# Felecia McInnis Nave, Ph.D.

# Assistant Professor Department of Chemical Engineering College of Engineering Prairie View A&M University

# **CONTACT INFORMATION**

PO Box 519, MS 2505 Phone: (936) 261-9411 Prairie View, TX 77446 Fax: (936) 262-9414

Email: fmnave@pvamu.edu

# **ACADEMIC BACKGROUND**

**Ph.D. in Chemical Engineering,** December 2002, University of Toledo, Toledo, Ohio **Dissertation:** "Impact of Mobile Phase Parameters on Transport Properties of Proteins in Immobilized Metal Affinity Hydrogel Membranes". Advisor: Dr. Maria Coleman

M.S. in Chemical Engineering, May 2001, University of Toledo, Toledo, Ohio

**B.S. in Chemistry,** May 1997, Alcorn State University, Lorman, Mississippi

# APPOINTMENTS AND POSITIONS

**Assistant Professor** Prairie View, TX January 2003-Present

Prairie View A&M University, Department of Chemical Engineering

**Program Coordinator** Prairie View, TX March 2006-Present

Prairie View A&M University, STEM-Prep Enrichment Camp

Freshman Faculty Advisor Prairie View, TX August 2005-Present

Prairie View A&M University, Department of Chemical Engineering

Freshman Faculty Prairie View, TX August 2003-Present

Coordinator

Prairie View A&M University, College of Engineering (COE)

**Chemistry Coordinator** Prairie View, TX Summer 2005

Prairie View A&M University, Pre-College Institute

Professional Development Prairie View, TX Summer 2003 & 2004

Coordinator

Prairie View A&M University, Minority Introduction to Engineering &

Science (MITES)

InternCincinnati, OHAugust 2000-Dec 2000

Proctor & Gamble, Deodorant/Old Spice Category of Health and Beauty Care Division

**Instructor** Perrysburg, OH August 1999-Dec 1999

Owens Community College, Mathematics Department

**Co-op** Yazoo City, MS Fall 1993, Summer 94 & 95

Mississippi Chemical Corp., Research and Development

Intern Indianapolis, IA Summer 1993

Indiana-Purdue Univ. @ Indianapolis, Civil Engineering Department

#### **PUBLICATIONS AND PRESENTATIONS**

### **Journal Publications**

- Nave, F., Frizell. S, Cui, S., Obiomon, P., & Perkins, J. (2008). Charting the Course: The Impact and Implications of the Mentoring Experiences of Female Faculty in the College of Engineering at a HBCU. Faculty Resource Network Online Journal: Advancing Women and Minorities in the Academy.
- Jennings, M., Bonner, F., Lewis, C., & Nave, F. (2007). The historically black college and university: A question of relevance for the African American millennial college student? *National Association of Student Affairs Professionals (NASAP) Journal*, 10(1).
- Nave, F., Luo, Y., & Coleman, M. (2007). Impact of Mobile Phase Parameters on Transport Properties of Metal Affinity Hydrogel Membranes (submitted to Separation & Technology).

# <u>Proceedings</u>

- Nave, F., Bonner, F., & Stevenson, T. (2008). The Impact of Climate on Minority Student Success in Engineering at Predominately White Institutions: Minority Directors' Perspectives *American Society for Engineering Education 2008 Conference Proceedings* (Pittsburgh, PA, June 2008).
- Nave, F. (2008). Development of a Bioengineering Concentration in the Department of Chemical Engineering at Prairie View A&M University: Outcomes and Lessons *American Society for Engineering Education 2008 Conference Proceedings* (Pittsburgh, PA, June 2008).
- Frizell, S. & Nave, F. (2008). An Investigation of Factors Affecting the Persistence of African-American Women in Engineering Degree Programs *American Society for Engineering Education 2008 Conference Proceedings* (Pittsburgh, PA, June 2008).
- Frizell, S., & Nave, F. (2008). Work in Progress Reexamining the Problem of Engineering Persistence of African-American Students. To appear in *Proceedings* of 38th ASEE/IEEE Frontiers in Education Conference. Saratoga Springs, NY.
- Nave, F., Frizell. S, Cui, S., Obiomon, P., & Perkins, J. (2006). Prairie View A & M University: Assessing the impact of the STEM-Enrichment Program on Women of Color *Women in Engineering Programs and Advocates Network Proceedings* (Pittsburgh PA, June 2006).

#### Presentations

Davis, V., Jennings, B., Nave, F., & Quick C. (2008). Alternative Procedure To Control Pressure In The Microvasculature Of The Pallid Bat's Wing. (To be) Presented at The 2008 Annual National Organization for the Professional Development of Black Chemist and Chemical Engineers (NOBCHEE), Orlando, Fl.

- Cui, S., Frizell, S., Obiomon, P., Perkins, J., & Nave, F. (2007). Female Faculty Mentoring: A Case Study of the Experiences of Female Faculty in the College of Engineering at Prairie View A&M University. Panel Presentation at the 2007 Faculty Resource Network National Symposium, Charlotte, NC.
- Nave, F., Gyamerah, M., &Osborne-Lee, I. (2007). NSF Targeted Infusion Project: Development of a Bioengineering Concentration within the Department of Chemical Engineering at Prairie View A&M University *Presented at NSF Joint Annual Meeting Conference (Washington, DC, August 2007)*.
- Galiotos, J., Nave, F., & Osborne-Lee, I. (2006). Innovations in Applied Chemical Technology Education: The HCC-NE Chemical Laboratory Technology-PVAMU;MU Chemical Engineering 2+3 Articulation Partnership *Presented at 62nd Southwest Regional American Chemical Society Meeting (Houston, TX,* October 2006)
- Nave, F. (2004). Globalization Presented at Prairie View A&M University College of Engineering Senior Design (Prairie View, TX, Spring 2004).
- Nave, F. (2004). Business Ethics Presented at Prairie View A&M University Students In Free Enterprise (SIFE) (Prairie View, TX, Spring 2004).
- Nave, F. Johnson, N., & Harper S. (2003). Synthesis and Characterization of Transport Properties of Lysozyme in Metal Affinity Hydrogel Membranes *Presented at Louis Stokes Alliance for Minority Participation (LSAMP) Conference (South Padre TX, October 2003 poster session (2<sup>nd</sup> place)).*
- Nave, F., Yosick, A, Lou, Y, & Coleman M. (2001). Synthesis and Characterization of Transport Properties of Metal Affinity Hydrogel Polymers *Presented at National Association Membrane Science (NAMS) (Lexington, KY, May 2001, poster session).*
- Nave, F., Yosick, A, Lou, Y, & Coleman M. (2001). Synthesis and Characterization of Transport Properties of Metal Affinity Hydrogel Polymers *Presented at American Institute of chemical Engineers Conference (AICHE) (Houston, TX, April 2001).*
- Coleman, M., Nave F., Yosick, A., & Lou Y. (2000). Characterization of Lysozyme Transport in Metal Affinity Hydrogel Membranes *Presented at American Institute of Chemical Engineers Conference (Atlanta, GA, March 2000)*.
- Crookston, D., Nave, F., Yosick, A, Luo, L, Beitle, R., & Coleman, M. (1999). Histidine Transport in PVA Gel Membranes Functionalized with Metal Affinity Ligands *Presented at The International Conference on Membranes (ICOM) (Toronto, Canada, June 1999, poster presentation).*

#### Invited Talks/Workshops

Nave, F. (2008). Impact of Mobile Phase Parameters on Lysozyme Transport in Metal Affinity Hydrogels. *Presented at University of Houston Civil Engineering Department (Houston, TX, March 2008)*.

- Nave, F., & Bonner, F. (2007). Understanding How Minority Engineering Students Experience College: A Glimpse at The James Worth Bagley College of Engineering. Presented at Mississippi State University Bagley College of Engineering Faculty Workshop (Starkville, MS, September 2007).
- Nave, F. (2007). Writing an Academic Resume. Presented at National Association Membrane Science (NAMS) Student Workshop (Orlando, FL, May 2007).

#### **GRANTS & PROJECTS**

- Felecia M. Nave (PI) & Sherri Frizell, Lockhead Martin, *PVAMU Society of Women Engineers: Leadership Series for Women of Color in the College of Engineering*, \$2000, Spring 2008.
- Felecia M. Nave (PI), Fred Bonner, Sherri Frizell, Mary Alfred & Chance Lewis (Co-PIs). National Science Foundation, Education Research Project: Empirical Investigation of the Success Factors Impacting African-American Students in Engineering and Technology at Historically Black Universities, \$1,007,146, September 2007 through August 2010.
- Felecia M. Nave (PI) & Sherri Frizell, Society of Women Engineers –National, Sisters Speak: Professional Development Program for Women of Color in the College of Engineering at Prairie View A&M University, \$4,150, June 2006 through May 2007.
- Irvin Osborne-Lee (PI), **Felecia M. Nave (Co-PI, primary author)**, & Michael Gyamerah (Co-PI). National Science Foundation-Supplement, FAST Team, \$25,500, May through August 2007.
- Sherri Frizell (PI) & Felecia M. Nave (Co-PI), Engineering Information Foundation, The Identification of Factors Affecting the Retention and Attrition of African-American Female Students in Computer Science and Engineering, \$24,032, January through December 2007.
- Irvin Osborne-Lee (PI), Felecia M. Nave (Co-PI, primary author), & Michael Gyamerah (Co-PI), National Science Foundation, Targeted Infusion Project:

  Development of Bioengineering Concentration in the Department of Chemical Engineering at Prairie View A&M University, \$149, 718, September 2006 through August 2008.
- Felecia M. Nave (PI), United Negro College Special Programs- Department of Defense, Synthesis and Characterization of Nanostructured Hybrids for Separation of Bioactive Compounds, \$22,529, September 2006 through August 2007.
- **Felecia M. Nave (PI)** & Sherri Frizell (Co-PI), Exxonmobil Foundation, *Society of Women Engineers Leadership Workshop*, \$4,500, January through December 2006.
- Michael Gyamerah (PI), **Felecia M. Nave**, Remi Oki, Gloria Regisford, Jorge Gabitto (Co-PIs), National Science Foundation, *Major Research Instrumentation Grant:*Acquisition of research instrumentation for applied research and training in

*biotechnology and bioprocess engineering*, \$201,116, September 2004 through January 2006.

# Internally Funded Grants & Projects

Felecia M. Nave (PI), Prairie View A&M University Mini-Grant Research & Development, *Development of supported metal affinity hydrogel membranes for protein separation and purification*, \$3,053, January through May 2004.

**Felecia M. Nave (PI)**, Prairie View A&M University Office of Biomedical and Behavioral Research, *Student Conference Travel Award*, \$742, October 2003.

Felecia M. Nave (PI) & Sheri Frizell, NASA, Marshall Chevrolet, PVAMU Assistant Dean and Computer Science Department, Society of Women Engineers Poster/Essay Contest for area K-8 grade students, \$780, March 2004.

# **STUDENT SUPERVISION**

#### Master's Thesis

Ajiboye Benga (committee member), **Project Title**: Economic and Environmental Impact Assessment of Alpha-Naphthol Production, **Graduation**: Fall 2007

#### Master's Project

Jessica Carey (committee member), **Project Title:** Contamination of the Rimac River and Its Impact, **Graduation:** August 2005

#### Senior Design Project

Carietha Johnson, Ifeoma Uzoezie, Lesli Caulfield, Jamie McNeir, Tracie Alexander, **Project Title:** Recycling of Nitric Acid from a Radioactive Liquid Waste Stream, **Completion: December 2006** 

#### Undergraduate Research

Supervised 22 undergraduate students in the areas of engineering education, functionalized membranes for bioseparations and microvascular research.

## **AWARDS & HONORS**

TYTHER & HOTTOTES	
2008 PVAMU College of Engineering Outstanding Service Award	2008
Service Award, STEM Prep Summer Enrichment Camp	2007
Service Award, STEM Prep Summer Enrichment Camp	2006
Carl Storm Underrepresented Minority Fellowship Travel to Gordon	2006
Conference	
Texas A&M University Michael E. DeBakey Institute Summer Fellow	2006
Visiting Scholar, Univ. of Missouri-Columbia Southwestern Bell Science	2004
Education Center	
Recipient of ONR Historically Black Engineering College Future Faculty	2001-2003
Fellowship	
Research Assistantship, Department of Chemical & Environmental Engr,	1998-2001
Univ. of Toledo	
Alcoa Fellowship, University of Arkansas, Dept. of Chemical Engineering,	1997-1998
University of Arkansas Graduate School Fellowship	1997-1998
Graduated cum laude, Alcorn State University	1997
Who's Who Among American College Students	1996
Full Academic Scholarship, Alcorn State University	1992-1996
Jefferson Davis County Alumni Scholarship	1992

# Alpha Kappa Mu Honor Society, Alcorn State University

## **PROFESSIONAL MEMBERSHIPS**

North American Membrane Society (NAMS)

American Institute of Chemical Engineers (AICHE)

National Society of Black Engineers(NSBE)

Society of Women Engineers (SWE), Faculty Advisor

American Chemical Society (ACS)

National Organization for the Professional Development of Black Chemist and Chemical

Engineers (NOBCCHE)

American Society for Engineering Education (ASEE)