S. BRENT KELLIS

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EDUCATION

Arizona State University
BA, Secondary Education **1976**
Major: Biology, Minor: Mathematics

Brigham Young University
MS, Chemical Engineering **1982**
Thesis: "The Effect of Microemboli on Microvascular Blood Flow: Preliminary Computer and Experimental Models"

PROFESSIONAL CERTIFICATIONS

Registered Professional Engineer (P.E., No. 23906), Chemical, Arizona
Qualifying Party for Arizona Contractor's License No. ROC169715

REPRESENTATIVE ENGINEERING WORK EXPERIENCE

Mr. Kellis brings to the teaching profession more than 35 years of educational, engineering, and design experience in a variety of disciplines for public organizations and private industry. In addition to his teaching experience, he has provided professional training and skills in both large and small corporate settings. His work experience includes the following areas and projects:

- Petrochemical Engineering
  - Assisted in the design of a nine-site natural gas compression complex for ARAMCO in Saudi Arabia.
  - Collaborated with a team of engineers in the design of a computer model for the emergency depressurization of the multi-billion dollar gas collection system.
  - Provided engineering design and drafting input for the sizing of pipes, pumps, compressors, and motors for one site in the complex.
- Biomedical Engineering
  - Served as Senior Quality Engineer for biomedical device manufacturing companies.
  - Developed and maintained quality control systems for various product lines for Class 3 implantable medical devices.
  - Set up and implemented a hands-free voice recognition data reporting system for inspection use in a production clean room.
  - Designed and implemented process qualification and control systems for the production a new design of blood oxygenator.
- Environmental Engineering
  - Supervised and conducted all phases of environmental assessment, investigative and remedial work, at over 185 regulated sites throughout Arizona and the Southwestern United States.
  - Supervised activities at numerous underground storage tank (UST) projects, and designed systems to assess and remediate petroleum hydrocarbon contamination in soil and groundwater using a variety of state-of-the-art environmental remediation technologies.
  - Managed numerous construction projects involving environmental issues, including:

  - installation of landfill gas recovery systems;
  - upgrade, removal, and replacement of UST systems;
  - excavation, treatment, and replacement of contaminated soil; and
  - design, permitting, installation, maintenance, and decommissioning of remedial systems for contaminated soil and groundwater.
- Coordinated projects with clients, regulators, and co-workers regarding the general and specific aspects of the projects and the underlying science.

TEACHING EXPERIENCE

Snowflake High School, Snowflake, Arizona
Teacher-Mathematics **1976-1977**
Taught Algebra and Geometry at all high school grades.

Powell Junior High School, Mesa, Arizona
Teacher-Biology **1977-1979**
Taught 8th grade general biology.

Kino Junior High School, Mesa, Arizona
Teacher-Mathematics **1994-1995**
Taught 9th grade general and remedial math and 8th grade Algebra.

Red Mountain High School, Mesa, Arizona
Teacher-Mathematics, Engineering **1995-present**
Teach Algebra 1, Algebra 2, Geometry, and PLTW Engineering Classes.

Coach and Founding Mentor, Plasma Robotics Robot Team **2007-present**
Working with between 7 and 40 team members, coordinated extra-curricular activities of all team activities. Worked with mentors, parents, school administration, and robotics organization leaders to provide meaningful competition, outreach, and service activities for team members. Team members participate in annual FTC and FRC competitions sponsored by FIRST Robotics, and ZERO Robotics competitions sponsored by MIT and NASA. The team also mentors other FIRST Robotics FLL, FTC, and FRC teams and hosts FLL and FTC tournaments.