



# TAMIU UNDERGRADUATE RESEARCH APPRENTICESHIPS

## PROGRAM SUMMARY

Texas A&M International University has received funding from the Department of Defense to support 4 undergraduate students for a **paid eight-week undergraduate research apprenticeship** experience to take place between May to August 2020. Possible summer research experiences to be supported span the disciplines of Systems Engineering, Chemistry, Bioinformatics, and Geosciences. Engineering students will learn to design, model and simulate flexible skin-like materials, and test them with software simulations for electrical, mechanical and thermal properties. These students will also learn to design and develop optoelectronic devices at the micro/nano-scale. Chemistry students will learn how to conduct research projects and be trained in scientific computation, simulation, and numerical analysis using visualization software and other programs. Bioinformatics students will learn about experimental design, molecular tools, data management, UNIX commands, PYTHON programming language, quantitative analysis and bioinformatics analysis. Students within the geoscience cluster will gain skills related to remote sensing and geographic information systems.

Contact [ktobin@tamiu.edu](mailto:ktobin@tamiu.edu) with any questions about this program.

## ELIGIBILITY REQUIREMENTS:

1. TAMIU or Laredo College students must have completed 45 semester credit hours by the end of the Spring 2020 semester and must be a STEM field major
2. Must be U.S. citizens or nationals, or permanent resident aliens, living in Laredo, Texas area
3. Must submit official transcript with a minimum overall GPA of 3.00, with 3.25 GPA preferred in STEM courses
4. Must submit two letters of recommendation (at least one from a STEM faculty member detailing academic accomplishments), which include an assessment of qualifications for this program focusing on the student's potential to conduct research
5. Must submit an essay describing any research interests and how they align with a member of the project team. Applicants are encouraged to discuss their ideas with potential mentors before applying (contact [ktobin@tamiu.edu](mailto:ktobin@tamiu.edu) for mentor list). Any prior research experience should also be highlighted and future career plans should be addressed.
6. Extra consideration will be given to applicants with financial need, minorities, women and persons with disabilities to increase participation of these groups which are underrepresented in the STEM fields.

## MANDATORY TWO STEP APPLICATION PROCESS:

1. **Deadline #1:** By **03/2/2020** - apply through US Army AEOP website [www.usaeop.com](http://www.usaeop.com)
2. **Deadline #2:** By **04/1/2020** - apply through TAMIU DustyWorks for this Grant Research position

**NOTE: BOTH APPLICATIONS MUST BE COMPLETELY RECEIVED BEFORE DEADLINES OR APPLICANT WILL NOT BE CONSIDERED.**