



# SAC UNDERGRADUATE RESEARCH PROGRAM PROPOSAL GUIDELINES

Students groups comprised of 3-4 members, interested in developing an original undergraduate research project should review previous undergraduate research projects, create an original project and submit a proposal of their intended research to Analisa Garza, MESA Center Coordinator by May 10, 2013. Students may submit their proposal electronically at [agarza872@alamo.edu](mailto:agarza872@alamo.edu) or in the MESA Center Office (CAC -204A). Electronic is preferred. For any further questions please contact us at 210-486-1825.

In order to be considered for the SAC Undergraduate Research Program student groups must submit a proposal stating their objectives and the importance of the intended research. Selected groups will have access to available departmental equipment and supplies, and each member will be eligible to receive a \$1,100 scholarship awarded at the completion of the project. In order to receive the \$1,100 scholarships, students must remain in good academic standing and complete the requirements as listed on the student agreement form. These requirements include time commitment toward the project, meeting attendance, documentation, oral presentations, and team cooperation. For more details about student requirements and expectations download the student agreement form from the MESA website. <http://www.alamo.edu/sac/engineering/MESA/>

## The proposal should include the following:

- 1) Title or Cover Page – Title of the project in capital letters, team name and individual member names, date, department, intended faculty and industry partner/advisor, a picture of the product and/or logo if available
- 2) Table of contents – lists the sections of the research proposal with corresponding page numbers
- 3) Abstract – (1 paragraph) summarizes the research project. Describes the purpose, motivation, hypothesis, data collection methods, and the significance of the results of the research.
- 4) Introduction
  - a) background information for the research
  - b) present material as if the audience is a general science reader and not an expert
  - c) include a brief review of previous/current studies surrounding your research topic and present the need for the new information you hope to find.
  - d) describes what you intend to research with in your topic (Ex. Within solar panels, what specifically will you research)
- 5) Research Design or Methodology –
  - a) Some subcategories may include: data collection, method of analysis, instrumentation, etc.
  - b) Justify the methods you use to gather and analyze your data.
  - c) Detailed research methodology (Step-by-step experimentation), include equipment and when it will be used, what measurements will be recorded etc.
  - d) How will you determine if you have collected enough data
  - e) What data will you be collecting and how will you be analyzing it
- 6) Estimated Cost (Budget) – include any disposable equipment that may need to be purchased (ex. Gloves, nails, etc.)
- 7) Timetable/Plan – stages of project, with estimated deadlines for such stages
- 8) Significance and Implications of the Study – expected outcomes, significance or the contribution to scientific knowledge
- 9) List of References

