

Peter A. Braza

University of Colorado, Colorado Springs

Academic Positions

University of Colorado, Colorado Springs (Carnegie – R2)
Dean, College of Letters, Arts & Sciences, August 2012 – December 2018
Professor of Applied Mathematics

Leader of college with over 6000 students, 295 faculty and 17 departments, within a university of over 12,700 students

Three Ph.D. programs
Nine masters programs
Seventeen bachelors programs
Two ROTC programs

University of North Florida (Carnegie – Community Engagement, Doctoral/Professional)
Interim Dean, College of Computing, Engineering and Construction, 2009 – 2011
College of roughly 1300 students, 45 faculty in a university of over 16,000 students

Acting Associate Provost, 2010 – 2011
Responsible for Academic Affairs priority budgeting and some personnel matters

Associate Dean, College of Arts and Sciences, 2002 – 2009

Faculty Positions:
Professor of Applied Mathematics (2008 - 2012)
Associate Professor (1994 - 2008)
Assistant Professor (1988 - 1994)

Education

August 1988	Ph.D.	Applied Mathematics	McCormick School of Engineering Northwestern University, Evanston, IL
June 1984	M.S.	Applied Mathematics	McCormick School of Engineering Northwestern University, Evanston, IL
May 1983	B.A.	Mathematics Honors	University of Wisconsin Madison, WI

Accomplishments as Dean at the University of Colorado, Colorado Springs

❖ **Primary Focus area - Distinguishing my college from other arts and sciences colleges within public masters universities.**

Strategy: Have unique programs that have a direct impact on students.

• **Undergraduate research and internships**

- Created undergraduate research program in College
 - Created student research assistantships to work one-on-one with faculty, during academic year and summer
 - Initiated and supported student travel
 - College annual research student showcase

Our student research opportunities have had a very positive impact on the students' experiences here at UCCS, giving them real-life work experience, while simultaneously energizing the faculty.

- Created associate dean position to help establish internship programs for all majors in the college. The number of students involved in internships has expanded by over 70% during my tenure as dean.

These opportunities to do research and to be immersed in the community provide students with confidence, experience, and contacts in a given field.

• **Helped create Air Force ROTC unit on the UCCS campus in 2018.**

The academic components of the program reported to me. Students who would otherwise go to other universities in Colorado can now get their training at UCCS. The program already has 86 cadets.

• **Initiated and developed extensive online course program.**

- Tremendous increase in online course offerings. Now offer over 140 online sections per semester.
- As a result, students can satisfy all general education course requirements in online format.
- Three College majors are fully online: Sociology, Communication, and Philosophy.
- Established and then directed an online advisory committee of faculty to develop a comprehensive incentive plan. This encouraged faculty participation. The online programs have provided greater access to higher education.

• **Overhauled college website and community interface to raise college profile and to better inform students, parents and donors of college options and activities.**

• **Supported and grew UCCS students' participation in the National Student Exchange Program.**

NSE provides students with the opportunity to study for up to a year at around 200 universities in the United States, Canada, Puerto Rico, and Guam. For our students, it is a surrogate for the much more expensive study abroad programs. I broadened this initiative, which was run by my college, and enrollment increased fourfold during my tenure.

- **Created Dean's LAS Student Ambassadors program**
Recruited student representatives from every department; they Represented the College and University, Advised the Dean, and Promoted the College (theme was RAP). Placed students on college committees and community advisory boards, met with students on curricular matters, and provided student financial support to attend conferences.

Development and Community Cultivation

- With support of others on campus, succeeded in obtaining a \$1.3 million gift to fund two professors in my college for five years: a political science professor and an economics professor. Scholarships, internships, and research opportunities for students are part of this gift.
- Serve as Chairperson of the El Paso County Innovation and Technology Committee.
- Working with a donor, created an endowment fund for students with emergency, short-term funding needs.
- Worked with a family to create an endowment to support students studying geography.
- Member of Theatreworks Advisory Board, a professional theatre company affiliated with the University of Colorado, Colorado Springs

In an era in which state funding for public universities is declining, it is more and more important to seek alternative sources of funds; we actively and successfully pursue such funds.

Significant University Service Contribution

Created merit market equity salary model for the UCCS campus. The essence was adopted, and it provided a clear and rational basis for allocating salary dollars to those faculty and staff who were meritorious and below our market peers.

Accomplishments as Interim Engineering Dean at UNF

- Created 5-year MS/BS programs. This enabled our high-achieving students to get a master's degree in five years. It was an attractive option for recruiting excellent local students.
- Helped garner \$250,000 from the State of Florida for a grant to support an outstanding ocean engineer
- Worked with Donor to create an endowment of \$125,000 for engineering projects that would have local economic impact.
- Worked with my Dean's Advisory Council to provide support for undergraduate student/faculty one-on-one research.

Miscellaneous Significant Service Contributions at UNF

- Member of Administration Bargaining Team at the University of North Florida: Negotiated with faculty union for 2½ years on a collective bargaining contract
- Member of Economic Development Group of Jacksonville Chamber of Commerce during my time as engineering dean

- Member of Intercollegiate Athletics Committee at UNF. Made recommendations to convert existing Division II Athletics into Division I

Professional Associations

Member, Council of Colleges of Arts and Sciences

Faculty Activities

Teaching Highlights

- Recipient of one of the 2003 Undergraduate Teaching Awards at the University of North Florida.
- Coach/Advisor of the UNF Mathematical Modeling Team 1996, 1997, 1999, 2000, 2001
- Master's Thesis advisor

Publications

Peter A. Braza, "Predator-Prey dynamics with Square Root Functional Responses," *Nonlinear Analysis Series B: Real World Applications*, Vol. 13, (August 2012), pp. 1837-1843.

Peter A. Braza, "A bridge for functions between even and odd," *International Journal of Mathematical Education in Science and Technology*, Electronic version, DOI:10.1080/0020739X.2012.662294, February 28, 2012. Print version: Vol. 44, No.1, January 15, 2013, pp. 104-110.

Peter A. Braza, "Explicit formulae for the continued fraction convergents of \sqrt{D} ," *International Journal of Mathematical Education in Science and Technology*, Vol. 41, No. 1, (January, 2010), pp. 126-131.

Peter A. Braza, "A Dominant Predator, a Predator, and a Prey," *Mathematical Biosciences and Engineering*, Vol. 5, No. 1, (January, 2008), pp. 61-73.

Peter A. Braza, "The birthday problem anew," *The International Journal of Mathematical Education in Science and Technology*, Vol. 37, No. 4, (June 15, 2006), pp. 484-488.

Peter A. Braza, "Predator-Prey Dynamics with Disease in the Prey," *Mathematical Biosciences and Engineering*, Vol. 2, No. 4, (October, 2005), pp. 703-717.

Peter Braza, Jingcheng Tong, and Mei-Qin Zhan, "Linear Transformations on Pythagorean Triples," *The International Journal of Mathematical Education in Science and Technology*, Vol. 35, No. 5, (September, 2004), pp. 755-762.

Jingcheng Tong, and P. A. Braza, "An elementary approach to finding all square-triangular numbers," *The Mathematical Gazette*, 87, No. 510, (November, 2003), pp. 494-496.

Peter A. Braza, "The Bifurcation Structure of the Holling-Tanner Model for Predator-Prey Interactions Using Two-Timing," *SIAM Journal on Applied Mathematics*, Vol. 63 No. 3, (January, 2003), pp. 889-904.

J. Tong and P.A. Braza, "A Converse of the Mean Value Theorem for Integrals," *The International Journal of Mathematical Education in Science and Technology*, Vol. 33, No. 2, (March-April, 2002), pp. 277-279.

P.A. Braza and J. Tong, "Square-triangular numbers revisited," *The Mathematical Gazette*, 85, No. 503, (July, 2001), pp. 270-273.

P.A. Braza, "Phase Dynamics in a Laser with a Periodically Modulated Injected Signal," *Physica D*, 134, Issue 4, (December, 1999), pp. 394-405.

P.A. Braza and J. Tong, "Moving the First Digit of a Positive Integer to the Last," *The Mathematical Gazette*, 83, No. 497, (July, 1999), pp. 216-220. Won 1999 Article of the Year Runner-up.

J. Tong and P.A. Braza, "A Converse of the Mean Value Theorem," *The American Mathematical Monthly*, 104, number 10, (1997), pp. 939-942.

P.A. Braza, "Phase Jumps of π at a Critical Value of Injected Signal in the Laser with Injected Signal," *Optics Communication*, 103, (1993), pp. 95-99.

J.F. Braza and P.A. Braza, "Examination of Silicon Nitride in Lubricated Sliding Wear Tests," *Advances in Engineering Tribology*, STLE, SP-31, (1991) - Y.W. Chung, H.S. Chang, editors.

P.A. Braza and T. Erneux, "Constant Phase, Phase Drift and Phase Entrainment in Lasers with an Injected Signal," *Physical Review A*, 41, (1990), pp. 6470-6479.

H.T. Savage, W.L. Ditto, P.A. Braza, M.L. Spano, S.N. Rauseo and W.C. Spring, III, "Crisis-Induced Intermittency in a Parametrically Driven, Gravitationally-Buckled, Magnetoelastic Amorphous Ribbon Experiment," *Journal of Applied Physics*, 67, (1990), pp. 5619-5623.

P.A. Braza and T. Erneux, "Singular Hopf Bifurcation to Unstable Periodic Solutions in a NMR Laser," *Physical Review A*, 40, (1989), pp. 2539-2542.