



Philander Smith College (PSC) Capability Statement

Federal EIN No: 71-0239729

Certificates, Registrations, Accreditations: HLC, NERCHE, CSWE, ACBSP, NCATE; RFEPAC

POC Information: Glenn Sergeant, Executive Director, Center for Workforce Innovation and Strategic Economic

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OVERVIEW

Founded in 1877, Philander Smith College is a small, privately supported, historically Black, four-year liberal arts institution related to the Board of Higher Education and Ministry of the United Methodist Church. The current enrollment exceeds 800 students. The College offers 20 undergraduate majors across five core academic divisions; and two Dual Degree programs, the first in Engineering and the second in Public Health. Emphasized also is undergraduate research, experiential learning, and study abroad.

The College's mission is to graduate academically accomplished students, grounded as advocates for social justice, determined to change the world for the better.

Philander Smith College, the only United Negro College Fund member institution in Arkansas, strives to provide a quality education for all regardless of race, religion, sex, national origin or ethnic background. Roderick L. Smothers, Sr., Ph.D. is the college's president. The typical student-teacher ratio is 14 to1. PSC's website is https://www.philander.edu/

RESEARCH CAPABILITIES

Chemistry: Experimental: Sol-gel chemistry, metal oxide nanoparticle synthesis, inorganic synthesis; Sample characterization techniques: XPS, FTIR, Raman, UV-Vis, XRD, TEM, SEM; Surface Chemistry of ZnO Nanowires for Nanosensor Applications; Surface Modification of Titanium Dioxide Nanoparticles, Computational modeling,

Mathematics/Computer Science: Computer Coding Bootcamp, Cybersecurity, electrical and software engineering, SME-Driven Trainable, Matching Engine, Computing Networking Storage and Analysis, Software engineering, Computer architecture, Website Design, Operating Systems (MVS, UNIX, VMS, Microsoft Window), Computer Science Research, Human-Computer Interaction, Usable Security, Usability Evaluation, Information Quality, E-Service Quality, User Experience Research, Computational Thinking, Interface Design, Human-Computer Interaction, Introduction to Computer Systems, Structured programming, Object-Oriented programming, Programming Languages (COBOL, COBOL II/CICS/DB2, Fortran, Pascal, PL/SQL, JAVA, C, HTML, XML and Scheme)

Environmental Science: Antimicrobial peptide testing, Western blotting, Dot blotting, PCR, Electrophoresis, Spectrophotometry, Transgenic plant maintenance, Transgenic plant testing, Immunocytochemistry, DNA extraction (and cloning, and purification), Protein extraction and purification, Protein localization, Experience handling various pathogen cultures, Developing experimental protocols for microbiology, Developing protocols for molecular genetics experiments, Research in molecular genetics, Designing primers, Bacterial artificial chromosome (BAC) management, Low information content fingerprinting utilizing BAC library, Microtome sectioning, Confocal microscopy, Transmission electron microscopy

Biomedical Research: Cancer Research

Business: Accounting, Management

FACILITIES

Major & Specialized Instrumentation: Ring Laser Gyroscope

PAST PERFORMANCE

National Science Foundation

Minority Training, Education Consortium (AMC-TEC)

Louis Stokes Mississippi Alliance for Minority Participation

Department of Defense HBCU Research Education Program for HBCU and Minority-Serving Institutions EPSCoR Cellulosic and Environmental Toxicological Research

Board of Regents/ Southern Regional Education Board Research Minority Fellowship

Society of Environmental Toxicology and Chemistry (SETAC)