Activity and Research Program (SARP) to maintain accurate records of external research partnerships, verify key information about the research site and mentor, and ensure alignment with the academic and professional standards expected of all SARP mentors. Please contact SARP-ELP@ttep.edu if you have any questions or concerns.

Name:
Title/Position:
Institution/Organization:
Department:
Email Address:
Phone Number:

Mentorship Experience:
Briefly describe your prior experience mentoring students or trainees:

Project Information:
Project Title: _____
Brief Project Description (150-250 words):

Research Ethics Certification:
Have you completed CITI training or equivalent research ethics training?
[ ] Yes (attach certificate)
[ ] No (must complete before project approval)

Acknowledgment:
[ ] I agree to abide by PLFSOM policies on mistreatment, professionalism, and educational standards.
[ ] I understand that mistreatment of students or failure to adhere to expectations may result in termination of the mentor-mentee relationship .

Signature: _____ Date: _____

External Mentor Expectations and Agreement

By signing this form, I agree that I have reviewed and understand the Paul L. Foster School of Medicine Policy for External SARP Mentors, PLFSOM Student Mistreatment Policy**,** the SARP Mentor Manual, and completed the SARP External Mentor Information Form and affirm that I agree to the included terms.

SARP Mentee:

Mentor Name (printed):

Mentor Signature:

Date:

Internal Mentor Expectations and Agreement

By signing this form, I agree that I have reviewed the Paul L. Foster School of Medicine Policy for External SARP Mentors, PLFSOM Student Mistreatment Policy**,** the SARP Mentor Manual, and completed the SARP External Mentor Information Form and affirm that I agree to the included terms.

SARP Mentee:

Mentor Name (printed):

Mentor Signature:

Date:

Student Acknowledgment of Rights and Reporting Process

I understand that I am protected by PLFSOM's policies on mistreatment, as defined in the PLFSOM Student Mistreatment Policy, professionalism, and student well-being, regardless of project location.

I know how to report mistreatment, discrimination, harassment, or any concern through the following pathways:

- Direct contact with SARP Leadership or my selected internal mentor.
- Anonymous reporting through PLFSOM reporting systems.

I will provide a mid-project and end-of-project check-in to ensure my well-being and project success.

I understand that if I experience any mistreatment, unsafe conditions, or academic exploitation, I should report it immediately to my internal SARP mentor or SARP course directors.

SARP Internal Mentor:

Student Name (printed):

Student Signature:

Date: