Guidelines specifically for FACULTY-DIRECTED UNDERGRADUATE RESEARCH PROJECTS

GOAL

To provide underrepresented minority students the opportunity to serve as apprentice researchers collaborating in a faculty member's research project in a capacity that genuinely prepares them for further research involvement in STEM disciplines.

STRATEGY

To involve underrepresented minority students in a closely monitored and substantive research project, to promote high academic standards, and to provide participating students with the foundation necessary for achieving success in further research involvement in STEM disciplines.

PROJECT REQUIREMENTS

o Projects should involve from one (1) and up to three (3) underrepresented minority undergraduate students as defined in General Guidelines for WAESO Applicants.

o Projects should be organized by a science, technology, engineering or mathematics faculty member who will serve as an advisor/mentor to students. The faculty member must submit a proposal vita, and a description of the proposed research, and a description of proposed activities in which the students will participate.

o Projects should provide "hands-on" research experiences to students at a substantive level (i.e. not confining them to "bottle-washing" activity.)

o **The student *must* produce a research report describing their activities and the importance of these activities regarding their pursuit of STEM degree.** Student time for writing this report must be built into the research project. The report should be from 2 to 5 double-spaced typed pages and submitted online at the end of the project. **In addition, students *must* also provide a headshot photo with the "aha" moment statement** *(i.e. a class the student took, internship experience, lab experience, mentor/professor who really inspired the student to pursue a degree in a STEM field)*.

o If you are proposing to work with a student who has previously received a stipend from the WAESO program for a research project, please justify why WAESO should renew its support for her/him rather than use these funds to expand the pool of students who get an opportunity to benefit from this experience. Please note that students who have never received support from WAESO may be given preference over those who have. Students are

limited to a maximum of three undergraduate research projects funded by WAESO.

o All student biographical forms must be returned to WAESO **within** four weeks after receiving notification of funding. Failure to meet this deadline will result in the student not being awarded a stipend to participate in the research activity. The Western Alliance to Expand Student Opportunities views student stipends as incentives for students so that they will participate in faculty-directed activities that will enhance their ability to successfully obtain a baccalaureate degree in science, technology, engineering and mathematics majors. Students are not required to work for a pre-determined period of time nor are they required to log in a set number of hours to qualify for receipt of the WAESO stipend.

For important guidelines that apply to all WAESO applications, consult General Guidelines for Applicants.

FACULTY-DIRECTED UNDERGRADUATE RESEARCH PROPOSAL QUESTIONS

1. What is the research question?

Define as precisely as possible the research question that will be addressed. Include a brief rationale for the project that summarizes the broader societal benefit. Include a brief review of previous research work.

2. What are the specific objectives of the research project?

Briefly indicate the specific objectives of the research and the expected outcomes.

3. What work will the student(s) do?

Define the specific work that the student(s) will undertake.

4. What is the expected timeline and associate major milestones for the proposed project?

Provide a proposed timeline for the project, indicating the major milestones.

5. What skills will the student(s) learn, and how will these skills help the students to succeed in future STEM research?

Specify which skills the student(s) will learn and how these will help them succeed in STEM research. Describe the specific, hands-on activities the students will perform. Examples of hands on activities may include: collect data, analyze data\ keep a journal, write a report, present reports to the research team, present a poster at a conference (please specify the conference), and so forth. *If more than one student is expected to be involved in the project, please indicate the expected unique contributions of each student.*