Owen, Noel L. (1987) BSc, U. of Wales, 1960; PhD, Cambridge U., England, 1964; DSc, U. of Wales, 1983.
Paul, Edward G. (1965) BS, PhD, U. of Utah, 1958, 1962.
Robins, Morris J. (1986) BA, U. of Utah, 1961; PhD, Arizona State U., 1965.
Smith, Marvin A. (1966) BS, Utah State U., 1960; MS, PhD, U. of Wisconsin, Madison, 1962, 1964.
Snow, Richard L. (1957) BS, PhD, U. of Utah, 1953, 1957.
Thorne, James M. (1966) BA, Utah State U., 1961; PhD, U. of California, Berkeley, 1966.
Vernon, Leo P. (1970) BA, Brigham Young U., 1948; PhD, Iowa State U. of Science and Technology, 1951.
Watt, Gerald D. (1989) BA, PhD, Brigham Young U., 1962, 1966.
Wilson, Byron J. (1965) BS, Idaho State U., 1955; MA, Southern Illinois U. 1958; PhD, U. of Washington, 1961.

Chinese

See Asian and Near Eastern Languages.

Church History and Doctrine

See Religious Education in Academic Departments, Degrees, and Courses section of this catalog.

Civil and Environmental Engineering

Steven E. Benzley, Chair
368-C CB, (801) 422-2811

Rollin H. Hotchkiss, Associate Chair
370 CB, (801) 422-2811

Ira A. Fulton College of Engineering and Technology Advisement Center
264 CB, (801) 422-4325
www.et.byu.edu/ce/

Admission to Degree Program

The degree program in the Department of Civil and Environmental Engineering is open enrollment.

The Discipline

The BYU Department of Civil and Environmental Engineering prepares students for professional involvement in structural, water resources, environmental, geotechnical (soils), and transportation engineering.

Structural engineers analyze and design buildings, bridges, offshore oil platforms, aircraft, and artificial limbs. The engineer applies principles of physics, mathematics, and engineering to develop efficient yet safe designs. Sophisticated computer models are used in these analyses. Materials used by structural engineers include steel, aluminum, concrete, wood, graphite, fiberglass, kevlar, ceramics, and plastics.

Water resource and environmental engineers design pipeline systems, water treatment plants, dams, flood control structures, waste disposal sites, and environmental restoration projects. Computer modeling and analyses are used in design and to forecast storm runoff, flooding, and movement of contaminants in surface and subsurface waters.

Environmental engineers evaluate and reduce pollutants from natural, human, agricultural, and industrial sources to preserve the beauty and quality of air, land, and water.

Geotechnical engineers design structures composed of or located within earth materials, including foundations for buildings and bridges, retaining walls, earth dams, highway embankments, tunnels, and liners for landfills. Field and laboratory tests on soil and rock, along with empirical and computer models, are used to assure safety and economy in design.

Traffic and transportation engineers apply scientific principles to the planning, design, construction, operation, and management of transportation systems, including highways, airports, and mass transit facilities. Transportation engineers are responsible for the safe, rapid, comfortable, convenient, economical, and environmentally compatible movement of people and goods. Computer models and simulations are frequently used by traffic engineers for geometric design and for planning, operating, and managing transportation networks, including intermodal systems. Next to national defense, transportation is the largest sector in the U.S. economy, accounting for approximately 16 percent of the gross domestic product (GDP); many engineers work in this field.

Educational Objectives

The objective of the undergraduate program in civil and environmental engineering is to develop the following attributes in students graduating from the program:

1. An understanding of fundamental principles of mathematics and science.
2. An understanding of fundamental engineering science.
3. An understanding of geotechnical engineering.
4. An understanding of structural engineering.
5. An understanding of transportation engineering.

6. An understanding of water resources and environmental engineering.
7. The ability to design civil engineering systems and solve open-ended problems.
8. The ability to communicate ideas effectively.
9. The ability to use modern engineering tools.
10. An understanding of professional practice and a commitment to lifelong learning.
11. An awareness of cultural, societal, political, and environmental issues.
12. A commitment to serve as professional engineers of integrity and faith.

Career Opportunities

Civil engineers are employed in industry, private consulting, and government. Industries employing many civil and environmental engineers include construction, transportation, aerospace, petroleum, and mining. Many civil engineers enter private consulting practices, and many eventually establish their own firms. The yellow-page directories for major cities generally list many civil, structural, environmental, geotechnical, and transportation engineering firms.

Civil engineers are also employed by national, local, and state governments. Most cities and counties have engineering departments staffed largely by civil engineers. Departments of transportation, environmental protection agencies, the Army Corps of Engineers, and the Bureau of Reclamation hire many civil engineers.

Civil engineering may be used as a preprofessional program for careers in architecture, law, and business.

Because civil engineeers design structures that affect public health and safety, licensure as a Professional Engineer is required for most positions. A necessary prerequisite for licensure is graduation from an accredited engineering program. The civil engineering program is fully accredited by the Accreditation Board for Engineering and Technology (ABET).

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS Civil Engineering

Students should see the department for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS Civil Engineering
PhD Civil Engineering

For more information see the BYU 2007–2008 Graduate Catalog.

General Information

Students are strongly encouraged to consult with the department regarding their course scheduling.

Qualified students from junior colleges with adequate preengineering programs can normally complete the BS degree in two additional years. Students who transfer into the department from other universities or from other departments at BYU will be placed in the civil and environmental engineering program according to an evaluation of completed work. Prospective transfer students should contact the department as soon as possible so that any variations can be accommodated with a minimum loss of time.

A maximum of 9 credit hours with D grades are allowed in Civil and Environmental Engineering Department classes. Clearance for graduation will be denied until D credits are reduced to 9 hours or less.

Integrated Master's Program. Although abundant professional employment is available with a bachelor's degree, professional opportunities are markedly improved by completing a master's degree.

During the junior year of the civil engineering curriculum, those who desire to obtain a master's degree in civil engineering (MS) may enter the integrated master's program. In this program students may work toward both the bachelor's and master's degrees concurrently.

Applicants to the integrated program must have a cumulative GPA of 2.5 or higher. All credit to be counted toward the master's degree must carry a cumulative GPA of 3.0 or better. When students are within 30 credit hours of completing the graduate degree, they must also apply for and be admitted to graduate school.

Professional Engineer Registration. The Civil and Environmental Engineering Department encourages graduates to become Registered Professional Engineers. General qualifications for becoming registered are explained in the Ira A. Fulton College of Engineering and Technology section of this catalog. This status is vital to engineering practice in the public sector and to much consulting work. The civil and environmental engineering program prepares graduates to successfully complete the Fundamentals of Engineering (FE) examination, an important step in becoming registered. Students who wish to strengthen their preparation for the FE exam should select the required engineering courses with this need in mind.

BS Civil Engineering (92–93 hours*)

Major Requirements

1. Complete the following courses:
   CE En 100A,B, 103, 112, 113, 200A,B, 203, 204, 270, 300A,B, 305, 321, 332, 341, 351, 361, 400A,B, 424, 470.

   Note: Students must be enrolled in a seminar course each semester, from the time the major is declared until graduation. Begin with CE En 100A,B and continue in order with 200A,B, 300A,B, 400A,B.
2. Complete one course from the following:
   CE En 431, 433.
3. Complete one of the following options:
   Either Math 302, 303
   Or Math 214, 334, 343.
4. Complete one course from the following:
   Chem 106, 351.
   Math ~~311~~ 410.
   MMBio 221.
   Phscs 220, 222.
5. Complete the following supporting courses:
   Chem 105.
   Engl 316.
   Geol 330.
   Math 112, 113.
   Phscs 123.
   Stat 221.

6. Complete 9 hours of technical electives from the following courses:
   CE En 414, 421 ~~422~~, 429, 431, 433, 461, 500, 501, 503, 504, 505, 506, 508, 523, 524, 525, 526, 528, 531, 535, 540, 542, 543, 545, 547, 551, 555, 562, 563, 565, 570, 572, 575, 580, 594R.

   Note: 3 of the 9 hours may come from:
   Ch En 273, 378.
   EC En 301R.
   Me En 321.

*Hours include courses that may fulfill university core requirements.

Civil and Environmental Engineering (CE En)

Undergraduate Courses

100A,B. Civil and Environmental Engineering Seminar. (0.5:1:0 ea.) F, W
Activities of civil engineering; principles and methods involved in solving civil engineering problems. College Lecture attendance required.

103. Engineering Mechanics—Statics. (2:2:0) F, W, Su Independent Study also. Prerequisite: Math 112 or concurrent enrollment.
Concepts of mechanics: force systems in equilibrium, resultants, friction, centroids, utilization of vector algebra.

112. Engineering Drafting with CAD Applications. (3:3:0) F, W
Structural and component drafting, emphasizing computer-automated (CAD) systems. Concepts include applied and descriptive geometry, multiview representation, sectional views, dimensional practices, and axonometric sketching.

113. Engineering Measurements. (3:2:3) F, Sp Prerequisite: Math 111, CE En 112.
Measurement of horizontal and vertical distances and angles to locate engineering projects including profiles, plane and topographical mapping, site layout, and earthwork.

199R. Academic Internship. (1–3:Arr.:Arr. ea.) Prerequisite: consent of both department chair and cooperative education coordinator.
Work experience evaluated by supervisor and posted on student's transcript.

200A,B. Civil and Environmental Engineering Seminar. (0.5:1:0 ea.) F, W Prerequisite: CE En 100A,B.
Activities of civil engineering; principles and methods involved in solving civil engineering problems. College Lecture attendance required.

203. Engineering Mechanics—Mechanics of Materials. (3:3:0) F, W, Su Independent Study also. Prerequisite: CE En 103.
Fundamental concepts of elastic stress and strain relations; cylinders and spheres; torsion; beam theory, including bending stresses; deflections; and two-dimensional elastic theory.

204. Engineering Mechanics—Dynamics. (3:3:0) F, W, Su Independent Study also. Prerequisite: CE En 103 or Phscs 121.
Concepts of dynamics applied to particles, systems of particles, rigid bodies, vibration systems, and nonrigid particles systems.

270. Computational Methods. (3:1:2) F, W Prerequisite: Math 113 or concurrent enrollment.
Numerical methods and computational techniques for solving civil engineering problems.

300A,B. Civil and Environmental Engineering Seminar. (0.5:1:0 ea.) F, W Prerequisite: CE En 200A,B.
Technical and professional activities in civil engineering. College Lecture attendance required.

302. Structures and Strength of Materials Fundamentals. (4:4:0) For nonmajors only. F Prerequisite: Phscs 105, CE En 103.
Structural mechanics and strength of materials for soils, woods, concrete, and steel applied to practical construction situations.

305. Civil Engineering Materials. (3:2:3) F, W Prerequisite: CE En 203, Stat 221.
Molecular structure and mechanical behavior of civil engineering materials; failure mechanisms; laboratory testing.

321. Structural Analysis. (3:3:0) F, W Prerequisite: CE En 203, 270.
Deflection analysis by the method of virtual work. Analysis of statically indeterminate structures by the flexibility method, the stiffness method, and moment distribution. Computer analysis of structures.

332. Hydraulics and Fluid Flow Theory. (3:2:3) F, W, Su even yr.; F, Sp odd yr. Independent Study also. Prerequisite: CE En 204, 270, or concurrent enrollment.
Fluid properties, fluid statics and dynamics, viscous flow, boundary layers, concepts of pipe and open-channel flow.

341. Elementary Soil Mechanics. (3:2:3) F, W Prerequisite: CE En 203 or instructor's consent; CE En 332, Geol 330, or concurrent enrollment.
Determination of stresses in soils, soil strength, consolidation, and settlement. Applications in fluid flow, lateral earth pressure, bearing pressure, and slope stability.

351. Environmental Engineering. (3:3:0) W, Su even yr.; F, Sp odd yr. Prerequisite: Chem 105, Stat 221.
Environmental concerns, problems, and evaluation methodology; pollution control and engineering management approaches.

361. Introduction to Transportation Engineering. (3:2:3) F, Sp Prerequisite: CE En 112, 113, 270, Stat 221.
Transportation system characteristics, traffic engineering, traffic operations, transportation planning, highway geometric design, pavement design, highway safety, public transport.

400A,B. Civil and Environmental Engineering Seminar. (0.5:1:0 ea.) F, W Prerequisite: CE En 300A,B.
Technical and professional activities in civil engineering. College Lecture attendance required.

414. Engineering Applications of GIS. (3:3:0) W Prerequisite: senior status.
Introduction to GIS concepts. Data acquisition and database formulation including use of GPS. GIS uses in civil engineering.

421. Structural Steel Design. (3:3:0) F Prerequisite: CE En 305, 321; or equivalents.
Compression and tension of steel members, beams, and beam-columns. Elastic and inelastic lateral-torsional buckling. Structural fasteners. Emphasizes LFRD.

424. Reinforced Concrete Design. (3:3:0) F, W Prerequisite: CE En 305, 321.
Theory and design of reinforced concrete, including columns, beams, slabs, and footings; elastic and ultimate-strength methods of analysis.

429. Timber Design. (3:3:0) F Prerequisite: CE En 305, 321.
Timber species, composition, and grades; design of beams, straight and tapered glue-lam girders, columns, connections, trusses, shear walls, and structural systems.

431. Hydrology. (3:2:3) W; Sp even yr.; Su odd yr. Prerequisite: CE En 332, 351.
Waters of the earth, their occurrence, circulation, and distribution. Relationships among precipitation, evaporation, infiltration, transpiration, groundwater, and stream runoff.

433. Hydraulic Engineering. (3:3:0) F; Sp odd yr.; Su even yr. Prerequisite: CE En 332, 351.
Application of fluid mechanics principles to analysis and design of hydraulic structures and systems.

461. Geometric Design of Highways. (3:3:0) Sp Prerequisite: CE En 361.
Designing visual aspects of highways: highway classification, design controls and criteria, design elements, vertical and horizontal alignment, cross section, intersections, interchanges, capacity analysis.

470. Civil Engineering Practice and Design. (3:2:3) F, W Prerequisite: civil engineering senior standing.
Engineering economic analysis, professional practice issues, and experience in completion of a civil engineering design project by applying appropriate engineering standards and multiple realistic constraints.

493R. Civil and Environmental Engineering Practicum. (1–18:Arr.:Arr. ea.) Prerequisite: instructor's consent.

498R. Directed Studies in Civil and Environmental Engineering. (1–18:Arr.:Arr. ea.) Prerequisite: instructor's consent.

500-Level Graduate Courses (available to advanced undergraduates)

500. (CE En-Me En) Design and Materials Applications. (3:3:0) W Prerequisite: Me En 372 or CE En 321 or equivalent.
Applied and residual stress; materials selection; static, impact, and fatigue strength; fatigue damage; surface treatments; elastic deflection and stability—all as applied to mechanical design.

501. (CE En-Me En) Stress Analysis and Design of Mechanical Structures. (3:3:0) Sp Prerequisite: CE En 321 or Me En 372 or equivalent.
Stress analysis and deflection of structures; general bending and torsion with computer applications to mechanical and aerospace structure design.

503. (CE En-Me En) Plasticity and Fracture. (3:3:0) F Prerequisite: CE En 203; Me En 250; Math 303; senior standing or instructor's consent.
Tensor algebra; stress and deformation tensors; relationships between dislocation slip, yielding, plastic constitutive behavior, and microstructure development; cracks and linear elastic fracture mechanics.

504. (CE En-Me En) Computer Structural Analysis and Optimization. (3:3:0) F Prerequisite: linear algebra; CE En 321 or Me En 372 or equivalent.
Matrix analysis of rods, shafts, beams, trusses, frames, and grids using the generalized stiffness method. Optimization methods for these structures. Organizing computer programs for structural analysis and structural optimization.

505. Portland Cement Concrete Mixture Design and Analysis. (3:2:3) Prerequisite: CE En 305 or equivalent.
Properties and testing of freshly mixed and hardened concrete and constituent materials; concrete mixture design and analysis; concrete construction practices; laboratory experimentation.

506. (CE En-Me En) Continuum Mechanics and Finite Elements. (3:3:0) F Prerequisite: linear algebra: CE En 321 or Me En 372 or equivalent.
Equilibrium, constitutive, and compatibility equations; closed-form solutions from elasticity; finite element theory, programming, and usage; membrane, axisymmetric, and solid elements. Application to heat transfer, fluid mechanics, and seepage.

508. (CE En-Me En) Structural Dynamics. (3:3:0) F Prerequisite: CE En 321 or Me En 372 or equivalent.
Dynamic analysis of single degree-of-freedom, discrete multi-degree-of-freedom, and continuous systems.

521. Seismic-Resistant Steel Buildings. (3:3:0) W Prerequisite: CE En 421 or equivalent.
Background and development of UBC seismic provisions, analysis and design of multistory steel frames, in-depth treatment of shear and moment connections, design of horizontal and vertical diaphragms.

523. (CE En- Me En) Aircraft Structures. (3:3:0) W Prerequisite: CE En 305, 321; or Me En 250, 372; or equivalents.
Requirements, objectives, loads, materials, and tools for design of airframe structures; static behavior of thin-wall structures; durability and damage tolerance; certification and testing. Airframe component team design project.

524. Reinforced Concrete Buildings. (3:3:0) W Prerequisite: CE En 424 or equivalent.
Design for earthquake resistance; torsion effects, slendor columns, and two-way slabs.

525. Bridge Structures. (3:3:0) F Prerequisite: CE En 422, 424; or equivalents.
Design of composite, continuous beam, and girder bridges, including piers, abutments, floor systems, and bearings; field trips to observe bridge construction and fabrication.

526. Prestressed Concrete. (3:3:0) Sp odd yr. Prerequisite: CE En 424 or equivalent.
Strength, behavior, and design of prestressed reinforced concrete members and structures, emphasizing pretensioned, precast construction.

528. Masonry Design. (3:3:0) Sp even yr. Prerequisite: CE En 424 or equivalent.
Introduction to analysis, design, and construction of masonry structures. Compressive, tensile, flexural, and shear behavior of masonry structural components.

531. Principles of Hydrologic Modeling. (3:2:3) F Prerequisite: CE En 431 or equivalent.
Advanced hydrologic and hydraulic principles with an emphasis on modeling for the purpose of planning and designing drainage, flood control, and other water resource facilities.

535. Hydraulic Design of Channels and Control Structures. (3:2:3) W Prerequisite: CE En 433 or equivalent.
Design of water conveyance channels and control structures, including siphons, chutes, weirs, flumes, dams, spillways, and outlet works.

540. Geo-Environmental Engineering. (3:3:0) Prerequisite: CE En 341 or equivalent.
Geotechnical aspects of environmental engineering. Topics include municipal and hazardous solid waste landfill design and characterization and remediation techniques for contaminated soil and groundwater.

542. Foundation Engineering. (3:3:0) W; Sp even yr. Prerequisite: CE En 341 or equivalent.
Soil investigation, bearing capacity and settlement, design of spread footings, combined footings, mat foundations, pile foundations, and drilled shafts.

543. Earth- and Rock-Fill Structures. (3:3:0) Prerequisite: CE En 341 or equivalent.
Design and construction of earth- and rock-fill dams, including selecting dam sites and materials, and applying seepage and pore pressure studies, shearing strength data, stability analysis, and construction controls.

545. Geotechnical Analysis of Earthquake Phenomena. (3:3:0) Prerequisite: CE En 321, 341; or equivalents.
Earthquake magnitude and intensity; design ground motions, elementary dynamics of structures; response spectra; building code provisions; liquefaction and ground failure.

547. Seepage and Groundwater Modeling. (3:3:0) Prerequisite: CE En 341, 431; or equivalents.
Techniques for modeling groundwater flow on a regional and local basis. Seepage analysis of levees, excavations, and earth dams.

551. Water Treatment Facilities Design. (3:2:3) F Prerequisite: CE En 351 or equivalent.
Evaluation, selection, and design of water treatment facilities.

555. Environmental Chemistry. (3:2:4) F Prerequisite: CE En 351 or equivalent.
Chemical theory and calculation supporting analysis of major organic and inorganic constituents in environmental engineering, focusing on theoretical understanding of the chemical processes.

562. Traffic Engineering: Characteristics and Operations. (3:3:0) F Prerequisite: CE En 361 or equivalent.
Traffic flow theory, traffic operations, characteristics of drivers and vehicles, parking facilities, at-grade intersections, channelization, traffic control devices, signals.

563. Pavement Design. (3:3:0) F Prerequisite: CE En 305, 361; or equivalents.
Design, construction, evaluation, maintenance, and rehabilitation of flexible and rigid pavements; influence of traffic and environmental factors; mechanistic analysis of pavement structures using computer software.

565. Urban Transportation Planning. (3:3:0) W Prerequisite: CE En 361 or instructor's consent.
Urban transportation planning and decision making, intermodal transportation, land-use transportation interrelationships, transportation demand modeling, site impact analysis, sustainable transportation, livable cities.

570. (CE En-Me En) Computer-Aided Engineering Software Development. (3:3:0) F on dem. Prerequisite: Me En 373 or C progamming.
Programming methods for the development of engineering software. Data structures, architecture, libraries, and graphical user interfaces, with applications to CAD systems.

572. (CE En-Me En) Computer-Aided Geometric Design. (3:3:0) W Prerequisite: proficiency in C programming.
Mathematical theory of free-form curves and surfaces and solid geometric modeling. Bezier and B-spline curve and surface theory, parametric and implicit forms, intersection algorithms, topics in computer algebra, and free-form deformation. Several programming projects.

575. (CE En-Me En) Optimization Techniques in Engineering. (3:3:0) W Prerequisite: Math 302 and FORTRAN, C, or similar computer language.
Application of computer optimization techniques to constrained engineering design. Theory and use of state-of-the-art computer routines. Robust design methods.

580. Hazardous Waste Management and Control. (3:3:0) W Prerequisite: CE En 351 or instructor's consent.
Hazardous waste statutes and regulations; introduction to hazardous waste treatment, storage, disposal, and monitoring techniques.

594R. Selected Problems in Civil and Environmental Engineering. (1–3:Arr.:Arr. ea.)

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Civil and Environmental Engineering Faculty

Professors
Balling, Richard J. (1982) BA, BS, U. of Utah, 1978; MS, PhD, U. of California, Berkeley, 1979, 1982.
Benzley, Steven E. (1980) BES, MS, Brigham Young U., 1966, 1967; PhD, U. of California, Davis, 1971.
Christiansen, Henry N. (1965) BS, Utah State U., 1957; MS, PhD, Stanford U., 1958, 1962.
Hotchkiss, Rollin H. (2005) BS, Brigham Young U., 1976; MS, Utah State U., 1979; PhD, U. of Minnesota, 1989.
Jensen, David W. (1993) BS, Brigham Young U., 1980; SM, PhD, Massachusetts Inst. of Technology, 1981, 1986.
Jones, Norman L. (1991) BS, Brigham Young U., 1986; MS, PhD, U. of Texas, Austin, 1988, 1990.
Miller, A. Woodruff (1974) BES, Brigham Young U., 1969; MS, ENG, PhD, Stanford U., 1970, 1972, 1975.
Rollins, Kyle M. (1987) BS, Brigham Young U., 1982; PhD, U. of California, Berkeley, 1987.
Saito, Mitsuru (1997) BS, Brigham Young U., 1981; MS, U. of Virginia, 1983; PhD, Purdue U., 1988.

Associate Professors
Borup, M. Brett (1987) BS, Humboldt State U., 1980; MS, Utah State U., 1982; PhD, Clemson U., 1985.
Fonseca, Fernando (1996) BS, MS, Brigham Young U., 1987, 1988; PhD, U. of Illinois, 1997.
Nelson, Jim (1996) BS, MS, PhD, Brigham Young U., 1989, 1990, 1994.
Williams, Gustavious P. (2004) BS, Brigham Young U., 1987; PhD, Northwestern U., 1994.

Assistant Professors
Gerber, Travis M. (2003) BS, MS, PhD, Brigham Young U., 1994, 1995, 2003.
Guthrie, W. Spencer (2002) BS, Utah State U., 1998; MS, PhD, Texas A&M U., 1999, 2002.
Richards, Paul W. (2006) BS, Brigham Young U., 2000; MS, PhD, U. of California, San Diego, 2003, 2004.
Schultz, Grant G. (2004) BS, MS, Brigham Young U., 1994, 1995; PhD, Texas A&M U., 2003.

Associate Research Professor
Zundel, Alan K. (1997) BS, MS, PhD, Brigham Young U., 1988, 1989, 1994.

Emeriti
Budge, W. Don (1964) BS, MS, Utah State U., 1959, 1961; PhD, U. of Colorado, 1964.
Durrant, S. Olani (1970) BES, MS, Brigham Young U., 1962, 1963; ScD, New Mexico State U., 1969.
Firmage, D. Allan (1955) BS, U. of Utah, 1940; MS, Massachusetts Inst. of Technology, 1941.
Goodwin, Reese J. (1967) BES, MS, Brigham Young U., 1962, 1963; PhD, U. of Utah, 1976.
Merritt, LaVere B. (1970) BS, MS, U. of Utah, 1963, 1966; PhD, U. of Washington, 1970.
Thurgood, Glen S. (1967) BES, MS, Brigham Young U., 1965, 1967; PhD, Texas A&M U., 1975.
Wallace, Lynn P. (1983) BS, U. of Utah, 1963; MS, PhD, West Virginia U., 1968, 1970.
Wilson, Arnold (1957) BS, MS, Brigham Young U., 1957, 1962; PhD, Oklahoma State U., 1973.
Youd, T. Leslie (1984) BES, Brigham Young U., 1964; PhD, Iowa State U., 1967.

Classics

See Humanities, Classics, and Comparative Literature section of this catalog.