

**RICHARD A. ECKHART**  
1703 Claire Street, Prescott, AZ 86301  
Telephone: 928-583-4909 (mobile); FAX: 1-267-427-1925  
E-Mail: reckhart@sonshinecs.com  
World Wide Web: <http://www.sonshinecs.com>

## OBJECTIVE

To draw on practical experience in preparing students to be effective contributors to their chosen profession.

## EDUCATION

B.S. (Lehigh University, graduated 'With Honors'), M.S. and Ph.D. (The Pennsylvania State University) in Chemical Engineering.

## COMPUTER PROFICIENCIES

Operating Systems: Windows 95, 98, 2000, XP, Vista, 7, Windows 3.1, MSDOS, UNIX, Novell  
Network Software: MS Excel, MS Word, MS PowerPoint, MS Access, MS FrontPage, MS  
Publisher, Oracle Programming: MS Visual Basic (v. 3, 4, 5, 6, .NET), C/C++, FORTRAN,  
HTML, PowerBuilder, PL/SQL. Other: The Internet and World Wide Web (http, ftp).

## PRESENT POSITIONS & RESPONSIBILITIES

Independent Contractor for Educational Delivery Systems (2002 – present): online/distance learning serving several colleges and universities, including the following:

### California National University for Advanced Studies

Professor, California National University, Northridge, CA (1994-present). Calculus I and II, Ordinary Differential Equations, Mathematics for Business Applications, Numerical Methods for Engineers, taught in a Distance Learning environment.

### Northcentral University

Faculty Mentor, Northcentral University, Prescott Valley, AZ (2006-present). College Algebra, Mathematics, taught in a Distance Learning environment.

### CALCampus

Professor, CALCampus, Rindge, NH (2008-present). Calculus I, II, and III, Business Mathematics, Business Calculus, Linear Algebra for Business Applications, College Physics, taught in an online environment.

## RECENT POSITIONS & RESPONSIBILITIES

Associate Professor, Department of Computer Science, Azusa Pacific University, Azusa, CA (1987-1988, 1989-1996, 1997-2002). Courses taught include the following:

Client/Server Application Development: Introduction to the concepts associated with client/server front-end design and development for database access using Microsoft Visual Basic.

Advanced Database Applications: Advanced concepts in the development of medium to very large database applications in a multi-user environment using relational databases (Oracle).

Graphical User Interfaces (Visual Basic): Introduction to the concepts associated with the graphical design of user interfaces and event-driven programming using Microsoft Visual Basic.

Numerical Analysis: Approximation methods and their applications to computers. Current format for this course is online using the Internet's World Wide Web. Spring Semesters, 1999 & 2000

Computer Modeling of Management Methods: An applied mathematics course focusing on quantitative techniques for making management decisions.

Advanced Technologies – HELP Authoring: Examines the characteristics of well-designed and implemented WinHelp (rtf-based) and HTML (HTML-based) online Help systems.

Local Area Networks (LAN): Covers basic concepts, topologies, physical transmission, access control, architectures, and analysis of PC-based LAN implementations. Uses Novell NetWare 3.11 and 4.01.

Computer Aided Design (AutoCAD): The application of computers and interactive computer graphics displays to the design, analysis, simulation, and evaluation of products.

FORTRAN Programming: Program analysis and development, debugging, testing, and documentation using structured scientific programming techniques with FORTRAN.

Operating Systems: A study of operating systems, concepts, functions, and requirements.

Software Engineering: Principles, procedures, and techniques needed for the systematic development, production, and maintenance of computer software products and supporting documentation.

Fundamentals of Computer Science: Introduction to computer architecture, data structures, object-oriented programming using C++.

Programming Logic: Covers the basic skills, practices, and techniques required for systematic development of computer software.

College Algebra: A study of basic college algebra, including linear equations and inequalities, quadratic equations, systems of equations, radicals, zeros of polynomials, and the binomial theorem.

Pre-Calculus: Topics required to prepare for the study of calculus, including number systems, analytic geometry, logarithmic and trigonometric functions, and basic proof techniques.

Applied Calculus: A survey calculus course for business, biology, and other science disciplines.

Discrete Math: A study of finite mathematical systems including sets, matrices, vectors, trees, Boolean algebra, symbolic logic, and other algebraic systems.

Committee Memberships: Graduate Program Review Committee, Professional Affairs Committee, Departmental Search Committee, Development Council, Research Council, Faculty Senate

### Argosy University

Faculty Mentor, Argosy University, Phoenix, AZ (2011). Mathematics Review, taught in a Distance Learning environment.

#### University of California Los Angeles (UCLA)

Professor, University of California Los Angeles (UCLA) Extension, Los Angeles, CA (1999-2006). Introduction to Visual Basic for Windows, taught in an online environment on the Internet's World Wide Web.

#### University of Maryland University College

Professor, University of Maryland University College, Adelphi, MD (2001-2006). Introduction to Visual Basic Programming, taught in an online environment on the World Wide Web.

#### American Global University

Adjunct Professor, American Global University, Cheyenne, WY (2000-present). College of Information Technology and Computer Science, taught in a Distance Learning environment.

#### Warren National University

Adjunct Professor, Warren National University, Cheyenne, WY (2005-2006). Computerized Mathematics (Numerical Methods), taught in a Distance Learning environment.

#### Oleson & Associates, Inc.

Oleson & Associates, Santa Cruz, CA, 1981-present (part-time consulting). Software development of input processor and report generator for steady-state distillation simulation program. Implemented on mainframe using FORTRAN. Software development of graphical user interface for heat exchanger design program. Implemented on PC using Microsoft Visual Basic.

#### Parsons Process Group, Inc.

Senior Supervising Process Engineer (1996-1997). Parsons Process Group Inc., Process Technologies Department. Assignments included the simulation of crude and vacuum distillation columns for relief valve audit; simulation of grass-roots natural gas processing plant including inlet, sweetening, dehydration, stabilization, and compression sections; development of a pipeline sizing program for implementation on PC under the Windows 95 operating system using Microsoft Visual Basic.

### ADDITIONAL TEACHING EXPERIENCE

Adjunct Professor, Embry-Riddle Aeronautical University, Prescott, AZ (2002-2003). Scientific Programming in C, taught on-site in traditional classroom environment.

Professor, University of California Irvine (UCI) Extension, Irvine, CA (2000-2001).

Fundamentals of Computer Science, taught in an online environment on the Internet's World Wide Web.

Assistant Professor, Department of Chemical Engineering, Villanova University, Villanova, PA (full-time, 1966-1969). Unit Operations, Process Control, Applied Math, Mathematical Modeling, Simulation. Nominated for Lindback Award for outstanding teaching.

Instructor, Department of Chemical Engineering, The Pennsylvania State University, University Park, PA (full-time, 1959-1962). Unit Operations, Industrial Stoichiometry.

Lecturer, Department of Mathematics, California State University, Fullerton, CA (part-time, 1976-1987). Calculus, Differential Equations, Linear Algebra.

Lecturer, Department of Mechanical Engineering, California State University, Fullerton, CA (part-time, 1986-1987). FORTRAN programming.

Lecturer, Yavapai College, Prescott, AZ (part-time, 1973-1975). Physics, Principles of Real Estate.

## OTHER PROFESSIONAL EXPERIENCE

Mathematical modeling, functional specification formulation, and software development for large process simulation package, implemented on main-frame, mini-, and micro-computers.

Developed mathematical models for both steady-state and dynamic simulations of numerous processes including radioactive waste incineration, compressor emergency flare system, crude oil distillation, adsorption/desorption production of linear paraffins, LPG vaporization, process control, distillation, heat transfer, compression/expansion, and combustion.

Developed numerous engineering and business applications software packages using Visual Basic, FORTRAN, BASIC, dBase, Clipper, and C++ programming languages, HTML for the World Wide Web. Programs implemented on wide range of computer systems including IBM 370, UNIVAC 1108, CDC Cyber, VAX and Micro-VAX, Prime 750/850, IBM PC/XT/AT and compatibles, and Apple.

## PUBLICATIONS, SOFTWARE, PATENTS, PAPERS, & TALKS

- Eckhart, R. A., "Southwell Type Computer Iteration Method for Continuous Distillation Column Calculations", M.S. Thesis, The Pennsylvania State University (1961)
- Eckhart, R. A., "Chromatographic Distillation", Ph.D. Thesis, The Pennsylvania State University (1964)
- Eckhart, R. A., and A. Rose, "New Method for Distillation Prediction", Hydrocarbon Processing, Vol. 47, No. 5, pages 165-8 (May, 1963)
- Eckhart, R. A., "Dynamic Simulation of an LPG Vaporizer", I&EC, Process Design & Development, Vol. 8, No. 4, pages 491-5 (October, 1969)
- Eckhart, R. A., "2 for the Price of One", Private Pilot Magazine, Vol. 4, No. 1, page 79 (October, 1968)
- Eckhart, R. A., "AMPAC Distributor Program", version 1.4, PC Compatible Computer Software, Copyright 1992
- Eckhart, R. A. (Richcal Computing Services), "Executive Decision Maker", PC Compatible Computer Software, Copyright 1993
- Eckhart, R. A. (Sonshine Computing Services), "HEXNET, Heat Exchanger NETWORK", Graphical User Interface, Copyright 1995
- Eckhart, R. A. (Sonshine Computing Services), "HTML\_GEN, HTML File Generator", Text conversion to html for Windows, Copyright 1996
- Eckhart, R. A. (Sonshine Computing Services), "HTML\_MAP, HTML File Mapper", HTML File Management Program for Windows, Copyright 1996
- Eckhart, R. A. (Sonshine Computing Services), "VB Project Manager", Visual Basic Project Management Program for Windows 95, Copyright 1997
- Authored World Wide Web site for Lehighton High School Class of '53, Lehighton, PA, March, 1998

- Authored World Wide Web site for Rose Drive Friends Church, Yorba Linda, CA. "Resource 2000, Y2K and Beyond...Commitment", March, 1999
- Patent applied for, "Net Support for a Ping-pong Table", 1970
- Lecturer in Systems Engineering, Philadelphia Naval Base, 1966-67
- Lecturer on Process Simulation to a joint meeting of the Delaware Valley Sections, A.C.S. and A.I.Ch.E., March & April, 1967
- Instructor for 15-week course on applied mathematics, Sun Oil Co., Marcus Hook, PA, February-May, 1969
- Lecturer on computer science, Our Lady of Angels College, Newtown Square, PA, March, 1969
- Guest speaker, Aerojet Corp. (Azusa, CA) PC Club, "NetWare 4: Novell Networks the World", February, 1995

## CONFERENCES, SEMINARS, & MEETINGS

- VBITS'95, Visual Basic Insiders' Technical Summit, San Francisco, CA, March 6-8, 1995
- NetWare User Conference, Anaheim, CA, August 2-3, 1995
- Microsoft Client-Server Seminar, Irvine, CA, August, 1995
- NetWare 4.1 First Class Training Course, Santa Ana, CA, October 4, 1995
- VBITS'96, Visual Basic Insiders' Technical Summit, San Francisco, CA, February, 1996
- VBITS'98, Visual Basic Insiders' Technical Summit, San Francisco, CA, March 24-26, 1998
- VBITS'99, Visual Basic Insiders' Technical Summit, San Francisco, CA, March 2-4, 1999
- Fast Track to PowerBuilder Training Course, El Segundo, CA, July 26 - 30, 1999
- VBITS2000, Visual Basic Insiders' Technical Summit, San Francisco, CA, February 14-16, 2000
- VBITS2001, Visual Basic Insiders' Technical Summit, San Francisco, CA, January 16-18, 2001
- .NET Developer Training Tour, Irvine, CA, September 10-11, 2001
- Mathematics Conference, "Achieving Student Success in the College Mathematics Classroom", sponsored by Houghton Mifflin Company, Carefree, AZ, February 22, 2008
- Certificate of Completion, Understanding Window Vista Home Basic and Home Premium, HP Online Classes, August 2008
- MATLAB for Excel Users, Webinar, The Mathworks, 12/8/2009

- Mathematics Conference, “Achieving Student Success in the College Mathematics Classroom”, sponsored by Houghton Mifflin Company, Carefree, AZ, February 22, 2008
- Understanding Windows Vista Home Basic and Home Premium, 2008
- Guided Tour of Microsoft Windows 7, Webinar, Cengage Learning, 11/12/2009
- Microsoft Office 2010, Webinar, Cengage Learning, 11/19/2009

### PROFESSIONAL MEMBERSHIPS/REGISTRATIONS/LICENCES

Registered Professional Engineer (PE-013015-E), Pennsylvania  
Member, The HTML Writers Guild

### PERSONAL

U.S. citizen, in good health (5 feet, 10 inches tall, 155 pounds), married, three children.

### REFERENCES

Furnished on request.