



**Richard Gallot Jr., JD  
President**

## **CAPABILITY STATEMENT**

Grambling State University is a Historically Black University that was founded in 1901. The University offers baccalaureate, masters, and doctoral degree programs. Grambling State University is accredited by SACS-COC. As a component of its mission, the University seeks to provide opportunities for students to develop intellectually and to acquire appropriate career skills through instruction, research, public service, and special programs.

### ***Accreditations***

ABET-ETAC, ABET-CAC, ACS, AACSB, NASPAA, NASM, NCATE, NAST, ACEN, CSWE, ACEJMC

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<b>DUNS No:</b>	<b>939855565</b>
<b>CAGE Code:</b>	<b>OJG81</b>
<b>NAICS:</b>	<b>236118, 512290</b>
	<b>541711, 541712</b>
	<b>711120</b>
<b>SIC:</b>	<b>8221</b>
<b>Federal EIN:</b>	<b>1-726000751</b>

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### **Contact Information:**

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## ***CORE COMPETENCIES***

- **Biomedical** - toxicology and genomics to understand how molecular events lead to cancer, cellular mechanisms to understand disease development/progression, mapping protein-DNA interactions of nuclear cyclin D1 in distinct cancer systems
- **Business** - E-commerce, entrepreneurship, leadership training, operational excellence, logistics
- **Engineering Technology** - construction engineering technology, electronics engineering technology
- **Cybersecurity/Big Data** - cognitive radio network security, high performance GP-GPU computing in federated hadoop systems, deep learning & anomaly detection, game models, backpropagation models-neural networks, cloud data security
- **Education** - social and economic predictors of postsecondary students' educational outcomes, methods to teach mathematical concepts
- **Material Science** - materials synthesis using additive manufacturing techniques, ultra-high temperature ceramic composites, nanoporosity in polymers and vacancy defects in metals, crystal phase composition, nanoparticle size analysis, micro-hardness analysis, magnetization studies, polymer synthesis
- **Mathematical Biology** - deterministic mathematical and stochastics models to study the spread of infectious diseases such as malaria, HIV, and typhoid
- **Molecular Modeling** - Study of charge transport and their relation with structural properties of polymer and polymer composites using quantum mechanics and Monte Carlo-based computational methods. Study of Molecular transport in nanostructures using stochastic models
- **Public Health** - models for addressing low health literacy in Cameroon and Sub Saharan Africa, influence of stress on Type 2 diabetes

## ***PAST PERFORMANCE***

Air Force Research Laboratory, Department of Energy, National Institutes of Health, National Science Foundation, NASA, Office of Naval Research, Housing and Urban Development, USDA-Rural Development, Louisiana Biomedical Research Network

## Air Force Research Laboratory Funding

Design and Implementation of a Cognitive Radio Cloud Network

High Performance GP-GPU Computing in Federated Hadoop Systems

Advanced Ceramic Materials Processing and Characterization

Preparation of Advanced Nano-Reinforced Composite Materials and characterization of properties

Synthesis of Polyimides for use in the Fabrication of a Low Driving Voltage Electro-optic Modulator

## NASA Funding

Consortium for Innovation in Manufacturing and Materials

Polymerizable Monomer Reactants

Synthesis of Thermally Stable Polymers for Nonlinear Optic Applications

## NSF Funding

Materials for Energy Storage and Conversion -Catalytic Reactions Involving Metal Oxides

Biodegradable Polymers (molecular modeling, synthesis, characterization of biodegradation properties)

Secure and Survivable Cyber-Centric Sensor Networks-Algorithms and Architecture Research

## DOE Funding

Role of Microstructure/Nanoporosity and Atomic structure in Activation, Deactivation, and Temporal Stability of Catalyst/support Systems for Fuel Conversion

Development of Low Cost Membranes for H<sub>2</sub>/CO<sub>2</sub> Separation in WGS Reactors

## Louisiana Biomedical Research Network Funding

Investigation of the Toxicity of PCP and its impact on Gene Expressions in Hepatocyte Cultures

Understanding Cellular Mechanisms that lead to Non-Alcoholic Fatty Liver Disease Development and Progression