

CALVIN MORSE BURGOYNE
1071 Calls Creek Circle
Watkinsville, GA 30677
Phone (706) 769 4581
e-mail burgoyne@math.uga.edu

EDUCATION

Society of Actuaries

Associate of the Society of Actuaries, 1994

The Pennsylvania State University

Ph.D., Physics, 1974

Master of Science, Physics, 1966

Utah State University

Bachelor of Science, Physics/Mathematics, 1963

PROFESSIONAL

University of Georgia

Lecturer, department of mathematics 1997-present

Taught pre-calculus, calculus I (differential calculus); calculus II (integral calculus); mathematical modeling ; math decision making; developed and taught a new course "Mathematics of Finance"; teacher preparation courses in arithmetic and geometry for elementary teacher and middle school teachers. Served as pre-calculus coordinator. Served on a system wide committee to develop a new course "Quantitative Skills". Directed a VIGRE research group on Clifford algebras and co-directed research groups on Quantum Field Theory and the Mathematics of Quantum Mechanics for graduate and undergraduate students in both mathematics and physics.

College of Micronesia, Federated States of Micronesia 1988 - 1996

Administrative:

Chair, Division of Natural Sciences and Mathematics, 1992- 1996

Served as liaison between college and FSM congress

Chaired student financial aid committee.

Chaired Accreditation Self-Study Institutional Finance committee.

Member Faculty/Staff Senate Executive committee.

Served on Finance committee.

Server on Awards committee

Represented college on task force to develop science curriculum for the elementary schools in each of the four states of the FSM.

Staff Senate President 1993

Grants:

Australian embassy grant 1993 (Science Laboratory Equipment)
New Zealand embassy grant 1994 (Science Laboratory Equipment)
Principle investigator Minority Science Improvement Project 1995
(Marine Science Project to take underwater films to advertise the Marine Science program.
Funded by the U. S. Department of Education)
Part of team that won a \$1.7 million Title III grant 1995 (Build and set up computer
network for the four state campuses and the national campus)

Academic:

Professor
Taught introductory chemistry with laboratory, astronomy, statistics and college
mathematics through calculus
Designed and developed new physics program (including laboratory) and chemistry
laboratory Designed computer-aided instruction program for mathematics and science
courses
Instituted introduction of scientific materials into English department curriculum

University of Maryland, Asian Division Japan/Malaysia 1984-88

Administrative:

Director, Department of Mathematics and Science, Malaysia
Organized, served on and chaired faculty search and selection committees
Responsible for settling new faculty, class scheduling, registration, advisement

Academic:

Taught introductory and modern physics, mechanics, optics, electricity and magnetism,
astronomy, general science, mathematics (through calculus and differential equations)
Developed, purchased, set-up and evaluated physics lab
Designed curriculum for business and engineering program
Asian Division Mathematics consultant
Ordered and purchased laboratory supplies

Beker Industries, Conda, Idaho 1978-1983

Ammonia plant operations, including water treatment and analysis, gas reform and
purification, compression systems and ammonia synthesis

University of Sao Paulo, Brazil 1974 - 1977

Institute of Astronomy & Geophysics

Developed and taught graduate courses and seminars in astrophysics and plasma theory,
supervised thesis research of one Ph.D. and three MS. candidates
Directed study program on MHD generators
Wrote feasibility study and contract proposal for teaching and research facilities in plasma
diagnostics

THESES

"Many-body plasma corrections to thermonuclear reaction rates in stellar interiors" Ph.D. 1974
"Statistics of the orbital parameters of comets" MS. 1966

THESES DIRECTED

O.T. Matsuura. "Production of the coma of a comet due to the effects of collisions and solar radiation" Ph.D. 1976
A.A. Almeida. "Wave-wave scattering in a plasma" M.S. 1976
Reported in Rev. Bras. de Fisica, 1976
R.T. da Silva. "Relativistic plasma theory using a generalization of the Vlasov equations" Reported in Rev. Bras. de Fisica, 1977
U.N. Freitas. "A Green's function formulation of plasma theory"
Reported in Rev. Bras. de Fisica, 1977

OTHER PUBLICATIONS

"Dielectric formulation of relativistic plasma theory"
Rev. Bras. de Fisica, 1977
"Haser model CN, C₂ and C₃ Production Rates in Some comets"
Earth, Moon and Planets. 1993

ADDITIONAL SKILLS

Speak and read some Portuguese and Japanese
Working knowledge of VISUAL BASIC, FORTRAN, and MATHEMATICA. Users knowledge of word processing, spreadsheets, data management

PROFESSIONAL AFFILIATIONS

Society of Actuaries
Sigma Pi Sigma Physics Honor Society
Mathematics Association of America