

Emeriti

- Barney, Ralph D. (1971) BS, Brigham Young U., 1957; MA, U. of Iowa, 1960; PhD, U. of Missouri, 1971.
- Barrus, George S. (1967) BS, U. of Utah, 1950; MA, Brigham Young U., 1964; PhD, U. of Iowa, 1969.
- Bartlett, Leonard L. (1987) BA, MA, Brigham Young U., 1957, 1989.
- Beckham, Raymond E. (1949) BS, MA, Brigham Young U., 1949, 1969; PhD, Southern Illinois U., 1972.
- Burnett, M. Dallas (1958) BS, Brigham Young U., 1954; MSJ, PhD, Northwestern U., 1958, 1967.
- Butterworth, Edwin J. (1949) BA, U. of Utah, 1950; MA, Brigham Young U., 1954.
- Hainsworth, Brad E. (1984) BA, MA, PhD, U. of Utah, 1963, 1966, 1968.
- Kagel, Richard I. (1973) BA, Brigham Young U., 1968; MA, Fairfield U., 1973; PhD, Columbia Pacific U., 1980.
- Nelson, Jack A. (1977) BA, Brigham Young U., 1954; MA, U. of Utah, 1964; PhD, U. of Missouri, 1971.
- Porter, William C. (1972) BA, Brigham Young U., 1961; MA, U. of California, Los Angeles, 1963; EdD, Oklahoma State U., 1985.
- Pratte, Paul Alfred (1984) BS, MA, Brigham Young U., 1962, 1967; PhD, U. of Hawaii, 1976.
- Rich, Owen S. (1950) BS, Brigham Young U., 1950; MA, U. of Southern California, 1953; EdD, Pennsylvania State U., 1963.
- Tarbox, Norman C. (1960) BS, U. of Utah, 1955; MS, Syracuse U., 1956; PhD, U. of Utah, 1979.
- Valenti, JoAnn M. (1992) BSJ, MA, U. of Florida, 1967, 1969; PhD, U. of Michigan, 1983.
- Whiting, Gordon C. (1974) BA, U. of Minnesota, 1959; MA, U. of Utah, 1961; PhD, Michigan State U., 1967.
- Wolsey, Heber G. (1963) BS, Brigham Young U., 1942; MA, Northwestern U., 1949; PhD, Michigan State U., 1967.

Comparative Literature

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

Computer Science

Tony R. Martinez, Chair
3361 TMCB, (801) 422-3027

College of Physical and Mathematical Sciences Advisement
Center
N-179 ESC, (801) 422-6270

Admission to Degree Program

The degree programs in the Department of Computer Science are open enrollment.

The Discipline

Computer science touches virtually every area of human endeavor. Software is responsible for everything from the control of kitchen appliances to sophisticated climate models used in predicting future environmental change. Students in computer science learn to approach complex problems in business, science, and entertainment using their strong background in mathematics, algorithms, and data structures.

The degree programs in the Computer Science Department prepare students to be confident software developers and technical problem solvers. The curriculum also trains students for research into new avenues where computers will have a significant impact.

The BS curriculum is accredited by the Computing Accreditation Commission of ABET.

Career Opportunities

Graduates pursue exciting opportunities in graphics, artificial intelligence, software engineering, database design, scientific programming, systems administration, and research at universities and national laboratories.

The bioinformatics emphasis is designed for students who are interested in building software to assist in analyzing biological systems. Students will graduate with a significant background in biology coupled with the software development and analysis skills necessary to implement large bioinformatics applications.

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	Computer Science Emphasis (optional) Bioinformatics
Minor	Computer Science Teaching

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS	Computer Science
PhD	Computer Science

For more information see the BYU 2006–2007 Graduate Catalog.

General Information

Personnel in the College of Physical and Mathematical Sciences Advisement Center will advise regarding core courses and suggested general education. Questions regarding curriculum and career decisions should be directed to the undergraduate advisor in the Computer Science Department.

Note: All hours of credit applied toward a major in computer science must be of C- or better and must be taken within eight years of declaring the computer science fundamentals major. Any exceptions must be approved by the department. Students may choose to graduate under later requirements by updating their date of entry into the major at the college advisement center.

BS Computer Science (79–83 hours*)

Major Requirements

1. No D credit is allowed in major courses.
2. Complete the following:
C S 124, 142, 224, 235, 236, 240, 252, 312, 324, 330, 404.
3. Complete one course from the following:
C S 345, 360.
4. Complete the following supporting courses:
Engl 316.
Math 112, 113, 343.
Phscs 121, 220.
Stat 321.
5. Complete two courses (6–8 hours) from the following:
Biol 100; 120, 220.
Chem 105, 106.
Geol 111, 330.
InBio 341.
Phscs 123, 222.
6. Complete four courses from 400-level computer science courses.
C S 360 may be used here if not used in item 3 above.
7. Complete one additional course from 400- or 500-level computer science courses. C S 360 may be used here if not used in items 3 or 6 above.

Note: C S 598R requires senior or graduate status in computer science and departmental approval before registering.

*Hours include courses that may fulfill university core requirements.

BS Computer Science: Bioinformatics Emphasis

(82–83 hours*)

Major Requirements

1. No D credit is allowed in major courses.
2. Complete the following:
C S 124, 142, 235, 236, 240, 252, 312, 330, 404.
3. Complete one course from the following:
C S 324, 345, 360.
4. Complete one course from the following:
Chem 152, 351.
5. Complete the following supporting courses:
Biol 120, 240, 340.
Chem 105.
Engl 316.
InBio 265, 365, 465.
Math 112, 113, 214.
Phscs 121.
Stat 441, 442.

6. Complete three courses from 400-level computer science courses.

*Hours include courses that may fulfill university core requirements.

Minor Computer Science Teaching (17–18 hours)

Minor Requirements

1. Complete the following:
C S 124, 142, 235, 236, 240.
2. Complete one additional computer science course with the approval of the Computer Science Department undergraduate coordinator.

Computer Science (C S)

Undergraduate Courses

100. Fundamentals of Computing and Information. (3:3:0) For nonmajors. F, W, Sp

Computing, information structures, programming principles, Internet, World Wide Web, text, spreadsheets, data representations for images, sound and video.

124. (C S-EC En) Introduction to Computer Systems. (3:3:2) F, W, Su Prerequisite: C S 142 or concurrent enrollment.

How a computer works, from hardware to high-level programming. Logic circuits, computer instructions, assembly language, binary arithmetic, C programming, program translation, data structures, and algorithm analysis.

142. Introduction to Computer Programming. (3:3:0) F, W, Sp, Su Prerequisite: knowledge of algebra.

Introduction to object-oriented program design and development. Principles of algorithm formulation and implementation.

199R. Academic Internship. (1–3:0:0 ea.) F, W, Sp, Su Internships or cooperative education experiences with organizations outside BYU.

224. (C S-EC En) Fundamentals of Digital Systems. (3:3:2) F, W Prerequisite: C S 124.

Digital logic: theory, design, and implementation of combinational and sequential logic. Laboratory experience in construction of digital logic circuits. Fee.

235. Data Structures and Algorithms. (3:3:0) F, W, Sp, Su Prerequisite: C S 142.

Fundamental data structures and algorithms of computer science; basic algorithm analysis; recursion; sorting and searching; lists, stacks, queues, trees, hashing; object-oriented data abstraction.

236. Discrete Structures. (3:3:0) F, W, Sp, Su Prerequisite: C S 235.

Introduction to grammars and parsing; predicate and propositional logic; proof techniques; sets, functions, relations, relational data model; graphs and graph algorithms.

240. Advanced Programming Concepts. (3:3:0) F, W, Alt. Sp, Su term Prerequisite: C S 236.

Advanced software development with an object-oriented focus. Development and testing of several 1500 to 2000 line modules from formal specifications. UNIX and C++ environment.

252. Introduction to Computational Theory. (3:3:0) F, W, Alt. Sp, Su term Prerequisite: C S 236.

Finite state automata, regular languages, lexical analysis; push-down automata, context-free languages, parsing; Turing machines and unrestricted grammars; computability, complexity, NP-completeness.

312. Algorithm Analysis. (3:3:0) F, W, Alt. Sp, Su term Prerequisite: C S 240, 252.

Analysis of algorithms including searching, sorting, graphs, and trees.

324. (C S-EC En) Computer System Architecture. (3:3:1) F, W
Prerequisite: C S-EC En 224; C S 235.

Performance-directed design principles, advanced pipelining, instruction-level parallelism (super scalar and VLIW CPUs), compiler optimizations, memory hierarchy design, etc.

330. Concepts of Programming Languages. (3:3:0) F, W, Sp
Prerequisite: C S 240, 252.

Principles and concepts characterizing high-level computer programming languages, process and data abstraction, encapsulation, inheritance, functional programming, logic programming, scanners, and parsers.

345. Operating Systems Design. (3:3:0) F, W, Su Prerequisite: C S 240, 324.

Principles and concepts of operating systems design and the implementation of an operating system.

360. Internet Programming. (3:3:0) F, W Prerequisite: C S 240.

Internet application programming, including sockets, threads, CGI, database, e-commerce, Web services.

401R. Topics in Computer Science. (1–3:Arr:0 ea.) Prerequisite: instructor's consent.

Undergraduate level subjects as announced before each semester.

404. Ethics and Computers in Society. (2:2:0) F, W Prerequisite: Engl 316; junior standing.

Societal impact of computer technology, the computer scientist's place in society, ethical issues. Reading, discussion, and writing seminar.

405. Creating and Managing a Software Business. (3:3:0) F, W
Prerequisite: C S 240, Engl 316.

Entrepreneurship, idea/opportunity generation, strategic planning, legal organization, product development, marketing/sales, customer support, fund raising, and effective management.

412. Modeling and Optimization. (3:3:0) W Prerequisite: C S 312, Math 343.

Modeling, learning, and decision/control identified and placed in perspective. Linear optimization, game theory, operations research, network flows, and Markov processes.

428. Software Engineering. (3:3:0) F, W Prerequisite: C S 312, 330.

Analysis, design, implementation, and testing of significant software systems.

429. Software Testing. (3:3:0) F Prerequisite: C S 312, 330.

Strategies for testing large systems compared and critiqued, with opportunities to test actual systems.

431. Algorithmic Languages and Compilers. (3:3:0) Alt. sem., Alt. Sp, Su term Prerequisite: C S 312, 330.

Formal description of algorithmic languages and techniques used in their compilation: semantics, ambiguities, procedures, replication, iteration, recursion.

450. Introduction to Digital Signal and Image Processing. (3:3:0) F, W Prerequisite: C S 312, Math 343, or equivalent.

One- and two-dimensional signal-processing fundamentals, including sampling, noise, transforms, filtering, enhancement, and compression. Hands-on experimentation with speech, music, still images, and full-motion video.

452. Database Modeling Concepts. (3:3:0) F, W Prerequisite: C S 236, 240.

Database models: relational, deductive, object-oriented. Integrity constraints, query languages, database design.

455. Computer Graphics. (3:3:0) F, W, Alt. Sp, Su term
Prerequisite: C S 312, 330; Math 343.

Interactive computer graphics systems programming and architecture.

456. Introduction to User Interface Software. (3:3:0) W
Prerequisite: C S 312, 330.

Introduction to software architectures and techniques for graphical user interfaces. Input devices, windowing systems, event-driven programming, interactive geometry.

460. Computer Communications and Networking. (3:3:0) F, W
Prerequisite: C S 312, 324.

Introduction to data communications and computer networking. Communications fundamentals, computer networks, software, architecture, telecommunications, regulation, standards.

462. Large-Scale Distributed System Design. (3:3:0) F
Prerequisite: C S 330, 360.

Designing and implementing client-server enterprise applications. Web servers, application servers, database connectivity, remote procedure calls, transactions, messaging, directory, naming services, threads, security, data formats.

465. Computer Security. (3:3:0) F Prerequisite: C S 330; 345 or 360.
Recommended: C S 404.

Introduction to computer security fundamentals: confidentiality, integrity, authentication, and access control. Secret key and public key cryptography, network security protocols, viruses, and fire walls.

470. Introduction to Artificial Intelligence. (3:3:0) F Prerequisite: C S 312, 330.

Introduction to core areas of artificial intelligence; intelligent agents, problem solving and search, knowledge-based systems and inference, planning, uncertainty, learning, and perception.

478. Introduction to Neural Networks and Machine Learning. (3:3:0) F, W Prerequisite: C S 252, 312.

Neural network and machine learning models include Perceptrons, back-propagation, decision trees, genetic algorithms, and other mechanisms allowing computers to learn without being programmed.

486. Verification and Validation. (3:3:0) F Prerequisite: C S 252, 312; 345 or 360.

Implementing formal verification algorithms and using them in protocol and circuit design; proving both incorrectness and correctness.

500-Level Graduate Courses (available to advanced undergraduates)

501R. Advanced Topics in Computer Science. (1–3:Arr:0 ea.)
Prerequisite: instructor's consent.

Advanced undergraduate- and graduate-level subjects as announced before each semester.

557. Computer-Aided Geometric Design. (3:3:0) W Prerequisite: C S 240, Math 343; or equivalents.

Free-form curves and surfaces; mathematical theory and algorithms. Bezier and B-spline curves and surfaces, subdivision surfaces, T-splines, free-form deformation, and intersection algorithms. Several programming projects.

579. Natural Language Processing. (3:3:0) W Prerequisite: instructor's consent.

Machine translation, human-computer dialog, question answering, parsing, and generating from an artificial intelligence and machine-learning perspective.

598R. Special Projects. (1–3:0:0 ea.) Prerequisite: instructor's consent.

Graduate Courses

For 600- and 700-level courses, see the BYU 2006–2007 Graduate Catalog.

Computer Science Faculty

Professors

- Barrett, William A. (1987) BA, PhD, U. of Utah, 1974, 1978.
 Burton, Robert Preece (1974) PhD, U. of Utah, 1973.
 Egbert, Parris (1992) BS, Utah State U., 1986; MS, PhD, U. of Illinois, 1990, 1992.
 Embley, David W. (1982) BA, MS, U. of Utah, 1970, 1972; PhD, U. of Illinois, 1976.
 Flanagan, Kelly J. (1993) BS, MS, PhD, Brigham Young U., 1988, 1989, 1993.
 Martinez, Tony R. (1987) BS, Brigham Young U., 1982, MS, PhD, U. of California, Los Angeles, 1983, 1986.
 Olsen, Dan R. (1985) BS, MS, Brigham Young U., 1976, 1978; PhD, U. of Pennsylvania, 1981.
 Sederberg, Thomas W. (1978) BS, MS, Brigham Young U., 1975, 1977; PhD, Purdue U., 1983.
 Woodfield, Scott N. (1985) BS, MS, Brigham Young U., 1975, 1978; PhD, Purdue U., 1980.

Associate Professors

- Barker, Joseph Cory (2001) BS, PhD, Brigham Young U., 1982, 1994.
 Clement, Mark J. (1994) BS, MS, Brigham Young U., 1985, 1989; PhD, Oregon State U., 1994.
 Giraud-Carrier, Christophe G. (2004) BS, MS, PhD, Brigham Young U., 1991, 1993, 1994.
 Goodrich, Michael A. (1999) BS, MS, PhD, Brigham Young U., 1992, 1995, 1996.
 Morse, Bryan S. (1994) BS, MS, Brigham Young U., 1986, 1990; PhD, U. of North Carolina, 1994.
 Ng, Yiu Kai (Dennis) (1991) BS, Brigham Young U., 1982; MS, Brigham Young U., 1984; PhD, Kansas State U., 1991.
 Snell, Quinn (1997) BS, MS, Utah State U., 1992, 1993; PhD, Iowa State U., 1997.
 Windley, Phillip J. (2004) BS, U. of Idaho, 1982; MS, PhD, U. of California, Davis, 1988, 1990.
 Zappala, Daniel M. A. (2004) BS, Stanford U., 1990; PhD, U. of Southern California, 1997.

Assistant Professors

- Jones, Michael D. (2001) BS, MS, Brigham Young U., 1995, 1997; PhD, U. of Utah, 2001.
 Knutson, Charles D. (2000) BS, MS, Brigham Young U., 1988, 1994; PhD, Oregon State U., 1998.
 Langkilde-Geary, Irene (2002) BS, Brigham Young U., 1995; MS, PhD, U. of Southern California, 1999, 2002.
 Mercer, Eric G. (2002) BS, MS, PhD, U. of Utah, 1996, 1999, 2002.
 Ringger, Eric (2005) BS, Brigham Young U., 1992; MS, PhD, U. of Rochester, 1994, 2000.
 Rodham, Kenneth J. (2001) BS, MS, PhD, Brigham Young U., 1990, 1992, 1995.
 Roper, Paul R. (2004) BS, MS, Brigham Young U., 1976, 1979.
 Seamons, Kent (2000) BS, Brigham Young U., 1986; PhD, U. of Illinois, 1996.
 Seppi, Kevin (2002) BS, Brigham Young U., 1983; MS, U. of Santa Clara, 1986; PhD, U. of Texas, 1990.
 Ventura, Dan A. (2001) BS, MS, PhD, Brigham Young U., 1992, 1995, 1998.
 Warnick, Sean C. (2003) BSE, Arizona State U., 1993; MS, PhD, Massachusetts Inst. of Technology, 1996, 2003.

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- Ashton, Alan C. (1972) BA, PhD, U. of Utah, 1966, 1970.
 Beus, H. Lynn (1971) BA, Brigham Young U., 1961; MS, Case Inst. of Technology, 1964; PhD, Case Western Reserve U., 1967.
 Burton, Robert C. (1964) BS, Brigham Young U., 1956; PhD, U. of North Carolina, 1963.
 Christensen, Larry C. (1983) BA, Brigham Young U., 1963; MA, Central Michigan U., 1968; EdD, Brigham Young U., 1981.
 Cornell, Aurel (1980) MS, PhD, Polytechnic Inst. of Timisoara, Rumania, 1960, 1971.
 Dean, C. Edwin (1949) BS, MS, Brigham Young U., 1948, 1952; MS, U. of Michigan, 1955.

- Hays, Bill (1970) BS, East Texas State U., 1963; MS, U. of Iowa, 1967; PhD, Northwestern U., 1970.
 Ivie, Evan Leon (1979) BS, BES, Brigham Young U., 1956, 1956; MS, Stanford U., 1957; PhD, Massachusetts Inst. of Technology, 1966.
 McClurg, Lynn E. (1972) BGE, U. of Nebraska, 1966; MS, U. of Southern California, 1972; EdD, Brigham Young U., 1978.
 Norman, Theodore A. (1970) BS, U. of Utah, 1962; MS, PhD, Washington State U., 1968, 1970.
 Robison, Parley P. (1967) BS, U. of Utah, 1958.
 Stokes, Gordon E. (1969) BS, Brigham Young U., 1961; MS, U. of Idaho, 1969; EdD, Brigham Young U., 1981.
 Wright, Norman Edward (1963) BS, Brigham Young U., 1951.

Computers and the Humanities

See Linguistics and English Language section of this catalog.

Construction Management

See School of Technology.

3. Complete one course from the following:
Chem 101, 105.
4. Complete one course from the following:
Chem 152, 351.
5. Complete one course from the following:
Chem 281, 481.
6. Complete one course from the following:
Math 112, 119.
7. Complete one course from the following:
NDFS 201, 310, 424.
8. Complete one of the following options:
Either Phscs 105, 107
Or Phscs 121.
9. Complete 15 hours from the following:
Biol 120, 227, 229, 240, 241, 329, 339, 340, 360, 439.
Chem 106, 107, 352, 353, 468.
C S 142.
ExSc 202, 320, 321, 387, 468, 470, 485, 497R, 501.
Hlth 320, 365, 461.
InBio 370.
MMBio 221, 222.
NDFS 200, 305.
PDBio 225, 320, 362, 363, 365, 484, 561, 565.
Phscs 106, 108.
Psych 111, 220, 342.
Soc 111, 112.

Note: Watch prerequisites for the elective courses.

Note to Premed Students: Some medical schools require select classes not required by BYU. For more information contact the Preprofessional Advisement Center, 3326 WSC, (801) 422-2318. Contact potential schools of choice for a complete list of entrance requirements.

*Hours include courses that may fulfill university core requirements.

BS Exercise Sciences: Fitness and Wellness Management Emphasis (60.5 hours*)

The Discipline

Fitness and wellness management is a departure from the typical U.S. medical model in that the focus is on helping individuals achieve optimal health and fitness, rather than on discovering and treating disease. Recent research findings, along with rising health-care costs, have spurred an interest in keeping people healthy to improve their quality of life and also to avoid unnecessary medical expenses.

Depending on electives completed, there are several excellent graduate school options to pursue. Earning a master's degree in exercise science/physical education, for example, can give the added knowledge and experience needed to direct a private, commercial, corporate, or clinical health/fitness program. Other graduate opportunities include a master's in public health (MPH), business administration (MBA), recreational therapy (MS), or nutrition, dietetics, and food science (MS), to name a few.

Career Opportunities

Personal fitness professionals find employment primarily in commercial or community fitness centers but may also work in hospital wellness programs or corporate health-promotion programs. Job responsibilities typically involve teaching clients how to achieve optimal wellness through effective exercise, wholesome nutrition, and successful stress-management strategies.

Major Requirements

1. Complete the senior exit interview.
2. Complete the following:
ExSc 285, 363, 365, 367, 387, 468, 485.
Hlth 320.
NDFS 100, 201.
PDBio 220, 305.
3. Complete 4 hours of the following:
ExSc 399R.
4. Complete the following elective requirements:
Track 1: Lifestyle Management. Students interested in lifestyle management should complete 15–26 hours in Track 1 and 0–11 hours in Track 2.
Dance 336.
ExSc 202, 302, 455.
Hlth 365, 370, 375, 450, 460, 461, 466.
NDFS 200, 310.
Stat 221.

Track 2: Fitness/Business Management. Students interested in fitness/business management should complete 15–18 hours in Track 2 and 8–11 hours in Track 1.
Acc 200.
Bus M 300, 340, 371R, 372.
ExSc 351.
Org B 320.

Note: Students interested in Track 2 may also wish to minor in management (in the Marriott School of Management).

*Hours include courses that may fulfill university core requirements.

BS Physical Education Teaching/Coaching (K–12)

(76.5–77.5 hours*, including licensure hours)

This is a limited-enrollment program requiring departmental admissions approval. Please see the college advisement center or department office for information regarding requirements for admission to this emphasis.

The Discipline

Students preparing to teach and/or coach physical education will have a variety of experiences that will enhance proficiency in the knowledge and skills requisite to working in the contemporary school setting. Majors learn to perform a variety of sport, fitness, and dance activities personally. After becoming proficient, students take courses and have practical experiences in teaching and coaching children, adolescents, and adults. The discipline is interesting and rewarding, and those in a teaching/coaching career help others pursue and practice healthy lifestyle habits.

Career Opportunities

Graduates seek teaching and physical education/coaching careers in elementary and secondary education settings. With an advanced degree, teaching and coaching positions at institutions of higher learning are available.

It is recommended that students desiring to be optimally employable in secondary schools complete an approved teaching minor and American Coaching Effectiveness Program (ACEP) coaching certification.

Major Requirements

1. Prior to beginning course work in the major, students must apply for admittance into the Flight Program. The program requires that all students take the major courses together as a cohort group. See the flight advisor during January of the sophomore year (221 RB).
2. Complete the senior exit interview.

Exercise Sciences

- A teaching minor is not required for licensure. However, it is strongly recommended.
- Complete the following required prerequisite and general education courses:
HEPE 129.
MFHD 210.
PDBio 220, 305.
- Complete the following:
Dance 356.
ExSc 206, 230, 231, 233, 239, 300, 302, 320, 321, 352, 360, 361, 362, 366, 367, 399R, 430.
- Complete one course from the following:
ExSc 330R, 335, 341, 342, 344, 345, 346, 347.
- Complete one course from the following:
ExSc 171, 172, 276, 277.
Note: ExSc 276 or 277 is preferred.
- If ExSc 171 or 172 is taken in item 7 above, complete one course from the following:
ExSc 125, 136, 137, 146, 147, 155 (or other approved course).
- Complete the Professional Education Component:
 - Complete the following:
ExSc 374, 377, 380, 461.
Sc Ed 276R, 350.
Note: Fingerprinting and FBI clearance must be completed prior to enrolling in ExSc 377.
 - Complete 12 hours of one of the following:
Sc Ed 476R, 496R.

Recommended Course

ExSc 476.

*Hours include courses that may fulfill university core requirements.

Minor Coaching and Teaching Exercise Sciences

(23.5–27.5 hours)

Minor Requirements

- Complete the following:
ExSc 206, 229, 234, 235, 320, 321, 351, 364, 365, 366, 399R, 430, 450.
- Complete one course from the following:
ExSc 330R, 335, 341, 342, 344, 345, 346, 347.

Minor Elementary Physical Education (19–21.5 hours*)

Minor Requirements

- Be an elementary education major.
- Complete the following:
Dance 326.
ExSc 169, 364, 366, 375, 376, 461.
Hlth 320.
- Complete one course from the following:
ExSc 230, 231.
- Complete one dance or exercise science activity course.

*Hours include courses that may fulfill university core requirements.

Health/Physical Education (HEPE)

Undergraduate Course

129. Fitness and Lifestyle Management. (2:2:1)

Why a healthy lifestyle is needed and how to write individualized programs to meet these needs.

Exercise Sciences (ExSc)

Undergraduate Courses

100R. Intercollegiate Athletics. (0.5:2:10.5 ea.)

101R. Activities for Fitness and Weight Control. (0.5:0:2 ea.)

102R. Adapted Physical Education. (0.5:0:2 ea.) Prerequisite: medical referral.

105. Healthy Living. (0.5:1:0)

Scientific evidence supporting the importance of a healthy lifestyle. Students will engage in healthy nutritional and exercise practices.

106. Badminton, Beginning. (0.5:0:2)

111. Basketball, Beginning. (0.5:0:2)

112. Basketball, Intermediate. (0.5:0:2) Prerequisite: ExSc 111 or equivalent.

116. Bowling, Beginning. (0.5:0:2) Fee.

117. Bowling, Intermediate. (0.5:0:2) Fee.

120. Cycling. (0.5:0:2)

Basic knowledge and skills in cycling and bike maintenance.

121. Diving, Springboard. (0.5:0:2)

125. Flexibility. (0.5:0:2)

130. Weight Management. (0.5:0:2) F, W, Sp

Improving fitness levels and body composition by participating in regular physical activity and monitoring and reducing dietary intake.

131. Golf, Beginning. (0.5:0:2)

132. Golf, Intermediate. (0.5:0:2) Prerequisite: ExSc 131 or equivalent.

136. Gymnastics, Beginning. (0.5:0:2)

137. Gymnastics, Intermediate. (0.5:0:2) Prerequisite: ExSc 136 or equivalent.

139. Jogging. (0.5:0:2) Independent Study also.

141. Martial Arts. (0.5:0:2)

143R. Physical Training—ROTC. (0.5:0:2 ea.) For ROTC students only.

146. Racquetball, Beginning. (0.5:0:2)

147. Racquetball, Intermediate. (0.5:0:2)

150. Ice Skating. (0.5:0:2)

Developing figure and ice hockey skills. Taught off campus. Fee.

151. Ice Hockey. (0.5:0:2) Prerequisite: beginning ice skating or instructor's consent.

Basic power skates, puck and stick handles, and game strategies. Fee.

152 Intermediate Ice Skating. (0.5:0:2) F, W, Sp, Su Prerequisite: ExSc 150 or equivalent.

Developing intermediate ice skating skills. Taught off campus. Fee.

153. Intermediate Ice Hockey. (0.5:0:2) F, W, Sp, Su Prerequisite: ExSc 151 or equivalent.

Developing intermediate ice hockey skills. Taught off campus. Fee.

- 155. Self-Defense.** (0.5:0:2)
Fundamental principles, skills, and techniques.
- 156. Soccer, Beginning.** (0.5:0:2)
- 157. Soccer, Intermediate.** (0.5:0:2) Prerequisite: ExSc 156 or equivalent.
- 161. Skiing, Beginning.** (0.5:0:2)
Sections formed on basis of ability. Students responsible for following costs: bus transportation, ski equipment, lift fees. Students required to use bus transportation provided. Fee.
- 162. Skiing, Intermediate.** (0.5:0:2)
Sections formed on basis of ability. Students responsible for following costs: bus transportation, ski equipment, lift fees. Students required to use bus transportation provided. Fee.
- 164. Skiing, Cross-Country.** (0.5:0:2)
Students responsible for following costs: bus transportation, ski equipment. Students required to use bus transportation provided. Fee.
- 169. Skill Acquisition and Analysis.** (0.5:0:2)
Required for elementary education majors. Meets one university physical education activity requirement.
- 170. Swimming for Nonswimmers.** (0.5:0:2)
- 171. Swimming, Beginning.** (0.5:0:2)
- 172. Swimming, Intermediate.** (0.5:0:2) Independent Study also. Prerequisite: ExSc 171 or equivalent.
- 174R. Swimming for Students with Disabilities.** (0.5:0:2 ea.)
Can be taken repeatedly to fulfill the university physical education activity requirement for any student with special needs.
- 175. Beginning Scuba Diving.** (0.5:0:2)
Developing scuba diving skills. Taught off campus. Fee.
- 176. Advanced Scuba Diving.** (0.5:0:2) Prerequisite: ExSc 175 or Open Water Diver Certification.
Advanced open water skills and concepts. Advanced open water certification upon successful completion. Fee.
- 177. Rescue Scuba.** (0.5:0:2) Prerequisite: ExSc 176 or Advanced Open Water Diver Certification.
CPR, first aid, and diving rescue procedures and concepts. Rescue certification upon successful completion. Fee.
- 179. Water Aerobics.** (0.5:0:2) For nonswimmers and swimmers.
Exercise workout in water emphasizing flexibility, strength, and endurance.
- 181. Tennis, Beginning.** (0.5:0:2)
- 182. Tennis, Intermediate.** (0.5:0:2) Prerequisite: ExSc 181 or equivalent.
- 183. Tennis, Advanced.** (0.5:0:2) Prerequisite: ExSc 182 or equivalent.
- 186. Volleyball, Beginning.** (0.5:0:2)
- 187. Volleyball, Intermediate.** (0.5:0:2) Prerequisite: ExSc 186 or equivalent.
- 188. Volleyball, Advanced.** (0.5:0:2) Prerequisite: ExSc 187 or equivalent.
- 191. Weight Training, Beginning.** (0.5:0:2)
- 192. Weight Training, Intermediate.** (0.5:0:2) Prerequisite: ExSc 191 or equivalent.
Theory and technique of maximal strength development, emphasizing “power” and “Olympic” lifts.
- 201R. Extramural Sports.** (0.5:0:2 ea.)
- 202. Introduction to Allied Health Professions.** (1:1:0)
Allied fields of athletic training, exercise physiology, health promotion, and physical therapy. Survey and history of the allied fields and their relation to other health-care professions.
- 203. Performance Psychology.** (1:1:1)
Relaxation and imagery for athletes and performing artists.
- 206. Officiating Team Sports.** (1:1:0)
Techniques, rules, and problems related to officiating, with particular attention to relationship between coach and official.
- 229. Physical Education Pedagogy.** (2:2:0)
Sport pedagogy for students *minoring* in physical education / coaching.
- 230. Sports and Activities 1.** (2:0:6) Prerequisite: acceptance into PETE program.
Developing motor skills and acquiring teaching materials for drills, lead-up activities, and teaching techniques in activities that include soccer, flag football, track and field, volleyball, and fitness.
- 231. Sport and Activities 2.** (2:0:6) Prerequisite: acceptance into PETE program.
Developing motor skills and acquiring teaching materials for drills, lead-up activities, and teaching techniques in activities that include basketball, tennis, golf, and softball.
- 233. Lifetime and Leisure Activities.** (1:0:3) Prerequisite: acceptance into PETE program.
Exposure to and development of skills in contemporary, noncompetitive, lifelong leisure activities.
- 234. Team Sport Fundamentals.** (1:0:4) For *minors* in physical education / coaching only. Prerequisite: ExSc 229.
Skill and pedagogy development in soccer and volleyball.
- 235. Sport Fitness Techniques.** (1:0:4) For *minors* in physical education / coaching only. Prerequisite: ExSc 229.
Skill and pedagogy in flexibility and weight training.
- 239. Weight Training: Skills and Teaching Techniques.** (0.5:0:2)
- 276. Water Safety Instructor Training.** (2:1:3) Prerequisite: ARC Swimmer-level competency.
Leads to American Red Cross WSI certification. Swimming teaching methods that include teaching swimming to special needs students.
- 277. Techniques of Lifeguarding.** (2:1:3) Prerequisite: swim competency test (given first day of class).
First-aid and lifeguard skills training, including instruction in CPR, and American Red Cross certification for lifeguard training.
- 285. Group Exercise Prescription and Technique.** (2:2:0)
Designing and implementing individual and group fitness and wellness programs based upon the latest scientific concepts, utilizing safe and effective techniques, to develop flexibility, strength, and cardiovascular endurance.
- 300. Historical and Sociological Foundations of Physical Education.** (2:2:0)
Historical and sociological foundations of physical education and sport.
- 302. Philosophical and Ethical Issues in Exercise Sciences.** (1:1:0) E, W, Sp, Su
Philosophical and ethical issues common to exercise science majors. Concept of mind, body, spirit.
- 320. Basic Athletic Training.** (3:3:0) Prerequisite: PDBio 220; concurrent enrollment in ExSc 321.
Recognition, evaluation, and care of athletic injuries. Techniques in taping, preventing, and rehabilitating injuries.
- 321. Basic Athletic Training Lab.** (0.5:0:0.5) Prerequisite: concurrent enrollment in ExSc 320. Fee.
- 330R. Coaching Selected Sports.** (2:1:2 ea.) Prerequisite: appropriate skills and teaching techniques class or equivalent.
Theory, fundamentals, strategies, and techniques of coaching golf, tennis, or wrestling.
- 335. Coaching Competitive Swimming.** (2:1:2) Prerequisite: appropriate skills and teaching techniques class or equivalent.
Theory, fundamentals, strategies, and techniques of coaching swimming.

341. Coaching Basketball. (2:1:2) Prerequisite: appropriate skills and teaching techniques class or equivalent.

Theory, fundamentals, strategies, and techniques of coaching basketball.

342. Coaching Track and Field. (2:1:2) Prerequisite: appropriate skills and teaching techniques class or equivalent.

Theory, fundamentals, strategies, and techniques of coaching track and field.

344. Coaching Football. (2:1:2) Prerequisite: appropriate skills and teaching techniques class or equivalent.

Theory, fundamentals, strategies, and techniques of coaching football.

345. Coaching Volleyball. (2:1:2) Prerequisite: appropriate skills and teaching techniques class or equivalent.

Theory, fundamentals, strategies, and techniques of coaching volleyball.

346. Coaching Baseball and Softball. (2:1:2) Prerequisite: appropriate skills and teaching techniques class or equivalent.

Theory, fundamentals, strategies, and techniques of coaching baseball and softball.

347. Coaching Soccer. (2:1:2) Prerequisite: appropriate skills and teaching techniques class or equivalent.

Theory, fundamentals, strategies, and techniques of coaching soccer.

349. Body, Mind, Spirit. (3:3:0) Honors also.

Sacredness of the body and its meaningfulness to the whole being. Comparative approach utilizing ideas from the restored gospel and Western and Eastern philosophy (nature of being).

351. Administration of Physical Education and Athletics. (2:2:0) For teaching and coaching minors. Independent Study also.

Management styles and techniques for physical education and athletic programs; policies concerning eligibility, contest management, safety, facilities, and legal concerns.

352. Legal and Administrative Aspects of Physical Education and Sport. (3:3:0) Prerequisite: acceptance into PETE program.

Principles of physical education and intramural management including facilities, equipment, fiscal matters, personnel, public relations, and program administration. Legal considerations of physical education and sport programs, including constitutional rights, gender, liability, and risk management.

360. Curriculum and Assessment of Learning in Physical Education. (3:3:0) Prerequisite: acceptance into PETE Program.

Curriculum development to meet national physical education standards. Assessment of psychomotor, cognitive, and affective learning, including elementary statistical testing.

361. Introduction to Motor Learning. (3:2:2)

Motor and cognitive factors influencing acquisition of motor skills.

362. Kinesiology and Biomechanics. (3:3:0) Prerequisite: PDBio 220, Math 110 or higher. Recommended: Phscs 105 or 121.

363. Exercise Physiology. (3:3:0) Prerequisite: PDBio 305 or 362; concurrent enrollment in ExSc 367.

364. Scientific Bases of Sport 1: Motor Learning. (2:2:0)

Motor learning principles for physical education/coaching minor.

365. Scientific Bases of Sport 2: Kinesiology. (2:2:0)

Kinesiology and biomechanics for physical education/coaching minor.

366. Scientific Bases of Sport 3: Exercise Physiology. (2:2:0)

Physiology of activity for physical education/coaching minor.

367. Exercise Physiology Lab. (0.5:0:0.5) Prerequisite: concurrent enrollment in ExSc 363.

374. Fundamental Skills and Teaching Methods for Elementary Physical Education. (3:2:2) Prerequisite: acceptance into PETE program.

Identifying and demonstrating fundamental skills; identifying immature and mature movement patterns; selecting developmentally appropriate activities; appropriate management techniques.

375. Physical Education for Elementary School Teachers. (2:1:3) Prerequisite: ExSc 169.

376. Practical Experience in Teaching Elementary School Physical Education. (2:0:4) Prerequisite: ExSc 375.

377. Secondary Practicum. (3:1:3) Prerequisite: Sc Ed 276R; fingerprinting and FBI clearance; acceptance into PETE program.

Written and practical teaching assignments designed to help prospective teachers plan, conduct, and evaluate lessons and unit plans appropriate to adolescent students.

380. Use of Technology in Physical Education Teaching. (2:2:0) Prerequisite: acceptance into PETE Program.

Applying computer technology: Web page design and software focusing on skill, fitness grading, digital video editing, and presentation. Meets secondary education technology requirements.

387. Lifestyle and Chronic Disease Prevention. (3:3:0)

Current scientific evidence demonstrating how lifestyle affects disease processes. Healthy lifestyle concepts specifically needed by wellness professionals, health educators, and health promotion practitioners; influence of unhealthy lifestyle as basis for chronic diseases, i.e. cardiovascular disease, cancer, and diabetes.

394. Athletic Training Clinical Education 1. (2:1:5) Prerequisite: admission to athletic training program.

Classroom and field experience. Orientation to athletic training program and clinical expectations. Modules include emergency care, taping skills, and basic modalities.

395. Athletic Training Clinical Education 2. (2:1:5) Prerequisite: ExSc 394.

Classroom and field experience. Modules include taping skills, assessment, and modalities.

399R. Academic Internship. (1–9:0:Arr. ea.) Prerequisite: advisor's consent; ExSc 202 for health promotion majors.

On-the-job experience for physical education majors and coaching and physical education minors.

400. Functional Anatomy and Kinesiology. (4:3:2) Prerequisite: ExSc 362 or equivalent.

Advanced examination of structure and function of skeletal, articular, muscular, and peripheral nervous systems with clinical applications; cadaver lab included.

414. Advanced Athletic-Training Lab. (1:0:2) Prerequisite: admission to athletic training program.

Advanced athletic-training skills, including taping, bracing and splinting, custom-fitted equipment, massage and stretching techniques, and emergency splinting and transport.

415. Therapeutic Modalities. (3:2:2) F, W Prerequisite: admission to athletic training program.

Hydrotherapy, massage, traction, radiant energy, heat, cold, and electrotherapy.

416. Injury Evaluation: Lower Extremities. (3:3:0) Prerequisite: admission to athletic training program.

Basic principles of injury evaluation; evaluation techniques specific to lower-extremity injuries.

417. Injury Evaluation: Upper Extremities and Trunk. (3:3:0) Prerequisite: ExSc 416.

Injury evaluation techniques specific to the upper extremities and trunk.

418. Rehabilitation of Orthopedic Injuries. (3:3:0) F, W
Prerequisite: ExSc 415.

Basic principles, techniques, and progression of orthopedic/musculoskeletal rehabilitation.

419. Medical Issues in Athletic Training. (1:1:0) Prerequisite: ExSc 417 or concurrent enrollment.

Discussion of current medical issues in athletic training, with guest lectures by medical specialists.

423. Administration of Athletic Training Programs. (2:2:0)
Prerequisite: ExSc 415.

Management and administration of athletic training facilities and staff members.

430. Theory of Coaching. (2:2:2)

450. Psychology of Sport. (2:2:0)

455. Worksite Health Promotion. (3:3:0) F, W Prerequisite:
ExSc 363, 387.

Designing, implementing, managing, administering, marketing, and assessing health promotion programs in a worksite setting.

460. Orthopaedic Impairments and Therapeutic Exercise. (3:3:0)
Prerequisite: ExSc 362; PDBio 220 or equivalent.

Fundamentals of body mechanics and therapeutic exercise, coupled with kinesiological principles for detection and correction of basic neuromusculoskeletal anomalies.

461. Adapted Physical Education for Teaching Majors. (3:2:1)
Prerequisite: acceptance into PETE program.

Program, legal mandates, management techniques, and assessing and identifying special needs students.

468. Problems in Exercise Prescription. (2:2:0) Prerequisite:
ExSc 363.

Applying scientific principles to problems in conditioning.

470. Functional Neuroanatomy. (3:3:0) Prerequisite: PDBio 220,
ExSc 400.

Function, assessment, and rehabilitation of sensory and motor systems.

476. Elementary Student Teaching in Physical Education. (3:1:5)
Prerequisite: completion of courses in public school teaching major and instructor's consent.

485. Fitness Instructor Workshop. (3:3:0) Prerequisite: senior status.

Review of personal fitness trainer curriculum; preparation for American College of Sports Medicine certification.

494. Athletic Training Clinical Education 3. (2:1:5) Prerequisite:
ExSc 395.

Classroom and field experience. Modules include injury assessment and management, rehabilitation skills, and knowledge of general medical conditions.

495. Athletic Training Clinical Education 4. (2:1:5) Prerequisite:
ExSc 494.

Classroom and field experience. Modules include injury assessment and management, rehabilitation skills, nutrition, and dermatology.

496R. Academic Internship: Practicum. (1–8:0:Arr. ea.)
Prerequisite: ExSc 320, 420, and instructor's consent.

Academic and practical application of skills for athletic trainers.

497R. Undergraduate Research and Study. (1–4:0:Arr. ea.)
Individual research and study in any area of physical education.

498. Capstone Experience in Athletic Training. (2:2:0) F, W
Prerequisite: senior standing in athletic training education program. Course should be taken last semester prior to graduation.

Synthesizing and integrating student classroom and clinical experiences in preparation for BOC examination resulting in certification of allied health professionals.

500-Level Graduate Courses (available to advanced undergraduates)

501. Sports Medicine Pharmacology. (2:2:0) Prerequisite:
ExSc 320, 321; or equivalents.

Pharmacological information for students in a variety of sports medicine/allied health professions. Meets educational JRC-AT competencies.

560. Orthopaedic Pathomechanics. (2:2:1) Prerequisite: ExSc 460 or equivalent.

Advanced analysis of neuromusculoskeletal deformities and/or injury. Therapeutic exercise and the use of orthoses.

582. Physical Education for Special Populations. (2:2:0)
Prerequisite: baccalaureate degree in physical education.

Theoretical and practical aspects of teaching individuals with disabilities.

586R. Workshop in Fitness and Sport. (1–4:Arr.:Arr. ea.)
Prerequisite: undergraduate major in physical education or equivalent.

599R. Academic Internship: Practicum. (1–9:0:Arr. ea.)

Field experience for exercise science students; 50 hours of service in approved organization required per credit hour.

Graduate Courses

For 600- and 700-level courses, see the BYU 2006–2007 Graduate Catalog.

Exercise Sciences Faculty

Professors

Aldana, Steve (1994) BS, MS, Brigham Young U., 1986, 1988; PhD, Arizona State U., 1991.

Allsen, Philip Edmond (1966) BS, Ricks Coll., 1955; MS, Brigham Young U., 1960; EdD, U. of Utah, 1965.

Barker, Ruel M. (1971) BS, Utah State U., 1961; MS, EdD, Brigham Young U., 1964, 1971.

Conlee, Robert K. (1977) BS, MS, Brigham Young U., 1969, 1970; PhD, U. of Iowa, 1975.

Draper, David (1992) BS, Utah State U., 1982; MA, Brigham Young U., 1984; EdD, Northern Illinois U., 1988.

Knight, Kenneth L. (1996) BS, BS, Weber State U., 1969, 1973; PhD, U. of Missouri, 1977.

Lockhart, Barbara D. (1991) BS, MA, Michigan State U., 1964, 1967; EdD, Brigham Young U., 1971.

Mack, Gary (2004) BS, MA, U. of California, Davis, 1977, 1981; PhD, U. of Hawaii, 1984.

Myrer, William (1990) BS, U. of Calgary, Canada, 1974; MA, U. of Windsor, Canada, 1977; PhD, Brigham Young U., 1983.

Tucker, Larry (1988) BS, MS, Brigham Young U., 1978, 1979; PhD, Southern Illinois U., 1981.

Teaching Professionals

Hall, Larry Thomas (1978) BS, MS, Brigham Young U., 1970, 1971; PhD, U. of Utah, 1976.

Olson, Mel J. (1970) BS, MA, EdD, Brigham Young U., 1970, 1973, 1980.

Stiggins, Charles (1978) BS, MS, EdD, Brigham Young U., 1977, 1978, 1985.

Athletic Professionals

Poole, R. Craig (1980) BS, MS, Utah State U., 1964, 1967; EdD, U. of Utah, 1970.

Powers, Timothy J. (1975) BS, U. of Montana, 1968; MA, San Jose State U., 1973.

Associate Professors

Feland, Brent (1999) BS, Brigham Young U., 1993; MS, Texas Women's U., 1995; PhD, Brigham Young U., 1999.

George, Jim (1995) BS, MA, Brigham Young U., 1984, 1986; PhD, Arizona State U., 1995.

Kaiser, David A. (2000) BS, Brigham Young U., 1984; MS, PhD, U. of Florida, 1986, 1994.

Exercise Sciences

Parcell, Allen C. (1998) BS, Brigham Young U., 1993; MS, Iowa State U., 1995; PhD, Ball State U., 1998.
Pennington, Todd R. (1998) BS, Brigham Young U. 1991; MS, U. of Utah, 1995; PhD, Virginia Polytechnic Inst. and State U., 1998.
Vehrs, Pat Roy (2000) BS, MS, Northern Illinois U., 1984, 1986; PhD, Brigham Young U., 1991.
Wilkinson, Carol (1995) BEd, Durham U., England, 1976; MS, EdD, Brigham Young U., 1981, 1983.
Zanandrea, Maria (1995) BA, MS, EdD, Brigham Young U., 1983, 1985, 1992.

Associate Teaching Professionals

Chamberlain, Diane (1969) BA, California State U., Los Angeles, 1966; MS, Brigham Young U., 1969; EdD, U. of Utah, 1984.
Noel, Robert Edward (1979) BS, Brigham Young U., 1964.

Associate Athletic Professionals

Brockbank, Bruce (1992) BS, MS, Brigham Young U., 1990, 1992.
Bosco, Robbie (1990) BS, MA, Brigham Young U., 1985, 1989.
Crump, Wayne Stan (1991) BS, MA, Brigham Young U., 1978, 1988.
Holmoe, Thomas A. (2002) BS, MS, Brigham Young U., 1983, 1994.
Lamb, Barry (1994) BS, U. of Oregon, 1978; MA, Arizona State U., 1988.
Peterson, Thomas L. (2002) BS, MS, EdD, Brigham Young U., 1978, 1982, 1992.
Robison, Mark T. (1996) BS, MS, Brigham Young U., 1982, 1986.
Rose, David J. (1997) AS, Dixie Coll., 1980; BS, U. of Houston, 1983.
Russell, Keith (1992) BS, Brigham Young U., 1973.
Shane, Patrick (1985) BS, MS, Brigham Young U., 1968, 1970.

Associate Clinical Professional

Merrill, R. Gaye (1981) BS, Brigham Young U., 1978; MS, Indiana U., Bloomington, 1979.

Assistant Professors

Hager, Ron (1999) BS, MS, Brigham Young U., 1991, 1994; PhD, Arizona State U., 1997.
Hopkins, Jon Tyler (2003) BS, Brigham Young U., 1996; MS, PhD, Indiana State U., 1997, 2000.
Hunter, Iain (2001) BS, MEd, Brigham Young U., 1996, 1997; PhD, Oregon State U., 2001.
Prusak, Kevin (2002) BS, Brigham Young U., 1986; MEd, Utah State U., 1990; PhD, Arizona State U., 2000.
Vincent, Susan D. (2001) BS, MS, Brigham Young U., 1992, 1997; PhD, Arizona State U., 2001.

Assistant Athletic Professionals

Alvey, Vaughn (2002) BS, U. of Utah, 1970.
Bills, Allison H. (2001) BS, U. of Utah, 1998.
Bradford, Richard Todd (2003) BS, Southern Utah U., 1986.
Carpenter, Mari B. (2002) BS, Brigham Young U., 2000.
Chatterton, Jonas B. (2001) BS, U. of Utah, 2001.
DuBose, Grayson (2002) BA, Brigham Young U., 1993.
Eakin, Gordon (1999) BS, U. of Utah, 1978.
Empey, Michael D. (2000) BS, MS, Brigham Young U., 1994, 1996.
Eyestone, Ed D. (2000) BS, MS, Brigham Young U., 1985, 1990.
Hamblin, James O. (2002) BA, MEd, Brigham Young U., 1991, 2001.
Hanson, Mindy (2002) BA, Brigham Young U., 2002.
Hogan, Tiffany D. (2002) BS, Brigham Young U., 1998.
Judkins, Jeff (1999) BA, U. of Utah, 1984.
Kaufusi, Steve P. (2002) BS, Brigham Young U., 1994.
Law, Vance A. (1999) BS, Brigham Young U., 1978.
Legas, Richard (1996) BS, Brigham Young U., 1971; MS, Embrey Riddle U., 1987.
Manning, Craig (1997) BS, MS, Brigham Young U., 1995, 2001.
McClure, Justin (2003) BA, MA, U. of Northern Colorado, 1998.
Mendenhall, Bronco (2003) BS, MA, Oregon State U., 1989, 1990.
Mertz, Shauna (1996) BS, Brigham Young U., 1993.
Mitchell, Brian K. (1996) BS, Brigham Young U., 1995.
Myles-Mills, Leonard (2002) BS, Brigham Young U., 1999.
Nyhus, Susan B. (1999) BS, MS, Brigham Young U., 1986, 1987; PhD, U. of Utah, 1992.

Omer, Jay (2001) BS, Southern Utah State U., 1972; MEd, Auburn U., 1985.
Patchell, Shawn E. (2002) BA, Brigham Young U., 1993; MA, U. of California, Irvine, 1999.
Pearce, Brad (2000) BS, Brigham Young U., 1999.
Pullins, Gary D. (1976) BA, MA, Brigham Young U., 1969, 1975.
Ramos, Robert J. (2002) BS, MS, Brigham Young U., 1995, 1999.
Reynolds, Lance (1983) BS, Brigham Young U., 1980.
Roberts, Ryan A. (2002) BS, Brigham Young U., 1998; MEd, Utah State U., 2002.
Rockwood, Jennifer (1996) BA, Brigham Young U., 1989.
Skabelund, Shari (1996) BS, Brigham Young U., 1981.
Tidwell, Paul (2001) BA, Southern Utah State U., 1979.
Toolson, Andrew Kent (2001) BA, Brigham Young U., 1990; MA, Syracuse U., 1999.
Wardenburg, John Nathan (2001) BS, Brigham Young U., 1986; MS, Utah State U., 1992.
Watkins, Chris (1998) BS, Brigham Young U., 1994.
Watson, Jason (2002) BS, Brigham Young U., 1995.

Assistant Clinical Professionals

Curtis, George (1985) BS, Southern Utah State Coll., 1971.
Empey, William Blain (1998) BS, Brigham Young U., 1991; MS, Columbia U., 1993.

Athletic Clinician

Morris, Kevin (2000) BS, Brigham Young U., 1992.

Emeriti

Bestor, Rollie R. (1969) BS, MS, U. of Wisconsin, Madison, 1954, 1958; EdD, Brigham Young U., 1969.
Blakemore, Connie L. (1978) BS, U. of Utah, 1960; MS, Brigham Young U., 1967; EdD, Temple U., 1984.
Bunker, Robert E. (1949) BS, Utah State U., 1937.
Call, C. Boyd (1960) BS, U. of Utah, 1950; MS, Brigham Young U., 1963; PhD, U. of Oregon, 1967.
Clarke, Mark S. (1982) BS, U. of Arizona, 1963; MS, EdD, Brigham Young U., 1964, 1971.
Cryer, Walter (1964) BS, MS, U. of Illinois Medical, 1952, 1959; EdD, Brigham Young U., 1975.
Durrant, Earlene (1973) BS, MS, EdD, Brigham Young U., 1962, 1963, 1975.
Edwards, R. LaVell (1962) BS, Utah State U., 1952; MS, U. of Utah, 1960; EdD, Brigham Young U., 1978.
Felt, Richard G. (1967) BS, MA, Brigham Young U., 1958, 1980.
Fisher, A. Garth (1969) BS, Brigham Young U., 1955; MA, Sacramento State Coll., 1966; PhD, U. of New Mexico, 1969.
Francis, Rulon S. (1963) BS, MS, Brigham Young U., 1952, 1967; PhD, U. of Utah, 1971.
French, Roger W. (1980) BS, U. of Minnesota, Minneapolis, 1956; MA, Memphis State U., 1958.
Harrison, Joyce M. (1969) BA, MA, California State U., Long Beach, 1964, 1966; EdD, Brigham Young U., 1973.
Hawkes, Nena Rey (1960) BS, Utah State U., 1954; MS, Brigham Young U., 1965; PhD, Union Inst., 1993.
Hirschi, Willard M. (1964) BS, Brigham Young U., 1956; MS, Arizona State U., 1960.
Hirst, Cynthia C. (1948) BA, U. of Utah, 1947; MS, U. of Washington, 1952; PhD, U. of Utah, 1974.
Jarman, Boyd O. (1969) BS, Brigham Young U., 1954; MS, EdD, U. of Oregon, 1959, 1965.
Jensen, Clayne R. (1964) BS, MS, U. of Utah, 1952, 1956; EdD, Indiana U., Bloomington, 1963.
Jones, J. Richard (1961) BS, MS, Brigham Young U., 1951, 1955; EdD, U. of Northern Colorado, 1967.
Kimball, C. Rodney (1947) BS, MS, Brigham Young U., 1955, 1963.
Leishman, Courtney M. (1962) BS, Utah State U., 1958; MS, EdD, Brigham Young U., 1962, 1976.
Lewis, Kathryn (1972) BS, Brigham Young U., 1955; MA, Long Beach State Coll., 1962; EdD, Brigham Young U., 1978.
McGown, Carl M. (1972) BS, MS, Brigham Young U., 1963, 1964; PhD, U. of Oregon, 1971.
Michaelis, Elaine (1960) BS, MS, Brigham Young U., 1960, 1962.
Osborne, James H. (1991) BS, U. of Utah, 1969.

Pella, Chris (1986) BS, Utah State U., 1966.
 Ramage, Thomas J. (1973) BS, MS, Utah State U., 1957, 1962.
 Roundy, Elmo S. (1963) BS, MEd, Brigham Young U., 1953, 1956;
 EdD, U. of California, Los Angeles, 1965.
 Schmidt, Kenneth (1983) BS, MS, U. of Utah, 1964, 1969.
 Silvester, L. Jay (1969) BS, MS, Utah State U., 1959, 1970; EdD,
 Brigham Young U., 1976.
 Tucker, Karl L. (1961) BS, MS, Brigham Young U., 1952, 1964.
 Valentine, Ann (1966) BS, Slippery Rock State Coll., 1955; MS,
 Pennsylvania State U., 1961.
 Vickers, Betty J. (1971) BS, Kent State U., 1955; MA, California
 State U., Los Angeles, 1960; EdD, Brigham Young U., 1976.
 Wallace, Lu (1956) BS, Utah State U., 1954; MS, Washington State
 U., 1960.
 Witbeck, Alan R. (1955) BS, MS, Brigham Young U., 1952, 1954.

School of Family Life

James M. Harper, Director
 1041D JFSB, (801) 422-9094

David C. Dollahite, Associate Director for Outreach
 2054 JFSB, (801) 422-4179

Susanne Olsen Roper, Associate Director for Curriculum
 1041H JFSB, (801) 422-7170

D. Russell Crane, Director of Family Studies Center
 1053F JFSB, (801) 422-4452

College of Family, Home, and Social Sciences Advisement Center
 151 SWKT, (801) 422-3541

Admission to Degree Program

All degree programs in the School of Family Life are open enrollment. However, special limitations apply for teaching majors.

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	Home and Family Living
BS	Family and Consumer Sciences Education
BS	Marriage, Family, and Human Development
Minors	Family Life
	Marriage, Family, and Human Development
	Gerontology

Students should see their college advisement center for help or information concerning the undergraduate programs.

Graduate Programs and Degrees

MS	Marriage, Family, and Human Development
MS	Marriage and Family Therapy
MS	Youth and Family Recreation
PhD	Marriage, Family, and Human Development
PhD	Marriage and Family Therapy
PhD	Sociology with Emphasis in Studies of the Family

For more information see the BYU 2006–2007 Graduate Catalog.

School of Family Life

Minor Family Life (17–18 hours*)

Minor Requirements

1. At least one course in marriage, family, and human development and one course in home and family living.
2. Complete the following course:
 FamLf 100.
3. Complete two of the following courses:
 HFL 223 or 224; 371.
 MFHD 160, 210, 240; 333 or Psych 321; 334.
 Rel C 234.

- Complete one of the following courses:
Bus M 200.
HFL 350, 472.
- Complete two of the following courses:
Anthr 431.
HFL 100, 110, 340, 370, 489.
Hist 319 or 378.
Hlth 436.
Nurs 288.
Rel C 261.
RMYL 301.

Note: Any course not taken from item 3 may also fulfill the requirements for this category. One course cannot count in two categories.

*Hours include courses that may fulfill university core requirements.

Family Life (FamLf)

Undergraduate Course

100. Strengthening Marriage and Family: Proclamation Principles and Scholarship. (3:3:0) F, W, Sp, Su

Understanding, applying, and sharing principles of successful marriage and family life from the LDS proclamation on the family, using sacred and scholarly perspectives.

305. Family, School, and Community Partnerships. (2:2:0.5) F, W, Su Prerequisite for TESOL teaching minors: concurrent enrollment in El Ed 477R or Sc Ed 477R. There are no prerequisites for non- TESOL teaching students.

Standards, principles, policies, and processes for partnering with parents, families, schools, and communities in fostering and sustaining the development of children and youth.

Home and Family Living

The Discipline

The home is the basis of a righteous life, and no other instrumentality can take its place or fulfill its essential functions.

—Letter from the First Presidency to members of the Church throughout the world, February 11, 1999

Home and family living fosters the study of the home as a sacred center for everyday family life and as the basis for a vital community. Theory, research, and practice are used to

- illuminate the value of everyday home life,
- foster wellness and provident living in meeting practical human needs such as feeding, housing, clothing, and financing the family,
- value the potential that practical human needs present for the moral and temporal development of family members,
- promote religious and community involvement that maintains and strengthens home and family as the fundamental unit of society, and
- prepare individuals as professional and everyday home and family educators.

Career Opportunities

Students can choose from two majors with distinct futures in the job market: home and family living or family and consumer sciences education. The first major prepares students for successful home and family living but also enables them to develop an area of interest that leads to a home-based business or other professional endeavor. The second major prepares students to be licensed by the State of Utah for teaching in secondary schools. This teaching license can be transferred to other states upon meeting their requirements. Students may also find employment in business and the USDA's Cooperative Extension program.

BS Home and Family Living (41–42 hours*)

Major Requirements

- At least 15 hours of major credit must be taken in residency at BYU.
- Complete the following:
FamLf 100.
HFL 100, 260.
MFHD 210.
- Complete five lower division courses from the following:
HFL 102, 110, 180, 185R, 202, 210, 223, 224, 230, 282, 287.
MFHD 160, 240.
- Complete 9 credit hours from the following:
HFL 319, 328, 329, 333, 335, 340, 360, 370, 371, 380, 387, 395R, 397, 399R, 461, 472, 488R, 489.
- Complete 6 additional hours from the following:
Any HFL or MFHD courses not previously counted.
Bus M 200, 372.
Hlth 436.
NDFS 100, 200, 201, 250, 251.
PAS 103, 112.
RMYL 301.

Note: Students who complete an internship (399R) or semester-away experience will have opportunities to meet with practicing professionals and enlarge their understanding of a particular workplace. Students are strongly encouraged to seek and complete an internship after completing a majority of the requirements for the major.

Possible Specializations

Though some students may desire a generalist approach, others may want to consider a specialization to further personal development or be positioned in a home industry or other professional endeavor. Some possibilities (using courses listed in items 3, 4, and 5 above) include:

Foods

HFL 110, 210, 340.
NDFS 100, 200, 250, 251.

Clothing Design and Construction

HFL 180, 185R, 282, 287, 380, 387, 397.

Housing/Interiors

HFL 102, 202, 230, 282, 328, 329.

Family Finance

Bus M 200, 372.
HFL 260, 360, 395R.

Community Involvement

Comms 100.
HFL 333, 370, 461, 489.
MFHD 498.
Soc 112.

*Hours include courses that may fulfill university core requirements.

BS Family and Consumer Sciences Education (87–90 hours*, including licensure hours)

Major Requirements

- At least 15 hours of major credit must be taken in residency at BYU.
- No D credit allowed in major courses.
- Complete the following prerequisite course or equivalent experience:
HFL 185R.

4. Complete the following:
FamLf 100.
HFL 100, 102, 110, 230, 260, 282, 287, 340.
MFHD 210, 221, 222, 240.
NDFS 100.
5. Complete at least two courses from the following:
HFL 180, 380, 387, 397.
6. Complete one course from the following:
HFL 202, 328, 329.
7. Complete one course from the following:
HFL 335, 360, 370, 371, 400R, 489.
Hlth 436.
NDFS 201.
8. Complete one course from the following:
HFL 223, 224.
9. Complete two courses from the following:
HFL 210.
NDFS 200, 201, 250, 251.
10. Complete the Professional Education Component:
 - a. Complete the following:
CPSE 402.
HFL 377.
IP&T 286.
Sc Ed 276R, 350, 353, 378.

Note: Fingerprinting and FBI clearance must be completed before registration in HFL 377.
 - b. Complete 12 hours from the following:
Sc Ed 476R.

*Hours include courses that may fulfill university core requirements.

Home and Family Living (HFL)

Undergraduate Courses

- 100. Home and Family Living.** (3:3:0) F, W, Sp, Su
Creating home as a sacred center for individual, marital, and family development; how temporal activities in the home have spiritual importance.
- 102. (HFL-VADES) Introduction to Interiors.** (3:3:0) F, W, Sp, Su
Interior design, emphasizing history and development of the American home.
- 110. Food Preparation in the Home.** (2:1:2) F, W, Sp, Su
Principles of cooking and skill development in food preparation techniques. Lab required. Fee.
- 180. Clothing the Family.** (3:3:0)
Comprehensive approach to consumer economics of clothing selection and care for individuals across the family life cycle and across cultures. Adapting clothing to meet diverse individual (physical and psychological) needs in the market-oriented economy.
- 185R. Beginning Clothing Construction.** (3:3:5 ea.) F, W, Sp, Su
Basics of using a sewing machine for making apparel. Student-supplied materials required.
- 202. Design in the Home.** (3:3:0) F, W, Sp Prerequisite: HFL 102.
Intermediate application of elements and principles of design in the home.
- 210. Advanced Food Preparation.** (3:2:3) Prerequisite: HFL 110.
Lecture, readings, and intense practicum in food preparation, food preservation and storage, presentation, consumerism, equipment usage, and social/familial aspects of food. Lab required. Fee.
- 223. Preparation for Marriage.** (3:3:0) F, W, Sp, Su
Factors related to quality relationships, mate selection, and the transition into marriage.
- 224. Marriage Enhancement.** (3:3:0) F, W, Sp
Designed primarily for those who are married or engaged. Couples are encouraged to enroll together.
- 230. Housing the Family.** (3:3:0) F, W
Social-psychological, economic, and political aspects of housing families; making selections that will enhance the quality of housing, increase productivity, and protect the health, safety, and well-being of the family across the life cycle.
- 260. Family Finance.** (3:3:0) F, W, Sp, Su
Introduction to time value of money, budgeting, saving, credit, taxes, housing, insurance, and investing, emphasizing practical application in the home.
- 282. Textiles.** (3:3:2) F, W
Natural and synthetic textile fibers, yarns, fabric construction, dyes, and finishes. Care and performance of textile fabrics for clothing and household use.
- 287. Intermediate Clothing Construction.** (3:3:5) F, W, Sp
Prerequisite: HFL 185R or equivalent sewing skills.
Assessing and executing various construction methods, including construction of several full-scale garments. Student-supplied materials required. Fee.
- 319. The Family in Fiction.** (3:3:0)
Concepts, theories, and insights about family life as illustrated in various works of great literature.
- 328. (HFL-VADES) History of Interior Design and Architecture 1.** (3:3:0) F, W, Sp
History of interior design, architecture, and furnishings from ancient Egypt to beaux arts movement. French, English, and American design.
- 329. (HFL-VADES) History of Interior Design and Architecture 2.** (3:3:0) F
Furniture, interior design, and architecture from Industrial Revolution to present.
- 333. Religion in the Home.** (3:3:0) F, W
How families of various faiths live their religion in their homes, with emphasis on practical, day-to-day home and family life rather than on abstract theology.
- 335. Household Equipment.** (3:2:4)
Selection and performance of cookware and small and large household appliances; equipment function based on physical science principles; consumer use and energy conservation.
- 340. Family Meal Management.** (3:2:3) F, W Prerequisite: HFL 110 or instructor's consent.
Organizing and managing time, energy, finance, and nutrition in planning, preparing, and serving family meals; ethnic and cultural diversity in etiquette and meal planning. Lab required. Fee.
- 360. Advanced Family Finance.** (3:3:0) F, W Prerequisite: HFL 260.
Time value of money principles applied to family finance.
- 361. Money in the Family.** (3:3:0) F, W, Su Prerequisite: HFL 260, 360.
Money attitudes and financial behaviors in the family—distinguishing between living high and living well. Mentored learning course.
- 370. Families in Communities.** (3:3:0) F
How families successfully interact with their external contexts (school, church, workplace, legal system, health care, media, etc.) in patterns of mutual influence.
- 371. Work and Relationships in the Home.** (3:3:0) F, W, Sp Prerequisite: MFHD 160.
Theoretical and practical implications of interplay between household work, family relationships, and human resource development.

377. Teaching Methods and Instruction in Family and Consumer Sciences Education. (3:6:0) F Prerequisite: Sc Ed 276R; fingerprinting and FBI clearance; concurrent enrollment in Sc Ed 378.

Developing meaningful and engaging instruction for secondary students in family and consumer sciences education; developing critical thinking, problem solving, literacy, and democratic character; assessing learner performance.

380. History of Apparel. (3:3:0) W

Costume, clothing, and textiles as mediums for understanding the stages and states of individuals, families, and societies; apparel diversity and cultural identity.

387. Advanced Clothing Studies: Patternmaking. (3:3:5) F, Su Prerequisite: HFL 287 or equivalent sewing skills.

Flat pattern design, basic drafting, and basic draping for women's apparel. Student-supplied materials required.

395R. Special Topics in Home and Family Living. (1-3:Arr.:0 ea.) F, W, Sp, Su

Various topics in home and family living.

397. Advanced Clothing Studies. (3:3:5) F, W Prerequisite: HFL 287 or equivalent sewing skills.

Fitting skills and advanced clothing construction techniques. Fee.

399R. Academic Internship: Home and Family Living. (1-9:0:0 ea.) F, W, Sp, Su

Supervised on-the-job experience in areas related to home and family living.

400R. Teaching Practicum. (1-3:Arr.:Arr. ea.) F, W, Sp, Su

Qualified students provide instruction for pre-selected labs in HFL classes.

403R. Research/Creative Works Practicum. (1-3:Arr.:0 ea.) F, W, Sp, Su Prerequisite: FamLf 100, HFL 100.

Research/Creative works experience in a project directed by a faculty.

461. The Family and the Law. (3:3:0) F, W, Sp Prerequisite: MFHD 160.

Legal environment of the family system, with emphasis on husband-wife and parent-child relationships, rights, and responsibilities.

472. Temporal Welfare in Families. (3:3:0) Prerequisite: MFHD 160 or instructor's consent.

Assumptions, philosophy, and theory accounting for resource allocation, use, and meaning in families.

488R. Seminar: Home-Based Entrepreneurs. (1:1:0) F, W

Exploration of home-based businesses through interaction with practicing professionals.

489. The Family and Public Policy. (3:3:0) F

Investigation of public policy processes related to legislation and laws affecting home economics/home and family life. Funding and grantsmanship.

492R. Supervised Instructional Experience. (1-3:Arr.:0 ea.) F, W, Sp, Su Prerequisite: instructor's consent.

Course-related instructional experiences under supervision of faculty member.

Marriage, Family, and Human Development

The Discipline

The marriage, family, and human development (MFHD) program centers on theories, research, and practices related to optimal human development within the context of family life. It provides a life-course perspective by which human development, marriage, and family experience can be understood and improved. Provided with critical and current information about marriage, the family, and human development disciplines, students learn

how children, youth, adults, couples, and families develop, change, and face challenges throughout the life course (infancy, childhood, adolescence, adulthood). The teaching strategy of the marriage, family, and human development program reflects a strong commitment to improved critical thinking and better problem-solving skills as students become involved in mentored learning research and outreach experiences.

Career Opportunities

A bachelor's degree in MFHD is a broad liberal arts degree designed to assist students as they seek professional activity (as volunteers or for pay) in settings where knowledge of individual, marital, and family well-being is valued. A bachelor's degree in marriage, family, and human development prepares graduates to make significant contributions locally (e.g., helping one's own family, church, and local community) or professionally (e.g., working in the community services profession as a volunteer or paid professional for worldwide human and family service-based organizations).

Some MFHD graduates are employed in community action centers such as Head Start, marriage preparation and enrichment, family services, domestic violence programs, family support centers, child care centers, residential treatment centers, programs for the elderly, juvenile correction programs, and youth programs. Still other students prepare for volunteer-based community intervention (e.g., Habitat for Humanity, Red Cross, and the Muscular Dystrophy Association).

Additionally, MFHD is an excellent undergraduate preparation for those pursuing graduate school in marriage and family, marriage and family therapy, and human development research. Others seek professional certifications by obtaining advanced degrees in school counseling, clinical gerontology, or clinical psychology.

Some students receive a provisional Certified Family Life Educator (CFLE) credential along with a BS degree. Accredited by the National Council on Family Relations (NCFR), the CFLE prepares students for teaching in community settings but not in public, state-run schools and is an additional proof of specialization in the family field.

For students who are interested in teaching opportunities in public schools, a major in early childhood education is available through the Teacher Education Department in the David O. McKay School of Education. This certification qualifies individuals to teach kindergarten through third grade in public and private schools. The MFHD program provides foundation courses for those preparing to enter early childhood education programs (see Teacher Education Department for a list of these courses).

In addition, an early childhood emphasis is offered in marriage, family, and human development for students preparing for family life and/or vocations that do not require certification.

BS Marriage, Family, and Human Development

(48 hours*)

Major Requirements

1. At least 18 hours of upper-division major course work must be taken in residency at BYU.
2. Complete the following:
FamLf 100.
3. Complete the following lower-division core courses:
MFHD 160, 210, 290.
Stat 221.
4. Complete 12 hours from the following upper-division core courses:
MFHD 329, 331, 333, 334, 335, 351.

- Complete 15 hours from the following upper-division elective courses:
MFHD 349, 352, 353, 354, 355, 410, 451, 465, 498.
- Complete 3 hours from the following:
HFL 223, 224, 260, 370, 371, 461, 472, 489.
Hlth 436.
MFHD 221, 222, 240, 356, 395R, 420.
RMYL 301.
- Complete 3 hours from one of the following capstone courses:
MFHD 399R, 403R, 480.

Possible Specializations

Students wanting to focus in a particular area may consider one of the four possibilities listed below. (These are not separate degree tracks, but they are possible areas of focus.) Some courses may be in addition to the required 48 hours for the major.

Child and Family Services

- Complete 12 hours from the following:
MFHD 229, 333, 334, 335, 351.
- Complete one of the following:
HFL 461.
MFHD 240, 356.
- Complete the following:
MFHD 399R, 465.

Early Childhood

Complete the following elective courses:
Bus M 300.
MFHD 221, 222, 240, 354, 355, 420.

Human Development

- Complete the following:
MFHD 240, 331, 333, 334, 351.
- Complete five courses from the following:
MFHD 349, 352, 353, 354, 355, 410.

Marriage and Family Life Educator

A recommended 0.5-credit block 395R seminar course will be offered yearly to introduce students to the certified family life educator (CFLE) program. Students desiring to become a provisional CFLE must fulfill requirements for ten areas of expertise:

- Families in Society: HFL 370 and 371; or MFHD 354.
- Internal Dynamics of Families: MFHD 160.
- Human Growth and Development: MFHD 210, 334.
- Human Sexuality: Hlth 436.
- Interpersonal Relationships: HFL 223 or 224 or MFHD 329; MFHD 335.
- Family Finance: HFL 260.
- Parent Education and Guidance: MFHD 240.
- Family Law or Public Policy: HFL 461 or 489.
- Ethics: MFHD 480 or 498.
- Family Life Education Methodology: MFHD 399R, 498.

*Hours include courses that may fulfill university core requirements.

Minor Marriage, Family, and Human Development

(18 hours*)

Minor Requirements

- Complete the following:
MFHD 160, 210; 290 or equivalent.
- Complete 9 hours of any 300- and 400-level MFHD courses.

*Hours include courses that may fulfill university core requirements.

Minor (or Certificate) Gerontology (15 hours)

Minor Requirements

- Course list must receive approval from the director:
Dr. Rick Miller, 1041 JFSB, telephone: (801) 422-2860, fax: (801) 422-0225, e-mail: rick_miller@byu.edu
- Complete 3 hours from one of the following:
Hlth 496R.
MFHD 399R.
RMYL 496R.
- Complete 6 hours from the following:
Hlth 466.
MFHD 334.
RMYL 307.
Soc 365.
- Complete 6 hours from the following:
Hlth 320, 496R.
MFHD 210, 399R.
NDFS 100.
PDBio 205, 220.
Psych 322, 342.
RMYL 496R.
Soc W 366, 496R, 567.
Other electives approved by the academic advisor.

Marriage, Family, and Human Development (MFHD)

Undergraduate Courses

160. Introduction to Family Processes. (3:3:0) F, W, Sp, Su Honors also.

Ways of strengthening family life by understanding such family processes as generations, emotions, communication, and rituals.

210. Human Development. (3:3:0) Independent Study also.

Growth and development of the child from conception through adolescence; influences of family, peers, and schools.

221. Foundations of Developmentally Appropriate Practices in Programs for Young Children. (2:2:0) F, W Prerequisite: MFHD 210.

Historical, philosophical, organizational, and curricular issues related to developmentally appropriate practices in programs for young children.

Note: Due to enrollment constraints, MFHD 221 may not be retaken to improve a grade unless approved by the Child and Family Studies Laboratory Steering Committee.

222. Practicum in Developmentally Appropriate Practices. (2:0:12) F, W Prerequisite: MFHD 210, 221; 240 or concurrent enrollment.

Initial practicum with young children to increase understanding of socialization and learning processes, to create meaningful learning opportunities, and to implement developmentally appropriate practices.

Note: Due to enrollment constraints, MFHD 222 may not be retaken to improve a grade unless approved by the Child and Family Studies Laboratory Steering Committee.

240. Parenting and Child Guidance. (3:3:0) F, W Independent Study also.

Theories and skills related to quality parent-child relationships.

290. Critical Inquiry and Research Methods. (3:3:0) F, W Prerequisite: MFHD 160, 210, or instructor's consent.

Philosophies of critical inquiry. Principles of designing, conducting, and reporting social science investigations.

324. Teaching Children a Second Language. (3:2:1)

Strategies for teaching children a second language in the home and in the classroom. Practice teaching in lab school.

329. Forming Marital Relationships. (3:3:0) F, W, Sp Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.

Critical analysis of literature regarding dating, spouse selection, and transition to marriage processes leading to successful marriage. Preparation for research and teaching in the field.

331. Infant Development in the Family. (3:3:0) Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.

Conception, prenatal development, pregnancy. Physical, cognitive, and social development of the first twenty-four months. Implications for guidance and care in the family.

333. (MFHD-Soc 318) Adolescent Development in the Family and Other Social Contexts. (3:3:0) F, W

Examining the developmental and social contexts of adolescents with emphasis on the importance of the family. Other contexts include peers, religion, community, schools, and cross-cultural issues.

334. Adult Development and Aging in the Family. (3:3:0) Prerequisite: MFHD 160 or instructor's consent.

Adjustments to physical, emotional, social, and economic changes. Needs arising from changes in family relationships, living arrangements, and employment; retirement planning.

335. Family Adaptation and Resiliency. (3:3:0) F, W, Sp Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.

Understanding family resiliency and building family strengths in normative transitions (birth, death, job) and nonnormative transitions (divorce, disability, remarriage, poverty, violence). Developing familial, social, religious, and instrumental resources to adapt positively to these transitions.

349. Biological Foundations of Human Development. (3:3:0) F, W Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.

Biological, genetic, and neurological foundations of human development and their interactions with family socialization processes.

351. Socialization Across Childhood. (3:3:0) Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.

Processes and sequences of social development across childhood.

352. Cognitive Development. (3:3:0) Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.

Development of mental abilities; effects of maturation and learning on memory, perception, attention processes, intelligence, social cognition.

353. Moral Development. (3:3:0) Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.

Moral traditions, normative ethics, psychological theories, social contexts and theories of social and moral development.

354. Cross-Cultural Family and Human Development. (3:3:0) Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.

Comparative study of familial, social, and other factors in development.

355. Language Development. (3:3:0) Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.

Philosophical, social, intellectual, and emotional contexts of language acquisition and usage.

356. Interactional Interviewing Skills in Family Sciences. (3:3:1) F, W, Sp

Interactional counseling techniques, issues, and theories; skill development in dyadic and family interaction observation. Lab required.

395R. Special Topics in Marriage, Family, and Human Development. (1–3:0:0 ea.) Independent Study also. Prerequisite: instructor's consent.

Topics include the single adult in family and society, duolingual parenting, and readings in family sciences.

399R. Academic Internship. (1–9:Arr.:Arr. ea.) Prerequisite: program coordinator's consent.

Supervised local and out-of-state professional experiences (45 hands-on hours required per credit). Opportunity to link academic learning with experience in field. Parallel and immersion programs available.

403R. Research Practicum. (0.5–3:Arr.:Arr. ea.) Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.

Research experience in a project directed by a faculty member.

410. Advanced Issues in Human Development. (3:3:0)

Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.

Evaluation of research on physical, mental, emotional, and social development.

420. Administering Programs for Young Children. (2:2:0)

Prerequisite: MFHD 221, 222.

Strategies for planning and administering quality programs in settings for young children. Budgeting, staffing, accrediting, selecting equipment, etc.

451. Theories in Family Perspective. (3:3:0) F, W, Sp Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.

Introduction of major theoretical perspectives and of philosophical issues. Readings include representative papers applying theoretical and philosophic tenets.

465. Survey of Marriage and Family Enrichment/Therapy Approaches. (3:3:0) F Prerequisite: MFHD 160 or instructor's consent.

Theories and techniques. Professional family enrichment and therapy applied to couples and families.

480. Moral Foundations of Family Life. (3:3:0) Prerequisite: MFHD 160, 210, 290, Stat 221; or equivalents.

How the moral domain is central to human experience; implications for family life of theories and practices that acknowledge agency and the ethical.

492R. Supervised Instructional Experience. (1–3:Arr.:Arr. ea.) F, W, Sp, Su

Course-related instructional experiences under supervision of faculty member.

498. Family Life Education. (3:3:0) Prerequisite: senior standing; instructor's consent.

Developing competencies in basic principles of family life education: curriculum design, development, implementation, and evaluation.

500-Level Graduate Courses (available to advanced undergraduates)

501R. Workshop in Marriage, Family, and Human Development. (1–2:2:0 ea.) Prerequisite: 8 hours in marriage, family, and human development or department chair's consent.

Intensive study in applying principles of specified family sciences, subject matter in early childhood education, child development, family relationships, family resource management, or marriage/family therapy.

510. Seminar in Intellectual Development. (3:3:0) Prerequisite: MFHD 514.

Current theories and research on intellectual development.

511. Familial Influences on Children's Social Development. (3:3:0) Prerequisite: MFHD 331 or higher.

Current theories and research on social development, peer relations, and behavior. Familial/parenting effects as moderated by beliefs, genetics, gender, social cognitions, culture, child guidance, interventions.

512. Emotional and Moral Development. (3:3:0) Prerequisite: instructor's consent.

Research, theories, and educational implications; preschool through adulthood.

514. Theories of Human Development. (3:3:0) Prerequisite: MFHD 331 or higher.
Models and concepts in dominant contemporary developmental theories.

540. Family Economics. (3:3:0)
Economic functioning of household; role of income, employment, and household production as determinants of family living level.

542. Work and Family. (3:3:0)
Introduction to contemporary work/family issues. Framework for helping parents and managers deal effectively with work/family issues at work and home.

545. Family Financial Resource Management. (3:3:0) Sp; Su even yr. Prerequisite: instructor's consent.
Applying theories and principles in managing financial resources to meet needs of individuals and families.

550. (MFHD-Soc) Contemporary Family Theories. (3:3:0) Prerequisite: MFHD 451, Soc 310, 311; or equivalents.
Introduction to basic micro, macro, and processual approaches to study of the family; social and political theory on the family; philosophical issues and assumptions underlying family theory, research, and practice.

551. Fathering: Scholarship and Intervention. (3:3:0) Prerequisite: instructor's consent.
Quality fathering across cultures and in varied family circumstances. Historical changes in fathering; challenges to good fathering; effective interventions with fathers.

561. Seminar in Family Law. (3:3:0) Prerequisite: concurrent enrollment in HFL 461.
Intensive investigation of issues and concepts influencing legal aspects of marriage and family life.

566. Family Life Education in the University. (1-3:Arr.:0) Prerequisite: instructor's consent.
Delivering family life education in university settings. Working with a faculty mentor, making presentations, and preparing basic instructional materials.

567R. Practicum in Family Life Education. (1:1:0 ea.) Prerequisite: MFHD 566 or instructor's consent.
Supervised experience teaching family living courses in a university setting.

570. Paradigms in Family Process and Analysis. (3:3:0) Prerequisite: HFL 371 or equivalent.
Alternative perspectives on family management, governance, and participation, with emphasis on modernist/management vs. familial orientations affecting leadership, parenting, autonomy and choice, altruism and individualism.

591. Graduate Research Methods. (3:3:0) Prerequisite: MFHD 290, Stat 221; or equivalents.
Building on introductory knowledge, learning and exploring the quantitative research designs most commonly used in marriage, family, and human development studies.

595R. Special Topics in Marriage, Family, and Human Development. (1-2:2:0 ea.) Prerequisite: for marriage, family, and human development major; instructor's consent.
Individual study for qualified students.

Graduate Courses

For 600- and 700-level courses, see the BYU 2006-2007 Graduate Catalog.

Marriage and Family Therapy (MFT)

Undergraduate Courses

330. Preprofessional Preparation for Marriage and Family Therapy. (1:1:0)
Overview of profession, licensing, and application to graduate study.

395R. Special Topics in Marriage and Family Therapy. (1-3:0:0 ea.) Prerequisite: instructor's consent.
Current important topics in the profession of marriage and family therapy.

403R. Research Practicum. (1-3:Arr.:0 ea.)
Research experience with professor and undergraduate team.

500-Level Graduate Courses (available to advanced undergraduates)

501R. Workshop in Marriage and Family Therapy. (1-2:2:0 ea.) Prerequisite: instructor's consent.
Training in delivery of and research about psychoeducational programs for couples and families.

590R. Readings in Marriage and Family Therapy. (1-2:2:0 ea.) Prerequisite: instructor's consent.
Discussions and reports of current readings.

595R. Special Topics in Marriage and Family Therapy. (1-2:2:0 ea.) Prerequisite: marriage and family therapy major status; instructor's consent.
Individual study for qualified students.

Graduate Courses

For 600- and 700-level courses, see the BYU 2006-2007 Graduate Catalog.

School of Family Life Faculty

Professors

Beutler, Ivan F. (1981) BS, MS, Utah State U., 1969, 1970; MS, PhD, Purdue U., 1972, 1974.
Busby, Dean M. (2005) BA, U of Utah, 1986; MS, PhD, Brigham Young U., 1988, 1990.
Crane, D. Russell (1983) BA, California State U., Hayward, 1975; MS, PhD, Brigham Young U., 1978, 1979.
Day, Randal D. (1999) BS, MS, Brigham Young U., 1973, 1974; MS, U. of Wisconsin, Madison, 1975; PhD, Brigham Young U., 1979.
Dollahite, David C. (1993) BA, MS, Brigham Young U., 1983, 1985; PhD, U. of Minnesota, 1988.
Draper, Thomas W. (1982) BS, MS, Brigham Young U., 1971, 1973; PhD, Emory U., 1976.
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