

Curriculum Vitae

Faculty Name: Work Address: P.O. Box 519; MS 2210

Prairie View, TX 77446

Position Title: Lecturer I

Office Location: E.E. O'Banion Science Bldg., Suite 430-

Office Phone: 936-261-3176

Email Address:

Tia D. Villeral

Education: Degree and Area of Study Institution Name Degree Date

B.S. Biology Clark Atlanta University May 2002
B.S. Ocular Science Salus University May 2007

Doctor of Optometry Salus University-

Pennsylvania College of Optometry May 2010

Teaching/Admin and Research Experience:

Position Title Institution Name Position Dates (Beginning and End)

Director of Student Engagement Azusa Pacific University 2017-2018

Executive Director, Morehouse School of Medicine 2016-2017

Undergraduate Health Sciences Academy

Instructor Clark Atlanta University 2011-2017

- Maintained and implemented strategies to achieve designated SLOs (student learning outcomes) and fostered a positive learning environment for student engagement.
- Responsible for ensuring the comprehension of general biology information for nonmajors through lecturing and practical laboratory activity.
- Tutored students for the MCAT, DAT and OAT with 80% test improvement rate.

COURSES TAUGHT:

CBIO 101 Biological Sciences to non-majors (Course Coordinator)

CBIO 111 General Biology

CBIO 312 Cell Biology Laboratory

CBIO 356 Anatomy & Physiology (Curriculum Redesign)

CBIO 426 Biology of Radioactive Materials

CBIO 476 Human Physiology

COURSE DEVELOPMENT:

CBIO 426 Biology of Radioactive Materials

(web supported course)

- Course takes an evidence-based medical model approach through the use clinical case presentations.
- Course intends to impact the pre-health professional aspirations by giving useful clinic based information using radiobiology emphasis.
- Train undergraduate students in clinical thinking and research to develop more competent critical application skills.

- Achieved department identified student learning objectives for general education course
- Responsible for ensuring the comprehension of general biology information for nonmajors
- Responsible for the development of curriculum for junior and senior level students in the area of Genetics.
- Received consistent above average ratings from the student course evaluations.

COURSES TAUGHT:

BIO 1111 General Biology BIO 3300 Genetics

SELECT CLINICAL SCIENCE EXPERIENCE – Select experiences to demonstrate Application of complex science associated knowledge in diverse clinical and community settings

Optometrist Resident, Patient Education and Care Services, Yukon Kuskokwim Health Corporation, Bethel, AK

- Provide optical science education at varied levels throughout community health education.
- Adapted education and information for school age children, community leaders, and aging community members.
- Eye Care services include, Primary Care, Glaucoma Management, Cataract Evaluations, and Anterior Segment Disease treatment.
- Provide care services Indian Health Systems to 48 surrounding villages.
- Conducted school screenings for visual dysfunction in the surrounding villages.

Optometrist Resident, The Eye Institute, Philadelphia, PA

- Application of complex science related information and development of assessment skills - evaluate and recommend low vision aids to patients that will meet their goals and expectations.
- Addition specialty services, such as emergency care, low vision, visual fields, glaucoma management, pediatrics and community based activities
- Low vision evaluations, which include the ability to meet the patients' psychosocial needs as well as the optometric needs.

RESEARCH EXPERIENCE:

Investigator, Theoretical Framework for Evolutionary Algorithm Analysis of the Biological Genetic Codes.

- Bioinformatics research with heavy concentration in genetic algorithms.
- Organize and control several concurrent activities.
- Maintain a high level of performance under pressure.
- Test new protocol and complete related documentation.
- Analyzes, develop recommendations, for future projects.
- Supervised implementation of new protocols.
- Runner-up Winner of the 3rd Annual Prostate Cancer Research Symposium Poster Competition

08/2000-08/2002

Investigator, Role of Estrogen Receptor Alpha in Osteoblast and Osteoclast cells.

- Conducted DNA research in Transgenic Mice.
- Maintained breeding colonies.
- Implemented new protocols and completed data management.

05/2001-08/2001

Research Intern, National Heart Lung and Blood Institute State University of New York at Buffalo, Buffalo, NY

- Performed Pediatric Research in the area of Sepsis and Oxygen in Biomedicine Research Internship.
- Assisted in preliminary clinical trials of respiratory oscillator.
- Demonstrated an ability initiate research protocols without direct supervision with an attention to details.
- Maintained high level of performance under strict deadlines.
- Presenter at the annual research symposium received first place in poster presentation.

05/2000-12/2000

Research Intern, MEDIC-B Research Internship Indiana University at Bloomington; Bloomington, IN

Project title: Quantitative Measurements of Interferon Induced Genes in Hepatitis C Virus.

- Preformed RNA/DNA Isolation, RNA/DNA Purification, and DNA Mappings.
- qRT-PCR and RT-PCR
- Primer Design
- Western Blot, Northern Blot, and Dot Blot, Cell Culture, Gel Electrophoresis, SDS-Page.
- Collect and interpret data for summer conference.
- Presented at Howard Hughes Conference in New York