

Albany State University Capacity Statement

Institution: **Albany State University**
DUNS No: **030052815** Cage Code: **9W263** NACIS ID(s): **611310** SIC: **8221**
Federal EIN No: **58-6001996**
Certificates, Registrations, Accreditations: **SACSCOC, CSWE; CACREP, ACBSP, NCATE; RFEPAC; ACEN; ACS.**
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Albany State University, a historically black institution in Southwest Georgia, seeks to foster the growth and development of the region, state and nation through teaching, research, creative expression and public service. The primary mission of Albany State University is to educate students to become outstanding contributors to society. Offering Bachelor's, Master's and Education Specialist degrees and a variety of non-degree educational programs, the University emphasizes the liberal arts as the foundation for all learning by exposing students to the humanities, fine arts, social sciences and the sciences and embraces and encourages research as key component of faculty scholarship and student training.

RESEARCH CAPABILITIES

Biomedical Research: Cancer research, epigenetic sensing of prostate cancer biomarkers, anti -cancer pro-drugs for the treatment of cancers

Chemistry: Computational modeling, chemical sensor for nerve agents, nanomaterials and polymeric materials for targeting delivery of anti -cancer drug, energy detection and energy efficient devices, chip fabrication, organic semi conducting materials, green organic synthesis

Mathematics/Computer Science: Nano-fluid modeling, algorithm development, combinatorics, math modelling

Physics/Engineering: Artificial material or metamaterial characterization, nanomaterial and microwave radiation in cancer treatment, micro-droplet study and pattern formation, optimization surface conditions for super hydrophobicity and anti-icing materials

Forensic Science. Ballistics, bioterrorism, toxin characterization, polymorphism studies, demographic studies of drug use, hypermapping, forensic chemistry, explosive detection and characterization

Health Disparities: HIV/AIDS, Mental health, obesity, suicide prevention, substance abuse

Environmental Science: Microbial ecology, environmental genomics, microbial water quality, anaerobic microbiology, human microbiome, climate change biology, aquatic toxicology

Supply Chain and Logistics: Operations research and advanced analytical methods, value stream mapping, supply chain optimization and simulations, cost benefit analysis, manufacturing workflow and plant "setup" planning, Lean Six Sigma consulting and training

FACILITIES

Biotechnology Core Laboratory- DNA Microarray, global gene expression, cellular/ biological imaging & analysis, Quantitative Gene Express, Microarray Verification, Quality control and Assay Validation, Pathogen Detect, SNP Genotyping, MicroRNA Analysis, Viral Quantification through both Real Time PCR and Thermal Cycle PCR.

Georgia Water Planning and Policy Center-water quality, water use in agriculture, cost-benefit analysis, water use policy, off-set banking, nutrient trading, GIS products

Major& Specialized Instrumentation- Scanning Electron Microscopy, florescence, Infrared, NMR, UV/Vis. High speed centrifugation, Fluorescence Microscopy, Real time PCR, Particle Size Analyzer, Vector Network Analyzer, 3-D Printing, Real time PCR, flow cytometer, Atomic absorption Spectroscopy, GC-Mass Spectroscopy

Work with Contractors: The Department of Defense, which includes the development of sensors to detect nerve agents and explosives, high throughput screening of the toxicity of organophosphate compounds. Also the Environmental Protection Agency & U.S Department of Agriculture on water usage, agriculture and land use, field experiments in nutrient management and water quality protection