Southwestern Indian Polytechnic Institute
Capability Statement

Institution: **Southwestern Indian Polytechnic Institute (SIPI)**
DUNS: **037738593** Cage Code: **482X9** NACIS IDs: **611210**, **611430, 541360, 541370, 541340, 541715** SIC: **8222**
Federal EIN No: **61-505989**
Accreditation: **Higher Learning Commission**

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OVERVIEW

The Southwestern Indian Polytechnic Institute (SIPI) is national community college serving American Indian and Alaska Native students and their communities. SIPI is one of two land-grant colleges and universities operated by U.S. Bureau of Indian Education (BIE). SIPI prepares our culturally diverse Native American and Alaska Native students as life-long learners through partnerships with Tribes and other organizations. We establish a strong educational foundation for student success. SIPI aspires to be an intellectual asset to Indian country that is highly effective and puts students' success first.

RESEARCH CAPABILITIES

Engineering, CADD and Manufacturing: Robotics, autonomous vehicles, remote control systems, renewable energy and engineering systems.
Environmental Science: Water use and quality, Sustainable natural resource use, Climate change adaptation and mitigation, Environmental agreements and policymaking, International treaty implementation.
Geospatial Information Technology: Geospatial technology applications to land resource management and Earth system science, environmental remote sensing, geographic information systems (GIS), environmental monitoring, rangeland monitoring, landscape phenology, Internet of Things (IoT) for precision agriculture, multispectral imaging systems

FACILITIES

Engineering, CADD and Manufacturing: Robotics workshop, Mars Yard, Machine Shop (metal, wood fabrication), 3D Printing Laboratory, Engineering Laboratory, Computer Aided Design and Drafting (CADD) Laboratory, Computer Aided Manufacturing (CAM) Laboratory (3D laser scanning, 3D filament/epoxy printing, computer numerical control technology, 30+ software applications for design, drafting and engineering, computer program development, 20 iPad and 25 laptops for portable student learning), Electronic Circuits Laboratory, Physics teaching laboratory.
Geospatial Information Technology: Teaching laboratory (17 PC workstations, Intel i7 processors, 16GB RAM, 4K monitors), Mobile teaching laboratory (12 laptop PCs, portable projector/screen), geospatial application software (ESRI ArcGIS Pro Enterprise, ERDAS IMAGINE, Ardupilot Mission Planner, Agisoft Metashape), HP DesignJet T1700dr plotter, ASD Handheld 2 Pro spectroradiometer, FLIR handheld thermal camera, 20 Trimble TDC600 GNSS handheld data collectors, Trimble R2 GNSS receiver, Micasense Altum multispectral UAS camera, field-portable Vis/NIR imaging system, Labsphere reflectance standards, WMO-standard meteorological station.

PAST PERFORMANCE

SIPI has an extensive record of successful grant awards from federal funding agencies, including the National Aeronautics and Space Administration (NASA), the National Science Foundation (NSF), and the USDA National Institute for Food and Agriculture (NIFA). Sponsored projects have emphasized educational program development, student enrichment activities and applied research in Pre-Engineering/CADD/Manufacturing, Geospatial Information Technology and Environmental Science.