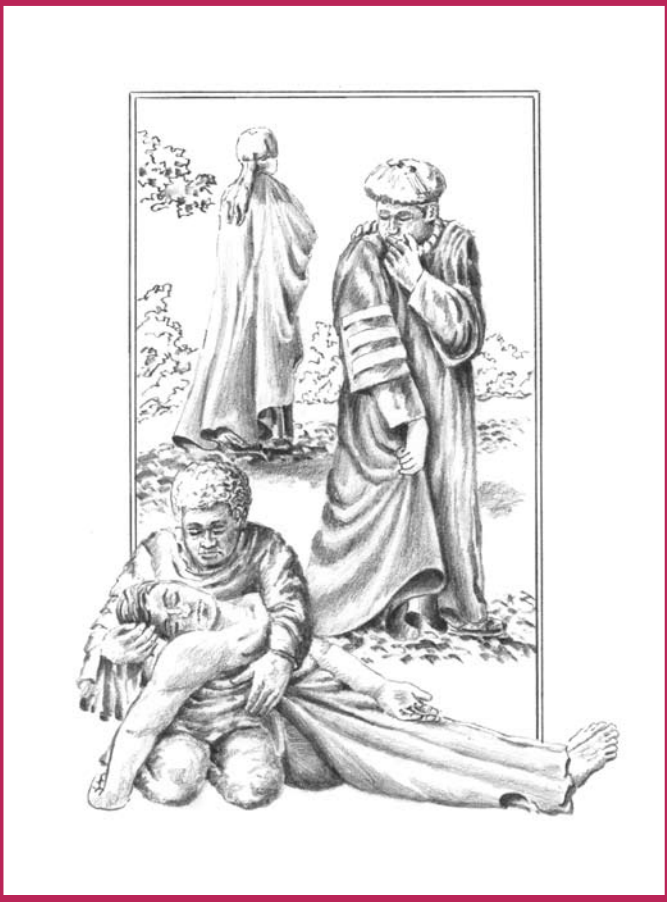
Loma Linda University



School of Allied Health Professions

2000 ❧ 2001

Cardiopulmonary Sciences
Respiratory Therapy
Emergency Medical Care
Physician Assistant
Surgical Technology

Clinical Laboratory Sciences
Phlebotomy
Cytotechnology
Clinical Laboratory Science (formerly Medical Technology)
Clinical Laboratory Technician (formerly Medical Laboratory Technician)

Health Information Management
Health Information Systems
Health Information Administration
Coding Specialist

Nutrition and Dietetics
Dietetic Technology
Nutrition and Dietetics

Occupational Therapy
Occupational Therapy Assistant
Occupational Therapy

Physical Therapy
Physical Therapist Assistant
Physical Therapy

Radiation Technology
Medical Radiography
Radiation Technology
Diagnostic Medical Sonography
Nuclear Medicine Technology
Radiation Therapy Technology
Special Imaging Technology: CT/MRI; CVI

Speech-Language Pathology and Audiology

Loma Linda University
School of Allied Health Professions

Bulletin 2000-2001

Loma Linda, California

http://www.llu.edu

Cover: The Good Samaritan sculpture, located on the campus mall, is a graphic representation of the parable told by Jesus and recorded in Luke 10:30-37.

The information in this BULLETIN is made as accurately as is possible at the time of publication. Students are responsible for informing themselves of and satisfactorily meeting all requirements pertinent to their relationship with the University. The University reserves the right to make such changes as circumstances demand with reference to admissions, registration, tuition and fees, attendance, curriculum requirements, conduct, academic standing, candidacy, and graduation.

BULLETIN OF
LOMA LINDA UNIVERSITY
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Bulletin of the

School of Allied Health Professions

2000-2001

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effective beginning Summer Quarter 2000.

Loma Linda University
Loma Linda, CA 92350

a health-sciences university

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Welcome to Loma Linda University, School of Allied Health Professions, housed in Nichol Hall (formerly Loma Linda Sanitarium).

I

LOMA LINDA UNIVERSITY

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The Calendar

University Foundations

HISTORY

Loma Linda University has grown out of the institution founded at Loma Linda, California, by the Seventh-day Adventist church in 1905. The original schools—Nursing and Medicine—have been joined by Allied Health Professions, Dentistry, Public Health, the Graduate School, and the Faculty of Religion.

The University, operated by the Seventh-day Adventist church, is committed to the vision of its founders and is sustained by its close association with the church.

Loma Linda University is a Seventh-day Adventist coeducational, health-sciences institution located in inland southern California. It is part of the Seventh-day Adventist system of higher education. Professional curricula are offered by the Schools of Allied Health Professions, Dentistry, Public Health, Medicine, and Nursing. Graduate programs in various biomedical sciences are offered by departments of the schools. The professional curricula of the University are approved by their respective professional organizations.

The most current campus census figures (1999-2000) indicate that the core of the combined faculties consists of 1,051 full-time teachers. Part-time and voluntary teachers, largely clinicians in the professional curricula, bring the total to 2,254. Men and women from 87 nations are represented in the 1999-2000 enrollment of 3,410.

PHILOSOPHY

As implied by its motto, "TO MAKE MAN WHOLE," the University affirms these tenets as central to its view of education:

God is the creator and sustainer of the universe.

Mankind's fullest development entails a growing understanding of the individual in relation both to God and society.

The quest for truth and professional expertise, in an environment permeated by religious values, benefits the individual and society and advances the ministry of the Seventh-day Adventist church.

Our Mission

Loma Linda University, a Seventh-day Adventist Christian health-sciences institution, seeks to further the healing and teaching ministry of Jesus Christ "to make man whole" by:

Educating ethical and proficient Christian health professionals and scholars through instruction, example, and the pursuit of truth;

Expanding knowledge through research in the biological, behavioral, physical, and environmental sciences and applying this knowledge to health and disease;

Providing comprehensive, competent, and compassionate health care for the whole person through faculty, students, and alumni.

In harmony with our heritage and global mission:

We encourage personal and professional growth through integrated development of the intellectual, physical, social, and spiritual dimensions of each member of the University community and those we serve.

We promote an environment that reflects and builds respect for the diversity of humanity as ordained by God.

We seek to serve a worldwide community by promoting healthful living, caring for the sick, and sharing the good news of a loving God.

To achieve our mission we are committed to:

OUR STUDENTS

Our primary responsibility is the education of students, who come from diverse ethnic and cultural backgrounds, enabling them to acquire the foundation of knowledge, skills, values, attitudes, and behaviors appropriate for their chosen academic or health care ministry. We nurture their intellectual curiosity. We facilitate their development into active, independent learners. We provide continuing educational opportunities for our alumni and professional peers. We encourage a personal Christian faith that permeates the lives of those we educate.

OUR FACULTY, STAFF, AND ADMINISTRATION

We respect our faculty, staff, and administration who through education, research, and service create a stimulating learning environment for our students. They contribute to the development of new understandings in their chosen fields. They demonstrate both Christian values and competence in their scholarship and professions.

OUR PATIENTS AND OTHERS WE SERVE

We provide humanitarian service through people, programs, and facilities. We promote healthful living and respond to the therapeutic and rehabilitative needs of people. We seek to enhance the quality of life for individuals in local, regional, national, and world communities.

OUR GOD AND OUR CHURCH

We believe all persons are called to friendship with a loving God both now and throughout eternity. We support the global mission of the Seventh-day Adventist church by responding to the need for skilled Christian health professionals and scholars. We seek to honor God and to uphold the values of the Seventh-day Adventist church and its commitment to awakening inquiry. We are drawn by love to share the good news of God expressed through the life and gospel of Jesus Christ and to hasten His return.

Nondiscrimination Policy

The University was established by the Seventh-day Adventist church as an integral part of its teaching ministry. It is committed to equal education and employment opportunities for men and women of all races and does not discriminate on the basis of handicap, gender, race, color, or national origin in its educational or admissions policies, financial affairs, employment programs, student life and services, or any University-administered program.

To this end, the University is in compliance with Titles VI and VII of the Civil Rights Act of 1964 as amended, and in substantial compliance with Title IX of the Education Amendments of 1972 (34 CFR 106 et seq.), Sections 503 and 504 of the Rehabilitation Discrimination in Employment Act of 1967, and Section 402 of the Vietnam Era Veterans Adjustment Act of 1974; and does not discriminate against any employees or applicants for employment on the basis of age or because they are disabled veterans or veterans of the Vietnam era. In addition, the University administers student programs without discrimination on the basis of age, except in those programs where age is a bona fide academic qualification for admission in accordance with the provisions of the Age Discrimination Act of 1975.

The University reserves constitutional and statutory rights as a religious institution and employer to give preference to Seventh-day Adventists in admissions and employment, including but not limited to 42 USC Secs. 2000e-1, 2000e-2; Sec. 6-15 of Federal Executive Order 11246; 41 CFR Sec. 60-1.5(5); 20 USC Sec. 1681 (a)(3); 34 CFR Secs. 106.12 (a)(b), 106.21, 106.31, 106.39, 106.40, 106.51, and 106.57; California Government Code Sec. 12926(d)(1); Title II, Division 4, Chapter 2, Sec. 7286.5 of the California Code of Regulations; the First Amendment to the United States Constitution; and Article I, Sec. 4, of the California Constitution. The University believes that Title IX regulations are subject to constitutional guarantees against unreasonable entanglement with or infringements on the religious teachings and practices of the Seventh-day Adventist church. The University expects students and employees to uphold biblical principles of morality and deportment as interpreted by the Seventh-day Adventist church. The University claims exemptions from the provisions of Title IX set forth in 34 CFR Secs. 106.12 (a)(b), 106.21, 106.31, 106.39, 106.40, 106.51, and 106.57.

Affirmative Action

The University routinely monitors its educational and employment practices regarding women, minorities, and the handicapped to ensure compliance with the law and University policy. The University's affirmative action policy is to provide equal access to admissions, educational programs and activities, financial aid, student services, and employment.

In compliance with Title IX of the Educational Amendments of 1972 and Section 504 of the Rehabilitation Act of 1973, a grievance procedure has been established to process student complaints alleging violation of these regulations or of the University's policy of nondiscrimination based on gender or handicap. Inquiries concerning Title IX may be directed to the affirmative action officer. Employment-related discrimination complaints, including those filed by student employees, are processed in conformity with the provisions outlined in existing staff personnel policies. Complaints related to discrimination in academic areas are reviewed in conformity with the procedures established by the academic administration.

Ardis Wazdatskey, Dr. Grenith Zimmerman (associate dean for research), Noha Daher, and Marquita Watson (clockwise from top) touch the lives of all the students who attend the School of Allied Health Professions.

The Calendar

2000

JUNE

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

MAY 23	Summer Quarter registration for Cytotechnology Certificate Program; instruction begins
	SUMMER QUARTER 2000
1-16	General registration
12-SEP 15	Nutrition and Dietetics summer practicum
19	Student Dedication Service for MPT, PMPT, PTA, OT
19	Last day to obtain financial clearance
19	Instruction begins
20	Instruction begins for OT Juniors, PTA, PMPT, and MPT Juniors
19-JUL 25	First five-week summer session
19-SEP 1	Eleven-week summer session
One week after course begins	Last day to enter a course or change from audit to credit/credit to audit
One week after course begins	Last day to withdraw with no record of course registration on transcript

JULY

S	M	T	W	T	F	S
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16	17	18	19	20	21	22
23	24	25	26	27	38	29
30	31					

4	Independence Day recess
26-AUG 31	Second five-week summer session
31	Instruction begins for MPT and OT Seniors
One week before end of course	Last day to withdraw with a W grade
One week before end of course	Last day to submit S/U petition
One week after course begins	Last day to enter a course or change from audit to credit/credit to audit
One week after course begins	Last day to withdraw with no record of course registration on transcript

AUGUST

S	M	T	W	T	F	S
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27	28	29	30	31		

7	Instruction begins for Nutrition and Dietetics Program (Autumn Quarter)
	POST-SUMMER QUARTER SESSIONS 2000
17	Juniors orientation for Clinical Laboratory Science Program (Medical Technology)
21	Juniors registration for Clinical Laboratory Science Program (Medical Technology); instruction begins
21	Registration for Cytotechnology Certificate Program; instruction begins
21-SEP 15	Nutrition and Dietetics prerequisite block classes

SEPTEMBER

S	M	T	W	T	F	S
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1	Summer Quarter ends
4	Labor Day recess
5	Instruction begins
5-22	Fourteen-day session
	AUTUMN QUARTER 2000
5-22	Registration for Autumn Quarter
11	Seniors registration for Clinical Laboratory Science Program (Medical Technology); instruction begins
12	University faculty convocation
24	Student/Family welcome, Campus Hill Church
25	Orientation, Randall Visitors Center
25	Last day to obtain financial clearance
25	Instruction begins for PTA
25	Instruction begins for all classes (A.M. included)

The Calendar

2000

OCTOBER

S	M	T	W	T	F	S
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3	Last day to enter a course or change from audit to credit/credit to audit
5	Campus/Chamber of Commerce Connection
9-13	Fall Week of Devotion
10	Last day to withdraw with no record of course registration on transcript record
17	Open House
25	University convocation
27-28	Annual HALL/ALAS student retreat

NOVEMBER

S	M	T	W	T	F	S
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6	Winter Quarter registration for Cytotechnology Certificate Program; instruction begins
17-19	Annual BALL/BHPSA student retreat
22-26	Thanksgiving recess
27	Instruction resumes
27	Last day to withdraw with W grade or to submit S/U petition
27-DEC 22	General registration for Winter Quarter

DECEMBER

S	M	T	W	T	F	S
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31						

4	Clinical Laboratory Science (Medical Technology Program Senior registration) rotations begin
11-14	Final examinations
14	Autumn Quarter ends
15-JAN 2	Christmas/New Year's recess
19	Grades due from faculty
26	Instruction begins for Radiation Technology Program

2001

JANUARY

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WINTER QUARTER 2001

3	Instruction begins for all classes (A.M. included)
3	Last day to obtain financial clearance
9	Last day to enter a course or change from audit to credit/credit to audit
15	Martin Luther King, Jr., Day recess
16	Last day to withdraw with no record of course registration on transcript
16-19	Student Week of Spiritual Emphasis
20-27	Mission Emphasis Week

The Calendar

2001

FEBRUARY

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12	Spring Quarter registration for Cytotechnology Certificate Program; instruction begins
19	Presidents' Day recess
20-27	African-American History Week
23	Job Fair (Schools of Allied Health Professions and of Nursing and the Graduate School)
26	Last day to withdraw with a W grade or to submit S/U petition
26-MAR 23	Registration for Spring Quarter

MARCH

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8	Seniors registration for Clinical Laboratory Science Program (Medical Technology); rotations begin
12-16	Final examinations
16	Winter Quarter ends
20	Grades due from faculty
16-25	Spring recess
	SPRING QUARTER 2001
26	Last day to obtain financial clearance
26	Instruction begins for all classes (a.m. included)
30-APR	SAHP faculty/staff retreat

APRIL

S	M	T	W	T	F	S
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29	30					

3	Last day to enter a course or change from audit to credit/credit to audit
9-13	Spring Week of Devotion
10	Last day to withdraw with no record of course registration on transcript record
19-MAY 10	Spring Fine Arts Festival

MAY

S	M	T	W	T	F	S
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20	21	22	23	24	25	26
27	28	29	30	31		

3-6	SAHP Alumni Weekend
12	Diversity Consecration Service
21	Last day to withdraw with a W grade or to submit S/U petition
21	Registration for Cytotechnology Certificate Summer Quarter Program; instruction begins
28	Memorial Day recess
30-JUN 15	Registration for summer sessions

The Calendar

2001

JUNE

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4-8	Final examinations
8	Spring Quarter ends
8	Vesper Service—"Focus on Graduates"
9	Baccalaureate Service AH, GS, PH, SN
9	Dietetics Pinning Service
9	Occupational Therapy Pinning Service
10	Occupational Therapy Assistant Pinning Service
10	Conferring of Degrees AH, GS, PH, SN
12	Grades due from faculty

SUMMER QUARTER 2001

18-JUL 24	First five-week summer session
18-AUG 31	Eleven-week summer session
19	Instruction begins
One week after course begins	Last day to enter a course or change from audit to credit/ credit to audi
One week after course begins	Last day to withdraw with no record of course registration on transcript
One week before end of course	Last day to withdraw with a W grade

JULY

S	M	T	W	T	F	S
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22	23	24	25	26	27	28
29	30	31				

4	Independence Day recess
25-AUG 31	Second five-week summer session

AUGUST

S	M	T	W	T	F	S
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19	20	21	22	23	24	25
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31	Summer Quarter ends

SEPTEMBER

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23	24	25	26	27	28	29

POST-SUMMER QUARTER SESSIONS 2001

3	Labor Day recess

Leda de Dios of the Research and Statistics Department explains one of the technicalities of "Excel."

Intithar Elias, director of Computer Services, aided by Brandon Spurgeon, technician, testing our new Internet server.

II

THE SCHOOL OF ALLIED HEALTH PROFESSIONS

We at the School of Allied Health Professions, Loma Linda University, thank you for your interest in our programs. The faculty and students believe we offer a quality education in all of the allied health professions, and we trust you will consider joining us in pursuit of a career in one of them.

We are dedicated to providing opportunity for academic excellence and development of clinical competence. Our close and effective connection with Loma Linda University Medical Center enables both students and faculty to stay on the cutting edge of health care. Additionally the School maintains clinical affiliations with more than 1,000 health care facilities throughout the United States, affording a wide variety of experience options.

At Loma Linda University we believe you will find a caring faculty, an attractive setting, excellent academic and clinical facilities, and a stimulating spiritual environment.

Joyce W. Hopp, Ph.D., M.P.H.
Dean

School Foundations

The School of Allied Health Professions was established in 1966 (under the name School of Health Related Professions, 1966-1971) to consolidate the administration of individual curricula initiated in the University earlier: medical technology, 1937; physical therapy, 1941; medical radiography, 1941; occupational therapy, 1959; health information management (formerly medical record administration), 1963. Curricula added since the School was established are nuclear medicine technology, 1970; radiation therapy technology, 1970; cardiopulmonary sciences (formerly respiratory therapy), 1971; nutrition and dietetics, 1972; medical sonography, 1976; special imaging technology, 1976; cytotechnology, 1982; coding specialist, 1987; occupational therapy assistant, 1988; physical therapist assistant, 1989; emergency medical care, 1993; cardiovascular technology, 1994; cardiovascular perfusion technology, 1994; surgical technology, 1995; physician assistant, 2000. The curriculum in speech-language pathology and audiology, initiated in 1965 under the auspices of the College of Arts and Sciences of La Sierra University (formerly Loma Linda University, La Sierra campus), was transferred to the School of Allied Health Professions in 1987. Particulars governing each program are detailed in the departments in division III of this BULLETIN.

Mission and Goals

OUR MISSION

The School of Allied Health Professions is dedicated to fulfilling the mission of Loma Linda University through academic and clinical training of allied health professionals. The School prepares competent health professionals in a Christian environment that emphasizes the healing and teaching ministry of Jesus Christ "to make man whole."

To meet local, national, and international allied health care needs, we seek to serve:

1. Students choosing to become health care professionals.
2. Individuals in need of medical care or health-promotion programs.
3. Faculty and staff committed to working with students in a Christian educational setting.

OUR GOALS

The goals of the School of Allied Health Professions are to:

1. Provide an environment in which the student may develop integrity, ethical relationships, and empathic attitudes that contribute to the welfare and well-being of patients.
2. Help the student accept responsibility for integrity, ethical relationships, and empathic attitudes that can contribute to the welfare and well-being of patients.
3. Help the student develop a background of information and attitudes conducive to interprofessional understanding and cooperation.
4. Encourage the student to cultivate habits of self-education that will foster lifelong growth.
5. Engender and nurture in the student the desire to serve mankind, and in particular to serve as needed in the medical centers sponsored by the Seventh-day Adventist church both in this country and elsewhere.

The ideal graduate of a B.S. or master's degree program within the School of Allied Health Professions should:

1. Demonstrate clinical competence in his/her chosen profession.
2. Operate from a foundation of personal and professional ethics that incorporates the fundamental values espoused by Loma Linda University.

3. Demonstrate compassion for others in the manner of Christ.
4. Clarify his/her values and attitudes of human worth in relationship to his/her understanding of God.
5. Perform effectively within a team setting.
6. Communicate effectively with peers, supervisors, patients, family, and the community—both orally and in writing—with sensitivity to nonverbal communication.
7. Analyze and respond to the changing field of health care.
8. Critically analyze data.
9. Read and interpret research papers.
10. Contribute to the chosen health profession through membership in professional organization(s).
11. Utilize a theoretical foundation as a basis for treatment or management.
12. Incorporate wholeness into all aspects of personal and professional life.
13. Use sensitivity to accommodate diversity among individuals.
14. Commit to long-term personal and professional learning.
15. Demonstrate basic skills in personal financial management, and where appropriate, in practice management.

The office of the dean is a hub of activity: (standing, left to right) Andrea Walker, Grenith Zimmerman, Beverly deFores; (seated, left to right) Billy Hughes and Edd Ashley look on while dean Joyce Hopp reviews the strategic plan.

General Information

ACCREDITATION

The programs are approved by the appropriate accrediting agencies, and graduates are eligible to take the qualifying examinations of the respective state and national licensing or registration bodies and to join the professional organizations. Details of accreditations are given in the individual sections.

ADMINISTRATION

The dean, the chief administrative officer of the School, presides over the Administrative Council, which meets regularly during the school year. The chairs of the departments direct the teaching of the several programs. Advisory committees of outstanding professionals in the fields of education and the allied health professions assist the department chairs in the continuing study of the curricula and in the preparation of recommendations.

INSTRUCTIONAL FACILITIES

The academic resources and the affiliated clinical facilities of the University constitute a rich educational environment for the health-professions student, both in classroom instruction and in guided experience in hospitals and clinics. Major facilities utilized for clinical affiliations and internships include the University Medical Center and the Jerry L. Pettis Memorial Veterans Medical Center; as well as other hospitals and community agencies located in the Redlands, San Bernardino, Riverside, and Los Angeles areas as well as throughout the United States.

Admissions Information

In selecting students, the Admissions Committee of the School of Allied Health Professions looks for evidence of self-discipline, personal integrity, and intellectual vigor.

The committee also looks for evidence that students possess the capabilities required to complete the full curriculum in the allotted time and to achieve the levels of competence required. Acceptance of the applicant into any program is contingent on the recommendation of the department conducting the program.

An interview with faculty is required by most programs. Loma Linda University was established to provide education in a distinctively Christian environment, and its students are expected to have adopted Christian ethical and moral standards as a basis for their conduct. It must be understood further that, in harmony with the University's emphasis on health and the health professions and the practices of the supporting church, applicants who use tobacco, alcoholic beverages, or narcotics should not expect to be admitted.

Loma Linda University is committed to equal opportunity and does not discriminate against qualified persons on the basis of handicap, sex, race, color, or national or ethnic origin in its educational and admissions policies, financial affairs, employment programs, student life and services, or any University-administered program. It does, however, retain the right to give preference in student admissions to qualified Seventh-day Adventist applicants. While this right is retained, it should be emphasized that admissions are not limited exclusively to Seventh-day Adventist applicants.

APPLICATION AND ACCEPTANCE

Where to write

Correspondence about admission to all programs and requests for application information should be addressed to:

Office of Admissions and Records
School of Allied Health Professions
Loma Linda University
Loma Linda, CA 92350

Apply early

One class is admitted annually to most of the professional programs. Most programs begin with the Autumn Quarter. Exceptions are noted in the respective departmental sections of this BULLETIN.

The Admissions Committee begins its work the first week of August, and applicants are urged to file their applications as soon after this date as possible. Correspondence and interviews should begin enough in advance so that complete information for evaluation can be provided in adequate time. Applications to programs in occupational therapy should be made by December 1 preceding the academic year for which admission is desired. Applications to programs in physical therapy should be made by November 1 preceding the academic year for which admission is desired. For other programs that begin with the Autumn Quarter, preference will be given to applications received by March.

Late applications are considered as long as space is available. Notifications generally are sent between January 1 and May 15, depending on the completeness of information provided and the date of application. Applicants should inquire at the Office of Admissions and Records if notice of action is not received by April 15 for occupational therapy and physical therapy, and by May 15 for other programs.

Application review process

All completed applications are first reviewed by the department chair and faculty. A recommendation on each application is then submitted to the School's Admissions Committee, which makes the final decision regarding acceptance.

Procedure

The procedure for application and acceptance is given below. All correspondence and documents are to be sent to the Office of Admissions and Records, School of Allied Health Professions, Loma Linda University, Loma Linda, CA 92350.

1. File the complete application form (including recommendations, if received), accompanied by the $50 application fee.
2. Request that transcripts of all college course work be sent to the School. High school transcripts are required of all applicants in order to verify graduation and completion of high school mathematics.
3. Upon receipt of the notice of acceptance, return the required deposit and the card provided to confirm acceptance.
4. Provide health records or certificates as required.

Applicant's records

The application and all records submitted in support of the application become the property of the University.

Veteran's benefits

A student eligible to receive veteran's benefits under the 1966 enactment should immediately after registration contact the Office of University Records at Loma Linda University to make arrangements for the transfer of records to the Veterans Administration Regional Office. Further information may be requested from the Office of University Records.

If a VA student's cumulative grade point average (G.P.A.) remains below the graduation requirements for the program in which he/she is enrolled for more than three consecutive terms, the student **will not be certified for VA educational benefits** until his/her academic status is restored to good standing.

ENTRANCE REQUIREMENTS

Subject/diploma requirements

High school and college subject requirements for each program are outlined in the respective departmental sections of this BULLETIN. Students are required to furnish evidence of completion (official transcript) of high school to be granted admission to undergraduate programs in schools of the University. A high school diploma or its equivalent, the GED, is required.

Grade requirement

Eligibility for consideration by the Admissions Committee is based on a grade point average of at least 2.0 (on a 4.0 scale) for all course work (science and nonscience subjects computed separately) presented in fulfillment of entrance requirements for all programs in the School. A grade point average considerably higher than the minimum is expected because of the nature of the studies in many professional programs and the competition for the limited number of openings. In general, grade point averages between 2.5 and 3.0 are considered minimal, depending on the program. A minimum grade of C (2.0) is required for all college transfer courses.

Transcripts

Transcripts (the documents by which institutions officially convey the grades and credits earned in specific subjects and the stage of completion of curriculum requirements) are accepted only when sent directly to the University by the issuing institution. Transcripts received by the University become the property of the University and will not be released to the student or forwarded to any other institution upon request of the student.

Test requirement

Upon acceptance, a self-study syllabus will be sent to the student in preparation for a mathematics screening examination that will be given immediately following registration. Those scoring below the acceptable minimum will be required to do remedial work and retake the test.

Immunizations

New students are required to have certain immunizations before registration. Forms for providing documentation of the required immunizations will be provided for the physician in the acceptance packet sent to the student by the School. It is expected that necessary routine dental and medical care and elective surgery will have been attended to before the student registers.

Pre-entrance health requirement (Immunization/Skin test)

1. Read carefully, complete, and return to the Admissions Office the pre-entrance health requirement form.
2. Have immunizations updated as necessary.
3. Students residing in the area can have their immunizations updated for the following costs at the Student Health Service in the Center for Health Promotion:

$ 4.00	MMR—measles (rubeola), mumps, German measles (rubella)
10.00	PPD (TB) skin test
10.00	Tetanus/Diphtheria booster
105.00	Hepatitis-B vaccine (3 @ $35.00 ea.)*
	Chicken pox:
	If no known history of chickenpox, then student may choose blood test (which may reveal pre-existing immunity) and/or immunization
60.00	Blood Test
120.00	Chickenpox immunization (if no immunity) (2 @ $60.00 ea.)

*Students may receive the series of three hepatitis injections as part of their class, on dates assigned after arrival on campus. The series can be completed at this University after admission, even if it was begun elsewhere. For the students' convenience, costs for the immunizations can be charged to their accounts. In order to avoid having a hold placed on the registration packet, students are encouraged to return the documentation forms to the Office of University Records in the provided envelope ***no later than six weeks prior to the beginning of classes.***

Re-entrance

A student who discontinues a program of studies at the University must meet the entrance requirements in force at the time of re-entrance.

TRANSFER CREDIT

Applicants must file with the Office of Admissions and Records of the School of Allied Health Professions complete records of all studies taken on the high school and college levels. The University reserves the right to require of an applicant satisfactory completion of written or practical examinations in any course for which transfer credit is requested. Remedial and high school-level courses are not accepted for transfer.

Junior college

A maximum of 70 semester units or 105 quarter units of credit is accepted from accredited junior colleges. Subject and unit requirements for admission to a professional curriculum are outlined in the respective departmental sections.

International, unaccredited

Credits submitted from a college outside the United States or from an unaccredited college are evaluated on an individual basis and are recorded only after the student has earned at least 12 units of credit, with a grade point average of 2.0 or higher, at this University.

Professional

Credits earned in a professional school are accepted only from a school recognized by its regional or national accrediting association and only for a course that is essentially the equivalent of what is offered at the University or is substantially relevant to the curriculum.

CLEP

The College Level Examination Program (CLEP), a national program of credit by examination, offers persons of all ages and backgrounds new opportunities to obtain recognition for college-level achievement, no matter how acquired. Credit is granted for scores at or above the 50th percentile for the subject examinations; and at the 65th percentile for general examinations in the humanities, natural sciences, and social sciences/history. No credit is granted for the CLEP general examinations in English composition, mathematics, or science courses requiring a laboratory.

Military schools

Credit for studies taken at a military service school is granted to veterans according to recommendations in the *Guide of the American Council on Education* and/or recommendation of the California Committee for the Study of Education.

INTERNATIONAL STUDENTS

International applicants must provide suitable recommendations, give evidence of ability to meet all financial obligations, and furnish English translations of all transcripts. Regardless of nationality or citizenship, an applicant whose native language is not English is required to pass the Michigan Test of English Language Proficiency (MTELP), or the Test of English as a Foreign Language (TOEFL) and the Test of Written English (TWE); or their equivalents. It is recommended that prior to admission, all of the School's professional programs require any applicant whose native language is not English to pass the Test of Spoken English-A. If satisfactory results are not achieved on all of the tests, remedial course work should be taken and the appropriate test repeated until a satisfactory grade is achieved. A personal interview is also encouraged to verify acceptable verbal and written skills. An applicant must successfully pass all components of this process prior to acceptance into a professional program. The MTELP requirements are as follows: undergraduate, a score at the 90th percentile; graduate (humanities and social sciences), 90th percentile or above; graduate (science), 85th percentile or above; professional graduate, 90th percentile or above. A minimum score of 550 on TOEFL and a minimum score of 5 on the TOEFL writing test (TWE) are required for acceptance. The TWE score is reported on a scale of 1 to 6:

- 6= Demonstrates clear competence in writing on both the rhetorical and syntactic levels, though the essay may have occasional errors.
- 5= Demonstrates competence in writing on both the rhetorical and syntactic levels, though the essay will probably have occasional errors.
- 4= Demonstrates minimal competence in writing on both the rhetorical and syntactic levels.
- 3= Demonstrates some developing competence in writing, but the essay remains flawed on either the rhetorical or syntactic level, or both.
- 2= Suggests incompetence in writing.
- 1= Demonstrates incompetence in writing.

Applicants with scores below 550 on TOEFL must complete an English-as-a-second-language program before enrolling in the professional program.

Foreign transcripts

Foreign transcripts must be sent to an approved evaluation center of the National Association of Credential Evaluation Services, Inc. Results must be sent directly from the center to Loma Linda University, School of Allied Health Professions.

Study load

A person entering the United States on a student visa (F-1) must carry successfully a full study load during each quarter of each academic year (12 units for the undergraduate, 8 units for the graduate student).

Finances, employment

The applicant must be prepared to provide an advance deposit, as required by the University, and must give assurance that additional funds will be forthcoming to meet school expenses. Scholarships and assistantships available to international students are scarce, and employment is limited by regulations of the Immigration and Naturalization Service to no more than twenty hours per week.

Exchange visitor

Through the U. S. Information Agency, the University has a program for exchange visitors. A person entering the United States on an exchange visitor visa (J-1) is subject to the same regulations of study load and work limitations as is the F-1 student. Further information may be obtained from the international student adviser in the Student Affairs Office.

Visa forms

The international student adviser in the Student Affairs Office will provide visa forms for either the F-1 or the J-1 status after the applicant's acceptance and after financial arrangements have been made.

EXTENDED-CAMPUS PROGRAM

The School currently operates extended-campus programs. The Associate in Science degree in respiratory therapy is offered at the Prince Suttan Cardiac Center in Riyadh, Saudi Arabia; the master's degrees in occupational therapy and in physical therapy are offered in Mayaguez, Puerto Rico. A B.S. degree in health science is offered in Yokkichi, Japan.

Probably the first staff any applicant to the School of Allied Health Professions sees are Office of Admissions personnel: (left to right) Valerie Nusantara, Kay Ceithamer, Helen Greenwood (director), Shirley Sing, Leah Beck.

Student Life

The information on student life contained in this BULLETIN is brief. The *Student Handbook* more comprehensively addresses University and School expectations, regulations, and policies and is available to each registered student. Students need to familiarize themselves with the contents of the *Student Handbook*. Additional information regarding policies specific to a particular school or program within the University is available from the respective School.

FROM UNIVERSITY TO STUDENT

Loma Linda University was established to provide education in a distinctively Christian environment. Students are expected to respect the standards and ideals of the Seventh-day Adventist church. Prospective students have the freedom to choose or reject University or School standards, but the decision must be made before enrollment. Application to and enrollment in the University constitute the student's commitment to honor and abide by the academic and social practices and regulations stated in announcements, bulletins, handbooks, and other published materials; and to maintain a manner that is mature and compatible with the University's function as an institution of higher learning.

It is inevitable that the student will come under question if:

- his/her academic performance is below standard;
- s/he neglects other student duties;
- his/her social conduct is unbecoming; or
- his/her attitudes demonstrate deficiencies such as poor judgment, moral inadequacy, or other forms of immaturity.

Procedures for evaluation of student academic and nonacademic performance—as well as for the student to exercise his/her right of appeal—are described in each School's section of the *Student Handbook*. Grievances regarding both academic and nonacademic matters must be processed in accordance with the grievance procedures set forth in the *Student Handbook*. Subsequent to a student's filing an appeal or grievance, the faculty assesses the student's fitness for a career in the chosen profession and recommends to the dean appropriate action regarding the student's continuance or discontinuance.

Prospective students who have questions concerning the University's expectations should seek specific information prior to enrollment.

WHOLE-PERSON HEALTH

The University regards the student from a cosmopolitan and comprehensive point of view—

- cosmopolitan, in that historically the University's global mission has promoted bonds and opportunities in education and service without regard to sex, national or racial origin, or geographical origin; and
- comprehensive, in that the University's concern for the welfare of the student traditionally has been an integrated concern for assisting the student in balanced development.

Loma Linda University offers opportunities for students to complement their formal learning through participation in a wide variety of recreational, cultural, and other activities which can enrich their group interaction and leadership experiences, increase their interests in fields outside their profession, develop their talents, and enhance wholesome and memorable association with others.

Students from all schools of Loma Linda University may congregate and participate in the multifaceted programs offered that involve the wholistic concept of social, intellectual, physical, emotional, and spiritual wellness. These programs support Loma Linda University's motto, "To make man whole."

SPIRITUAL HEALTH

Opportunities for personal development and spiritual enrichment are provided in the regular schedule of religious exercises and activities and in informal association with others who cherish spiritual values.

SOCIAL HEALTH

Situated within easy access of the ocean, mountains, and desert, the University provides numerous opportunities for social and recreational activities. A variety of University-, School-, and group-sponsored events encourage students to relax and become better acquainted with one another.

PHYSICAL HEALTH

The University promotes physical fitness by encouraging recreational interests and by providing courses in field exercises, body building, and health instruction. An effort is made to interest each student in some recreational and health-building activity that may be carried over to enhance future life.

The Drayson Center

The Drayson Center, Loma Linda University's recreation and wellness center, provides state-of-the-art fitness facilities. The center includes a 21,000-square-foot multipurpose gymnasium, which houses three full-size basketball courts, five volleyball courts, and nine badminton courts. Circling the gymnasium's inside perimeter is a three-lane, elevated, rubberized running track. The facility also includes five racquetball courts with viewing areas, and fully equipped men's and women's locker rooms. Aerobics studios and cardiovascular and fitness areas are equipped for strength training, sports conditioning, body building, and power lifting. A large, ten-lane lap pool is designed to accommodate scuba diving classes. A 22-foot-high, 150-foot water slide ends in the nearby recreational pool. This shallow pool is wheelchair accessible. An outdoor jacuzzi is also available. Included in the complex are a lighted, six-court tennis facility; a 400,000-square-foot multi-use recreational area with four softball fields; a half-mile-long track; and picnic and game areas.

The Drayson Center offers lifetime leisure classes (noncredit), such as low- and high-impact "classicize" aerobics, scuba diving, tennis, weight training, abdominal workout, karate, Tai-chi, photography, and basic calligraphy. Physical and nutritional assessments are also available.

UNIVERSITY STUDENT/FAMILY COUNSELING CENTER

The University Counseling Center offers a variety of confidential services to students and their families, including: individual, premarital, marital, family, and group counseling regarding issues of adjustment, anxiety, depression, etc.; skills in time management, studying, and test-taking; and 24-hour emergency crisis intervention. The center is located at 11374 Mountain View Avenue, Loma Linda. Full-time students may receive up to nine free visits. Call 909/558-4505 (or, on campus: 66028) to schedule an appointment or for more information.

STUDENT ASSISTANCE PROGRAM

The Loma Linda Student Assistance Program (LLSAP) provides professional and caring assessment and treatment for a variety of personal, family, work, and school-related issues. LLSAP clinicians will develop a treatment plan that may include free short-term counseling. If more extensive treatment is appropriate, clients are referred to a community therapist who specializes in the student's area of concern and who is covered by the student's health plan. All information is confidential. LLSAP clinicians will not release information without the written consent of the student, with the exception of matters that fall under mandatory reporting laws.

LLSAP, the only nationally accredited student assistance program in California, has provided state-of-the-art services to students since it was established in 1990.

Appointments may be scheduled during office hours: Monday through Wednesday 8 a.m.-5 p.m.; Thursday 8 a.m.-8 p.m.; Friday 8 a.m.-1 p.m. Additional appointments times may be available upon request.

All LLSAP services are free of charge.

TEACHING LEARNING CENTER

Academic life at this University is rigorous, and inefficient study skills can add to the stress and strain. The Teaching Learning Center works with students to develop the reading, writing, analytical, and study skills needed to succeed in professional education. The center offers three ABLE programs that will help students face academic challenges by:

A ssessing learning style and reading skills.

B reaking through in reading speed and comprehension.

L earning analytical and memory techniques and skills.

E nhancing ability to take tests and examinations.

If a student is having scholastic difficulties, the center will assess the student and tailor a program designed to increase and/or improve his/her reading speed and comprehension, writing clarity, analytical abilities, and other study skills—using the student's own course materials.

The center is located on campus in Evans Hall, Room 207. There is no charge to the student for assessment and evaluation. The regular student tuition package does not include the TLC tuition. However, TLC tuition is lower than regular tuition. For additional information, please call 909/478-8625.

THE STUDENT HEALTH PLAN

Because the health, vitality, and welfare of its students and their dependents are of major concern to the University, Loma Linda University sponsors and funds the Student Health Plan, a health care plan that provides health service and medical coverage to all eligible students. It includes the following benefits: Student Health Service, 24-hour coverage, and generous coverage through preferred providers. The Student Health Plan provides a broad range of medical coverage but does not provide dental or vision coverage.

Student Health Service

Professional services are rendered by the Student Health Service, which provides basic care to students. The Student Health Service is located in the Center for Health Promotion in Evans Hall, corner of Stewart and Anderson streets. The hours are 8 A.M.–5 P.M. Monday through Thursday and 8 A.M.–2 P.M. on Friday.

Supplementary medical-coverage policy

The Student Health Plan is an "excess" policy and only supplements other medical plans that provide benefits to the student. The student first obtains direct-provider payment, or reimbursement for out-of-pocket payments, from all other medical plans that provide benefits for the student; only then does the student submit bills to the Student Health Plan for any remaining balance not covered by the other plans. The student must, therefore, follow all rules of his/her primary insurance in obtaining medical treatment. The student should contact the primary carrier to determine what procedure to follow.

Eligibility

The Student Health Plan automatically covers all full-time students at Loma Linda University in any clinical or academic program. Students are covered when enrolled for 7 units or more per quarter (or clock-hour equivalent, as defined by each School) for which Loma Linda University is receiving tuition and applicable fees (excluding load validation, "in progress" [IP] units, "employee tuition benefit" units, and "audit" units). Students enrolled for field practicum are eligible for coverage if registered for at least 240 hours per quarter.

Coverage during clinicals/rotations

Students who are accidentally injured while performing their clinical rotation duties do not have to pay their co-payment. If a covered student is doing a school-sponsored clinical or rotation out of the area and becomes ill or injured, any health service and medical care received that is covered by the Student Health Plan will still be covered as if the student were in the Loma Linda area.

Effective coverage date

An eligible student's coverage becomes effective on the day of orientation or the first day of class. Any purchased benefits will become effective on the day the Department of Risk Management receives the health plan application and payment within the open enrollment period, which is only the first two weeks of each calendar quarter.

Buy-in provision only during open enrollment

Eligible students are themselves automatically covered by the plan; however, noneligible students—those on summer break and part-time students (e.g., in a clinical program but enrolled for fewer than 7 paid units)—may, if they wish, purchase coverage.

Those wishing to buy in may enroll in the Student Health Plan only during the first two weeks of each new calendar quarter, that is, during the first two weeks of January, April, July, and October.

An eligible student may buy Student Health Plan coverage benefits for his/her spouse and/or dependent child(ren). Eligible dependents are the spouse (residing with the insured student) and his/her never-married child(ren) under nineteen years of age, or never-married child(ren) under twenty-four years of age who are full-time student(s), or never-married children under twenty-seven years of age who are full-time graduate student(s).

If a new spouse or eligible dependent is added to the household of a covered student after the two-week enrollment period, then the student has a thirty-day grace period (after the wedding or after the birth, etc.) in which to buy coverage for the new spouse or new dependent; however, the coverage must be purchased for the entire quarter in which this new status occurred.

Buy-in rates per quarter are:

$250	Part-time student
$320	One dependent
$600	Two or more dependents

Neither Student Finance nor the Department of Risk Management bills the student's account or sends out reminders. Funds received for buy-in coverage must be in the form of a check or money order (payable to the Department of Risk Management).

Coverage exclusion for "pre-existing" condition

If a student or patient has not maintained a continuous "creditable coverage" under another health plan during the twelve months prior to the coverage effective date, the following pre-existing-condition exclusion will apply:

This plan will not cover any medical condition, illness, or injury for which medical advice, diagnosis, care, or treatment was recommended or received by the student or patient during the six months prior to the effective date of health plan coverage. This exclusion will apply for twelve months from the student's coverage effective date, unless such an individual remains treatment free during the six-month term beginning with the effective date of coverage. If the individual remains treatment free during the six-month term, the pre-existing-condition exclusion will apply only during that six-month period. This exclusion will not apply to pregnancy-related medical expenses or to medical treatment for a newborn or adopted child.

Preferred-provider plan, prescriptions, annual term, benefit limits

The Student Health Plan is a preferred-provider plan. A list of preferred physicians and preferred medical facilities is available from Risk Management.

For local students the Student Health Plan covers only those prescriptions purchased through the Loma Linda Campus Pharmacy and/or the Loma Linda University Medical Center Pharmacy. The student co-pays $10 for generic or $20 for brand-name prescriptions; the Student Health Plan covers the balance for up to a thirty-day supply per prescription.

The annual benefits apply per academic year, July 1 through June 30.

The Student Health Plan will pay medical expenses incurred subject to plan parameters to an annual limit of $100,000.

Benefits are limited by the terms and conditions set forth in the Student Health Plan booklet. The booklet is available from the Loma Linda University Department of Risk Management. For additional health plan information, phone the Department of Risk Management at 909/558-4386.

MALPRACTICE INSURANCE

Students are covered by malpractice insurance while acting within the course and scope of any approved clinical assignment. All full-time students at Loma Linda University in any clinical educational program are covered by the Student Health Plan. This plan provides coverage twenty-four hours per day while the student is enrolled at the University. The Student Health Plan waives the deductible and co-payment for accidental injury for students in clinical rotation.

GOVERNING PRACTICES

Residence hall

The School is coeducational and accepts both single and married students. Any single student who prefers to live on campus may do so.

Students are expected to live on campus unless they are:

- married,
- twenty-one years of age or older,
- in a graduate program, or
- living with their parents.

Students who wish to live off campus but who do not meet one of the foregoing requirements may petition the dean of students for an exception. This should be done well in advance of registration to allow the student adequate time to plan. Additional information about campus housing can be obtained from the University's dean of students.

The student must keep the Office of the Dean of the School informed of his or her current address and telephone number and other contact numbers.

Marriage

A student who marries or changes marital status during the academic year must give the Office of the Dean advance written notice in order to keep the School's records correct and up to date.

Professional apparel

Student uniforms are distinctive articles of dress specified by the department or School and are to be worn only in the manner prescribed and under the conditions specified. Students are to maintain their uniforms in clean, presentable condition. Information on the required professional apparel is furnished by the School.

Personal appearance

Students in the classroom or clinical environment must exhibit personal grooming consistent with expectations of the health care institution, the profession, the School, and the University. Specific guidelines are provided by the School.

Personal property

The School assumes no responsibility for the loss of the student's personal property, instruments, or other items by theft, fire, or unknown causes. The student is expected to assume responsibility for the safekeeping of personal belongings.

Criminal background check

Some clinical affiliation sites require personal background checks on students; these checks must be completed thirty days prior to clinical placement. The checks can be processed through University Security. The student will be informed when a facility requests a background check and will be charged an appropriate fee.

Cars and transportation

Students are responsible for transportation arrangements and costs for off-campus assignments and clinical affiliations. All vehicles used to transport fellow students for off-campus assignments must be registered with Campus Safety and must have adequate public liability insurance—a minimum of $100,000 bodily injury and property damage liability.

Student identification card

All students will be assigned University ID numbers and issued student ID cards. The University student ID card will be used for library, health, and other services.

In some cases, students are also required to have Medical Center ID badges. Information regarding this requirement can be obtained from the Office of the Dean of the School.

Substance abuse

Loma Linda University is committed to providing a learning environment conducive to the fullest possible human development. Because the University holds that a lifestyle that is drug, alcohol, and tobacco free is essential for achieving this goal, it maintains policies that seek a campus environment free of these substances. Students are expected to refrain from substance abuse while enrolled at the University. Substance abuse is considered to be any use of tobacco, alcohol, prescription or nonprescription drugs, or other mood-altering substance that impairs the appropriate functioning of the student. The School offers counseling and other redemptive programs to assist in the recovery from substance abuse. Continuation with the University will be dependent upon the abuser appropriately utilizing these programs. Failure to comply with these policies will result in discipline up to and including expulsion and, if appropriate, notification of law-enforcement agencies for prosecution.

Sexual harassment

Sexual harassment is reprehensible and will not be tolerated by the University. It subverts the mission of the University and threatens the careers, educational experience, and well-being of students, faculty, employees, and patients.

Because of the sensitive nature of situations involving sexual harassment and to assure speedy and confidential resolution of these issues, students should contact one of the School's designated, trained sexual harassment ombudspersons.

A more comprehensive statement of the policy regarding sexual harassment can be found in the University *Student Handbook* , pp. 95-99.

Dismissal, grievance

Students who are involved in dismissal proceedings or who wish to file a grievance are referred to the grievance procedure as outlined—

- in the Student Life section of this BULLETIN (see FROM UNIVERSITY TO STUDENT, par. 3);
- in the School section of the *Student Handbook*.

Employment

It is recommended that students refrain from assuming work obligations that divert time, attention, and strength from the arduous task of training in their chosen career. A student wishing to work during the school year may petition for permission from the Office of the Dean. The decision of the Office of the Dean regarding such an employment request will be based on grades, class load, health, and School policy.

Policies and General Regulations

Students of the School of Allied Health Professions are responsible for informing themselves of and satisfactorily meeting the policies and regulations pertinent to registration, matriculation, and graduation.

ACADEMIC AUTHORITY

The Office of the Dean is the final authority in all academic matters, with the exception of General Education requirements, and is charged with the interpretation and enforcement of academic requirements. Any exceptions or changes in academic requirements, graduation requirements, or grades are not valid unless approved by the dean. Any actions taken by individual faculty members in regard to these matters are advisory only and are not binding on the School or the University unless approved by the dean.

ACADEMIC INTEGRITY

Acts of dishonesty—such as but not limited to theft; plagiarism; knowingly giving, obtaining, or falsifying information during examinations or other academic or professional practice assignments—can be cause for dismissal from the School. Instructors and students are charged with the responsibility of reporting instances of such behavior to the department chair for investigation. Substantiated violations are to be brought before the dean for disciplinary action.

The minimum disciplinary actions to be taken for plagiarism include:

first offense—a failing grade on the assignment;

second offense—failure in the course without possibility of withdrawal;.

cheating will result in failure in the course without possibility of withdrawal and may result in dismissal from the program.

REGISTRATION AND ATTENDANCE

Registration

The student must register on the dates designated in the *Loma Linda University Course Schedule and Registration Instruction* booklet published each quarter, as well as on dates designated in the quarterly Student Information Sheet available from the Office of University Records. Autumn Quarter registration procedure includes recording information on forms furnished by the Office of University Records, clearing financial arrangements with the Student Accounting Office, and having a student identification picture taken.

A late-registration period of five days is provided to accommodate students who have been unable to return to campus by the beginning of the term. A late-registration fee of $50 will be charged during this period. The student may not attend class without being registered.

Course changes

A student may add courses that follow the general University calendar during the first seven calendar days of the quarter. Courses that follow the general University calendar may be dropped during the first fourteen days of the quarter without academic or financial penalty. Course changes after the fourteenth day of the quarter affect the permanent grade record. A Change of Program form must be filed.

Withdrawal from school

A student who withdraws from a program of study must file a Withdrawal from All Classes form. Tuition is refunded according to the practice outlined in the Financial Information section of this BULLETIN.

Study load

Usually an academic study load is defined in terms of credit units. A full load is considered to be 12 or more units per quarter. Professional programs, however, require considerable clinical experience, for which only partial academic credit is given at times. Consequently, a full study load often is not reflected by the number of academic credit units carried.

To be considered a full-time student, an undergraduate student must be registered for at least 12 units of course work per quarter, and a graduate student must be registered for at least 8 units. A registration of 400 clock hours per quarter is also considered to be full-time for any student. This is based on forty hours per week for a ten-week quarter.

The normal course load, including all course work for which a student may be registered at this or another institution, is 16 quarter units for an undergraduate student and 12 quarter units for a graduate student. Full-time study loads are those specified by the departments for each program. Students of exceptional ability may register for additional course work upon recommendation of the department and consent of the dean.

Correspondence, extension, independent study, and course work taken at any other institution constitute part of the student's study load. Only courses taken at La Sierra University through cross-institution registration will count in the student's total load for financial aid and loan

deferment purposes.

A person who is not enrolled in regular classes but who is occupied in research, dissertation, or thesis, is classified as a student. By filing an Academic Load Validation form every quarter at registration, the academic load may be validated for loan deferment and immigration purposes. The student must be carrying IP (in progress) units or registered for a minimum of 1 new unit research, dissertation, or thesis for the quarter. The academic work load is counted as follows:

full load—minimum of 36 clock hours/week

three-quarter load—minimum of 27 clock hours/week

one-half load—minimum of 18 clock hours/week

one-quarter load—minimum of 9 clock hours/week.

A student may simultaneously earn more than one baccalaureate degree, provided there is a minimum of 20 units unique to each degree and provided all other degree requirements are met.

Graduate-level courses

Seniors who meet prerequisites may, with approval of the instructor and consent of the dean of the School of Allied Health Professions and the dean of the school offering the course, enroll for a limited number of graduate-level courses (500-level or above). Only with special permission may credit be applied to the undergraduate degree, in which case the credit will not apply toward a graduate degree.

Attendance

Regular attendance at all appointments (class, clinical, laboratory, special assignment, chapel) is required beginning with the first day of each term. Voluntary absences from laboratory assignments are not permitted.

Special examination

It is expected that the student will take quizzes and examinations at the regularly scheduled time. To take an examination at a time other than when it is scheduled, the student must secure the consent of the instructor and the chair of the department and must file with the instructor a permit obtained from the Office of the Dean. A fee is charged for a special examination. (See the Schedule of Charges in the Financial Information section of this BULLETIN.)

Academic residence

In order to graduate from Loma Linda University with the bachelor's degree, a student must complete at least 32 of the last 48 units, or a minimum of 45 total units of course work, at this University. A minimum grade of C (2.0) or better is required for all B.S. and postbaccalaureate degrees.

Leave of absence

A student who requires a temporary discontinuance of studies must request in writing a leave of absence after one quarter's absence. The maximum term for a leave is one year. A student who is not registered after one quarter's absence (summer excluded in most cases) and has not requested a leave of absence will be considered no longer in the program. In this case the student who seeks re-entry must meet the entrance requirements in force at the time of re-entrance and will enter under the new BULLETIN.

SPECIAL COURSE WORK/CREDIT

Correspondence

As a general rule, the student may not register for a correspondence course that duplicates a course offered at the University. If the student is a candidate for graduation, the course must be completed a month before graduation. Information and application forms for Home Study International (the Seventh-day Adventist correspondence school) in Washington, D.C., may be obtained at the Office of University Records.

Extension study

To be acceptable for credit, an extension course must be evaluated as to its equivalence to an accepted course. Registration for it requires the approval of the department chair and the consent of the dean.

Independent study

Independent study may be undertaken subject to the consent of the department chair. The student is responsible for the completion of the Directed/Independent Study Title Request form in addition to the regular registration. Credit is normally limited to 2 units during the program of study. Under special circumstances, more than 2 units may be taken. The work is to be completed in adequate time before graduation to allow recording in the Office of University Records.

Waiver/Equivalency

A requirement may sometimes be waived on the basis of prior course work, experience, or licensure. If certain conditions are met, credit may be given. In either case, an examination may be required.

An examination in a given subject may be taken only once. The grade for any credit granted is recorded as an S after the student has earned at least 12 units of acceptable credit at this University. Credit cannot be earned in this way to make up for a course in which an unsatisfactory grade was received. All examinations must be taken before the last quarter of the program of study.

Requests are made to the dean on the Petition to Obtain Credit by Examination form. There is a fee for an examination. (See Schedule of Charges in the Financial Information section of this BULLETIN.)

REGISTRATION CLASSIFICATIONS

Regular

A regular student has satisfied all entrance requirements and is registered for a standard course of study leading toward a degree or certificate in one of the schools of the University.

Provisional

An applicant who is accepted for entrance into a School of Allied Health Professions program and permitted to remove quantitative and/or qualitative deficiencies in order to qualify for regular standing is classified as a provisional student during the transition period.

Probational

A student whose academic and/or clinical performance does not meet the minimum standards of the program in which s/he is enrolled is classified as a probational student.

Special

A qualified individual who may enroll for selected courses is classified as a special student. Consent for enrollment as a special student is granted by the department, with the endorsement of the dean, and is subject to classroom and laboratory space. Tuition is paid at the applicable rate.

Audit

Certain courses (excluding laboratory courses) may be audited. Consent for enrollment as an auditor is granted by the department, with the endorsement of the dean, and is subject to classroom space. Change of classification from audit to credit or from credit to audit may be done only during the first seven calendar days of the quarter for courses following the general University calendar. For other courses, the change may be made with the consent of the dean. (For tuition rates, see the Schedule of Charges in the Financial Information section of this BULLETIN.)

Academic standing

A student's standing in the School is classified either as regular standing or academic probation, depending on his/her scholastic performance.

Student level

Students enrolled in a professional program in which they are classified as freshman, sophomore, junior, or senior will be classified according to the level of the course work they are taking (e.g., a student with a previous baccalaureate degree pursuing a degree in nursing will be classified as a sophomore while taking sophomore-level courses, etc.).

Students enrolled in block programs are classified according to the level of the block in which they are enrolled (e.g., master's—1st, 2nd, or 3rd year; certificate—1st, 2nd, or 3rd year; as well as freshman, sophomore, junior, senior, as is appropriate for the degree program.)

SCHOLASTIC STANDING

Grades and grade points

The following grades and grade points are used in this University. Each course taught in the School of Public Health has been approved for either a letter grade or an S/U grade, and deviations from this are not allowed.

A	4.0	Outstanding performance.
A-	3.7	
B+	3.3	
B	3.0	Very good performance for undergraduate credit; satisfactory performance for graduate credit.
B-	2.7	
C+	2.3	
C	2.0	Satisfactory performance for undergraduate credit.
C-	1.7	Unsatisfactory performance for nursing courses and named cognates.
D+	1.3	
D	1.0	Minimum performance for which undergraduate credit is granted.
F	0.0	Failure, given for not meeting minimal performance.
S	none	Satisfactory performance, counted toward graduation. Equivalent to a C grade or better in undergraduate courses, or a B grade or better in graduate courses. An S grade is not computed in the grade point average. A student may request a grade of S in only a limited amount of course work as determined by the school. This is done by the student's filing with the Office of University Records the appropriate form prior to fourteen calendar days before the final examination week. Once filed, the grade is not subject to change.
U	none	Unsatisfactory performance, given only when performance for an S-specified course falls below a C grade level in an undergraduate course or a B grade level in a graduate course. Similar filing procedures as given above are required. The U grade is not computed in the grade point average.
S/N	none	Satisfactory performance in a clock-hour course. Not included in total units. Same grading criteria as the S grade given for a credit hour course.
U/N	none	Unsatisfactory performance in a clock-hour course. Not included in total units. Same grading criteria as the U grade given for a credit hour course
CR	none	Credit earned for Credit by Examination. Counted toward graduation/units earned, but not units attempted. Such credit cannot be counted for financial aid purposes.
NC	none	No credit for unsatisfactory performance for a Credit by Examination. Does not count for any purpose.

Notations

W Withdrawal, given for withdrawal from a course prior to fourteen calendar days before the final examination week. Withdrawals during the first fourteen calendar days of a quarter or the first seven calendar days of a summer session are not recorded if the student files with the Office of University Records the appropriate form prior to the cut-off date. Withdrawals outside this time frame, upon recommendation of the dean, may be removed at the discretion of the vice president for academic affairs.

In the case of nontraditionally scheduled courses, W will be given for withdrawal from a course prior to completion of 80 percent of the course, excluding the final examination period. Withdrawals during the first 20 percent of a course, excluding the final examination period, are not recorded if the student files with the Office of University Records the appropriate form prior to the date when this 20 percent of the course is completed.

UW Unofficial Withdrawal, indicates that the student discontinued class attendance after the close of registration but failed to withdraw officially.

I Incomplete, given when the majority of the course work has been completed and circumstances beyond a student's control result in the student being unable to complete the quarter. An I notation may be changed to a grade before the end of the following term (excluding the summer sessions for those not in attendance during that term) but may be changed only by the instructor. Incomplete units are not calculated in the grade point average.

By the use of the petition form, the student requests an I notation from the instructor, stating the reason for the request and obtaining the signatures of the instructor, the department chair, and the associate dean. The form is left with the instructor. The instructor will then report the I grade on the grade-report form, as well as the grade which the student will receive if the deficiency is not removed within the time limit. The petition form is then filed with the Office of University Records along with the grade-report form.

IP In Progress, indicating that the course has a duration of more than a single term and will be completed by the student no later than the final term of the course, not to exceed five quarters for independent study and research courses (original quarter of registration plus four additional quarters). The student's final grade will be reported on the instructor's grade report at the end of the term in which the course is completed. If the course work is not completed within the five-quarter time limit, a grade of U will be given.

AU Audit, indicating registration for attendance only, with 80 percent class attendance considered a requirement. A request to change a credit course to audit or an audit course to credit may be made no later than the fourteenth calendar day after the beginning of a quarter or the seventh calendar day after the beginning of the summer session. (This does not address short summer courses lasting only a week or two.)

AUW Audit Withdrawal, given for withdrawing from the course or to indicate that the 80 percent class attendance requirement was not observed.

Repeating

A student who receives an unsatisfactory grade in a required course and is required by the faculty to do additional work may pursue, on the recommendation of the chair of the department and the consent of the dean, one of the following plans. In either plan the student must register and pay the applicable tuition.

1. Review the course work under supervision and take a make-up examination (usually not given before a minimum of two weeks of study). A passing grade resulting from a repeat examination will be limited to a C (2.0). (See the Schedule of Charges in the Financial Information section of this BULLETIN for the tuition rate for tutorial course work.)
2. Repeat the course, attend class and/or laboratory, and take the final course examination. Full tuition will be charged whether regular or occasional attendance is required. (See the Schedule of Charges in the Financial Information section of this BULLETIN for the tuition rate.)

A student who receives an unsatisfactory grade in a required clinical experience course and is required by the faculty to do additional work must reregister and pay the applicable fee. (See the Schedule of Charges in the Financial Information section of this BULLETIN for the fee for repeat of clinical experience.)

Both the original and repeat grades are entered in the student's permanent academic record, but only the repeat grade is computed in the grade point average. A course may be repeated only one time.

Promotion and probation

Each student's record is reviewed quarterly by the faculty. Promotion is contingent on satisfactory

academic and professional performance and on factors related to aptitude, proficiency, and responsiveness to the established aims of the School and of the profession. As an indication of satisfactory academic performance, the student is expected to maintain the following grade point average:

2.0	Associate and baccalaureate degree programs
2.5	Master's degree program
3.0	Doctoral degree program

A student whose grade point average in any term falls below the minimum required for the degree, or who receives in any professional or required course a grade less than a C (2.0), or whose clinical performance is unsatisfactory is automatically placed on academic probation. Continued enrollment is subject to the recommendation of the department. If continued enrollment is not recommended, the case is referred to the Administrative Council of the School for final action.

If continued enrollment is recommended, the student will be required to institute a learning assistance plan within the first two weeks of the following quarter and meet regularly scheduled appointments with the academic adviser. The learning assistance plan should: identify the problem, identify and list the goals, state the time frame, and include student and adviser signatures and date.

A student who is on academic probation and fails to make the minimum required grade point average the following quarter or fails to have an overall minimum grade point average after two quarters will have disqualified him-/herself from the program.

Standard of student progress (time framework)

Students must complete their degree programs within the following maximum time frameworks from their initial enrollment in the program:

A.S. degree	3 years
B.S. degree	5 years
Master's degree	5 years
Doctoral degree	7 years

Dismissal, grievance

A student who is involved in dismissal proceedings or who has an academic or clinical grievance may proceed as follows:

1. The student should first discuss the problem or grievance with the instructor. If, following discussion with the instructor, the student is not satisfied and continues to believe that s/he has not been dealt with fairly, the student may discuss the grievance with the chair of the department or with the program director involved.
2. If the matter is not resolved at this level, the student has recourse to the Office of the Dean.
3. As a final appeal, the student may request the dean to appoint a faculty review committee to evaluate the situation and make a recommendation to the dean. This request should be presented in writing and include pertinent information regarding the situation. The student may request to meet with the review committee for discussion of the case. The student must file for the grievance proceeding within one quarter following the alleged grievance. A grievance is ineligible for review if not filed within this time frame.

GRADUATION REQUIREMENTS

A candidate for a degree shall have met the following conditions:

1. Completed all requirements for admission to the respective program, as well as all General Education requirements of the University.
2. Completed all requirements of the program, including specified attendance, level of scholarship, and number of credit units.
3. Completed a minimum of 96 quarter units for the associate degree or 192 quarter units for the baccalaureate degree, with a minimum grade point average of 2.0 (2.5 for the Master of Physical Therapy degree) and with no grade less than C (2.0).
4. Given evidence of moral character, of due regard for Christian citizenship, and of consistent responsiveness to the established aims of the University and of the respective discipline.
5. Discharged financial obligations to the University.

GRADUATION CEREMONIES

Graduation events include formal ceremonies identified as conferring of degrees, awarding of diplomas, and recognition of candidates for degrees. Other related graduation events include the baccalaureate and vesper services. The conferring of degrees ceremony(ies) occurs at the close of the Spring Quarter and includes an academic procession, the formal conferring of degrees by the president, and the presentation of diplomas by the dean of the school. Candidates who complete the requirements for degrees and certificates are invited, with families and friends, to attend and participate in these colorful events.

To be eligible to participate in graduation events, candidates must have completed all requirements for the degree, including prerequisites/corequisites, as specified by the School. In certain degree programs, upon authorization of the dean, exceptions will be made for candidates who:

- have only clinical experience requirements to complete and can project completion by the end of the calendar year;
- can complete remaining degree requirements by the end of the Summer Quarter; or
- are in a block program.

The course work may not exceed 8 units for graduate students or 12 units for undergraduate students.

A student who completes the requirements for a degree or certificate (other than clinical experience) at the end of the Summer, Autumn, or Winter Quarter is invited to participate in the subsequent June commencement events. The official date of graduation on the diploma is ordinarily the last day of the term in which the requirements for a degree are completed.

Superior academic performance and achievement in scholarship and leadership are recognized in the printed graduation program. Superior academic performance is recognized for persons who complete their baccalaureate degree and who at the end of the quarter preceding their final term have acquired a cumulative grade point average for all college work (includes course work taken at other colleges/universities, except for remedial courses) as follows:

3.5	Graduation cum laude
3.8	Graduation magna cum laude
3.9	Graduation summa cum laude

Although the official commencement program indicates names of graduates who qualify for honors on the basis of their grade point average as of the end of the quarter preceding their final term, the subsequently issued diploma and transcript may indicate graduation with honors if the student's final quarter's record has increased the grade point average sufficiently to qualify for honors at that time.

TRANSCRIPTS OF CREDIT

The University provides transcripts to other institutions or to the student or graduate only on the written request of the student or graduate ($2 per copy). Transcripts, statements of completion, diplomas, and certificates are issued only when financial obligations to the University have been met.

AWARDS AND SCHOLARSHIPS

Awards for scholastic attainment and leadership ability have been made available to students whose performance and attitudes reflect well the ideals and purposes of the School.

CARDIOPULMONARY SCIENCES

The **Robert Calhoon Memorial Award** is given to a student who demonstrates exceptional clinical skills and knowledge in the care of respiratory patients.

The **Lou Jezerinac Cardiopulmonary Scholarship Award** is given to a student whose patient care exemplifies the qualities of compassion and dedication.

The **Faculty Award** is presented to a student who has shown promise of outstanding professional achievement and whose performance is in harmony with the objectives and goals of the University.

The **Chair's Scholarship Award** is given for highest scholastic attainment in professional studies and performance in the Christian context.

CLINICAL LABORATORY SCIENCES

The **Chair's Scholarship Award** is given to a senior medical technology student and to a cytotechnology student in recognition of outstanding scholarship and leadership qualities that are in harmony with the objectives and goals of the University. Selection is based on the recommendation of the faculty.

The **Faculty Award** is presented to a senior medical technology student and to a cytotechnology student who have shown promise of outstanding professional achievement and whose intent it is to pursue a career in the area of medical technology or cytotechnology. Selection is based on recommendation of the faculty.

The **Robert and Jaqueline Moncrieff Scholarship Award** is presented annually to a medical technology student who has demonstrated superior scholarship; professional dedication; financial need; and such personal attributes as dependability, integrity, and initiative.

The **Walsch-Loock Scholarship Award** is presented annually to a medical technology student on the basis of scholarship, promise of professional achievement, and financial need.

HEALTH INFORMATION MANAGEMENT

The **California Health Information Association Award** is presented to students of health information management and medical record technician schools in the state. Selection is based on scholarship, leadership, and promise of outstanding professional achievement.

The **Faculty Award** is presented to a senior who has shown promise of leadership, scholarship, and potential contribution to the profession.

The **Health Information Management Student Award** is given by classmates to the senior considered most representative of the profession.

The **Margaret B. Jackson Scholarship Award** is presented by the department to a senior on the basis of scholarship, promise of outstanding professional achievement, and financial need.

The **Smart Corporation Scholarship Award** is presented at the annual convention of the Califor-nia Health Information Association on the basis of scholarship and financial need.

The **Southern California Health Information Association Award** is given in recognition of academic achievement and potential contribution to the profession.

NUTRITION AND DIETETICS

The **Ruth Little Nelson Scholarship Award** is presented to selected students in the junior year. Selection is based on scholarship; leadership; financial need; and such personal attributes as integrity, dependability, and initiative.

The **Lydia Sonnenberg Scholarship Award** is presented annually to selected junior students. Selection is based on academic performance as well as demonstrated skill and interest in publishing nutrition information for the public.

The **Fred Lambert Memorial Scholarship Award** is given annually to a junior who has demonstrated outstanding potential for success as an administrative dietitian. The award will be given based on academic success, involvement in social and professional activities, personal promotion of the profession and image of the administrative dietitian, and submission of an essay discussing how the food-service administrator can contribute to the mission of the Seventh-day Adventist church.

The **Kathleen Keen Zolber Scholarship Award** is given by the department to selected juniors in recognition of scholarship and promise of outstanding professional achievement.

The **Nutrition and Dietetics Alumni Association Scholarship Award** is given annually to a senior student who has demonstrated outstanding academic performance and promise of expertise in professional achievement.

The **Nutrition and Dietetics Faculty Award**, presented to selected junior students, is based on scholarship, promise of professional achievement, and demonstrated financial need.

The **Martha Miller Scholarship Award** is given annually to a sophomore or junior student in the Autumn Quarter and is based on scholarship, demonstrated financial need, and promise of outstanding professional achievement.

OCCUPATIONAL THERAPY

The **Faculty Award** is presented to a senior occupational therapy student and to an occupational therapy assistant student who have shown promise of outstanding professional achievement and whose performance is in harmony with the objectives of the University.

The **Inland Counties Occupational Therapy Association of California Award** is presented to senior occupational therapy and occupational therapy assistant students in recognition of excellent academic and clinical performance.

The **Occupational Therapy Alumni Association Award** recognizes outstanding scholastic and professional achievement in occupational therapy. The award is presented to a senior occupational therapy student and an occupational therapy assistant student.

The **Southern California Consultants Scholarship Award**, presented annually to two occupational therapy assistant students, is based on scholastic achievement and financial need.

PHYSICAL THERAPY

The **Faculty Award** is presented to a senior who has shown promise of outstanding professional achievement and whose performance is in harmony with the objectives and goals of the University.

The **Fred B. Moor Award** is presented to a senior who has demonstrated exceptional clinical skills and knowledge in the care of physical therapy patients.

The **Physical Therapy Alumni Association Achievement Award** recognizes outstanding scholastic attainment and active participation in physical therapy student activities and community involvement.

The **Physical Therapy Alumni Association Scholarship Award** recognizes the student with the highest scholastic attainment in professional studies.

The **Thomas G. Burke Memorial Scholarship Award** recognizes the outstanding student in the pursuit of and dedication to a second career.

RADIATION TECHNOLOGY

The **Walter L. Stilson Award** is given to a student in each clinical facility who has shown promise of outstanding professional achievement and whose performance is in harmony with the objectives of the University.

The **Faculty Award** is given by the department in recognition of superior scholarship.

SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY

The **Outstanding Senior Award** is given to a student who has performed well academically, developed good clinical skills, and contributed to creating a positive learning environment within the department.

The **Evelyn Britt Promising Student Award** is presented to students preparing for graduate work in speech-language pathology and audiology. It recognizes students who show promise of scholastic and professional achievement.

ALUMNI FEDERATION AWARD

The **Alumni Federation Award** is presented to a graduate whose performance, attitudes, personal qualities, and general mode of life demonstrate outstanding public or humanitarian service, fulfill in a major way one of the objectives of the University, or bring credit or honor to the University. The recipient is selected from one of the schools of the University.

DEAN'S AWARD

The **Dean's Award** is made annually in recognition of academic excellence and commitment to the objectives of the School.

PRESIDENT'S AWARD

The **President's Award**, established in 1960, is made annually in recognition of superior scholastic attainment and active participation in the student community, within the framework of Christian commitment. A recipient is selected from each school of the University.

Financial Information

The Office of the Dean is the final authority in all financial matters and is charged with the interpretation of all financial policies. Any exceptions to published policy in regard to reduction or reimbursement of tuition must be approved by the dean. Any statement by individual faculty members, program directors, or department chairs in regard to these matters is not binding on the School or the University unless approved by the dean.

GENERAL PRACTICES

The student is expected to arrange for financial resources to cover all expenses before the beginning of each school year. Accounts with other schools or with this University must be settled prior to registration.

Advance payment and refunds

Tuition and fees are payable in full at the beginning of each term. If the student withdraws from a course or all courses up to the 60 percent point (in time) of the quarter, tuition will be refunded on a pro-rata basis with refunds of not less than the portion of tuition assessed equal to the remaining portion of the enrollment period as of the last day of attendance (rounded down to the nearest 10 percent of that period.)

To withdraw from a course(s), the student must complete a Change of Program form; or a Total Withdrawal form to completely withdraw from School. The date the properly completed form is submitted to the Office of University Records will be the date of withdrawal used in calculating tuition refunds. These forms should be completed and submitted on the last day of class attended.

Monthly statement

The monthly statement is sent to the student. The student may request that an additional statement copy be sent to a parent or sponsor monthly. The amount of the monthly statement is due and payable in full within thirty days after presentation. An account that is more than thirty days past due is subject to a service charge of .833 percent per month (10 percent per year). Failure to pay scheduled charges or to make proper arrangements, which is reported to the Office of the Dean, may cause the student to be considered absent/discontinued or ineligible to take final examinations.

Financial clearance

The student is expected to keep a clear financial status at all times. Financial clearance must be obtained each term; before receiving a certificate or diploma; or before requesting a transcript, statement of completion, or other certification to be issued to any person, organization, or professional board.

To obtain financial clearance from the Student Finance Office, the student must have a zero (-0-) balance due on account. To obtain financial clearance from the Student Loan Collection Office, the student must be current on all loan-account payments and must have fully completed a loan exit interview after having ceased to be enrolled for at least half time.

Checks

Checks should be made payable to Loma Linda University and should indicate the student's social security number to ensure that the correct account is credited.

Acceptance deposit

Upon notification of acceptance, the applicant makes a deposit with the Office of Admissions and Records in order to hold a place in the class. This amount is deducted from the tuition and fees due at the initial registration. The deposit is nonrefundable.

Room and key deposit

Residence hall room and key deposits are required by the residence hall dean and must be forfeited after August 15 if occupancy does not follow for the Autumn Quarter. At the close of the term of residence, both the room deposit and the key deposit are refunded after the dean's inspection and clearance and the student's return of the key.

International students

International students must be prepared to provide an advance deposit as required by the University and must provide documentation that additional funds will be forthcoming to meet school expenses. The deposit will be held by the University during the program of study and will be applied to the last quarter's tuition charge.

Scholarships and assistantships for international students are scarce, and employment is limited by regulations of the Immigration and Naturalization Service to no more than twenty hours per week. Unless special permission is given by immigration authorities, international students are restricted to employment on campus.

Veteran's educational benefits eligibility

If a student receives educational assistance from the Department of Veterans Affairs and the cumulative grade point average (G.P.A.) remains below the graduation requirements for more than the equivalent units of three consecutive terms, the student will not be certified for veterans educational benefits until his/her academic status is restored to regular standing.

Health service

All full-time students taking at least 7 paid units who have enrolled in the Student Health Plan through Risk Management are automatically covered by health service provisions. Students enrolled for fewer than 7 units per quarter may request and pay for health service coverage. Hospital and medical expenses outlined in the *Student Health Plan* booklet are covered. Items not covered by the terms of the plan are payable by the student in all cases, and payment is expected at the time these services are given. Students may purchase family coverage through the Department of Risk Management. (See also Student Health Plan paragraphs in the Student Life section of this BULLETIN.)

SCHEDULE OF CHARGES (2000-2001)

(Subject to change by Board of Trustees action)

NOTE: Tuition rates are effective Summer Quarter through the following Spring Quarter.

TUITION

Associate Degrees

$287	Per unit for the first 6 units
172	Per unit beyond the first 6 units
143.50	Per unit for audit and tutorial study

Baccalaureate Degrees, Entry-Level Master of Physical Therapy Degree, Certificate Programs, and Special Student

$410	Per unit for the first 6 units
246	Per unit beyond the first 6 units
205	Per unit for audit and tutorial study

Master of Occupational Therapy, Advanced Master of Physical Therapy, Doctor of Physical Therapy, Doctor of Physical Therapy Science, and Graduate Speech Pathology

$410	Per unit for all units
$205	Per unit for audit and tutorial study

SPECIAL TUITION CHARGES

$250	Per quarter for advanced clinical experience
125	Per course to remove an Incomplete in a clinical-experience course
50	Per course to repeat a clinical-experience course when the program of study is not extended
50	Per eighty clock hours ($125 minimum) to repeat a clinical-experience course when the program of study is extended

SUPPLIES

Estimated annual expense of $600-1,500 for supplies (textbooks, professional apparel, materials), depending on program and year of study

SPECIAL CHARGES

$ 50	Application
25	Reapplication
100	Acceptance deposit, nonrefundable (applied on tuition)
200	Acceptance deposit, M.P.T/D.P.T. degrees, nonrefundable (applied on tuition)
200	Acceptance deposit M.P.A. degree, nonrefundable, (applied on tuition).
200	Acceptance deposit, emergency medical care–B.S. degree, nonrefundable (applied on tuition)
50	Late registration (beginning first day after the published first day of each quarter)
50	Late-payment charge if loan funds are not received by registration and loan application was made less than thirty days before registration; if check is returned by bank (in addition to $10 charge); or if student gives a postdated check at registration
25	Credit by examination (per unit of credit)
50	Examination other than regularly scheduled; waiver examination (per course)
75	Surgical technology laboratory fee
25	Food laboratory fee
25	Microscope rental, per quarter (clinical laboratory science and cytotechnology students)
15	Book usage and replacement fee per quarter (cytotechnology students)
2	Transcript of credit ($5, rush; $10, FAX)
10	Returned-check charge
cost	Professional pin
cost	CPR certification

NATIONAL AND STATE EXAMINATIONS

$105	Cytotechnology, ASCP Board of Registry
80	Dietetic Technology, American Association (registration)
125	Dietetics, American Association (registration)
15	American Health Information Management Association (AHIMA) student membership fee
10	California Health Information Association (CHIA) student membership fee
175	Health Information Management, AHIMA registry examination fee (member)
225	Health Information Management, AHIMA registry examination fee (nonmember)
195	Health Information Management Certified Coding Specialist (CCS) (through AHIMA)
105	Medical Technology, ASCP Board of Registry
89	Clinical Laboratory Scientist—California
95	Clinical Laboratory Scientist License—National
325	National Board for Certification in Occupational Therapy (NBCOT)
325	National Board for Certification in Occupational Therapy Assistant (NBCOT)
555	Physical Therapist Assistant, California State Board and License
701	Physical Therapy, California State Board and License
125	Radiation Technology, American Registry
50	Radiation Technology, California license
200	Respiratory Therapy, NBRC national certification
366	Respiratory Therapy, California state certification.

NOTE: Fees are set by national and state organizations and are subject to change.

MISCELLANEOUS EXPENSES

Estimated living expenses:

$8,010	On-campus, single student: nine months (dormitory fee, food, clothes, personal items, recreation, transportation)
$5,900	Off-campus, single student living at home: nine months
$10,800	Off-campus, single student providing own housing: nine months
cost	Transportation for off-campus assignments (University-sponsored)
cost	Membership fees
cost	Health care items not covered by health insurance
cost	Breakage, damage, loss of University equipment

STUDENT AID

For all allied health professions programs, inquiries about loans and other student financial matters should be made to the Office of Financial Aid. The new or returning student must file the following completed documents with the Office of Financial Aid:

1. Undergraduate LLU financial aid application.
2. Photocopies of parents' and student's 1998 or 1999 federal tax return(s).
3. Financial aid transcripts from each institution previously attended since high school, regardless of whether or not aid was received.
4. Income Tax Affirmation (ITA)/Statement of Registration Compliance (SRC).
5. Other documents as requested, if
   - the student or the student's parents receive nontaxable income,
   - the student is self-supporting, or
   - the student is a permanent resident.

Applicants anticipating need of financial assistance should apply for aid early. It is not necessary to have received an acceptance before applying. Priority will be given to those applicants whose completed applications are received by March 15 of each year. Late applications will be funded as long as aid is available.

Financial assistance is determined without regard to gender, race, religion, national or ethnic origin, age, or physical disability. Only U.S. citizens and permanent residents qualify for financial aid.

Financial aid applications

Loma Linda financial aid applications for the 2000-2001 academic year (Summer through Spring Quarters) are available in the Office of Financial Aid in January. They are also available on line at www.llu/ssweb. FAFSA applications are available on line at www.fafsa.edu.gov. Financial aid applications must be renewed annually. Cal Grant deadline is March 2.

Special grants (WICHE)

The University participates in the student exchange program of the Western Interstate Commission for Higher Education. Eligibility requirements vary among states. Interested students should apply to their state's certifying officer for further information. The name and address of the certifying officer can be obtained from the Western Interstate Commission for Higher Education, P.O. Drawer P, Boulder, CO 80302.

Inquiry also may be made at the Office of Student Financial Aid. The application deadline is October 15 prior to the year aid is needed.

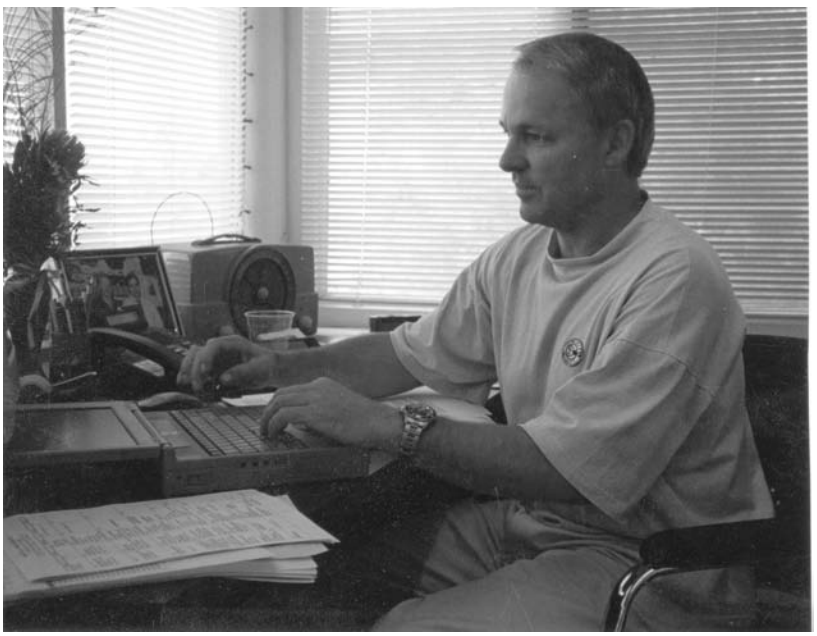
Loans

The University participates in a number of government loan programs. Loan funds, in limited amounts, are also available for senior students in the final two quarters of the program, upon the recommendation of the dean. Limited scholarship funds are available from the School's Scholarship Endowment Fund. Students who complete the Loma Linda University financial aid application will be considered for all available funds.

The Student Loan Collection Office reserves the right to invoke the student-loan promissory note collection-cost clause on student-loan accounts, both federal and private, sent to an outside agency for collection. The collection clause states:

> **"If action is instituted on this note, the undersigned promises to pay all attorney's fees and other costs and charges necessary for the collection of any amount not paid when due."**

Running the School of Allied Health Professions financial ship is Kent Chow, assistant dean of finance.



Planning his next recruitment itinerary, Mel Sundean, director of marketing, checks to make sure he hasn't omitted any stops.

III

THE DEPARTMENTS

General Information

Cardiopulmonary Sciences

RESPIRATORY THERAPY—Associate in Science; Entry-Level Bachelor of Science; Post-Professional Bachelor of Science
EMERGENCY MEDICAL CARE—Progression Bachelor of Science; Bachelor of Science
PHYSICIAN ASSISTANT—Master of Physician Assistant
SURGICAL TECHNOLOGY—Associate in Science

Clinical Laboratory Sciences

PHLEBOTOMY—Certificate
CYTOTECHNOLOGY—Certificate; Bachelor of Science
CLINICAL LABORATORY SCIENCE (MEDICAL TECHNOLOGY)—Bachelor of Science
CLINICAL LABORATORY TECHNICIAN (MEDICAL LABORATORY TECHNICIAN)—Associate in Science

Health Information Management

HEALTH INFORMATION SYSTEMS—Master of Health Information Systems
HEALTH INFORMATION SYSTEMS—Post-Master's Certificate in Health Information Systems
HEALTH INFORMATION ADMINISTRATION—Certificate; Bachelor of Science
CODING SPECIALIST—Certificate

Nutrition and Dietetics

DIETETIC TECHNOLOGY—Associate in Science; Certificate
NUTRITION AND DIETETICS—Bachelor of Science; Certificate

Occupational Therapy

OCCUPATIONAL THERAPY ASSISTANT—Associate in Arts
OCCUPATIONAL THERAPY—Entry-Level Master of Occupational Therapy; Post-Professional Master of Occupational Therapy

Physical Therapy

PHYSICAL THERAPIST ASSISTANT—Associate in Science
PHYSICAL THERAPY—Entry-Level Master of Physical Therapy; Progression Master of Physical Therapy; Post-Professional Master of Physical Therapy
PHYSICAL THERAPY—Entry-Level Doctor of Physical Therapy; Post-Professional Doctor of Physical Therapy; Post-Professional Doctor of Physical Therapy Science

Radiation Technology

MEDICAL RADIOGRAPHY—Associate in Science
RADIATION SCIENCES—Bachelor of Science
DIAGNOSTIC MEDICAL SONOGRAPHY—Certificate
NUCLEAR MEDICINE TECHNOLOGY—Certificate
RADIATION THERAPY TECHNOLOGY—Certificate
SPECIAL IMAGING TECHNOLOGY: CT/MRI (COMPUTED TOMOGRAPHY / MAGNETIC RESONANCE IMAGING)—Certificate

Speech-Language Pathology and Audiology

SPEECH-LANGUAGE PATHOLOGY—Certificate
SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY—Bachelor of Science

General Information

The sections that follow provide information regarding codes and terms; educational experiences as applied in the laboratory, practicum, and/or affiliation; continuing education; conjoint and cognate courses; the Bachelor of Science degree in health science; and the portfolio practicum, which—over a one-to-two year period—documents growing competence in the chosen profession while helping the student evaluate and integrate personal goals and the wholistic mission and goals of the University and School.

CODES AND TERMS

Unit of credit

Credit is granted in terms of the quarter unit, which represents 10 to 12 class hours together with the requisite study, preparation, and practice; or a minimum of 20 laboratory hours; or the equivalent in pre- and/or post-laboratory studies.

Continuing education unit

A continuing education unit (CEU) is defined as 10 contact hours in lecture, conference, or a combination of laboratory practice and administration.

Course number

Ordinarily, course numbers reflect the year in which the courses are taken: 001-099, remedial; 101-199, freshman; 201-299, sophomore; 301-399, junior; 401-499, senior; 501-599, graduate.

Code letters

The subject areas are indicated by code letters as follows:

ACCT	Accounting
AHCJ	Allied Health Conjoint
ANAT	Anatomy
BCHM	Biochemistry
BIOL	Biology
CHEM	Chemistry
CLSC	Cytotechnology
CLSM	Medical Technology
DTCH	Dietetic Technology
DTCS	Nutrition and Dietetics
EDCI	Curriculum and Instruction
EDFO	Educational Foundations and Research
EDPC	Educational Psychology and Counseling
EMMC	Emergency Medical Care
ENGL	English
HLCS	Coding Specialist
HLIN	Health Information Management
MATH	Mathematics
MGNT	Management
OCTA	Occupational Therapy Assistant
OCTH	Occupational Therapy
PAST	Physician Assistant
PATH	Pathology
PHRM	Pharmacology
PHSL	Physiology
PHTH	Physical Therapy
PMPT	Progression Physical Therapy
PSYC	Psychology
PTAS	Physical Therapist Assistant
RELB	Biblical Studies
RELE	Christian Ethics
RELR	Professional Ministry
RELT	Theological Studies
RSTH	Respiratory Therapy
RTCH	Radiation Technology
RTMR	Medical Radiography
RTMS	Medical Sonography
RTNM	Nuclear Medicine
RTSI	Special Imaging
RTTH	Radiation Therapy
SPPA	Speech-Language Pathology and Audiology
SGTH	Surgical Technology

The schools are indicated by code letters as follows:

AH	School of Allied Health Professions
GS	Graduate School
SD	School of Dentistry
SM	School of Medicine
SN	School of Nursing
PH	School of Public Health
FR	Faculty of Religion

APPLIED EDUCATIONAL EXPERIENCES

The following terms are used to describe the applied educational experiences during the course of professional training.

Laboratory

A laboratory is an application of theory and principles to real-life situations to develop skill and proficiency and a deeper understanding of the workings of theory.

Practicum

A practicum is a supervised practical application of theoretical studies to the clinical situation. Practica may occur concurrently with specific courses or may follow the completion of one or more theory courses.

Affiliation

An affiliation is a full-time experience in a clinical setting in which the student functions as a junior staff member with supervised, assigned responsibilities. The affiliation usually comes after the completion of all theoretical or preclinical studies; but in some instances, affiliations may also occur at the end of the junior year.

CONTINUING EDUCATION

The School of Allied Health Professions offers continuing education. Information is available from the appropriate department.

CONJOINT COURSES

AHCJ 031 Communication Skills Development I (1)
Pronunciation, spoken language usage, vocabulary, and grammar skills assessed. Instructors and advisers interviewed regarding classroom and/or clinical needs. Diagnostic experimentation used to identify the best method of instruction for the student. Course may be repeated.

Prerequisite: Consent of instructor. Offered for students, faculty, and staff who have learned English as a second language and are having difficulty communicating in spoken English. Due to limited enrollment, first preference will be given to students.

AHCJ 032 Communication Skills Development II (1)
Pronunciation, spoken language usage, vocabulary, and grammar skills assessed. Instructors and advisors interviewed regarding classroom and/or clinical needs. Diagnostic experimentation used to identify the best method of instruction for the student. Course may be repeated.

Prerequisite: Consent of instructor.

AHCJ 033 Communication Skills Development III (1)
Pronunciation, spoken language usage, vocabulary and grammar skills assessed. Instructors and advisers interviewed regarding classroom and/or clincal needs. Diagnostic experimentation used to identify the best method of instruction for the student. Course may be repeated.

Prerequisite: Consent of instructor.

AHCJ 034 Communication Skills Development IV (1)
Pronunciation, spoken language usage, vocabulary, and grammar skills assessed. Instructors and advisers interviewed regarding classroom and/or clinical needs. Diagnostic experimentation used to identify the best method of instruction for the student. (Course not taught every year.)

AHCJ 105 Procedures in Phlebotomy (3)
Designed for individuals who are interested in laboratory medicine and would like to become certified phlebotomists. Students trained in venipuncture and skin puncture. Medical terminology, laboratory safety, CPR, basic anatomy and physiology, specimen-collection techniques, hazards/complications, quality-assurance methods, and medicolegal issues of phlebotomy. Clinical rotation arranged at Loma Linda University Medical Center. CPR training and certificate arranged for students who are not already certified.

Corequisite: Current CPR certificate.

AHCJ 131 Communication Skills (1)
Advanced ESL oral communication designed to provide students with the opportunity to develop and practice basic oral communication techniques in professional and academic contexts, e.g., research and case presentations. Additionally, overall nonnative speech patterns will be facilitated within these contexts to increase speech intelligibility.

Prerequisite: AHCJ 031, 032, and 033; or equivalent.

AHCJ 235, 235L Essentials of Human Anatomy and Physiology, Lecture and Laboratory (4, 1)
Study of the structure and function of the human body, including organ systems. (Prerequisite to many certificate and associate degree programs, e.g., coding specialist/certificate, occupational therapy assistant/A.A.). Lecture and laboratory required.

AHCJ 240 Microbiology (4)
Designed for students in the health sciences. History, classification, morphology, growth, control, transmission, and pathology of selected bacteria, viruses, fungi, rickettsia, and parasites. Host defenses against microbial pathogens, including specific and nonspecific immunity. Lecture, thirty hours; laboratory, thirty hours. Course covers two quarters.

Prerequisite: A college level chemistry course.

AHCJ 250, 251 Anatomy and Physiology (4, 4)
An 8-unit (4 units Winter Quarter plus 4 units Spring Quarter) course that covers structure and function of human biology. For students entering two- and four-year health professional programs such as physical therapy, occupational therapy, cardiopulmonary sciences, speech-language pathology and audiology, radiation technology, nursing, and other programs with an anatomy and physiology prerequisite.

AHCJ 252 Human Anatomy and Physiology (4)
Function of enzymes; cell respiration and metabolism; secretion and action of hormones; circulatory and respiratory systems. Lecture and laboratory. Riyadh, Saudi Arabia.

Prerequisite: AHCJ 251.

AHCJ 303 Spanish for Medical Professionals (2-4)
Basic Spanish communication skills used in patient care; medical terminology; cultural awareness. Conversation and grammatical review used in the communication process. Lecture, demonstration, and participation. For additional units, students required to interview a patient in their discipline, outline a treatment plan, and present the plan in Spanish to the instructor.

AHCJ 305 HIV/AIDS and the Health Provider (1)
Current issues related to HIV/AIDS, with special emphasis on the epidemiology and etiology of the disease. Psychosocial, economic, ethical, and legal concerns. Education for prevention. Impact on the health care worker. Resources available. Risk factors and precautions for blood-borne pathogens, HIV, hepatitis, and tuberculosis.

AHCJ 308 Professional Communications (1-2)
Forms of written and verbal communication routinely required in the performance of the health care-manager's duties. Projects include memos, letters, confidential FAX cover design, short reports, meeting notices, minutes, and creation of an agenda.

AHCJ 311 Medical Terminology (1-2)
Language of medicine, including word construction, definitions, and the use of terms related to medical science. Course organized by body systems.

2 units: Includes six body systems with evaluation in the form of homework, weekly quizzes, midterm and final examinations.

1 unit: Includes four body systems with weekly quizzes and a final comprehensive examination.

AHCJ 312 Anatomy (9)
Gross and microscopic anatomy of the human body. Lecture, laboratory, dissection, demonstration, and slides. Orientation to the structure of various systems of the body. Basic medical terminology. (Successful completion of this course is essential for continuation in the program.)

AHCJ 318 Physiology I (4)
Physiology of the human body, including cellular, neuromuscular, cardiovascular, respiratory, gastrointestinal, renal, and endocrine physiology.

AHCJ 321 Dynamics of Communication (2)
Survey of communication skills, including group dynamics, self-awareness, interpersonal relationships, learning styles, problem solving, listening skills, and body language. Systematic observation, patient interviewing techniques, and objective medical documentation. Problem identification and goal setting in a multiperson health care-delivery system.

AHCJ 324 Psycho-Social Models and Interventions (2)
Orientation to the major models in psychology and how they relate to medical care. Development of a psychological model for interpretation of needs of the person in crisis. Understanding the roles of psychiatrists, psychologists, social workers, and family therapists. Suicide intervention. Critical-incident debriefing. Support factors in providing temporary, adequate psychological care for all involved in medical crisis.

AHCJ 326 Patient-Care Methods (2)
Foundation of basic patient-care information and skills for allied health professionals entering the clinical environment. Integrated basic-care knowledge and skills required by each profession.

AHCJ 328 Portfolio Practicum I(1)
SAHP goals for graduates introduced. Students demonstrate progression towards effective communication, teamwork, support of diversity, ethical behavior, appreciation of human worth, balanced work-rest-leisure within a spiritual atmosphere, and commitment to long-term personal and professional growth.

AHCJ 329 Organic Chemistry, with Laboratory (5)
Study of carbon chemistry as related to organic compounds found in the human organism.

AHCJ 331 Personnel Management (3)
Theory and practice of the management of people at work. Organizational behavior concepts and the problems of employee procurement, training, and motivation. Job evaluation, wage administration, employee benefits, and negotiating with labor unions. Preparation both for managing people and directing a department in a complex organization.

AHCJ 334 Biochemistry (5)
Chemistry and metabolism of carbohydrates, lipids, nucleic acids, and proteins. Chemical basis of life processes. Lecture and laboratory demonstrations to support student competency.

AHCJ 351 Statistics for the Health Professions (3)
Fundamental procedures in collecting, summarizing, analyzing, presenting, and interpreting data. Measures of central tendency and variation, probability, binomial and normal distribution, hypothesis testing and confidence intervals, t-tests, chi square, correlation, and regression. Introduction to ABstat statistical package for computer data analysis.

AHCJ 402 Pathology I (4)
Fundamental mechanisms of disease, including cell injury, inflammation, repair, regeneration, and fibrosis; vascular, cardiac, respiratory, gastrointestinal, hepatobiliary, urinary, reproductive, endocrine, and integumentary pathologies.

AHCJ 403 Pathology II (3-4)
Fundamental mechanisma of disease, including the central and peripheral nervous systems; bone and joint, skeletal muscle, develpmental, genetic, infectious, and parasitic pathologies; and neoplasia. Additional unit requires two autopsy viewings and written report.

Prerequisite: AHCJ 402

AHCJ 404 Pharmacology (1)
Introduction to pharmacology, including study of pharmacokinetics, pharmacodynamics, and actions of pharmaceuticals commonlly encourtered in various allied health professions.

AHCJ 405 Dynamics of Learning and Teaching (1-3)
2 units: Examination of the theories of learning applied to teaching process. Includes evaluation of current research and methods of instruction.
3 units: Includes requirements for 2 units plus a referenced research paper.

AHCJ 406 Introduction to On-Line Research (1)
Hands-on introduction to information resources on line. Acquaints students with Medline, Linda, Dial-in-Access (i.e., America on Line, Prodigy), and the Internet; and equips students to conduct extensive on-line searches for research information.

AHCJ 407 Financial Management (2)
Financial aspects of health care involving prospective reimbursement system, analysis of various health-care reimbursement schemes, and hospital financial disbursements. Budget variance analysis, analysis of cost components, operating statements, and productivity related to a department budget. Special projects may be assigned as needed.

AHCJ 408 Health Care Management (4)
Management theory: planning, organizing, directing, and controlling (including budgetary controls). Department productivity and theories of work simplification. Preparation of resumes, interviewing skills, professional attitudes, group theory, and group dynamics. Students spend the last two to three weeks doing special projects designed and supervised by their departments. (Department of Nutrition and Dietetics students register for a 2-unit practicum in conjunction with this course.)

AHCJ 409 Adult Learning Styles (3)
Theories and styles of learning; personality factors related to learning; implications of effective intellectual, emotional, and social functioning included within the context of structuring education for the adult learner. Analysis of the teaching process including setting of objectives, selection of content, and design of classroom and clinical teaching strategies, with emphasis on alternatives to lecturing.

AHCJ 414 Foundations of Health Information Systems (2)
Survey course for students interested in pursuing a master's degree in health information systems, business majors, and others who anticipate working with databases and computer systems in health care settings. Course includes introduction to the vocabulary and the principles of health information systems, specifically, the value of information, reasons for adopting the systems approach, general systems theory, scope of a system, structure and classification of systems, and the systems life cycle.

Prerequisite: Introduction to computers.

AHCJ 415 Educational Psychology for Health Professionals (3)
Psychological factors related to learning processes in professional and higher education. Emphasis on the role of communication skills in learning settings, gender influences on learning, objectives setting and course design, stimulation of higher-level thinking, motivation, and retention.

Prerequisite: AHCJ 409.

AHCJ 416 Sociology of the Hospital Environment (2)
Exploration of hospital culture in the context of medical sociology, including both the history and continuing evolution of health care norms. Examination of interactions between and within hospital microenvironments. Observation and analysis of interactions to include: expectations, obligations, negotiations, control, and compliance. Introduction to quantitative data-collection techniques. Survey of the social, political, and economic forces that impact delivery of health care. Guest speakers and departmental tours included.

AHCJ 419 Physiology II (3)
Detailed study of neuromuscular physiology.

Prerequisite: AHCJ 318.

AHCJ 421 Psychology of Physical Disability (2)
Psychological reactions to illness or disability. Methods of dealing with these reactions considered with reference to the clinical situation. Seminar approach to professional responsibilities for health care.

AHCJ 426 Introduction to Computer Applications I (1-3)
Hands-on instruction in Word, Excel, and PowerPoint. Class activities include hands-on lectures, laboratory assignments, quizzes, projects, and a written and practical examination.

AHCJ 428 Computer Applications II (3)
Review of current computer applications for health care professionals, including software, hardware for office management, graphics, educational presentations. Literature acquisitions and adaptive devices.

Prerequisite: AHCJ 426 or equivalent (successful demonstration of computer knowledge).

AHCJ 431 Database Management I (3)
Introduction to database management concepts, with emphasis on medical information. Microsoft Excel used as a flat database. Data management and presentation using the sorting, reporting, and charting functions of Excel.

Prerequisite: Introduction to computers.

AHCJ 432 Database Management II (2)
Theories and steps of database development using Microsoft Access. Topics include but are not limited to: relationships, form building, advanced queries, reporting, and macros. Project creating a basic medical-information database from scratch required.

Prerequisite: AHCJ 431 or consent of instructor.

AHCJ 433 Special Projects in Computer Applications (2)
Computer systems and applications designed to meet the specific professional needs and interests of the student. Emphasizes use of databases with health care data and on-systems design, as needed.

Prerequisite: AHCJ 431, 432.

AHCJ 444 Functional Neuroanatomy (3)
Study of neuroanatomical systems, structures, and pathways, with application to lesions of the human nervous system.

AHCJ 461 Research Methods (2-3)
Introduction to the scientific method in research. Focus on the major steps of the research process as these steps relate to research-report evaluation, proposal writing, literature review, development of conceptual framework, identification of variables, statement of hypotheses, research design, and analysis and presentation of data.

Corequisite: AHCJ 351.

AHCJ 464 Group Process and Dynamics (3)
Introduction to principles and techniques of group theories, processes, and dynamics, as applied to the health-professional setting. Concepts include group functions, roles, structures, and characteristics; group membership, norms, dynamics, and relations. Theoretical perspectives on group development, dynamics, and conflicts. Practical issues, including educational applications, negotiation, observation, and diagnosis. Leadership issues, facilitation, expedition, and termination. Simulation exercises, active learning, and flexible choices of study and application.

AHCJ 465 Seminars in Leadership (2)
Prepares graduates for entry into the new work requirements. Through observation and participation, student explores the responsibility of today's employee to successfully integrate customer and community service and social responsibility.

AHCJ 466 Advanced Studies in Selected Physical Therapy Topics (5)
Provides students in-depth opportunities to pursue various areas of physical therapy, including orthopaedics, neurology, sports medicine, and general medicine. Incorporates literature review and related research activities.

AHCJ 485 Technology in Education (3)
Introduction to instructional technologies and their applications in education, including: computer-generated media, Internet resources, chat rooms, Web courses, two-way audio, videos, desk-top conferencing, and teleconferencing.

AHCJ 497 Advanced Clinical Experience (40 to 480 clock hours per term)
Advanced clinical experience in selected areas of professional practice.

AHCJ 498 Portfolio Practicum II (1)
1 unit: Development of portfolio that illustrates the potential graduate's ability to meet the goals set by SAHP for graduates of baccalaureate and master's degree programs.
2 units: Requires a research abstract. Course covers three quarters (AU, WN, SP). IP grade will carry through each quarter until completion of third quarter, at which time grade is issued.

AHCJ 499 Directed Study (1-4)
Individual arrangements for students to study under the guidance of a program faculty member. May include readings, literature review, or other special or research projects. Minimum of thirty hours required for each unit of credit. Laboratory may be required in addition to class time. A maximum of 4 units applicable to any degree program.

AHCJ 501 Advanced Clinical Practice I (3)
Demonstration and practice of advanced examination, assessment, and treatment of the lumbar spine, pelvic girdle, and lower extremities. Lecture and demonstration.

AHCJ 502 Advanced Clinical Practice II (3)
Emphasizes the skills utilized by clinical specialists in neurophysical therapy. Content based on the description of AHCJ 501 Advanced Clinical Practice I.

AHCJ 503 Advanced Clinical Practice III (3)
Advanced clinical decision-making skills, with focus on patient classification, clinical-diagnosis practice parameters, and practice guidelines. Emphasizes development of clinical algorithms, clinical prognostic skills, and outcome measures.

AHCJ 505 Educational Psychology for Health Professionals (3)
Study of psychological development as it relates to the learning process in professional and higher education. Particular emphasis on the role of development, gender and learning, communication skills in learning settings, objectives setting and course design, stimulating higher-level thinking, motivation, and retention.

AHCJ 506 Educational Evaluation and Clinical Assessment (3)
Introduction to principles and techniques of designing evaluation activities and tests for measuring classroom learning and instructional products. Includes criteria-referenced approaches, formative and summative instruments, critical-incident observations, portfolio assessment, and other measurement concepts.

AHCJ 507 Pharmacology in Physical Therapy Practice (3)
Principles of pharmacology as related to diagnosis, prevention, and treatment of disease—including a presentation of the pharmacology and therapeutic value of drugs used in rehabilitation medicine. Related topics include pharmacokinetics, pharmacodynamics, adverse effects, drug interactions, and drug toxicity—with special consideration given to pediatric and geriatric pharmacology.

AHCJ 508 Current Issues in Basic Science (3)
Study of the current issues in basic science as related to physical therapy. Topics may include current advances in biomechanics, cell and molecular biology, tissue engineering and transplants, pharmacology, and presentation of basic science research. Lecture presentations and discussions of current literature.

AHCJ 509 Teaching and Learning Styles (3)
Explores theories and styles of learning and personality factors that relate to learning. Implications of effective intellectual, emotional, and social functioning included within the context of structuring education for the adult learner. Includes analysis of the teaching process from the setting of objectives, selection of content, and design of classroom and clinical teaching strategies—with particular emphasis on alternatives to lecturing—to assessment and evaluation.

AHCJ 514 Kinesiology: Motor Control and Learning (3)
Advanced kinesiology, including movement science dealing with behavioral basis of motor control and motor learning from an information-processing perspective.

AHCJ 515 Curriculum Development in Higher Education (3)
Examines principles of curriculum development. Selection, organization, and evaluation of learning experiences. Examines the nature, place, and interrelationship of general and specialized education in higher education.

AHCJ 516 Musculoskeletal Pathology (3)
Study of the etiology, pathogenesis, and clinical manifestations of selected bone, joint, and muscle pathologies. Discussion of current literature for selected pathologies.

AHCJ 517 Information Systems Organizational Theory (3)
Complexities of large organizations and bureaucratic systems. Formal and informal structures, communication patterns, and philosophical approaches as these affect the effectiveness and efficiency of delivery, work motivation, resources, procurement, and allocations. Applications of diverse organizational diffusion theories and perspectives.

AHCJ 518 Neurobiology (3)
Study of neurobiology, including current neuroscience literature, as related to selected pathologies.

AHCJ 519 Graduate Portfolio (1)
Development and preparation of materials collected throughout the instructional and internship period that demonstrate the student's knowledge of and training in health information systems. Projects, letters of recommendation, and records of directed practice. Attendance at University professional seminars required. Specialized training in areas of communication, diversity, ethics, balanced living, and compassion.

AHCJ 521 Advanced Orthopaedic Procedures I (3)
Demonstration and practice of advanced examination and treatment of the lumbar spine, pelvic girdle, and lower extremities.

AHCJ 522 Advanced Orthopaedic Procedures II (3)
Demonstration and practice of advanced examination and treatment of the cervical spine, shoulder girdle, and upper extremities.

AHCJ 523 Advanced Orthopaedic Procedures III (3)
Demonstration and practice of advanced examination and treatment of the lumbar spine, thoracic spine, and ribcage.

AHCJ 525 Biostatistics (3)
Fundamental procedures of collecting, summarizing, presenting, analyzing, and interpreting data. Sampling, measures of central tendency and variation, probability, binomial distribution, normal distribution, sampling distributions and standard error, confidence intervals, hypothesis testing, t-tests, chi-square, correlation, and regression. Introduction to computer analysis for solution of statistical problems.

AHCJ 526 Introduction to Computer Applications II (3)
Hands-on instruction in Word, Excel, and Power-Point. Class activities include hands-on lectures, laboratory assignments, quizzes, projects, and a final examination. In addition, a special Web page project is required.

AHCJ 527 Medical Screening in Physical Therapy (3)
Screening for non-neuromusculokeletal origins for the musculoskeletal complaints of patients who commonly seek physical therapy. Particular emphasis on components of the history and physical examination that suggest medical pathology requiring referral and/or physician consultation. Knowledge and skills related to screening for medical pathology in patients with musculoskeletal complaints of the lumbar spine, pelvis, lower extremities, thoracic spine, shoulder girdle, and upper extremities.

AHCJ 529 Hemiparetic Upper Extremity (1)
A manual therapy approach to management of the CVA upper extremity. Taught systematically using clinical reasoning as a model.

HCJ 530 Research and Statistics I (3)
In-depth study of research designs: their advantages and disadvantages, including pretest/posttest designs, posttest-only control-group designs, time-series designs, factorial designs, randomized block and repeated-measures designs, and incomplete block designs. Introduction to clinical trials, sequential research designs, and single-case experimental designs. Measurement and analysis of validity and reliability. Design of survey instruments. Use of power calculations for choosing appropriate sample sizes.

AHCJ 531 Research and Statistics II (3)
Analysis of data using one-way ANOVA with multiple comparisons, factorial ANOVA designs, randomized complete and incomplete block designs, and repeated measures. Introduction to multiple correlation and regression and model building using multiple regression techniques. Evaluation of research literature that uses multivariate analysis for data analysis. Introduction to nonparametric statistics. Interpretation of multivariate analysis computer output.

AHCJ 532 Research and Statistics III (3)
Selection of a research topic, literature review, proposal writing and approval. Collection of research data after proposal approval. Limited to students who are in the doctoral program in physical therapy.
Prerequisite: AHCJ 531 and consent of instructor.

AHCJ 533 Research and Statistics IV (3)
Individual arrangements for doctoral students to work with the instructor on analysis and preservation of research data. Preparation of manuscript presenting results of doctoral research study.
Prerequisite: AHCJ 532 and consent of instructor.

AHCJ 534 Advanced Neurological Rehabilitation (3)
In-depth study of the patient with spinal cord injury, including etiology, current treatment techniques in acute and outpatient settings, and principles of exercise physiology. Review of research activities with regard to a cure for spinal cord injury, as well as the legal aspects of ADA and the individual with a spinal cord injury.

AHCJ 535 Exercise and Thermoregulation (3)
Focus on energy sources utilized by the body for exercise, neural and mechanical structures of mechanisms that control body movements, environmental influences on exercise performance, and principles of aerobic and anaerobic exercise. Application of concepts and principles to normal and disabled human conditions.

AHCJ 536 Health Care Financial Management in Information Systems (3)
Understanding the finances of health care, including financial statements, reimbursement models of fee-for-service, capitation, managed care, and risk pools. Concepts of modeling and scenario planning, with emphasis on return on investment. Presentation of a health-information system technology strategic business plan.

AHCJ 537 Organizational Structure and Behavior in Information Systems (3)
Understanding, predicting, and influencing human behavior in an organization. The purpose of the course is to provide students with a variety of theories, models, strategies, and experiences in organizational behavior through which managers can find their own solutions in specific situations.

AHCJ 538 Histology (2-3)
Advanced histology of joint pathology and the associated changes in bone, cartilage, and other connective tissues. Paper required.

AHCJ 539 Human Factors in Technology Management (3)
Management theory applied to human resources and the flow of information throughout an institution. Recruiting, hiring, promotion, workload assignments, discipline. Legal and ethical issues. Managing people as individuals and in groups. Motivating, organizing, and directing teams.

AHCJ 545 Legal and Ethical Issues in Health Information (3)
History and structure of federal and state governments, including torts, contracts, administrative law, criminal law, and reporting issues. Legal and ethical issues in patient confidentiality and release of patient information. The impact of technology on the collection and dissimination of patient information. Medical legal liability issues, including corporate compliance. The computerized patient record.

AHCJ 546 Orthopaedic Interventions: Mobilization of Peripheral Nerves and Diathroidal Joints of the Extremities (3)
Advanced study of the management of orthopaedic and neurological disorders of the extremities. Clinical course designed to strengthen student's knowledge and application of mobilization techniques to the joints and nerves of the periphery. Lecture, laboratory sessions, case studies, and cadaveric specimen-guided study (as specimens available).

AHCJ 547 Orthopaedic and Neurological Integrative Manual Therapy (3)
Manual therapy approach for the treatment of common musculoskeletal problems integrating orthopaedic and neurological rehabilitation. Course based on a working knowledge of anatomy, muscle balance theory, neurodevelopmental treatment (NDT), muscle-length testing, soft-tissue mobilization (STM), and proprioceptive neuromuscular facilitation (PNF) principles. Emphasizes use of clinical reasoning during patient evaluation and patient management.

AHCJ 556 Faculty Procedures: Selection, Development, Evaluation (3)
Leadership issues for personnel selection, termination, development, and evaluation. Evaluation of faculty in clinical and lecture settings. Includes content and processes of evaluation, rating forms, quantifying data, evaluative decision making, and feedback. Examines criterion-referenced approaches. Form-ative and summative instruments, critical-incident observations, and other related measurement concepts.

AHCJ 557 Professional Systems in Management (3)
Administering the academic department: personnel selection, development, and evaluation; finance; team development; and leadership theories.

AHCJ 558 Stress and Health Behavior (3)
Evaluation of effects of stress on individuals, families, students, and health professionals in the educational setting. Biopsychological foundations, social systems, technological influences, life-development factors, and unique aspects of health-professional education analyzed. Coping strategies—such as nutrition, exercise, humor, time management and organization, cognitive therapies, relaxation, and imagery—explained.

AHCJ 564 Group Process and Dynamics (3)
Group guidance, theories of group-individual interaction, and the communication process. Educational orientation to the utilization of groups to enhance motivation, commitment, and learning.

AHCJ 565 Health Communication: Counseling Patients and Personnel (3)
Communication in health care, multiple applications of communication theory to health promotion, and essentials of professional communication in clinical teaching and leading groups of health professionals. Emphasis on counseling techniques, nondefensive communication, and increased communications awareness.

AHCJ 569 Computers and Electronics for Clinicians (3)
Thorough understanding of the roles of computers and electronics in a clinical setting. Equipment used in a classroom setting.

AHCJ 574 Behavioral Modification and Personal Change (3)
Exploration and application of health-behavior change models. Educational, psychosocial, behavioral issues, with emphasis in leadership, decision making, group process, and persuasion.

AHCJ 585 Technology in Education (3)
Introduction to instructional technologies and their applications in education, including: computer-generated media, Internet resources, chat rooms, Web courses, two-way audio, videos, desk-top conferencing, and teleconferencing.

AHCJ 591 Research I (3)
Introduces the scientific methods in health-science research. Focuses on the major steps of the research process: problem identification, literature review, conceptual framework, identification of variables, statement of hypothesis, experimental design, and analysis and presentation of data. Includes critical evaluation of research literature. Application of the research process to problems in related specific allied health fields. Development of a research proposal. Pilot testing of a research proposal. Testing of procedures and data forms. Implementation of the research proposal in a practice setting.

AHCJ 592 Research II (3)
Computer data analysis and preparation of a research report. Preparation of a poster appropriate for a professional meeting. Graphics, tables, and abstract.

AHCJ 599 Directed Teaching (3)
Specialty module developed and presented in classroom or clinical setting. Includes course application, course syllabus, measuring instrument, student course evaluation, and lesson plans.

Prerequisite: AHCJ 505, 506; or consent of instructor.

AHCJ 601 Research Proposal Writing (3)
Preparation of a researach proposal, including components essential for submission to the Institutional Review Board. Emphasis on writing skills in preparation of literature review, purpose, conceptual framework, proposed methodology, and statistical analysis. Includes the ways in which proposal serves as a basis for an article for publication.

AHCJ 605 Critical Analysis of Scientific Literature (3)
Evaluation of the scientific literature including critical evaluation of the rationale for the study; population inclusion/exclusion criteria; sampling and randomization techniques; sample size; appropriateness of the research design; choice of the data analysis; structure and content of tables and graphs; interpretation of statistical results; and applications to practice. Students evaluate research articles by answering questions posed by the instructor as well as by identifying and evaluating the above areas in articles of their own choosing.

AHCJ 629 Lower-Quarter Biomechanical Relationships (3)
Advanced examination procedures for performing a biomechanical assessment of the lower extremities. Emphasis on identifying the causes, compensations, and complications of movement dysfunctions associated with lower-extremity musculoskeletal-pain syndromes. Physical therapy management of gait abnormalities.

AHCJ 699 Directed Study (1-6)
Individual arrangements for advanced students to study under the guidance of a program faculty member. May include reading, literature review, other special projects. Minimum of thirty hours required for each unit of credit.

COGNATE COURSES

Cognate courses meet professional course requirements outside the core curricula for programs in the School of Allied Health Professions and are offered both by departments within the School and by departments of other schools of this University.

Ready, willing, and able to help all School of Allied Health Professions students, Bette Husted, Cindy Malinowski (director of evaluation and portfolio), and Nancy Farrell (graduate student) plan the next quarter's practicum.

EVALUATION OF MISSION AND GOALS—Portfolio development

The School of Allied Health Professions conducts an evaluation program that includes courses, validation of writing, and standardized measures related to wholeness. The evaluation courses, Portfolio Practicum I and II, are intended as a means of integrating the wholeness concept into the lives of the students and assessing the outcome of their educational process. The portfolio faculty and staff assist students in understanding and modeling the mission of Loma Linda University and the School of Allied Health Professions.

Each portfolio practicum is in progress for three-to-four quarters, during which time the student is developing a portfolio based on the fifteen goals of the School (see Section II, Mission and Goals). The final portfolio provides the student with an organized, goal-driven documentation of growth and achieved competence of abilities in a personal and professional realm of skills. An Associate in Science degree program student completes the one-year Portfolio Practicum I; all other students complete Portfolio Practicum I and II over a two-year period of time.

HEALTH SCIENCE—Bachelor of Science

The B.S. degree in health science is earned by individuals who fulfill the General Education requirements (see Section V) and the requirements of a major area of emphasis in one of the health science programs offered by Loma Linda University. A minimum of 192 quarter units must be completed, with a minimum of 45 units or the last 32 units taken through Loma Linda University. The appropriate number of units from the major field will be determined by the specific school granting the degree. At least 50 quarter units of the degree must be taken at the upper-division level.

THE ALLIED HEALTH PROFESSIONS

The sections that follow give the setting for each of the programs offered by the School of Allied Health Professions. In each department the subject and unit requirements for admission and for the professional programs are outlined, and the courses offered are described.

CARDIOPULMONARY SCIENCES

RESPIRATORY CARE—Associate in Science; Bachelor of Science; Post-Professional Bachelor of Science

EMERGENCY MEDICAL CARE—Progression Bachelor of Science; Bachelor of Science

PHYSICIAN ASSISTANT—Master of Physician Assistant

SURGICAL TECHNOLOGY—Associate in Science

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ELIZABETH J. DICKINSON, Program Director, Associate in Science, Surgical Technology

DOROTHY I. DONESKY, Program Coordinator and Director of Clinical Education, Associate in Science, Surgical Technology

BENNY HAU, Medical Director, Master of Physician Assistant Program

JEFF GRANGE, Medical Director, Bachelor of Science, Emergency Medical Care Program

GLEN R. KUCK, Program Director, Bachelor of Science, Emergency Medical Care

DAVID LOPEZ, Director of Clinical Education, Bachelor of Science, Respiratory Care

ARTHUR B. MARSHAK, Program Director, Post-Professional Bachelor of Science, Respiratory Care

EHREN NGO, Clinical Coordinator, Bachelor of Science, Emergency Medical Care

FRANK SIRNA, Director of Clinical Education, Physician Assistant Program

N. LENNARD SPECHT, Medical Director, Respiratory Care Program

DAVID M. STANTON, Program Director, Bachelor of Science, Respiratory Care

MOHAMED R. AL FAGIH, Medical Director, Associate in Science, Respiratory Care Program, Riyadh, Saudi Arabia

KHALID AL AWAM, Associate Coordinator, Clinical Education, Respiratory Care Program

RICHARD B. WETTSTEIN, Associate Program Director, Associate in Science, Respiratory Care, Riyadh, Saudi Arabia

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Bachelor of Science

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Student representatives

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Abdulsalam Al Zahrani
Bill Burgess
Wrae Hill
Joyce W. Hopp*
Sam Kudseih
John Sales
Wyle Sherbini
Mohammed T. Tayyab
Richard B. Wettstein

*ex officio

Respiratory care students, Brett Grundl and Rowina San Agustin, practice intubating a mannequin.

RESPIRATORY CARE

Respiratory care is an allied health profession that promotes health and improvement in the cardiopulmonary function of people with heart and lung abnormalities and disease. Newborn, pediatric, adult, and elderly patients are treated for a wide range of problems—infant respiratory distress syndrome; trauma; cardiopulmonary arrest; conditions brought on by shock; post-operative surgical complications; and respiratory diseases such as pneumonia, asthma, cystic fibrosis, chronic bronchitis, and emphysema.

The respiratory care practitioner is a member of the health care team in medical centers, skilled nursing facilities, outpatient rehabilitation programs, physician offices, and in-home care. Many are involved in research and development of new and innovative care and equipment. They are effective communicators and compassionate caregivers, possessing an awareness of cultural sensitivity and diversity. They have leadership roles in patient education, wellness intervention, and development of respiratory care plans. Respiratory care professionals apply critical thinking skills in cardiopulmonary diagnostics and patient assessment to optimize decision making and delivery of patient care. In a time of high technology, increasing growth of the elderly population, and increasing numbers of patients with asthma and chronic lung disease, there is a greater demand for educated and skilled respiratory care practitioners.

PROFESSIONAL ACCREDITATION, LICENSURE, AND CREDENTIALING

Respiratory care program accreditation is provided by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon recommendation of the Committee on Accreditation for Respiratory Care (CoARC). CoARC publishes standards and guidelines that must be met, relevant to general and respiratory care education and to on-going program assessment and improvement. Inquiries regarding CAAHEP can be directed to 35 East Wacker Drive, Suite 1970, Chicago IL 60601-2208; telephone 312/553-961; or Web Site http://www.caahep.org. Inquiries regarding CoARC can be directed to 1248 Harwood Road, Bedford, TX 76021-4244; telephone 800/874-5615; or Web Site http://www.coarc.com. The Respiratory Care Program at Loma Linda University is CAAHEP accredited.

Graduates of CAAHEP-accredited respiratory care programs must apply to the State of California Department of Consumer Affairs Respiratory Care Board (RCB) for a license to practice in the state. The RCB requires that graduates of respiratory care programs meet general and respiratory care education with course grades of "C" or above, resulting in a

minimum of an Associate in Science degree in respiratory care. Graduates must successfully complete an examination for licensure, declare felony convictions, and undergo fingerprinting. License denial may occur due to prior felony conviction(s). Inquiries regarding the RCB can be directed to 1426 Howe Avenue, Suite 48, Sacramento, CA 95825-3234.

The National Board for Respiratory Care, Inc. (NBRC) provides nationally recognized credentialing examinations for graduates of accredited respiratory care programs. Those who successfully complete the entry-level examination receive the certified respiratory therapist (CRT) credential. This examination currently is required by the state of California for licensure to practice respiratory care. Advanced practitioner examinations are required for the registered respiratory therapist (RRT) credential; perinatal-pediatric specialist certification; and certified (CPFT) and registered (RPFT) pulmonary function technologist. NBRC inquiries can be made to 8310 Nieman Road, Lenexa, KS 66214-1579; telephone 913/541-0156; or Web Site http://www.nbrc.org.

PROFESSIONAL ASSOCIATION

The American Association for Respiratory Care (AARC) encourages students and graduates to become members and participate in national meetings and local chapters. The AARC's aim is to foster professional growth, encourage research, and provide services and representation for its members. Further information may be obtained from the national office, 11030 Ables Lane, Dallas, TX 75229; telephone 972/243-2272; or Web Site http://www.aarc.org.

RESPIRATORY CARE—Associate in Science (Riyadh, Saudi Arabia campus)

THE PROGRAM

The program in respiratory care, leading to the Associate in Science degree, is based on respiratory course work.

Accreditation

The Associate in Science degree program is accredited by CAAHEP.

THE PROGRAM OBJECTIVES

Upon completion of the program, the graduate should be qualified to:

1. Review, collect, and recommend obtaining additional clinical data; evaluate all data to determine the appropriateness of the prescribed respiratory care; and participate in the development of the respiratory care plan.
2. Select, assemble, and check all equipment used in providing respiratory care; recognize malfunction of such equipment; and initiate appropriate corrective actions.
3. Initiate and conduct therapeutic procedures to achieve one or more specific objectives: (a) provide and maintain patient airway, adequate ventilation, and tissue oxygenation; (b) initiate procedures, explaining therapy and goals to the patient and providing protection for the patient; (c) initiate emergency cardiopulmonary procedures; and (d) document therapeutic procedures.
4. Maintain patient records and communicate relevant information to members of the health care team.
5. Assist the physician in the performance of special procedures in a clinical laboratory or operating room.
6. Assure cleanliness and sterility by the use of appropriate disinfecting techniques; monitor effectiveness of techniques.

ADMISSION

To be eligible for admission, the applicant must have completed a minimum of 48 quarter units at an accredited college or university.

Prerequisites for Respiratory Care, A.S.

Religion required, 4 units per year of attendance if at a Seventh-day Adventist college or university

Human anatomy and physiology with laboratories, complete sequence; **or** general biology with laboratories, complete sequence; **or** general zoology with laboratories, complete sequence

Microbiology with laboratory

Introductory chemistry with laboratories, complete sequence

Introductory physics with laboratory, one quarter; **or** high school physics

General psychology

English composition, complete sequence

Computers (high school or college)

Electives to meet minimum total requirements of 48 quarter units

Introductory physics (recommended). High school-level physics required. If applicant does not have high school physics, one quarter or one semester of introductory or general college-level physics in lieu of high school-level physics is acceptable.

Mathematics. Two years high school-level mathematics selected from algebra I (elementary), algebra II (intermediate), geometry, with grades of C (2.0) or above. (May be taken in high school or college. If high school-level mathematics is taken in college, credit is not transferable.)

PROGRAM OF INSTRUCTION

RESPIRATORY CARE—Associate in Science

The program of instruction outlined below is for students enrolled during the 2000-2001 academic year.

RSTH	211	Pharmacology for Respiratory Care Practitioners	3
RSTH	221	Cardiopulmonary Anatomy and Physiology	3
RSTH	223	Pulmonary Function Methodology I	4
RSTH	241-243	Respiratory Therapy Science I, II, III	5, 5, 5
RSTH	266	Diagnostic Techniques	2
RSTH	267	Perinatal and Pediatric Respiratory Therapy	3
RSTH	279	Respiratory Care Seminar	2
RSTH	284, 285	Respiratory Disease Processes and Treatment I, II	3, 3
RSTH	291-294	Respiratory Therapy Practicum I, II, III, IV	1, 2, 3, 5
AHCJ	305	HIV/AIDS and the Health Provider	1
AHCJ	311	Medical Terminology	2
AHCJ	328	Portfolio Practicum I	1
REL_	___	Religious studies	2, 2

A minimum grade of C (2.0) is required for all courses in the program.

RESPIRATORY CARE—Bachelor of Science

Loma Linda University offers two Bachelor of Science degree programs in respiratory care. The first program is for students with no previous education in respiratory care, who have completed program prerequisites listed in the program below.

THE PROGRAM

The two-year, upper-division program leading to the Bachelor of Science degree is a sequence of professional course work intended to prepare competent respiratory therapists with advanced abilities in clinical care. Course work may be designed toward meeting entrance requirements for the dentistry, medicine, and physician assistant programs.

THE PROGRAM OBJECTIVES

Upon completion of the program, the graduate should:

1. Collect and review pertinent clinical information and suggest and implement diagnostic procedures according to age-specific criteria.
2. Select, obtain, assemble, maintain, and correct malfunctions on all respiratory therapy equipment.
3. Administer medications via aerosol, subcutaneous, and other appropriate routes of delivery, according to age-specific criteria.
4. Apply current and advanced respiratory care concepts and treatment plans in the areas of ventilatory support systems (invasive and noninvasive), medical gas therapy, gas exchange therapy, airway care, and advanced resuscitation techniques, according to age-specific criteria.
5. Assist the physician in the performance of all diagnostic or therapeutic procedures related to cardiopulmonary function.
6. Function as an efficient member of the interdisciplinary team.
7. Demonstrate advanced knowledge and clinical skill in specialty areas selected from the following list:
   - Neonatal/pediatric critical care
   - Adult critical care
   - Cardiopulmonary diagnostics
   - Hyperbaric medicine
   - Sleep disorders medicine
   - Cardiopulmonary rehabilitation
   - Extended care

ADMISSION

Prerequisites for Respiratory Care, B.S.

20 units minimum in humanities (choose minimum of two areas from: history, literature, philosophy, foreign language, art/music appreciation/ history)

Religion required, 4 units per year of attendance if at a Seventh-day Adventist college

Human anatomy and physiology with laboratories, complete sequence; **or** general biology with laboratories, complete sequence; **or** general zoology with laboratories, complete sequence.

Microbiology with laboratory

Introductory chemistry with laboratories, complete sequence; **or** general chemistry with laboratories, complete sequence

High school-level physics **or** introductory physics, one quarter/semester in college; **or** general physics, one quarter/semester in college

Two years high school mathematics with grades of C or above **or** intermediate algebra in college

General psychology **or** sociology

Cultural anthropology **or** an approved course dealing with cultural diversity

Select 4 more quarter units from sociology, economics, geography, political science, psychology

English composition, complete sequence

Speech

Computers

Personal health **or** nutrition

Two physical education courses

Electives to meet minimum total requirements of 96 quarter units

For total unit requirement for graduation, see DIVISION OF GENERAL STUDIES, Criteria for General Education Course.

PROGRAM OF INSTRUCTION
RESPIRATORY CARE—Bachelor of Science

YEAR ONE (Course work to be taken while in the BSRC program)

RSTH	304	Cardiopulmonary Anatomy and Physiology	4
RSTH	323	Pulmonary Function Methodology	3
RSTH	331	Pharmacology I	2
RSTH	332	Pharmacology II	2
RSTH	334	Patient Assessment	2
RSTH	341	Respiratory Therapy Science I	5
RSTH	342	Respiratory Therapy Science II	5
RSTH	343	Respiratory Therapy Science III	4
RSTH	354	Case Studies—Adults	2
RSTH	366	Diagnostic Techniques	2
RSTH	381	Cardiopulmonary Diseases I	2
RSTH	382	Cardiopulmonary Diseases II	2
RSTH	391	Respiratory Therapy Practicum I	2
RSTH	392	Respiratory Therapy Practicum II	2
RSTH	393	Respiratory Therapy Practicum III	4
RSTH	404	Critical Care	4
AHCJ	305	HIV/AIDS and the Health Provider	1
AHCJ	311	Medical Terminology I	2
AHCJ	326	Patient Care	2
AHCJ	328	Portfolio Practicum I	1
AHCJ	402	Pathology I	3
AHCJ	403	Pathology II	3
EMMC	316	12-Lead ECG Interpretation	2
REL_	___	Religion	2

YEAR TWO

RSTH	421	Perinatal/Pediatric Respiratory Care	2
RSTH	422	Advanced Perinatal and Pediatric Respiratory Care	2
RSTH	424	Exercise Physiology and Pulmonary Rehabilitation	3
RSTH	434	Advanced Patient Assessment	2
RSTH	441	Respiratory Therapy Science IV	3
RSTH	444	Case Studies in Neonatal/Pediatric Respiratory Care	2
RSTH	464	Case Management	2
RSTH	466	Advanced Diagnostics	2
RSTH	467	Diagnostics Laboratory	2
RSTH	471	Instructional Techniques	2
RSTH	474	CP Health Promotion and Disease Prevention	2
RSTH	481	Research in Cardiopulmonary Sciences	1
RSTH	494	Respiratory Therapy Practicum IV	2
RSTH	495	Respiratory Therapy Practicum V	2
RSTH	496	Respiratory Therapy Practicum VI	3
AHCJ	351	Statistics for the Health Professions	3
AHCJ	461	Research Methods	2
AHCJ	465	Seminars in Leadership	2
AHCJ	498	Portfolio Practicum II	1
EMMC	315	Cardiology	3
RELE	457	Christian Ethics and Health Care	2
REL_	___	Religion	2
REL_	___	Relgion	2

A minimum of 192 quarter units are required for the Bachelor of Science degree in respiratory care.

RESPIRATORY CARE—Post-Professional Bachelor of Science

Loma Linda University offers two Bachelor of Science degree programs in respiratory care. The second program is for students who have an Associate in Science degree in respiratory care from a CAAHEP-accredited respiratory program and who wish to earn a Bachelor of Science degree in respiratory care. This program is designated the Post-Professional Bachelor of Science degree in respiratory care.

THE PROGRAM

The two-year, upper-division program leading to the Bachelor of Science degree is a sequence of professional course work intended to graduate individuals who have acquired advanced knowledge in the respiratory care profession, including assessment, therapeutic interventions, and management of patients with cardiopulmonary-related disorders; and who uphold the standards of the mission and goals of the School of Allied Health Professions.

THE PROGRAM GOALS

1. To provide therapists to the respiratory care and medical communities who have advanced post-professional training in cardiopulmonary care and fundamental knowledge in the areas of leadership and education.
2. To provide an undergraduate program for two-year-level respiratory therapists that enhances and broadens their knowledge in cardiopulmonary health care sciences and general studies, and allows progression into graduate programs.

THE PROGRAM OBJECTIVES

Upon completion of the program, the graduate should:

1. Apply fundamental and advanced adult, pediatric, and neonatal respiratory care concepts and treatment plans in the areas of pathophysiology, diagnostics and advanced interventions, gas exchange therapy, medical gas therapy, airway care, and ventilatory support systems (invasive and noninvasive).
2. Apply problem-solving skills in the areas of advanced pulmonary physiology, related diagnostics, and comprehensive pulmonary rehabilitation programs.
3. Perform fundamental and advanced patient assessment and diagnostic skills for various cardiopulmonary diseases.
4. Develop fundamental skills to conduct and interpret research in the health care arena.
5. Develop fundamental skills in leadership.
6. Develop fundamental skills in topic presentation to the health care profession and patient-care community using appropriate lecture and demonstration techniques.
7. Develop advanced practitioner competency in specialty cardiopulmonary care areas of the student's choice (subject to availability).
8. Enter graduate-level programs.

ADMISSION

To be eligible for admission, the applicant must (a) be a graduate of a CAAHEP-approved or provisionally approved, or CAHEA approved advanced practitioner associate degree (or the equivalent) program in respiratory care; (b) complete the subject requirements noted as prerequisites (students who have not completed these requirements may be accepted on a provisional basis); and, (c) arrange for an interview at the University by appointment (an offcampus interview can usually be arranged for the distant student).

Prerequisites for Respiratory Care, Post-Professional B.S.

20 units minimum in humanities (choose minimum of two areas from: history, literature, philosophy, foreign language, art/music appreciation/history)

Religion required, 4 units per year of attendance if at a Seventh-day Adventist college or university

Human anatomy and physiology with laboratories, complete sequence; **or** general biology with laboratories, complete sequence; **or** general zoology with laboratories, complete sequence

Microbiology with laboratory

Introductory chemistry with laboratories, complete sequence; **or** general chemistry with laboratories, complete sequence

High schoool-level physics; **or** introductory physics, one quarter/semester in college; **or** general physics, one quarter/semester in college

Two years high school mathematics with grades of C or above; **or** intermediate algebra in college

General psychology **or** sociology

Cultural anthropology **or** an approved course dealing with cultural diversity

Select 4 more quarter units from sociology, economics, geography, political science, psychology

English composition, complete sequence

Speech

Computers

Personal health **or** nutrition

Two physical education courses

Electives to meet minimum total requirements of 96 quarter units

For total requirement for graduation, see DIVISION OF GENERAL STUDIES, Criteria for General Education Course.

PROGRAM OF INSTRUCTION

RESPIRATORY CARE—Post-Professional Bachelor of Science core

RSTH 301-303	Advanced Respiratory Therapy Science	3, 3, 2
RSTH 311	Advanced Neonatal Respiratory Care	3
RSTH 315	Perinatal/Pediatric Certificate	3
RSTH 424	Exercise Physiology and Pulmonary Rehabilitation	3
RSTH 434	Advanced Patient Assessment	2
RSTH 441	Respiratory Therapy Science IV	3
RSTH 451	Respiratory Care Affiliation I	2
RSTH 452	Respiratory Care Affiliation II	2
RSTH 453	Respiratory Care Affiliation III	2
RSTH 454	Respiratory Care Affiliation IV	2
RSTH 455	Respiratory Care Affiliation V	2
RSTH 464	Case Management	2
RSTH 466	Advanced Diagnostics	2
RSTH 471	Instructional Techniques	2
RSTH 474	CP Health Promotion and Disease Prevention	2
RSTH 481	Research in Cardiopulmonary Sciences	1
AHCJ 305	HIV/AIDS and the Health Provider	1
AHCJ 328	Portfolio Practicum I	1
AHCJ 351	Statistics for the Health Professions	3
AHCJ 402	Pathology I	3
AHCJ 403	Pathology II	3
AHCJ 461	Research Methods	2
AHCJ 465	Seminars in Leadership	2
AHCJ 498	Portfolio Practicum II	1
EMMC 315	Cardiology	3
REL_ ___	Religion	2
RELE 457	Christian Ethics	2
	Electives	2-4

Respiratory care affiliations to be selected from the following areas, in consultation with the program director:

adult critical care; cardiopulmonary specialties; pediatric/neonatal; polysomnography; rehabilitation/patient education; research; special procedures (bronchoscopy and hyperbaric oxygen therapy)

Credit may be given for professional clinical experience and advanced certification, subject to evaluation by the program director.

Prerequisite: AHCJ 461, RSTH 315 completed or taken concurrently; licensed by the state of California as a respiratory care practitioner.

EMERGENCY MEDICAL CARE—Progression Bachelor of Science; Bachelor of Science

Prerequisites for Emergency Medical Care, B.S.

20 units minimum in humanities (choose minimum of two areas from: history, literature, philosophy, foreign language, art/music appreciation/history)

Religion required, 4 units per year of attendance, if at a Seventh-day Adventist college or university

Human anatomy and physiology with laboratories, complete sequence

Microbiology with laboratory

*Introductory chemistry with laboratories, complete sequence

Introductory physics with laboratory, one quarter; **or** high school physics

*Two years high school mathematics with grades of C or above **or** intermediate algebra in college

*General psychology

Cultural anthropology **or** an approved course dealing with cultural diversity

Select 4 more quarter units from sociology, economics, geography, political science, psychology

*English composition, complete sequence

Computers (high school or college)

Personal health **or** nutrition

Two physical education courses

Electives to meet minimum total requirements of 96 quarter units

To be eligible for the junior year of this program, the student must be an EMT, paramedic, RN, or respiratory therapist and must complete the prerequisites listed above.

*denotes EMC Progression Program prerequisites

For total unit requirement for graduation, see DIVISION OF GENERAL STUDIES, Criteria for General Education Course.

THE PROGRAM

The two- to three-year, upper-division program leading to the Bachelor of Science degree is a sequence of additional professional course work intended to prepare emergency medical care (EMC) providers for positions in education, management, or advanced clinical practice. Course work may be applied toward meeting entrance requirements for dentistry, medicine, and other graduate programs.

Those electing to study on a part-time basis must complete the junior and senior years within a four-year period. Students new to the profession should be employed a minimum of sixteen hours per week in an emergency medical care-related position in order to gain the most from the program.

The EMC program uses distant education technology in the offering of its courses. Courses in the program are offered in four different formats: (1) two-way audio and video, (2) web-based, (3) video-tape, and (4) traditional lecture format. The format in which any particular course is taught is selected based on content and teaching style believed to be most effective in conveying knowledge to the learner.

THE PROGRAM OBJECTIVES

Upon completion of the program the graduate should be qualified to:

1. Demonstrate leadership skills through advanced and multi-level thinking, providing options and alternatives for the care of patients.
2. Demonstrate leadership in the emergency medical care field by sharing the knowledge attained through the EMC program with members of other professional disciplines.
3. Develop and refine critical thinking skills to enhance ability to analyze and develop the most effective means of caring for patients.
4. Compare and contrast the different disciplines of pre-hospital health care providers that contribute to emergency medical care.
5. Differentiate the different areas of a Level I trauma center and the significance each area of the hospital has in the care of a critical patient.
6. Effectively modify practice within the discipline using the knowledge learned in the emergency medical care program.
7. Progress to medical, dental, or other graduate programs.

ADMISSION

To be eligible for the junior year of the EMC program, applicants to both the Loma Linda University campus and the Loma Linda University at Fresno campus must (a) be an EMT•, paramedic, registered nurse, or respiratory therapist; (b) complete the subject requirements listed as prerequisites (students who have not completed these requirements may be accepted on a provisional basis); (c) arrange for an interview at the University by appointment.

All applicants to the EMC program must satisfactorily complete a (1) writing sample, (2) defining issues test, and (3) mathematics sample. Students must achieve a satisfactory score on their writing and mathematics samples prior to starting the second half of professional course work.

•An emergency medical technician (EMT) must also have completed the following prerequisites before being considered: anatomy and physiology, a year of work experience, and certification in ACLS. In addition, a basic cardiology class is recommended.

COMPUTER REQUIREMENT

The EMC program faculty are proud to be on the cutting edge in using distant education technology to facilitate teaching their course work. This technology, however, requires that all prospective students applying for the EMC program have access to a computer with Internet capabilities by the time they actually begin the program. The EMC program and its faculty will not be responsible for course work not completed due an inability to access a computer. Specific computer hardware specification may be obtained from the cardiopulmonary department secretary.

PORTFOLIO REQUIREMENT

In addition to the requirements listed under "Program of Instruction," students accepted to the EMC program must maintain a working portfolio. The exact details of this requirement will be explained to the student during the initial orientation meeting.

POLICY FOR ACCEPTANCY OF COLLEGE CREDIT FOR PARAMEDIC CERTIFICATE PROGRAMS

Students who have completed an EMT-P certificate program are allowed 48-quarter units of academic credit after submitting a transcript and national registry examination certificate.

PROGRAM OF INSTRUCTION

EMERGENCY MEDICAL CARE—Bachelor of Science core

EMMC	204	Introduction to Emergency Medical Services	2***
EMMC	207	Introduction to Cardiopulmonary Therapeutics	2*
EMMC	314	Introduction to 12-Lead ECG Interpretation	1
EMMC	315	Cardiology	3
EMMC	316	12-Lead ECG Interpretation	2
EMMC	321	Theories of Emergency Medical Services	2
EMMC	325	Current Issues in Emergency Medical Care	2
EMMC	351	Neonatal Resuscitation	1
EMMC	355	Perinatal Emergencies	2
EMMC	405	Trauma and Surgical Care	2
EMMC	415	Pediatric Emergency Care	2
EMMC	421-423	Emergency Medical Practicum I, II, III	1, 1, 1
EMMC	431	Emergency Case Studies	2
EMMC	435	Disasters, WMD, and Terrorism	2
EMMC	444	Diversity in EMS	2
EMMC	484	Legal Issues in Health Care	2
RSTH	301	Cardiopulmonary Anatomy and Physiology	4*
RSTH	311, 312	Pharmacology I, II	2,** 2**
RSTH	411	Advanced Cardiac Life Support	2***
RSTH	457	Physical Diagnosis I	2
RSTH	462,463	Management Practicum I, II	2, 2
RTCH	464	Moral Leadership	2
RSTH	471	Instructional Techniques I	2
RTCH	470	Curriculum Development in Health Sciences	2
AHCJ	305	HIV/AIDS and the Health Provider	1
AHCJ	324	Psycho-Social Models and Interventions	2
AHCJ	328	Portfolio Practicum I	1
AHCJ	351	Statistics for the Health Professions	3
AHCJ	402-403	Pathology I, II	4, 4
AHCJ	461	Research Methods for Allied Health Professions	2
AHCJ	465	Seminars in Leadership	2
AHCJ	498	Portfolio Practicum II	1

*not part of core requirements for respiratory therapists
**core requirement for EMTs only
***not part of core requirements for paramedics

PHYSICIAN ASSISTANT—Master of Physician Assistant

Physician assistants (PAs) are health professionals licensed to practice medicine with physician supervision. Physician assistants are qualified by graduation from an accredited physician assistant educational program and certification by the National Commission on Certification of Physician Assistants. Within the physician/PA relationship, PAs exercise autonomy in medical decision making and provide a broad range of diagnostic and therapeutic services. The clinical role of PAs includes primary and specialty care in medical and surgical settings in rural and urban areas. PA practice is centered on patient care and may also include educational, research, and administrative activities.

THE PROGRAM

Loma Linda University offers a professional course of study leading to a Master of Physician Assistant (M.P.A.) degree. The program consists of an eleven-month didactic phase that provides a foundation of biological, behavioral, and medical sciences; followed by a twelve-month clinical phase of clerkships in a variety of medical specialties that are designed to provide diverse and intensive patient-care experience. Graduate physician assistants are professionals who are trained to be able to participate as members of a health care team. They are prepared to manage common health care needs typically encountered in primary-care settings.

Accreditation

The Physician Assistant Program has been evaluated for accreditation by the Commission on the Accreditation of Allied Health Education Programs (CAHEP). The Commission will make its findings known in September 2000.

THE PROGRAM OBJECTIVES

Upon completion of the program, the graduate should be qualified to:

1. Obtain detailed and accurate patient histories.
2. Perform appropriate physical examinations.
3. Evaluate patients and make diagnoses.
4. Order, perform, and interpret diagnostic tests.
5. Order and perform therapeutic procedures.
6. Develop, implement, and monitor patient management plans.
7. Develop skills in orally presenting patient data.
8. Provide continuity of patient care.
9. Assist in surgical procedures.
10. Evaluate and perform life-saving procedures in emergent situations.
11. Counsel and instruct patients regarding issues of health care managment, mental health, therapeutic regimens, normal growth and development, and family planning.
12. Refer patients to pertinent health/mental/social service agencies in the community.
13. Write drug orders.
14. Conduct a medical literature search.
15. Conduct an investigation of a medical, health, or psycho-social topic; perform a statistical evaluation; and present data in appropriate oral and written formats.

ADMISSION

The following are the criteria for admission to the Master of Physician Assistant program:

1. Completion of a baccalaureate degree in a health care field, **or** a baccalaureate degree in any field of study plus an associate degree in a health care field. All degrees must be from accredited institutions.
2. One year (2000 hours) of documented patient-care experience preferred, prior to admission into the program.
3. Cumulative G.P.A. of at least 3.0 on a 4.0 scale for all college work.
4. G.P.A. of 3.0 on a 4.0 scale for all science courses completed.
5. Three letters of recommendation (one from a physician or a physician assistant).
6. Autobiographical sketch (one-to-three typed pages).

Prerequisites for Physician Assistant, M.P.A.

The applicant must have a B.S. degree in a health-related field such as emergency medical care, respiratory therapy, clinical laboratory science, nursing, radiation technology; **or** an A.S. degree in a health-related field plus a B.S. degree in any field.

Religion required, 4 units per year of attendance, if at a Seventh-day Adventist college or university

One year high school physics with laboratory; **or** physics with laboratory, one quarter/semester, college level

One year high school chemistry with laboratory; **or** chemistry with laboratory, one quarter/semester, college level

College algebra

English composition, complete sequence

Microbiology with laboratory

Sociology **or** cultural anthropology

Psychology

A course in statistics is highly recommended.

Beverley Stocker, Kenrick Bourne (program director), Sonia Neidigh, and Frank Sirna—Physician Assistant Program staff.

Checking a course syllabus for content, Kenrick Bourne signs his approval.

PROGRAM OF INSTRUCTION

PHYSICIAN ASSISTANT—Master of Physician Assistant

The program of instruction outlined as follows is for students enrolled during the 2000-2001 academic year.

FIRST QUARTER (AUTUMN)

PAST	401	Anatomy and Physiology I	3
PAST	404	Biochemistry for PAs	3
PAST	503	Physical Diagnosis	4
PAST	511	PA Professional Issues I	1
PAST	509	Behavioral Science for PAs	3
PAST	507	Preventive Medicine Concepts	2
AHCJ	105	HIV/AIDS	2
AHCJ	519	Portfolio	1

SECOND QUARTER (WINTER)

PAST	402	Anatomy and Physiology II	3
PAST	406	Clinical Laboratory	2
PAST	411	Pathology for PAs I	3
PAST	501	Clinical Medicine for PAs I	4
PAST	512	PA Professional Issues II	1
PAST	521	Research I	3
PAST	508	Interpretation of EKGs	1

THIRD QUARTER (SPRING)

PAST	403	Anatomy and Physiology III	3
PAST	412	Pathology for PAs II	3
PAST	405	Pharmacology for PAs	3
PAST	502	Clinical Medicine for PAs II	4
PAST	522	Research II	2
RELE	505	Clinical Ethics	3

FOURTH QUARTER (SUMMER)

PAST	504	Primary Care Pediatrics	2
PAST	505	Women's Health Care	2
PAST	506	Clinical Skills for PAs	2
PAST	5__	Clinical Rotations	4

FIFTH QUARTER (FALL)

PAST	5__	Clinical Rotations	4
PAST	5__	Clinical Rotations	4
PAST	5__	Clinical Rotations	4
PAST	513	PA Professional Issues III	1

SIXTH QUARTER (WINTER)

PAST	5__	Clinical Rotations	4
PAST	5__	Clinical Rotations	4
PAST	5__	Clinical Rotations	4
PAST	523	Research III	1

SEVENTH QUARTER (SPRING)

PAST	5__	Clinical Rotations	4
PAST	5__	Clinical Rotations	4
PAST	5__	Clinical Rotations	4
AHCJ	519	Porfolio (in progress)	

EIGHTH QUARTER (SUMMER)#

PAST	5__	Clinical Rotations	4
PAST	5__	Clinical Rotations	4

#Presentation of research projects is done in this quarter.

SURGICAL TECHNOLOGY—Associate in Science

Surgical technologists are an integral part of the surgical team—working closely with surgeons, anesthesiologists, registered nurses, and other surgical personnel delivering patient care and assuming appropriate responsibilities before, during, and after surgery.

The specialty of surgical technology is rapidly growing in hospital operating rooms and in outpatient surgery centers, as well as in a variety of settings that call for a sterile field, such as physicians' private-practice offices.

Surgical technology professionals facilitate the surgery process by anticipating the needs of the surgeons, passing instruments, and providing sterile items in an efficient manner. Along with the circulator, they share responsibility for accounting for sponges, needles, and instruments before, during, and after surgery. They may hold retractors or instruments, sponge or suction the operative site, or cut suture materials as directed by the surgeon.

PROFESSIONAL CERTIFICATION

The Liaison Council on Certification for the Surgical Technologist (LCC-ST)—7108-CS, Alton Way, Englewood, CO 80112—provides the national certifying examination for graduates of CAAHEP-approved programs in surgical technology. Graduates who pass the LCC-ST examination are recognized by the council as certified surgical technologists (CST) or as certified first assistants (CFA).

PROFESSIONAL ASSOCIATION

The Association of Surgical Technologists (AST) is the professional organization of the surgical technologist. The AST's primary concern is ensuring that surgical technologists are educationally qualified to provide quality patient care. The AST is also concerned with representing the interests of the profession in the legislative and regulatory arenas and in communicating information on the profession to the public and to the health care industry.

The Association of Surgical Technologists encourages both students and graduates to become members and participate in national and local chapter meetings. The AST's aim is to foster professional growth, encourage education, and provide services and representation for its members. For further information, contact the national office, 7108-CS, Alton Way, Englewood, CO 80112.

THE PROGRAM

The program in surgical technology, leading to the Associate in Science degree, is based on one year of prerequisites completed at any accredited college or university.

The four quarters of course work at Loma Linda University begin with the Autumn Quarter of the sophomore year. The program also includes clinical experience at Loma Linda University Medical Center facilities and affiliated hospitals.

Accreditation

The Associate in Science degree program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) in collaboration with the Accreditation Review Committee on Education in Surgical Technology (ARC-ST).

THE PROGRAM OBJECTIVES

Upon completion of the program, the graduate should:

1. Demonstrate competence as a surgical technologist.
2. Pass the LCC-ST examination.
3. Comprehend and apply the knowledge and skills related to the performance of the duties of a surgical technologist.
4. Demonstrate behaviors consistent with health professionals in their duties as a surgical technologist.
5. Relate in an ethical manner to other members of the surgical health care team.
6. Maintain patient records and communicate relevant information to other members of the health team.

ADMISSION

To be eligible for admission, the applicant must have completed a minimum of 48 quarter units (32 semester units) units at an accredited college or university.

Prerequisites for Surgical Technology, A.S.

The minimum subject requirements in quarter units are:

Religion required, 4 units per year of attendance if at a Seventh-day Adventist college

Human anatomy and physiology with laboratories, complete sequence

Microbiology with laboratory

Introductory chemistry with laboratories, complete sequence; **or** one year high school chemistry plus college organic plus biochemistry

Two years high school mathematics with grades of C (2.0) or above **or** intermediate algebra in college

General psychology **or** sociology

English composition, complete sequence

Speech

Electives to meet requirements of 48 quarter units

Observation experience

Observation experience is recommended.

PROGRAM OF INSTRUCTION

SURGICAL TECHNOLOGY—Associate in Science

The program of instruction outlined as follows is for students enrolled during the 2000-2001 academic year.

SOPHOMORE YEAR

SGTH	205	Surgical Instrumentation	3
SGTH	221-223	Surgical Preparation I, II, II	4, 4, 4
SGTH	231, 232	Surgical Care Fundamentals I, II	4, 3
SGTH	241, 242	Surgical Procedures I, II	4, 4
SGTH	278	Seminar in Surgical Technology	2
SGTH	291-294	Surgical Technology Clinical Practicum I, II, III, IV	2, 2, 4, 5
SGTH	299	Student Project	2
SGTH	225	Pharmacology for Surgical Technology	2
AHCJ	305	HIV/AIDS and the Health Provider	1
AHCJ	311	Medical Terminology	2
AHCJ	326	Patient Care Methods	2
AHCJ	328	Portfolio Practicum I	1
RELE	457	Christian Ethics and Health Care	2
RELE		Religious studies	2

A minimum grade of C (2.0) is required for all courses in the program.

COURSES

For information about units of credit and course numbers, see the beginning of division III of this BULLETIN.

RSTH 201 Introduction to Respiratory Therapy (1)
Introductory course to the field of respiratory therapy. Includes a brief history of respiratory care, an overview of equipment used, and completion of a full BCLS course at the health care-provider level. (This course for Riyadh, Saudi Arabia, campus students only.)

RSTH 211 Pharmacology for Respiratory Care Practitioners (1-3)*
Pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of drugs currently used in medicine, presented with special emphasis on the autonomic nervous system, the cardiovascular system, and the respiratory system. Topics include the bronchodilators, mucokinetic agents, neuromuscular agents, cardiovascular agents, diuretics, antihistamines, steroids, and antimicrobial agents.

RSTH 221 Cardiopulmonary Anatomy and Physiology (3)**
Respiratory system structures throughout the upper and lower airways, gas-exchange components, and cardiac structure and function. Respiratory physiology includes gas transport, diffusion, acid-base balance, lung volumes and capacities, mechanics of ventilation, regulation of respiration, and ventilation/perfusion relationships.

RSTH 223 Pulmonary Function Methodology I (4)
Evaluation of pulmonary function in health and disease through spirometry and lung-volume studies; quality control; current ATS standards; acid-base balance; and arterial blood-gas puncture, analysis, and interpretation. Lecture and laboratory.
Prerequisite: RSTH 221.

RSTH 241 Respiratory Therapy Science I (5)
Relation of the respiratory therapist to the health team. Fundamentals of patient care. Medical gases: laws, manufacture, storage, and transportation. Administration of gases and gas mixtures. Theory and application of devices. Regulation of gas flow and pressure. Gas analysis. Humidity aerosol therapy. Cardiopulmonary resuscitation and airway devices. Lecture and laboratory.
Concurrent: RSTH 291.

RSTH 242 Respiratory Therapy Science II (5)
Theory of application of mechanical ventilation. Artificial airway placement, management, and removal. Introduction to mechanical ventilating devices. Chest physical therapy. Relationship of equipment to patients with cardiorespiratory failure. Lecture and laboratory.
Prerequisite: RSTH 241.
Concurrent: RSTH 292.

RSTH 243 Respiratory Therapy Science III (5)
Continuation of mechanical ventilatory support equipment and management, including intensive-care monitoring. Lecture and laboratory.
Prerequisite: RSTH 241, 242.
Concurrent: RSTH 293.

*Required only for emergency medical technicians (EMT's).
**Respiratory therapist has had the equivalent of this course.

RSTH 266 Diagnostic Techniques (2)
Clinical use of diagnostic tests, including chest x-rays, electrocardiograms (ECGs), and hemodynamic pressures in respiratory care.
Prerequisite: RSTH 211, 221.

RSTH 267 Perinatal and Pediatric Respiratory Therapy (3)
Etiology, course, therapy, and outcome of respiratory diseases as they relate to problems in pediatrics and neonatology. Application of specialized equipment in neonatal intensive care.
Prerequisite: RSTH 221, 241; or consent of the department chair.

RSTH 279 Respiratory Care Seminar (3)
Applications of topics that concern the respiratory therapist, such as management principles, psychosocial aspects of patient care, smoking cessation techniques, and new methods of ventilatory support. Role of the respiratory-care practitioner in the treatment of patients with AIDS.

RSTH 284, 285 Respiratory Disease Processes and Treatment I, II (3, 3)
Pathologic anatomy of the respiratory system. Clinical signs and symptoms of abnormal cardiopulmonary physiology. Etiology, course, therapy, and prognosis of respiratory diseases related to medical and surgical problems. Case presentation. Discussion with physician and senior instructor. Lecture and case studies.
Prerequisite for 284: RSTH 211, 221, 241.
Prerequisite for 285: RSTH 223, 242, 266, 284.

RSTH 291 Respiratory Therapy Practicum I (1)
General introduction to the clinical setting. Assessment of patients with respiratory disease. Development of work habits and patient-care techniques. Student must obtain current cardiopulmonary resuscitation (CPR) certification from the American Heart Association before end of the term.
Concurrent: RSTH 241.

RSTH 292 Respiratory Therapy Practicum II (2)
Application of specific therapeutic techniques, including oxygen and humidity therapy, aerosol therapy, airway management, intermittent positive-pressure breathing, and chest physiotherapy. Supervised experience of 160 clock hours per quarter.
Prerequisite: RSTH 241, 291; AHA CPR certificate.
Concurrent: RSTH 242.

RSTH 293 Respiratory Therapy Practicum III (3)
Application of therapeutic techniques in continuous mechanical ventilation: neonatal and pediatric intensive-care units, operating and postanesthesia rooms, and the arterial blood-gas laboratory. Supervised experience of 150 clock hours per quarter.
Prerequisite: RSTH 242, 284, 292.
Concurrent: RSTH 243.

RSTH 294 Respiratory Therapy Practicum IV (7)
Development of professional competence and maturity in the clinical setting. Comprehensive training in all aspects of respiratory care, including the pulmonary-function laboratory and home care. Supervised experience of 320 clock hours per quarter.
Prerequisite: RSTH 243, 284, 285, 293.

RSTH 301, 302, 303 Advanced Respiratory Therapy Science I, II, III (3, 3, 2)
Comprehensive review of patient-care techniques. In-depth presentation and discussion of clinical application of respiratory therapy devices and their influences on patient care. Reports and discussions of current and advanced developments. Designed to integrate experience with current concepts and to develop logical courses for proper equipment and technique application for specific patient care.

Prerequisite: Junior standing or consent of the department chair.

RSTH 304 Cardiopulmonary Anatomy and Physiology (4)
Anatomic and physiologic components of the cardiovascular and respiratory systems investigated. Emphasis on histology, embryology, diffusion, gases transported in the blood, acid-base balance, lung volumes and capacities, mechanics of ventiliation, ventilation-perfusion relationships, regulation or respiration, cardiac cell membrane action potentials, and excitation-contraction coupling.

RSTH 311 Advanced Neonatal Respiratory Care (3)
Neonatal and fetal physiology, diseases, and therapeutic interventions. Emphasis on neonatal respiratory care. Review of current research related to high-frequency ventilation, extracorporeal membrane oxygenation, and surfactant therapy.

RSTH 323 Pulmonary Function Methodology II (3)
Evaluation of pulmonary function in health and disease through spirometry, plethysmography, helium dilution, nitrogen washout, single-breath nitrogen, volume of isoflow, and diffusing capacity studies, including blood-gas instrumentation, quality control, quality assurance, and current ATS standards. Lecture and laboratory.

RSTH 331, 332 Pharmacology I, II (2, 2)
Survey of pharamacologic agents currently used in medicine, including their kinetics, dynamics, and therapeutics. Special emphasis given to drugs and their effects on the respiratory, cardiovascular, and autonomic nervous systems. Topics include the bronchodilators, anti-inflammatory agents, mucokinetic agents, cardiovascular agents, diuretics, antimicrobials, neuromuscular agents, and agents used to treat nicotine dependence.

RSTH 334 Patient Assessment (2)
General introduction to the clinical setting. Assessment and evaluation of the patient with respiratory disease. Development of clinical practice habits and patient-care techniques. Student must obtain current cardiopulmonary resuscitation (CPR) certification from the American Heart Association before the end of the term.

Corerequisite: RSTH 341.

RSTH 341 Respiratory Therapy Science I (5)
Basic principles of respiratory therapy, as related to gas physics; medical gas storage and therapy; and administration of humidity, aerosol and airway pressure therapies, artificial airways, and resuscitation devices. Emphasis on methods of administration of the therapy, with special attention placed to the equipment used as well as the application of this information to the clinical setting.

RSTH 342 Respiratory Therapy Science II (5)
Lecture and laboratory presentation of the principles of respiratory therapy related to lung inflation therapy; use of artificial airways, their care and complications. Introduction to mechanical ventilatory support, including beginning ventilators, support systems, comparison of methods, and respiratory monitoring. Emphasis on application of this information to the clinical setting.

Prerequisite: RSTH 341.

RSTH 343 Respiratory Therapy Science III (4)
Lecture and laboratory presentation of the principles of respiratory therapy related to mechanical ventilatory support, including patient management and ventilatory support systems. Emphasis on methods of ventilatory support, with special attention to the mechanical ventilators commonly used in the students' clinical sites. Application of this information to the clinical setting.

Prerequisite: RSTH 341, 342.

RSTH 354 Case Studies in Adult Respiratory Care (2)
Adult critical care concepts presented through a case-study approach. Respiratory care plan used to present diseases, treatment, and procedures relevant to respiratory care. Patient rounds further develop critical-thinking skills in a patient care setting.

Prerequisite: RSTH 381

RSTH 366 Diagnostic Techniques (2)
Continues the clinical use of diagnostic tests and procedures. Emphasis on evaluation of chest radiographs and monitoring hemodynamics.

Prerequisites: RSTH 304, 331.

RSTH 381, 382 Cardiopulmonary Diseases I, II (2, 2)
Comprehensive study of cardiopulmonary diseases and their adverse effects. Course content includes disease etiology, pathology, pathophysiology, clinical features, prognosis, treatment, and prevention.

Prerequisite: RSTH 304, 331, 341.

Corequisite: RSTH 323, 332, 342, 366.

RSTH 391 Respiratory Care Practicum I (2)
General introduction to the clinical setting; assessment of patients with respiratory disease. Development of work habits and patient-care techniques. Students must obtain current cardiopulmonary resuscitation (CPR) certification from the American Heart Association before the end of the quarter.

Prerequisite: RSTH 341.

Concurrent: RSTH 342.

RSTH 392 Respiratory Care Practicum II (2)
Application of specific therapeutic techniques, including oxygen and humidity therapy, aerosol therapy, airway management, lung inflation techniques, and chest physiotherapy.

Prerequisite: RSTH 341, 391; AHA CPR certification.

Concurrent: RSTH 342, 381.

RSTH 393 Respiratory Care Practicum III (4)
Application of therapeutic techniques in continous mechanical ventilation; special procedures, operation and postanesthesia room, and the arterial blood gas laboratory.

Prerequisite: RSTH 343, 381, 392.

Corequisite: RSTH 382, 404.

RSTH 401 Cardiopulmonary Intensive Care (2-4)
Management of the patient with cardiopulmonary failure. Theory and capabilities of various life-support and monitoring systems.

Prerequisite: Senior standing or consent of the instructor.

RSTH 404 Critical Care (4)
Continue the theory, practice, and knowledge of mechanical ventilation—providing an integrated approach to respiratory care in the critical care arena. A systems-based approach used to incorporate respiratory care concepts such as planning and implementing of protocols, best practice guidelines, etc. Presentations, projects, and critical evaluation used to increase critical-thinking skills and patient-care skills.

Prerequisite: RSTH 354.

RSTH 411 Advanced Cardiac Life Support (2)
Principles and techniques of advanced emergency cardiac care: review of basic CPR, endotracheal intubation, and the use of airway adjuncts. Monitoring and dysrhythmia recognition. Essential and useful drugs for cardiac life support. Intravenous techniques. Appropriate use of devices for elective cardioversion or defibrillation, stabilization, and transportation. Use of circulatory adjuncts. Acid-base balance, drug therapy, and therapeutic interventions.

RSTH 421 Perinatal and Pediatric Respiratory Care (2)
Fetal development and circulation. Prenatal risk factors. Newborn resuscitation; newborn and pediatric assessment. Etiology, pathophysiology, course, treatment, and outcome of respiratory diseases as they relate to problems in pediatrics and neonatology. Discussion of ECMO, high-frequency ventilation, and nitric oxide.

Prerequisite: RSTH 304, 331.

RSTH 422 Advanced Perinatal and Pediatric Respiratory Care (2)
Pathophysiology of newborn and pediatric diseases that are likely to be encountered by the respiratory-care practitioner. Perinatal risk factors, resuscitation, and research on the transition to extrauterine life. Diagnostics, monitoring of clinical indices, and treatments used in perinatal/pediatric respiratory care. Advanced information on surfactant, high-frequency ventilation, and ECMO.

RSTH 424 Exercise Physiology and Pulmonary Rehabilitation (3)
Metabolism of carbohydrates, lipids, and proteins in energy production, oxygen consumption, carbon dioxide production, and respiratory quotient applied to measurable counterparts of oxygen uptake, carbon dioxide ouput, and respiratory exchange ratio at rest and during exercise. Metabolic studies, body-fat composition, exercise studies, and malnutrition in chronic obstructive pulmonary disease utilized as a foundation for evaluation and implementation of pulmonary rehabilitation program. Rehabilitation components include team assessment, patient training, exercise, psychosocial intervention, and follow-up.

Prerequisite: RSTH 323.

RSTH 434 Advanced Patient Assessment (2)
Advanced skills in interviewing, physical examination, and interpretation of laboratory data. Lecture, reading material, and physical examination procedures. Provides insight for better interview and examination of patients with cardiopulmonary disease. Increases understanding of the pathophysiology behind the symptoms.

RSTH 441 Respiratory Therapy Science IV (3)
In-depth presentation and discussion of the clinical application of respiratory therapy devices and their influences on patient care. Reports and discussions of current and advanced developments. Emphasis on the application of this information to the clinical setting.

Prerequisite: RSTH 341, 342, 343; or permission of instructor.

RSTH 444 Case Studies in Neonatal/Pediatric Respiratory Care (2)
Development of respiratory care management skills of the neonatal and pediatric patient through the presentation of student case studies. Clinical staff and faculty review current management of the newborn, infant, and child. Students present patients and explain implications of care. Assistance in presentation skills.

Prerequisite: RSTH 421.

RSTH 451 Respiratory Care Affiliation I (2)
General care, basic critical care, and advanced critical care in the adult, pediatric, and neonatal setting as practiced at LLUMC. Open to students who are not, or have been recently, employed by LLUMC.

Prerequisite: CA RCP licensure.

RSTH 452 Respiratory Care Affiliation II (2)
Specialty clinical assignments selected from the following areas: adult critical care, cardiopulmonary specialities, pediatrics and neonates, polysomnography, rehabiliation and patient education, research, and special procedures. Limited to students in the post-professional B.S. degree program in respiratory care.

Prerequisite: AHCJ 461; RSTH 422; CA RCP licensure.

RSTH 453 Respiratory Care Affiliation III (2)
Specialty clinical assignments selected from the following areas: adult critical care, cardiopulmonary specialities, pediatrics and neonates, polysomnography, rehabiliation and patient education, research, and special procedures. Limited to students in the post-professional B.S. degree program in respiratory care

Prerequisite: AHCJ 461; RSTH 452; CA RCP licensure.

RSTH 454 Respiratory Care Affiliation IV (2)
Specialty clinical assignments selected from the following areas: adult critical care, cardiopulmonary specialties, pediatrics and neonates, polysomnography, rehabilitation and patient education, research, and special procedures. Limited to students in the post-professional B.S. degree program in respiratory care.

Prerequisite: AHCJ 461; RSTH 452; CA RCP licensure.

RSTH 455 Respiratory Care Affiliation V (2)
Specialty clinical assignments selected from the following areas: adult critical care, cardiopulmonary specialties, pediatrics and neonates, polysomnography, rehabilitation and patient education, research, and special procedures. Limited to students in the post-professional B.S. degree program in respiratory care.

Prerequisite: AHCJ 461; RSTH 452; CA RCP licensure.

RSTH 457 Physical Diagnosis I (2)
Systematic review of bedside assessment techniques utilized in the care of patients with respiratory disease. Student presentations and discussions of selected cases that involve diagnostic and therapeutic modalities of particular interest to respiratory therapists. (Three [3] units required for B.S. degree in respiratory therapy.)

RSTH 458 Physical Diagnosis II (1)
Continued discussion of clinical assessment techniques and interpretation of findings in patients with cadiopulmonary disease. Emphasis on use of laboratory tests, chest radiographs, arterial blood gases, and other tests used to evaluate the patient. Lecture, reading, and discussion of case studies.

RSTH 462, 463 Management Practicum II, III (2, 2)
Experience in management of respiratory or emergency medical-care management. Clinical application of the theoretical management skills developed during the didactic portions of the training.

RSTH 464 Case Management in Respiratory Care (2)
A case management approach to patient care will be utilized in the management and evaluation of treatment and disease. Special emphasis on case management of the respiratory care patient includes discharge planning, utilization review, patient assessment, cost containment, patient education, and integration issues.

Prerequisite: RSTH 334, 424, 434.

RSTH 466 Advanced Diagnostic Techniques I (2)
Advanced diagnostic theory and practice in the following areas: Holter monitoring, echocardiography, bronchoscopy, sleep studies, and other relevant respiratory care diagnostics.

Prerequisite: RSTH 366.

RSTH 467 Advanced Diagnostic Techniques II (2)
Concepts of advanced diagnostic theory and practice with additional topic areas such as metabolic studies, stress testing, pulmonary function laboratory experiences, etc.

Prerequisite: RSTH 466.

RSTH 471, 472, 473 Instructional Techniques I, II, III (2, 2, 2)
Development of units of instruction, instructional objectives, and evaluation procedures. Observation and participation in classroom management. Application of teaching principles through experience in various teaching activities, such as community preventive health care programs, in-service and continuing education, and college classroom and clinical teaching. Conferences and individual guidance.

Prerequisite: RSTH 471 precedes RSTH 472, 473.

RSTH 474 Cardiopulmonary Health Promotion and Disease Prevention (2)
Provides the student with fundamental and advanced information on biomechanics, exercise physiology, human development and aging, human behavior and psychology, risk factors, health appraisal and fitness testing. Upon completion, the participant may be eligible to sit for the American College of Sports Medicine certification examination.

Prerequisite: RSTH 424.

RSTH 481 Research in Cardiopulmonary Sciences (1)
Application of the basic concepts of research specific to cardiopulmonary sciences. Development of a basic research proposal. Strongly recommended that the student complete most of the required core courses before registering for this course.

Prerequisite: AHCJ 351.

Concurrent: AHCJ 461.

RSTH 491, 492, 493 Education Practicum I, II, III (2, 2, 2)
Experience in clinical education, evaluation, and scheduling. Familiarization with hospital affiliation agreements and accreditation issues.

Prerequisite: Must be licensed in California as an RCP.

RSTH 494 Respiratory Care Practicum IV (2)
Development of professional competence and maturity in the clinical setting. Comprehensive training in all aspects of respiratory care, including the pulmonary function laboratory and home care.

Prerequisite: RSTH 343, 382, 393, 404.

RSTH 495 Respiratory Care Practicum V (2)
Specialty training in respiratory care practice. Students rotate to specialized areas of respiratory care, increasing their proficiency and understanding in the following areas: neonatal/pediatric critical care, adult critical care, cardiopulmonary diagnostics, hyperbaric medicine, sleep disorders medicine, cardiopulmonary rehabilitation, and extended care. In addition, students continue their professional development and competency in the general and critical care settings.

Prerequisite: RSTH 404, 494.

RSTH 496 Respiratory Care Practicum VI (3)
Continuation of specialty training in respiratory care practice. Students rotate to specialized areas of respiratory care, increasing their proficency and understanding in the following areas: neonatal/pediatric critical care, adult critical care, cardiopulmonary diagnostics, hyperbaric medicine, sleep disorders medicine, cardiopulmonary rehabilitation, and extended care. In addition, students continue their professional development and competency in the general and critical care settings.

Prerequisite: RSTH 495.

RSTH 499 Respiratory Therapy Independent Study (.5-2)
Project or paper submitted on a topic of current interest in an area of respiratory therapy. Regular meetings provide student with guidance and evaluation. Elected on the basis of need or interest. The .5 unit of credit designed to offer directed experience in the prevention of AIDS and other communicable diseases in the clinical setting.

EMMC 204 Introduction to Emergency Medical Services (1)
Introduction to prehospital medical services. Roles and responsibilities of paramedics and EMTs. EMS systems design, constraints, and operating problems. EMS environment and scene issues. Medical-legal issues. History and current state of prehospital care and medical oversight.

EMMC 207 Introduction to Cardiopulmonary Therapeutics (2)
Administration of gases and gas mixtures. Humidity aerosol treatment, oxygen therapy, theory of application of mechanical ventilation, interpretation of arterial blood gases. Description of ventilators and relationship of therapeutic procedures to underlying pathology.

EMMC 314 Introduction to 12-Lead ECG Interpretation (1)
Development of basic ECG interpretation skills. Focus on anatomy and physiology, underlying pathophysiology, basic rhythm recognition, and overview of related treatments. Special emphasis on skills needed by bedside practitioner to differentiate between benign and life-threatening dysthythmias.

EMMC 315 Cardiology (3)
Designed to assist the health care provider develop assessment skills and knowledge of medical management of the patient with acute and chronic cardiovascular disorders. Focus on anatomy and physiology, underlying pathophysiology, advanced history taking and physical assessment, cardiovascular pharmacology, electrical modalities, cardiac diagnostic testing, and current research. Special emphasis on the emergency care of patients with myocardial infarction and trauma to the cardiovascular system. Assignment includes interaction with cardic patients and observation of diagnostic studies in the clinical setting.

EMMC 316 12-Lead ECG Interpretation (2)
Designed for health care providers who are familiar with basic ECG monitoring and are seeking to learn principles of application and interpretation of the 12-lead system. Special emphasis on recognition of the acute myocardial infarction. Additional topics include identifying: axis deviation, acute ischemic conditions, electrolyte imbalances, bundle branch block, and infarct impostors. Practical application of information to bedside care of cardiac patients, with emphasis on patient assessment, data collection, and use of the 12-lead to guide rapid intervention. Certificate issued upon successful completion of the course.

Prerequisite: Successful completion of a basic ECG interpretation examination.

EMMC 321 Theories of Emergency Medical Services (2)
Investigation of the dimensions of emergency medical services. The influence of environment on oxygen delivery. The development of paradigms for EMS. Decision making in the constrained environment. Stress models and role theories. Discussion of EMS as sequential environments from public health to critical care.

EMMC 325 Current Issues in Emergency Medical Care (2)
Seminar-style discussion regarding current issues and controversies in emergency medicine. Issues may include topics such as pre-hospital use of thrombolytic therapy, managed care, primary care advanced scope paramedic practice, etc.

EMMC 351 Neonatal Resuscitation (1)
Neonatal anatomy and physiology. Asphyxia and its effects in the newborn. Intubation, medications, and ventilation techniques. Thermoregulation as it relates to resuscitation of the neonate. Skills laboratory for delivery resuscitation, including megacode.

EMMC 355 Perinatal Emergencies (2)
Infant mortality and social issues related to premature delivery. Maternal evaluation, with emphasis on the imminent delivery. Physiology related to the perinatal time period. Fetal anatomy and physiology. High-risk deliveries. New issues for neonatal diseases.

EMMC 405 Trauma and Surgical Care (2)
Comprehensive review and analysis of topics in the management of cardiothoracic trauma. Description of surgical procedures and outcomes for trauma victim. Principles of care of the patient after stabilization and surgery. Management of surgical emergencies, including the acute abdomen, and chest trauma.

EMMC 415 Pediatric Emergency Care (2)
Comprehensive review regarding care of the child in the emergency medical services system. Tissue-oxygen delivery, physiologic systems dysfunction, trauma, environmental problems, prevention of psychological dysfunction, legal aspects, and special needs of children. Laboratory-skills practice in thoracentesis and chest tube placement, airway control and intraosseous vascular access.

EMMC 421, 422, 423 Emergency Medicine Practicum I, II, III (1, 1, 1)
Clinical assignments rotating with registered nurses, respiratory therapists, paramedics, and physicians in prehospital, ED, ICU, transport services, X-ray, alternative medicine, labor and delivery, and rehabilitation. Observation and discussion with residents in cardiac ICU, cardiac diagnostic laboratory, and cardiac failure clinic. Rotations in neurosurgical ICU, medical ICU, and anesthesiology. Clinical hours and rotations tailored to individual needs by the clinical coordinator.

EMMC 431 Emergency Case Studies (2)
Seminar-style discussion on issues critical to emergency medical care. Case studies of the patient in EMS, from initial insult through comprehensive stabilization and disposition. New research in emergency medical care.

EMMC 435 Disasters, WMD, and Terrorism (2)
Introduction to EMS response involving large scale natural disasters and weapons of mass destruction (WMD). Exploration of pre-hospital and hospital treatment. Evaluation of current issues facing EMS personnel. Crisis and consequence management, theories of terrorism response, and state and federal resources. Discussion of interagency roles, overview of social and psychological aspects, policy development and the media, comparison of response protocols of disaster versus terrorist incidents.

EMMC 444 Diversity in EMS (2)
A senior level Emergency Medical Care core curriculum course designed to expose students to specialty areas of EMS that often are overlooked. The Diversity in EMS course will explore, among others, the following areas in EMS: wilderness medicine; search and rescue; event/mass gathering medicine; sports medicine; aeromedical EMS; water rescue and dive EMS; hazardous materials and toxicology; tactical and forensic EMS; catastrophic and disaster EMS; and international EMS.

EMMC 454 Research Methods for Allied Health Professionals (2)
Research in Allied Health Professions is designed to provide the advanced student withe the opportunity to apply the fundamentals fo research to a pertinent project. Each student will develop and write a research paper using either real or fictitious data by the end of the quarter.

EMMC 484 Legal Issues in Health Care (2)
Introduction to the legal system as it pertains to health care professionals. Concepts of malpractice, litigation, consent for and refusal of medical treatment, advanced directives, and patient confidentiality. Discussion of employment issues, including discrimination and sexual harassment. Development of health and safety programs per OSHA regulations, risk management, legal issues in vehicle operations and equipment, and EMS and law enforcement interactions.

PAST 401, 402, 403 Anatomy and Physiology I, II, III (3, 3, 3)
Gross and microsopic anatomy of the human body. Lecture, laboratory with cadaver dissection, demonstration, and slides. Orientation to structure of various systems of the body.

PAST 404 Biochemistry for Physician Assistants (3)
Chemistry and metabolism of carbohydrates, lipids, nucleic acids, and proteins. Chemical basis of life processes. Lecture and laboratory demonstrations to support student competency.

PAST 405 Pharmacology for Physician Assistants (3)
Basic concepts of pharmaceuticals used in diagnosis, prevention, and treatment of disease, including a systematic presentation of the pharmacology and the therapeutic value of the drugs used in medicine. Related topics include drug legislation, PDR, routes of administration, pharmacokinetics, pharmacodynamics, adverse effects, drug interactions and drug toxicity, with speciall consideration to pediatriac and geriatric pharmacology. Overview of responsibilities for prescribing and/or dispensing of pharmaceuticals by the physican assistant.

PAST 406 Clinical Laboratory (2)
Provides the physican assistant candidate with an overview of clinical laboratory procedures and operations. Emphasis on interpretation and clinical significance of commonly ordered laboratory tests. Observation and performance of laboratory testing routinely performed in primary-care offices and hospital laboratories. Lecture and laboratory. Laboratory exposure provided in a clinical laboratory setting.

PAST 411 Pathology for Physician Assistants I (3)
Fundamental mechanisms of disease, including cell injuury, inflammation, repair, regeneration, and fibrosis; vascular, cardiac, respiratory, gastrointestinal, hepatobiliar, urinary, reproductive, endocrine, and integumentary pathologies. One hour per week participation in differential diagnosis seminar required.

PAST 412 Pathology for Physician Assistants II (3)
Fundamental mechanisms of disease, including the central and peripheral nervous systems, bone and joint, skeletal muscle, developmental, genetic, infectious and parasitic pathologies, and neoplasia. Two autopsy observations with written report, and one hour per week participation in differential diagnosis seminar required.

PAST 501 Clinical Medicine for Physician Assistants I (4)
Study of common medical and/or surgical disorders encountered in general adult medicine. Includes typical clinical presentation, etiology, pathophysiology, diagnostic work-up, and management of these disorders.

PAST 502 Clinical Medicine for Physician Assistants II (4)
Part II of the two-quarter sequence introducing the student to a study of common medical and/or surgical disorders encountered in general adult medicine. Course content includes typical clinical presentation, etiology, pathophysiology, diagnostic work-up, and management of medical and/or surgical disorders.

PAST 503 Physical Diagnosis (4)
Lecture, demonstration and practice in art and science of obtaining a medical history and performing a physical examination.

PAST 504 Primary Care Pediatrics (2)
Introduces the PA student to the common medical and surgical disorders encountered in pediatric medicine. Emphasis on primary care concepts in the care of children. Introduction to rare disorders that the PA may encounter in primary care. Presentation of disease processes mirrors adult medicine by discussing the etiology, pathophysiology, clinical presentation, diagnostic work-up, and management.

PAST 505 Women's Health Care (2)
Common problems encountered in caring for women. Etiology, pathophysiology, clinical presentation, diagnostic work-up, and management of these problems.

PAST 506 Clinical Skills for Physician Assistants (2)
Introduction to the basic skills and knowledge needed to evaluate and treat common injuries or illnesses. Includes basic knowledge and skills needed to function safely in the inpatient and surgical environment.

PAST 507 Preventive Medicine Concepts (2)
Selected topics dealing with aspects of disease prevention. The relevance of statistics, epidemiology, research designs, and clinical trials. Selected disease trends, lifestyle modification, the role of physical activity, nutrition and immunization, and public health approaches to communicable diseases.

PAST 508 Interpretation of EKGs (1)
Study of the pathophysiology and identification of commonly encountered arrhythmias. Includes lectures, demonstrations, and practice in the interpretation of EKGs.

PAST 509 Behavioral Science for Physician Assistants (3)
Instruction in the behavioral science counseling skills ncesessary to assist patients with illness and injury, follow prescribed treatment regimens, and adopt attitudes and behaviors leading to improved health behaviors (including thinking, feeling, and acting).

PAST 511, 512 PA Professional Issues I, II (1, 1)
Acquaints entering students with the history, development, and current status of the PA profession and helps them formulate an appropriate preception of the PA role. Topics include a historical perspective of the PA profession, as well as current trends and issues; the PA's role in health care delivery; political and legal factors that affect PA practice, intraprofessional factors, and the PA's role in relation to physicians and other providers; importance of biomedical ethics and professional responsibilities in relation to their role as health care providers; content relating to PA professional organizations, program accreditation, graduate certification and recertification, employment considerations, and professional liability.

PAST 513 Physician Assistant Professional Issues III (1)
Current issues affecting the physician assistant profession; integration of didactic theory with supervised clinical practice.

Prerequisite: PAST 512.

Corequisite: Must be enrolled in PA program.

PAST 521 Research I (3)
Introduces the scientific method in health-science research. Focuses on the major steps of the research process: problem identification, literature review, conceptual framework, identification of variables, statement of hypotheses, experiemental design and analysis, and presentation of data. Includes critical evaluation of research literature.

PAST 522 Research II (2)
Application of the research process to problems in related specific allied health fields. Development of a research proposal. Pilot testing of procedures and data collection forms.

PAST 523 Research III (2)
Implementation of a research proposal in a practice setting. Computer data analysis and preparation of a research report both in written and oral formats. PowerPoint presentation, poster, and abstract for submission to a professional meeting.

PHYSICIAN ASSISTANT CLINICAL ROTATIONS

Enrollment in the following courses limited to physician assistant students.

PAST 524 Family Medicine I (4)
Four-week rotation in a primary care clinic. Exposure to common problems and community health care needs in all age groups. Forty hours per week.

PAST 525 Family Medicine II (4)
Four-week rotation in a primary-care clinic, including urgent care. Exposure to common problems and community health care needs in all age groups. Forty hours per week. May require late evening hours.

PAST 526 Internal Medicine I (Inpatient Medicine) (4)
Four-week rotation as part of an internal medicine admitting team. Exposure to common medical problems, admissions, daily rounds, patient management, and discharge processes. On-call required (overnight); sixty hours per week.

PAST 527 Internal Medicine II (Outpatient Medicine) (4)
Four-week rotation in outpatient medical clinics. Exposure to common adult medical problems, including management of chronic diseases. Forty hours per week.

PAST 528 Pediatrics I (Inpatient Pediatrics) (4)
Four-week rotation as part of a pediatrics admitting team. Includes overnight, in-hospital on call, emergency room call, and outpatient clinic duties. Exposure to and patient management processes. Sixty hours per week.

PAST 529 Pediatrics II (Outpatient Pediatrics) (4)
Four-week rotation in a pediatric clinic. Exposure to common childhood problems and health care needs. 40 hours per week.

PAST 531 Obstetrics and Gynecology (4)
Four-week rotation through various aspects of an obstetrics and gynecology service. Exposure to women's health care needs, with emphasis on primary care—including normal pregnancy and childbirth. May require in-hospital on call (overnight) or late hours. Forty-to-sixty hours per week.

PAST 532 General Surgery (4)
Four-week rotation on a general surgery service. Exposure to common medical problems requiring surgical intervention, primarily in adults. Includes assignment to an admitting team, in-hospital on call (overnight) or late hours. Includes assisting in the operating room and surgical clinic. Sixty hours per week.

PAST 533 Emergency Medicine (4)
Four-week rotation through a hospital emergency deparment, primarily in urgent care or assigned to minor trauma and illnesses. Exposure to common illnesses and injuries, suturing, and splinting. Requires late-night and weekend duties. Forty-to-sixty hours per week.

PAST 534 Psychiatry/Behavioral Medicine (4)
Four-week rotation through inpatient and outpatient behavioral medicine. Exposure to common mental health problems, including acute and chronic psychoses, substance abuse, and affective disorders. May require late night or on-call duties. Forty-to-sixty hours.

PAST 535 Geriatrics (2)
Two-week rotation on a geriatric service. Exposure to the special needs of the elderly. Forty hours per week.

PAST 536 Elective I (2)
Two-week elective rotation through a medical or surgical service of choice (as available). Hours/call may vary.

PAST 537 Elective II (2)
Four-week elective rotation through a medical or surgical service of choice (as available). Hours/call may vary.

SGTH 205 Surgical Instrumentation (3)
Classification of instruments and surgical equipment, catheters, drains, tubes. Preparation and care of surgical supplies and equipment, surgical packing, and dressings. Cleaning and packaging of surgical instruments.

SGTH 221, 222, 223 Surgical Preparation I, II, III (4, 4, 4)
Preoperative patient-care routines to include: patient assessment, variations, precautions, and equipment in patient positioning, skin preparation, draping, catheterization, and emergency procedures. Psychosocial aspects of the surgical patient. Preoperative evaluation and assessment of patient risk factors and outcomes. (Laboratory fee assessed Autumn Quarter—$75.00.)

SGTH 225 Pharmacology for Surgical Technology (2)
General overview of pharmacology, including kinetics, dynamics, and therapeutics of drugs. Emphasis on agents used in the operating environment.

SGTH 231, 232 Surgical Care Fundamentals I, II (4, 3)
Principles and applications of maintaining a sterile surgical environment. Responsibilities of the scrub, circulating, and second-assisting roles. Principles and techniques of sterilization, disinfection, and antisepsis of the operating room and patient. Wound healing and care. Environmental control and safety.

SGTH 241, 242 Surgical Procedures I, II (4, 4)
General and specialty surgical procedures, pathology and surgical interventions, specialized equipment, types of anesthesia, and complications. Lecture and laboratory.

SGTH 278 Seminar in Surgical Technology (2)
Applications and topics that concern the surgical technologist, such as management principles, psychosocial aspects of patient care, education, and professional organizations and credentialing. Role of the surgical technologist and the surgical team.

SGTH 291, 292, 293, 294 Surgical Technology Clinical Practicum I, II, III, IV (2, 2, 4, 5)
Supervised clinical assignments in both inpatient and outpatient clinical settings. Comprehensive training in all aspects of surgical technology. General introduction to the operating room setting and to advanced clinical practice in the final quarter. Application of surgical technology techniques in the development of professional competence in the clinical operating room setting.

SGTH 294L Surgical Technology Clinical Practice IV Laboratory (4)
Supervised clinical assignments in both inpatient and outpatient clinical settings. Comprehensive training in all aspects of surgical technology. General introduction to the operating room setting and to advanced clinical practice. Application of surgical technology techniques in the development of professional competence in the clinical operating room setting.

SGTH 299 Student Project (2)
Student-selected topic in surgical technology for further in-depth study in one or more of the following areas for presentation to faculty and students: management, education, research, or clinical practice.

CONJOINT

See CONJOINT COURSES, section III, for course descriptions.

COGNATE

RELE 457 Christian Ethics and Health Care (2)
Ethical issues in modern medicine and related fields from the perspective of Christian thought and practice.

RELE 505 Clinical Ethics (3)
In-depth, case-based analysis of bioethics, with emphasis on clinical applications. Background conceptual and historical readings orient students to the issues highlighted by classic cases in bioethics.

RELF 423 Loma Linda Perspectives (2)
History and philosophy of Loma Linda University as a Christian health-sciences institution that fosters human wholeness.

Familiar faces throughout Nichol Hall: Bob Wilkins, chair of the Department of Cardiopulmonary Sciences; Bud Spearman, CPS, associate professor; Arthur Marshak, program director, post-professional Bachelor of Science degree in respiratory care.

CLINICAL LABORATORY SCIENCES

PHLEBOTOMY—Certificate

CYTOTECHNOLOGY—Certificate; Bachelor of Science

CLINICAL LABORATORY SCIENCE (formerly MEDICAL TECHNOLOGY)—Bachelor of Science

CLINICAL LABORATORY TECHNICIAN (formerly MEDICAL LABORATORY TECHNICIAN)—Associate in Science

KENNETH CANTOS, Chair

MONIQUE K. GILBERT, Program Director, Phlebotomy

MARLENE O. OTA, Program Director, Cytotechnology

DARRYL G. HEUSTIS, Medical Director, Cytotechnology

PAMELA J. WAT, Medical Co-director, Cytotechnology

RODNEY M. ROATH, Program Director, Clinical Laboratory Science

KATHERINE G. DAVIS, Clinical Coordinator, Clinical Laboratory Science

ANNE M. KERI, Program Director, Clinical Laboratory Technician; Education Coordinator, Clinical Laboratory Science

JAMES M. PAPPAS, Medical Director, Clinical Laboratory Science

FACULTY

Craig E. Austin
Lee S. Berk
James A. Brandt
Brian S. Bull, SM
Samuel Leroy Chafin
Katherine G. Davis
Monique K. Gilbert
Sally P. Greenbeck
Darryl G. Heustis
Ronald H. Hillock
Anne M. Keri
John E. Lewis
Robert J. Loder
Thuan H. Nguyen
Marlene O. Ota
James M. Pappas
Rodney M. Roath
Teri J. H. Ross
Pamela J. Wat
Grenith J. Zimmerman

CLINICAL FACULTY

Douglas H. Barr
Susan H. Bressler
Linda S. Buckert
Maria C. Castillo
Jeffery G. Chambers
Qin Chen
Andrew Chia
Susan Clancy
Louis J. Cota
Virgilia P. Fernandez
Joel C. Gillmore
LinaCel V. Gutierrez
Juliette K. Hollands
Mary A. Hughes
Ronald S. Johnson
Susie M. Johnson
Dorothy Lajom
Tuyhoa T. Le
Phillip Liang
Jon Loriezo
Trudy L. McCabe
Sonia D. Northrop
Dennis P. O'Malley
Gaile T. Rittenbach
Carol D. Samsky
Daisy Santa Maria
Delfin T. Santos-Kho
Carol L. Satterfield
Stuart B. Schneider
Linda J. Shain
Arthur J. Silvergleid
Jack C.-T. Soong
Valerie T. Stevenson
Terence Tay
Evelyn T. Torres
Deborah Lynn Vigneault
Patricia A. Williams
Reginald Yeo
Jane N. Zappia

PHLEBOTOMY—Certificate

Procedures in phlebotomy are designed to train individuals to collect blood for laboratory analysis, which is necessary for the diagnosis and care of the patient. Ideal for health professionals seeking to expand their current skills, for currently employed phlebotomists, or for those interested in a profession in laboratory medicine, this training program is approved by the California Department of Health, Laboratory Field Services. Successful participants receive a certificate in phlebotomy.

THE PROGRAM

The program trains the modern phlebotomist to perform venipuncture, capillary puncture, and CPR; and to record the patient's vital signs, which include medical terminology, laboratory safety, basic anatomy and physiology, quality-assurance methods, and medicolegal issues of phlebotomy. More than 100 hours of supervised clinical experience are provided at Loma Linda University Medical Center and other medical affiliates, allowing participants to achieve proficiency in the health care setting.

Accreditation

The program is accredited by the California Department of Health, Laboratory Field Services; and by the National Accrediting Agency for Clinical Laboratory Science (NAACLS), 8410 West Bryn Mawr Avenue, Suite 670, Chicago, IL 60631-3415.

PROFESSIONAL REGISTRATION

Upon successful completion of the certificate program, participants receive a certificate in phlebotomy and are eligible to take the national certifying examination offered by the Board of Registry, American Society of Clinical Pathologists (ASCP), 2100 West Harrison Street, Chicago, IL 60612; 800/621-4142.

PROGRAM OF INSTRUCTION
PHLEBOTOMY—Certificate

AHCJ 105 Procedures in Phlebotomy (3)

Corequisite: Current CPR certification or concurrent enrollment. CPR training and certification or renewal arranged during the program for students not already certified.

ADMISSION

To be eligible for admission, the applicant must be eighteen years of age or older and have a high school diploma with a minimum grade point average of 2.0, or GED. All registrants must have current immunizations (measles, mumps, rubella, tetanus, and PPD skin test).

How to apply

Prospective students should contact the Department of Clinical Laboratory Science for an application packet with instructions.

ACADEMIC PROGRESSION

A minimum grade of C (2.0) is required for satisfactory performance in the program. A grade of C (2.0) or better is required for certification. C-grades are not acceptable. Unsatisfactory clinical performance will be cause for dismissal from the program. Students are responsible for transportation to clinical sites.

CYTOTECHNOLOGY—Certificate; Bachelor of Science

Cytotechnology is a specialty within the broad field of the clinical laboratory sciences. The cytotechnologist, working under the direction of a pathologist, detects cell changes caused by different disease processes; and is able to differentiate between normal, atypical, and malignant cell changes. In recognizing microscopic abnormalities of cells and cellular patterns from various body sites, the cytotechnologist assists the pathologist in detecting cancer at its earliest and potentially most curable stage. As a result, physicians are able to diagnose and treat cancer long before discovering its existence by alternate methods.

OPPORTUNITIES

Cytotechnologists work in hospitals, clinics, and independent pathology laboratories. The employment outlook for cytotechnologists is favorable, with the demand for trained workers exceeding the supply. Cytotechnologists can advance to supervisory positions, participate in research activities, or become teachers in the field. Advancement is based on experience, skill, and advanced education.

THE PROGRAM

The cytotechnology program, based on the completion of two years of study at an accredited college or university, leads either to a certificate or to a certificate and a Bachelor of Science degree. The program of study begins with the Autumn Quarter. A certificate is awarded at the completion of the fourth quarter of study, and those electing to continue are awarded the Bachelor of Science degree upon the completion of an additional two quarters of study. With the certificate in cytotechnology and the baccalaureate degree, the student is eligible to take the national examination and become a registered cytotechnologist.

Registered cytotechnologists entering the program to receive the Bachelor of Science degree are considered to have completed, on the basis of registry, the equivalent course work listed in the first four quarters of the program. A total of 64 quarter units is applied toward the graduation requirements, provided the course work in pathology is equivalent to that offered in the certificate program at this University. Where credit in pathology is not equivalent, the requirement may be met by taking AHCJ 402 and 403 at this University; or by completing a minimum of 8 quarter units of upper-division course work in developmental biology or comparative animal physiology at an accredited college or university.

A writing validation examination will be administered to all students. For those students achieving a score of less than 4 on the Wholistic Score Sheet, remedial writing must be taken within the first academic year. Upon retest, the student must achieve a score of 4 or greater.

Accreditation

The program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 515 North State Street, Suite 7530, Chicago, IL 60610-4377, in collaboration with the Cytotechnology Programs Review Committee.

PROFESSIONAL REGISTRATION

Upon completion of the certificate program (fourth quarter of study) and the completion of a baccalaureate degree, the student is eligible to sit for the certifying examination given by the Board of Registry of the American Society of Clinical Pathologists, P. O. Box 12277, Chicago, IL 60612-0277. Information about qualifying examinations can be obtained at the office of the department chair.

THE PROGRAM OBJECTIVES

Upon completion of the program, the graduate should be qualified to:

1. Determine and implement the appropriate procedures for collecting and processing biological specimens for cytologic analysis.
2. Detect, differentiate between, and diagnose presence and absence of disease in gynecologic and nongynecologic samples.

3. Integrate and relate data generated by the various clinical departments, making judgments regarding possible discrepancies; confirm cytologic results; verify quality-control procedures; and develop solutions to problems concerning the generation of laboratory data.
4. Use contemporary and uniform diagnostic terminology in reporting laboratory results.
5. Judge the results of quality-assurance measures and institute proper procedures to maintain accuracy and precision.
6. Evaluate current and new techniques, instruments, and procedures in terms of their clinical and diagnostic usefulness and practicality.
7. Demonstrate professional conduct and interpersonal communication skills with patients, laboratory personnel, other health care professionals, and the public.
8. Recognize, encourage, and act upon the individual's need for continuing education as a function of growth and maintenance of professional competence.
9. Apply sound principles of management and supervision.
10. Understand and apply sound principles of scientific research.

ADMISSION

PLEASE NOTE: GRADES OF C- ARE NOT TRANSFERABLE FOR CREDIT.

Prerequisites for Cytotechnology, Certificate

General biology, complete sequence

Human anatomy and physiology, complete sequence

Microbiology with laboratory

Introductory chemistry with laboratories, complete sequence

College algebra

English composition, complete sequence

Prerequisites for Cytotechnology, B.S.

20 units minimum in humanities (choose minimum of two areas from: history, literature, philosophy, foreign language, art/music appreciation/history)

Religion required, 4 units per year of attendance, if at a Seventh-day Adventist college or university

General biology, complete sequence

Human anatomy and physiology, complete sequence

Microbiology with laboratory

Introductory chemistry with laboratories, complete sequence

College algebra

Cultural anthropology **or** an approved course dealing with cultural diversity

Select 8 units from a minimum of two areas: sociology, economics, geography, political science, psychology, anthropology

English composition, complete sequence (minimum of 9 quarter units)

Personal health **or** nutrition

Two physical education courses

Electives to meet a minimum total requirement of 96 quarter units

For total requirement for graduation, see DIVISION OF GENERAL STUDIES, Criteria for General Education Course.

How to apply—Cytotechnology

Prospective students should apply as soon after January 1 as possible for the next academic year. The certificate program begins in August and the B.S. degree program begins in September. Preference will be given to applicants whose applications and completed transcripts are received by March 1.

It is suggested that applicants take a minimum of two years of mathematics and natural sciences (excluding general science) during the high school years. A high school diploma or the GED is required for acceptance.

If English is not the native language, an undergraduate must submit a minimum score of 550 for the Test of English as a Foreign Language (TOEFL) or a minimum score of 90 percent on the Michigan Test of English Language Proficiency (MTELP) or the equivalent. Minimum scores of 5 both on the TOEFL writing test and the speaking test (TWE and TSE-A) are required for acceptance.

ACADEMIC PROGRESSION

A minimum grade of C (2.0) is required for all courses in the program. A grade of less than C in any one course, or unsatisfactory clinical performance, will be cause for dismissal from the program for the remaining academic year. Readmission to the program will require reapplication.

PROGRAM OF INSTRUCTION

CYTOTECHNOLOGY— Certificate; Bachelor of Science

The program of instruction outlined as follows is for students enrolled during the 2000-2001 academic year.

JUNIOR YEAR

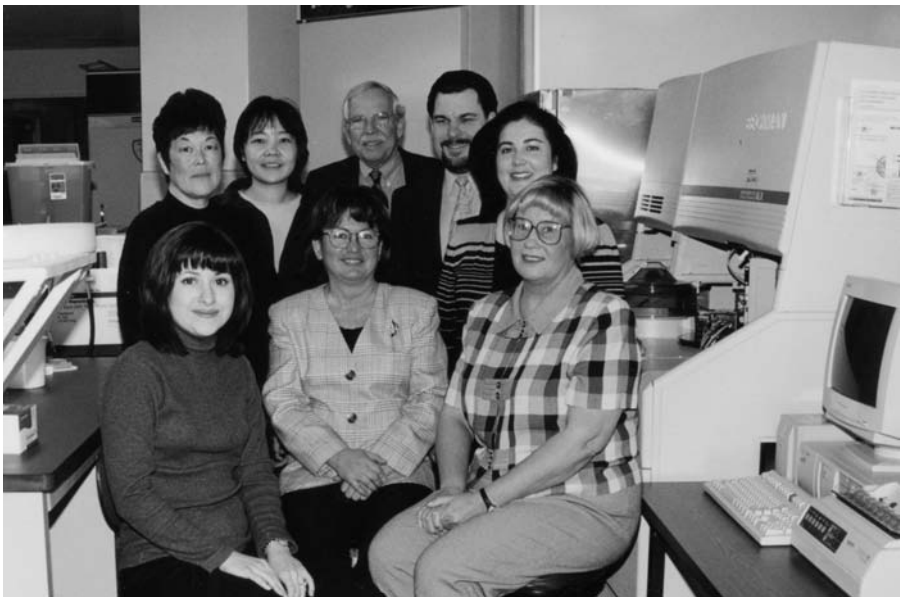
CLSC 341	Female Genital Cytology	12
CLSC 351	Respiratory Cytology	7
CLSC 353	Urinary Tract and Prostate Cytology	3
CLSC 357	Gastrointestinal Tract Cytology	2
CLSC 361	Body Cavity and Miscellaneous Secretions Cytology	8
CLSC 363	Bone Biopsy Cytology	1
CLSC 365	Breast Cytology	1
CLSC 367	Cytogenetics	1
CLSC 371	Cytopreparation Techniques	3
CLSC 373	Histotechnology Techniques	1
AHCJ 402, 403	Pathology I, II	4, 4
AHCJ 328	Portfolio Practicum I	1

A microscope rental fee and usage and replacement fee are required for the Autumn, Winter, Spring, and Summer Quarters of the certificate program.

SENIOR YEAR

CLSC 404	General Histology	5
CLSC 405	Pathology	5
CLSC 424	Hematology	3
CLSC 431	Electron Microscopy	3
CLSC 432	Current Research Techniques	3
CLSC 481	Supervised Cytology Research Project	4
CLSC 483	Supervised Hematology Research Project	2
CLSC 491, 492	Cytology Affiliation I, II	6, 6
AHCJ 331	Personnel Management	3
AHCJ 426	Introduction to Computer Applications I	3
AHCJ 498	Portfolio Practicum II	1
RTMR 301, 302	Introduction to Radiographic Procedures I, II	2, 2
RELE 57	Christian Ethics and Health Care	2
RELF 423	Loma Linda Perspectives	2
REL__ ____	Religion studies	4

Religion requirements do not apply to certificate students. However, if a student is planning to enroll in the B.S. degree program, Summer Quarter would be the best time to take the religion units; 8 units of religion are required for graduation.



(Standing) Marlene Ota, Qin Chen, John Lewis, Rodney Roath, Anne Marie Keri; (seated) Nikki Gilbert, Margie Martinez, and Kathy Davis—from the Clinical Laboratory Science Program.

Cytology course slide review session with Qin Chen and cytotechnology students.

CLINICAL LABORATORY SCIENCE PROGRAM—Bachelor of Science
(formerly MEDICAL TECHNOLOGY PROGRAM)

CLINICAL LABORATORY TECHNICIAN PROGRAM—Associate in Science
(formerly MEDICAL LABORATORY TECHNICIAN PROGRAM)

A student who has an interest in science, an investigative mind that enjoys the challenge of solving problems quickly and accurately, and a desire to help others should consider a career as a clinical laboratory scientist (CLS) or a clinical laboratory technician (CLT).

Clinical laboratory scientists and technicians examine and analyze body fluids, tissues, and cells. They look for bacteria, parasites, or other microorganisms; analyze the chemical content of fluids; match blood for transfusions; and test for drug levels in the blood to show how a patient is responding to treatment.

Clinical laboratory scientists perform complex chemical, biological, hematological, immunologic, microsopic, and bacteriologic tests. They use, maintain, and troubleshoot sophisticated laboratory equipment that is used to perform diagnostic tests. The clinical laboratory scientist analyzes these test results and discusses them with the medical staff. S/he also possesses the scientific and diagnostic skills required for DNA technology and genetic engineering applications.

Clinical laboratory technicians perform moderately complex diagnostic tests and assist clinical laboratory scientists. Technicians prepare specimens for cultures and analysis, count cells, and look for abnormal cells. Using automated equipment and instruments that perform a number of tests simultaneously, technicians are trained to utilize microscopes. Under the supervision of the clinical laboratory scientist, clinical laboratory technicians work in various laboratory departments, including clinical microbiology, chemistry, hematology, and the blood bank.

OPPORTUNITIES

Employment of clinical laboratory workers is expected to parallel the growth of other health care occupations through the year 2006, particularly as the volume of laboratory tests increases with population growth and the development of new technology. This new technology will encourage more testing and spur employment. The twenty-first century is offering clinical laboratory scientists new avenues in test development, experimental design, administration, and education.

Clinical laboratory scientists and technicians work in hospitals or similar medical facilities, clinical and reference laboratories, home-health diagnostics, transfusion services, physicians' offices, and private medical clinics of physicians. They also find

employment in health information systems, DNA-technology and genetic engineering corporations, research laboratories, Federal Government agencies and facilities, veterans' hospitals, and U.S. Public Health Service facilities; and in the areas of product development, and customer and patient education.

CLINICAL LABORATORY SCIENCE PROGRAM—Bachelor of Science
(formerly MEDICAL TECHNOLOGY PROGRAM)

THE PROGRAM

The Clinical Laboratory Science Program is a two-year professional program. The freshman and sophomore years, which are taken at any accredited college or university, afford the fundamentals of a liberal education. Entry is in the post-summer session at the junior-year level. After satisfactory completion of the program, the student is awarded a Bachelor of Science degree and is eligible to take the state and national board examinations and to become a registered clinical laboratory scientist.

The junior year is a ten-month program of lecture and laboratory. Emphasis is on the basic clinical science courses necessary for clinical laboratory science.

The senior year is a ten-month clinical practicum that provides professional clinical experience in the hospital laboratory environment. Emphasis is on technical proficiency, organization, the laboratory's relationship to patient care, financial management, and laboratory operations. Senior students must coordinate their time with the operation of Loma Linda University Medical Center's clinical laboratory and with supplemental training laboratories in the community. Transportation to supplemental training laboratories is the responsibility of the student. The senior schedule is a full-time week (forty clock hours), arranged with a Monday-through-Friday, day-shift schedule for lecture and laboratory requirements. On occasion, days or times outside of this typical schedule may be necessary to allow students exposure to unique procedures. A special calendar schedule, different from the University academic calendar, is followed.

Accreditation

The program is accredited by the National Accrediting Agency for Clinical Laboratory Science, 8410 West Bryn Mawr Avenue, Suite 670, Chicago, IL 60631-3415. It also satisfies the requirements in medical technology of the American Society of Clinical Pathologists' Board of Registry for Medical Technology, P. O. Box 12277, Chicago, IL 60612-0277. The program is approved by the State of California Department of Health Laboratory Field Services, 2151 Berkeley Way Annex 12, Berkeley, CA 94707-1011.

PROFESSIONAL REGISTRATION

Completion of the required sequence of academic course work and directed professional experience prepares the graduate to take the certifying examinations of the Board of Registry of Medical Technologists and the National Certification Agency for Medical Laboratory Personnel, P. O. Box 15945-289, Lenexa, KS 55285; and the licensure examination of the state of California. Information regarding examinations can be obtained from the department chair.

*In 1999 the program name was changed from Medical Technology to Clinical Laboratory Science; the graduates are qualified as clinical laboratory scientists.

THE PROGRAM GOALS

The goals of the Clinical Laboratory Science Program are to help the student:

1. Demonstrate the basic and advanced knowledge essential to the practice of clinical laboratory science.
2. Demonstrate technical and clinical proficiency in the skills esssential to the practice of clinical laboratory science.
3. Obtain certification and licensure as a practitioner in cinical laboratory science.
4. Demonstrate self-confidence in technical, professional, and interpersonal skills.
5. Become a cooperative, effective, and efficient health care worker.
6. Communicate effectively—both orally and in writing—with peers, supervisors, patients, the public, and members of the health care team.
7. Read and interpret professional literature.
8. Share his/her knowledge and skills by providing instruction to peers and support personnel.
9. Recognize that lifelong learning is essential to maintain technical and professional skills.
10. Become a contributor to the profession.
11. Prepare to be a leader in the profession.
12. Cutlivate initiative, creativity, and involvement in the profession.

13. Recognize the ethical standards that are required in the health care profession.
14. Explore his/her relationship with God within the context of the Seventh-day Adventist church.

THE PROGRAM OBJECTIVES

Graduates of the Loma Linda University Clinical Laboratory Science Program will demonstrate the following career-entry competencies, perspectives, and experience:

1. Comprehension of the basic and advanced knowledge essential to the practice of clinical laboratory science.
2. Technical and clinical proficiency in the skills essential to the practice of clinical laboratory science.
3. Ability to become certified and licensed practitioners in clinical laboratory science.
4. Use of computer applications for communication, recordkeeping, analysis, and access of information.
5. Application of principles related to quality control, quality assurance, and total quality management.
6. Ability to work independently.
7. Cooperative participation in group/team environments.
8. Awareness of the influence that social or cultural perspectives may have on the interactions and relationships among coworkers, patients, and the community.
9. Professional demeanor.
10. Recognition of the value of lifelong continuing education.
11. Participation in professional organizations and activities.
12. Current knowledge of the laws, regulations, policies, and agencies that affect the clinical laboratory environment.
13. Acceptance of responsibility and accountability for behavior.
14. Awareness of the benefits that a relationship with God can bring to the community and the individual.

How to apply

Prospective students should apply as soon after January 1 as possible for the 2000-2001 academic year. Preference will be given to applicants whose completed applications and official transcripts are received by May 1. To receive an application form or BULLETIN, call 800/422-4558. BULLETIN cost is $10.00 per copy.

It is suggested that applicants take a minimum of two years of mathematics and natural sciences (excluding general science) during the high school years. A high school diploma or the GED is required for acceptance. Applicants must complete prerequisite course work at any accredited college before being admitted to the School of Allied Health Professions.

Foreign applicants, other than those from Canada, must complete 45 quarter or 30 semester units of credit at an accredited college in the United States. If English is not the applicant's native language, s/he must submit a minimum score of 550 (undergraduate student) for the Test of English as a Foreign Language (TOEFL). Additionally, minimum score of 5 on the TOEFL writing test (TWE) is required for acceptance.

Test requirement

Upon acceptance, a self-study syllabus will be sent to the student in preparation for a mathematics screening examination, which will be given immediately following registration. Those achieving scores below the acceptable minimum will be required to take CLSM 301 Laboratory Mathematics Review.

ACADEMIC PROGRESSION

A minimum grade of C (2.0) is required for all courses in the program; C- grades are not acceptable. A grade of less than C in any course, or unsatisfactory clinical performance, will be cause for dismissal from the program for the remaining academic year. Readmission to the program will require reapplication.

Prerequisites for Clinical Laboratory Science, B.S.

20 units minimum in humanities (choose minimum of two areas from: history, literature, philosophy, foreign language, art/music appreciation/history)

Religion required, 4 units per year of attendance, if at a Seventh-day Adventist college or university

General chemistry with laboratories, complete sequence

Organic chemistry with laboratories, complete sequence

Quantitative analysis

General physics with laboratories, complete sequence

Molecular **or** cellular biology with laboratory (one quarter/semester)

College algebra

(General biology with laboratories, complete sequence for pre-med students)

Cultural anthropology **or** an approved course dealing with cultural diversity

Select 8 units from a minimum of two areas: sociology, economics, geography, political science, psychology, anthropology

English composition, complete sequence

Computers

Personal health **or** nutrition

Two physical education courses

Electives to meet a minimum total requirement of 96 quarter units

For total unit requirement for graduation, see DIVISION OF GENERAL STUDIES, Criteria for General Education Course.

PROGRAM OF INSTRUCTION
CLINICAL LABORATORY SCIENCE—Bachelor of Science

The program of instruction outlined as follows is for students enrolled during the 2000-2001 academic year.

JUNIOR YEAR

POST-SUMMER SESSION

CLSM	301	Laboratory Mathematics Review	1*
CLSM	303	Urine and Body Fluid Analysis I	1
CLSM	311	Clinical Laboratory Techniques	2
AHCJ	105	Procedures in Phlebotomy	3
AHCJ	328	Portfolio Practicum I	1

AUTUMN QUARTER

CLSM	307	Medical Parasitology	3
CLSM	321	Hematology I	3
CLSM	331	Biochemistry	5
AHCJ	328	Portfolio Practicum I	(continued)
PHSL	305	Physiology	4
RELF	423	Loma Linda Perspectives	2

WINTER QUARTER

CLSM	322	Hematology II	3
CLSM	324	Immunology I	4
CLSM	327	Clinical and Pathogenic Microbiology I	5
CLSM	332	Clinical Chemistry I	4
CLSM	341	Immunohematology I	3
AHCJ	328	Portfolio Practicum I	(continued)

SPRING QUARTER

CLSM	333	Clinical Chemistry II	4
CLSM	342	Immunohematology II	3
CLSM	328	Clinical and Pathogenic Microbiology II	5
CLSM	364	Statistics for Laboratory Medicine	2
RELE	457	Christian Ethics and Health Care	2
AHCJ	328	Portfolio Practicum I	(continued)

*An examination is given during the first week of school. A student who passes the examination does not have to take this class.

SENIOR YEAR

POST-SUMMER SESSION#

CLSM	431	Immunoassay I	2*

AUTUMN QUARTER

CLSM	491	Clinical Laboratory Management I	2
CLSM	496	Clinical Laboratory Science Seminar I	1
AHCJ	416	Sociology of the Hospital Environment	2
AHCJ	498	Portfolio Practicum II	1

WINTER QUARTER

CLSM	492	Clinical Laboratory Management II	2
CLSM	497	Clinical Laboratory Science Seminar II	1
AHCJ	498	Portfolio Practicum II	(continued)
REL_	___	Religious studies	2

SPRING QUARTER

CLSM	493	Clinical Laboratory Management III	2
CLSM	498	Clinical Laboratory Science Seminar III	2
AHCJ	498	Portfolio Practicum II	(continued)
REL_	___	Religious studies	2

#Clinical practicum begins

***SENIOR YEAR CLINICAL PRACTICUM**

CLSM	471	Clinical Practicum I	6
	Corequisites:		(7 units)
		CLSM 411 Urine and Body Fluid Analysis II	
		CLSM 422 Hematology II	
CLSM	472	Clinical Practicum II	6
	Corequisites:		(11 units)
		CLSM 413 Diagnostic Microbiology	
		CLSM 442 Immunohematology III	
CLSM	473	Clinical Practicum III	6
	Corequisites:		(9 units)
		CLSM 434 Clinical Chemistry III	
		CLSM 455 Special Procedures	

*Clinical Practicum I is a thirteen-week clinical rotation in the areas of hematology and urinalysis.

*Clinical Practicum II is a thirteen-week clinical rotation in the areas of microbiology, parasitology, and immunohematology.

*Clinical Practicum III is a thirteen-week clinical rotation in the areas of chemistry, immunology, and special procedures.

Clinical Practicum I, II, and III will be registered for through block registration and taken successively.

CLINICAL LABORATORY TECHNICIAN PROGRAM—Associate in Science
(formerly MEDICAL LABORATORY TECHNICIAN PROGRAM)

THE PROGRAM (COMMENCES AUGUST 2001)

The Clinical Laboratory Technician Program requires 54 quarter units (36 semester units) of prerequisites from an accredited college and 50 quarter units of instruction at Loma Linda University. The ten-month program emphasizes combined instruction with clinical laboratory theory and technical skills. Successful completion of the program provides the student with an Associate in Science degree and makes the student eligible to take the state and national board examinations to become a registered clinical laboratory technician.

Entry is in the post-summer session at the sophomore-year level. The clinical practicum is completed in the last two quarters of the program and provides professional clinical experience in the hospital laboratory environment. Students are required to have their own transportation to and from clinical sites. The clinical practicum schedule is a full-time week (forty clock hours), arranged with a Monday-through-Friday, day-shift schedule for lecture and laboratory requirements. On occasion, days or times outside of this typical schedule may be necessary to allow students exposure to unique procedures.

Accreditation pending

The program is accredited by the National Accrediting Agency for Clinical Laboratory Science, 8410 West Bryn Mawr Avenue, Suite 670, Chicago, IL 60631-3415. It also satisfies the requirements in medical technology of the American Society of Clinical Pathologists' Board of Registry for Medical Technology, P. O. Box 12277, Chicago, IL 60612-0277. The program is approved by the State of California Department of Health Laboratory Field Services, 2151 Berkeley Way Annex 12, Berkeley, CA 94707-1011.

PROFESSIONAL REGISTRATION

Completion of the required sequence of academic course work and directed professional experience prepares the graduate to take the certifying examinations of the Board of Registry of Medical Technologists and the National Certification Agency for Medical Laboratory Personnel, P. O. Box 15945-289, Lenexa, KS 55285; and the licensure examination of the state of California. Information on examinations can be obtained from the department chair.

THE PROGRAM GOALS

The specific goals of the Department of Clinical Laboratory Science are to:

1. Provide opportunity, instruction, and guided experience by which the student may acquire the basic knowledge and attain the skills essential to the practice of the clinical laboratory technician profession.
2. Help the student accept responsibility for integrity, ethical relationships, and empathetic attitudes that can contribute to the welfare and well-being of patients.
3. Help the student develop a background of information and attitudes conducive to interprofessional understanding and cooperation.
4. Encourage the student to cultivate habits of self-education that will foster lifelong growth.

5. Provide a complete educational experience that culminates in a clinical laboratory technician A.S. degree and makes the student eligible to take the California State License, the National Board of Registry, and the National Certification Clinical Laboratory Technician/ Medical Laboratory Technician examinations.
6. Engender and nurture in the student the desire to serve mankind, and in particular to serve as needed in the medical centers sponsored by the Seventh-day Adventist church, both in this country and elsewhere.

THE PROGRAM OBJECTIVES

Graduates of the Loma Linda University Clinical Laboratory Technician Program will demonstrate the following career-entry competencies, perspectives, and experience:

1. Comprehension of the basic knowledge essential to the practice of the clinical laboratory technician profession.
2. Technical and clinical proficiency in the skills essential to the practice of the clinical laboratory technician profession.
3. Ability to become certified and licensed practitioners in the clinical laboratory technician profession.
4. Use of computer applications for communication, recordkeeping, analysis, and access of information.
5. Application of principles related to quality control, quality assurance, and total quality management.
6. Ability to integrate data and knowledge from different disciplines.
7. Ability to work independently.
8. Cooperative participation in group/team environments.
9. Awareness of the influence that social or cultural perspectives may have on the interactions and relationships among coworkers, patients, and the community.
10. Professional demeanor.
11. Recognition of the value of lifelong continuing education.
12. Participation in professional organizations and activities.
13. Current knowledge of the laws, regulations, policies, and agencies that affect the clinical laboratory environment.
14. Acceptance of responsibility and accountability for behavior.
15. Awareness of the benefits that a relationship with God can bring to the community and the individual.

ADMISSION

PLEASE NOTE: GRADES OF C- ARE NOT TRANSFERABLE FOR CREDIT.

Prerequisites for Clinical Laboratory Technician (formerly Medical Laboratory Technician), A.S.

Select 4 units from one area: history, literature, philosophy, foreign language, art/music appreciation/history

Religion required, 4 units per year of attendance, if at a Seventh-day Adventist college or university

General chemistry with laboratory, complete sequence

General biology with laboratory (one course); **or** human anatomy and physiology with laboratory

Introductory physics with laboratory

Physiology with laboratory; **or** human anatomy and physiology with laboratory

Select 4 units from: anthropology, economics, geography, political science, psychology, sociology

English composition, complete sequence

Two physical education courses (recommended)

Electives to meet a minimum total requirement of 48 quarter units

Work experience

Work experience in a laboratory setting, although not required, is recommended for favorable consideration into the program.

How to apply

Prospective students should apply as soon after January 1 as possible for the 2001-2002 academic year. Preference will be given to applicants whose completed applications and official transcripts are received by May 1. To receive an application form or BULLETIN, call 800/422-4558. BULLETIN cost is $10.00 per copy.

It is suggested that applicants take a minimum of two years of mathematics and natural sciences (excluding general science) during the high school years. A high school diploma or the GED is required for acceptance. Applicants must complete prerequisite course work at any accredited college before being admitted to the School of Allied Health Professions.

Foreign applicants, other than those from Canada, must complete 54 quarter or 36 semester units of credit at an accredited college in the United States. If English is not the applicant's native language, s/he must submit a minimum score of 550 (undergraduate student) for the Test of English as a Foreign Language (TOEFL). Additionally, a minimum score of 5 on the TOEFL writing test (TWE) is required for acceptance.

Test requirement

Upon acceptance, a self-study syllabus will be sent to the student in preparation for a mathematics screening examination, which will be given immediately following registration. Those achieving scores below the acceptable minimum will be required to take CLSM 301 Laboratory Mathematics Review.

ACADEMIC PROGRESSION

A minimum grade of C (2.0) is required for all courses in the program; C- grades are not acceptable. A grade of less than C in any one course, or unsatisfactory clinical performance, will be cause for dismissal from the program for the remaining academic year. Readmission to the program will require reapplication.

PROGRAM OF INSTRUCTION

CLINICAL LABORATORY TECHNICIAN—Associate in Science

The program of instruction outlined as follows is for students enrolled during the 2001-2002 academic year.

		POST-SUMMER SESSION	
CLSM	214	Clinical Microbiology	2
CLSM	301	Laboratory Mathematics Review	1*
CLSM	303	Urine and Body Fluid Analysis I	1
CLSM	311	Clinical Laboratory Techniques	2
AHCJ	105	Procedures in Phlebotomy	3
		AUTUMN QUARTER	
CLSM	205	Instrumentation	2
CLSM	214	Clinical Microbiology (continued)	3
CLSM	224	Hematology I	4
CLSM	226	Clinical Chemistry	4
CLSM	235	Immunology I	3
		WINTER QUARTER	
CLSM	234	Immunohematology I	3
CLSM	271	Clinical Practicum I	5
RELF	423	Loma Linda Perspectives	2
		Corequisites:	
		CLSM 244 Hematology II	2
		CLSM 247 Clinical Chemistry II	1
		SPRING QUARTER	
RELE	457	Christian Ethics and Health Care	2
CLSM	272	Clinical Practicum II	6
		Corequisites:	
		CLSM 251 Diagnostic Bacteriology	1
		CLSM 252 Diagnostic Parasitology and Mycology	1
		CLSM 255 Immunohematology II	1
		CLSM 257 Special Procedures	1

*CLSM 301 required only after failure to pass laboratory mathematics examination given during orientation.

COURSES

For information about units of credit and course numbers, see the beginning of section III of this BULLETIN.

CLSC 341 Female Genital Cytology (12)
Histology and cytology of the female genital tract. Cytohormonal changes, non-neoplastic abnormalities, premalignant lesions, and rare malignancies. Lecture, demonstration, and microscopic examination.

CLSC 351 Respiratory Cytology (7)
Histology and cytology of the respiratory tract. Lecture, demonstration, and microscopic examination. Research methods, with emphasis on experimental design and interpretation of results.

CLSC 353 Urinary Tract and Prostate Cytology (3)
Histology and cytology of the urinary tract and prostate. Lecture, demonstration, and microscopic examination.

CLSC 357 Gastrointestinal Tract Cytology (2)
Histology and cytology of the gastrointestinal tract. Lecture, demonstration, and microscopic examination.

CLSC 361 Body Cavity and Miscellaneous Secretions Cytology (8)
Histology and cytology of fluids from the body cavities and other sites. Research methods applicable to cytology, with emphasis on experimental design and interpretation of results. Lecture, demonstration, and microscopic examination.

CLSC 363 Bone Biopsy Cytology (1)
Histology and cytology of bone. Lecture, demonstration, and microscopic examination.

CLSC 365 Breast Cytology (1)
Histology and cytology of the breast. Lecture, demonstration, and microscopic examination.

CLSC 367 Cytogenetics (1)
Meiosis, mitosis, karyotype preparation. Genetic disorders. Lecture, demonstration, and laboratory.

CLSC 371 Cytopreparation Techniques (3)
Procedures on collection and fixation techniques from all organ sites. Techniques in assuming cumulation of follow-up data and laboratory quality control. Clinical and social aspects of AIDS. Lecture, demonstration, and laboratory.

CLSC 373 Histotechnology Techniques (1)
Histologic preparatory techniques, with emphasis on special stains.

CLSC 404 General Histology (5)
Microscopic study of fundamental tissues, cells, organs, and systems of the human body, with emphasis on laboratory and conference exercises.
Prerequisite: AHCJ 402, 403.

CLSC 405 Pathology (5)
Advanced pathology, with emphasis on the cytologic changes of cells in disease. Review of all organ systems, with correlation between tissue biopsy material and cytologic findings.
Prerequisite: PATH 305, 306.

CLSC 424 Hematology (3)
Theory and background of routine and special laboratory procedures used in diagnosis and treatment of hematologic and other diseases. Evaluation and comparison of methodology. Emphasis on bone marrow, body fluid, and peripheral blood-cell morphology: hematopoiesis, maturation, kinetics. Atypical and abnormal cellular morphology, including leukemias, lymphomas, and anemias. Clinical and social aspects of AIDS.

CLSC 431 Electron Microscopy I (3)
Principles and techniques of electron microscopy, including basic cell ultrastructure and immunohistochemistry.

CLSC 432 Current Research Techniques (3)
Introduction to current research applications and skills development. Techniques in immunochemistry and image and flow cytometry.

CLSC 481 Supervised Cytology Research Project (4)
Research project under the supervision of the program director. Oral presentation and paper.

CLSC 483 Supervised Hematology Research Project (2)
Supervised research project under the direction of the hematopathologist. Oral presentation and paper.

CLSC 491, 492 Cytology Affiliation I, II (6, 6)
Six two-week internships in the cytopathology laboratory. Rotation through all phases of diagnostic service work and laboratory functions in cytology. Independent screening of routine gynecologic and nongynecologic specimens.

CLSM 205 Instrumentation (2)
Introduction to basic instrumentation principles and their application in the clinical laboratory environment provided through lecture and laboratory. Basic electronics, chromatography techniques, and automated analyzers in all laboratory areas. Laboratories designed to allow student to operate, troubleshoot problems related to, and perform maintenance procedures on various types of clinical laboratory equipment. Lecture and laboratory.

CLSM 214 Clinical Microbiology (5)
Designed for students in the health sciences. Topics include history, classification, morphology, growth, control, transmission, and pathology of selected bacteria, viruses, fungi, and parasites. Host defenses against microbial pathogens. Lecture and laboratory.

CLSM 224 Hematology I (4)
Introduction to normal and abnormal hematology and hemostasis. Theory of routine and special laboratory procedures used in diagnosis, evaluation, and treatment of hematologic and coagulation disorders. Emphasis on peripheral blood cell morphology. Lecture and laboratory.

CLSM 226 Clinical Chemistry I (4)
Theory, clinical correlations, and laboratory procedures related to the study of proteins, enzymes, carbohydrates, lipids, nonprotein nitrogen compounds, liver function, tests, electrolytes, endocrinology, therapeutic drug monitoring, and toxicology. Principles of quality assurance and quality control as they apply to clinical chemistry. Lecture and laboratory.

CLSM 234 Immunohematology I (3)
Overview of transfusion medicine from donor selection and blood collection to fundamentals of antigen-antibody reactions. Includes major blood group systems, compatibility testing and basic antibody identification techniques. Hemolytic disease of the newborn, transfusion therapy, and hazards of transfusion. Lecture and laboratory.

CLSM 235 Immunology I (3)
Covers the topics of basic immunology, immunopathology, and immunologic techniques. Specific focus on the normal workings of the immune system; the immune systems under altered conditions, such as autoimmunity and hypersensitivity; and assays utilized in a clinical laboratory environment.

CLSM 244 Hematology II (2)
Application and correlation of analytical techniques with theory and clinical experience. Directed study and review to include: normal and abnormal hematologic processes, hemostasis and coagulation, evaluation of normal and abnormal cellular morphology, and urine/body fluid processing, analysis and morphology.

Prerequisite: CLSM 224, 303.
Corequisite: CLSM 271.

CLSM 247 Clinical Chemistry II (1)
Correlation and application of theory and clinical experience to analytical technques. Directed study and review to include: proteins, enzymes, carbohydrates, lipids, non-protein nitrogen compounds, liver function tests, electrolytes, common endrocrinology tests, routine therapeutic drug monitoring and basic toxicology. Students learn to recognize and resolve minor technical problems encountered during laboratory procedures. Principles of quality assurance and quality control as they apply to the clinical chemistry laboratory.

Prerequisite: CLSM 226.
Corequisite: CLSM 271.

CLSM 251 Diagnostic Bacteriology and Virology (1)
Correlation and application of theory and clinical experience to analytical techniques. Student performs and interprets routine bacteriological tests and procedures. Complements a four-week clinical practicum in microbiology. Directed study and review include: theory and operation of automated microbiology instruments and rapid identification systems; set-up and interpretation of routine cultures and antibiotic-susceptibility patterns; special requirements for culture of anaerobic bacteria, tubercula bacilli; isolation of bacteria from specific sites; overview of specialized microbiology procedures.

Prerequisite: CLSM 214.
Corequisite: CLSM 272.

CLSM 252 Diagnostic Parasitology and Mycology (1)
Correlation and application of theory and clinical experience to analytical techniques. Student performs routine parasitology and mycology diagnostic tests. Complements a two-week clinical practicum in microbiology. Directed study and review to include: special requirements for specimen preparation; concentration and staining techniques; isolation and identification of fungi, yeast, and parasites.

Prerequisite: CLSM 214.
Corequisite: CLSM 272.

CLSM 255 Immunohematology II (1)
Correlation and application of theory and clinical experience to directed study and review. Reinforces and builds upon principles and theory learned in CLSM 234 and complements the clinical practicum. Examination of the roles of the collection facility and the transfusion service. Emphasis on principles of routine blood bank testing, interpretation, and quality assurance protocols utilized in procedures such as type and screen and major crossmatch. Overview of specialized proceedures, including elution, adsorption, and titration.

Prerequisite: CLSM 234.
Corequisite: CLSM 272.

CLSM 257 Special Procedures (1)
Correlation and application of theory and clinical experience with analytical techniques. Directed study and review includes the following immunoassays: enzyme and radioisotopic assays, microparticle enzyme immunoassay, fluorescence polarization, and nephelometry. Also included: rapid screening assays for bacteria and viruses, spectrophotometry, serology, electrophoresis, polymerase chain reaction, Western blot assay, and current immunologic techniques.

Prerequisite: CLSM 214, 235.
Corequisite: CLSM 272.

CLSM 271 Clinical Practicum I (5)
Application of knowledge and skills in clinical facilities as a staff medical laboratory technician. Students assist in specimen collection; perform routine laboratory testing; and resolve technical and instrument problems in hematology, urine and body fluid analysis, and clinical chemistry. Students observe and perform limited testing using specialized techniques, including analysis of whole blood, hormones, and tumor markers. Observation of special tests that aid in the evaluation and diagnosis of anemia, white cell disorders, coagulation disorders, and evaluation for urine and body fluids. Nine weeks of supervised clinical experience.

Prerequisite: CLSM 205, 224, 226, 303.
Corequisite: CLSM 244, 247.

CLSM 272 Clinical Practicum II (6)
Eleven weeks of supervised clinical laboratory experience in selected areas, including: microbiology, parasitology, mycology, immunohematology, and special procedures. Students assist in specimen collection, perform routine laboratory testing, observe specialized techniques, and resolve technical and instrument problems. Students observe and perform limited testing using specialized techniques, including polymerase chain reaction, toxicology, direct and indirect immunofluorescence, enzyme immunoassay, and serology.

Prerequisite: CLSM 214, 234, 235.

Corequisite: CLSM 251, 252, 255, 257.

CLSM 301 Laboratory Mathematics Review (1)
Problem solving related to clinical determinations, including solution preparation and calculations necessary for generating laboratory test results from raw data.

CLSM 303 Urine and Body Fluid Analysis I (1)
Urinalysis screening procedure and its application in the diagnosis of renal, systemic, and metabolic diseases. Analysis and morphology of body fluids. Lecture and laboratory.

CLSM 307 Medical Parasitology (3)
Medically important parasites: life cycles, clinical features, infective diagnostic stages. Demonstrations, slide studies, and diagnostic procedures. Lecture and laboratory.

CLSM 311 Clinical Laboratory Techniques (2)
Introduction to clinical laboratory procedures, including theory and skill development in: specimen preparation and handling, microscopy, basic separation techniques, fundamentals of instrument design, spectrophotometry, analytical techniques, quality control concepts. Applied physics, with emphasis on light and electricity. Thirty-two hours of clinical experience in specimen processing in a clinical laboratory. Lecture and laboratory.

CLSM 321 Hematology I (3)
Examination of normal hematologic physiology, cellular development, and hemostasis in the human. Introduction to pathophysiology, with emphasis on clinical and laboratory evaluation of hematologic status. Theory and background of laboratory procedures used in diagnosis and treatment of hematologic and other diseases. Stress on proficiency in evaluation of normal and abnormal cellular morphology. Lecture and laboratory.

CLSM 322 Hematology II (3)
Theory and background of routine and special laboratory procedures used in diagnosis and treatment of hematologic and other diseases. Emphasis on peripheral blood cell morphology, hematopoeses, maturation, and kinetics. Pathophysiology of hematologic disorders, including anemias and hematologic malignancies. Correlation of hemostasis testing with clinical hemostatic disorders. Lecture and laboratory.

Prerequisite: CLSM 321.

CLSM 324 Immunology I (4)
Fundamentals of humoral-and-cell-mediated immunity. Mediators of the immune response and aspects of human immunopathology. Clinical and social aspects of HIV/AIDS. Immunologic laboratory tests as tools for patient care. Research methods applicable to immunology, with emphasis on experimental design and interpretation. Lecture and laboratory.

CLSM 327 Clinical and Pathogenic Microbiology I (5)
Introduction to microbiological concepts, leading to an in-depth study of the major groups of pathogenic bacteria and their relationship to human disease. Emphasis on clinical laboratory identification methods and procedures. Lecture and laboratory.

CLSM 328 Clinical and Pathogenic Microbiology II (5)
Nature and control of microorganisms encountered in clinical material and various anatomical sites. Emphasis on antimicrobial agents, mycology, and virology, including hepatic viruses and HIV/AIDS. Lecture and laboratory.

Prerequisite: CLSM 327 or consent of instructor.

CLSM 331 Biochemistry (5)
Chemical structure and metabolism of carbohydrates, amino acids, lipids, and nucleic acids. Protein synthesis, functions, and analysis. Enzymes and their structure, function, kinetics, and regulation. Lecture and laboratory.

CLSM 332 Clinical Chemistry I (4)
Clinical chemistry procedures and their clinical significance in medicine, with focus on the following areas: carbohydrates and diabetes mellitus, proteins, lipids, lipoproteins, cardiovascular disease, enzymes, liver function, iron, hemoglobin, and porphyrins. Quality assurance, method evaluation, and establishment of reference ranges. Lecture and laboratory.

Prerequisite: CLSM 331 or consent of instructor.

CLSM 333 Clinical Chemistry II (4)
Clinical chemistry procedures and their clinical significance in medicine, with focus on the following areas: fluids and electrolytes, acid-base balance, the endocrine systems; thyroid, parathyroid, adrenal cortex and catecholamines, steroids; reproduction, pregnancy, and fetal well-being; therapeutic drug monitoring and toxicology. Lecture and laboratory.

Prerequisite: CLSM 332.

CLSM 341 Immunohematology I (3)
Fundamentals of antigen-antibody reactions. Study of major blood group systems, compatibility testing, and antibody-identification techniques. Clinical analysis of hemolytic disease of the newborn. Lecture and laboratory.

CLSM 342 Immunohematology II (3)
Blood collection, donor testing, component preparation, and quality management in the collection facility. Identification of multiple antibodies, typing discrepancies, hemotherapy, hazards of transfusion, and investigation of auto-immune hemolytic disease. Lecture and laboratory.

Prerequisite: CLSM 341.

CLSM 364 Statistics for Laboratory Medicine (2)
Statistical methods related to applications to medical technology and quality control. Introduction to fundamental procedures for collecting, summarizing, analyzing, and presenting data. Measures of central tendency and variation, probability, normal distribution, hypothesis testing and confidence intervals, t-tests, chi square, correlation, and regression. Limited to medical technology students and others closely related to the clinical laboratory. Lecture and laboratory.

CLSM 401 Immunology II (1)
Correlation and application of theory and clinical experience with analytical techniques. Assessment and interpretation of data. Evaluation and comparison of methodologies. Directed study and review include standard serological techniques, nephelometry, and electrophoresis.

Prerequisite: CLSM 324.

Corequisite: CLSM 472.

CLSM 411 Urine and Body Fluid Analysis II (1)
Correlation and application of theory and clinical experience with analytical techniques. Assessment and interpretation of data. Evaluation and comparison of methodologies. Urinalysis screening procedures and applications in the diagnosis of renal, systemic, and metabolic diseases. Processing, analysis, and morphologic evaluation of body fluids.

Prerequisite: CLSM 303.

Corequisite: CLSM 471.

CLSM 413 Diagnostic Microbiology (8)
Correlation and application of theory and clinical experience with analytical techniques. Assessment and interpretation of data. Evaluation and comparison of methodologies. Directed study and review of diagnostic bacteriology, mycology, parasitology, and virology. Emphasis on isolation and identification of pathogenic microorganisms. Susceptibility testing, instrumentation, and rapid identification methods included.

Prerequisite: CLSM 307, 327, 328.

Corequisite: CLSM 472.

CLSM 422 Hematology III (6)
Correlation and application of theory and clinical experience with analytical techniques. Assessment and interpretation of data. Evaluation and comparison of methodologies. Directed study and review of hemostasis, cellular quantification and identification techniques, and clinical hematology. Includes white cell, red cell, platelet, and hemostatic disorders.

Prerequisite: CLSM 321, 322.

Corequisite: CLSM 471.

CLSM 431 Immunoassay I (2)
Fundamentals and principles of radioisotopic and nonradioisotopic immunoassays. Methods discussed include fluorescence polarization, enzyme immunoassay, chemiluminescence, and radioassay. Clinical uses of the above methods discussed and applied to clinical laboratory science.

Prerequisite: CLSM 332 or consent of instructor.

CLSM 434 Clinical Chemistry III (5)
Correlation and application of theory and clinical experience with analytical techniques. Assessment and interpretation of data. Evaluation and comparison of methodologies. Directed study and review include: carbohydrates, proteins, lipids, enzymology, electrolytes, acid-base balance, endocrine system, and therapeutic drug monitoring.

Prerequisite: CLSM 333.

Corequisite: CLSM 472.

CLSM 442 Immunohemotology III (3)
Application of theory and techniques routinely used in transfusion medicine. Emphasis on correlation with clinical experience. Directed study and review includes: type and screen, antibody identification, investigation of hemolytic disease of the newborn, hemo-therapy, and hazards of transfusion. Assessment and interpretation of data. Overview of donor facilities: donor criteria, records management, component preparation, blood storage, and infectious disease testing.

Prerequisite: CLSM 341, 342.

Corequisite: CLSM 471.

CLSM 455 Special Procedures (4)
Correlation and application of theory and clinical experience with analytical techniques. Assessment and interpretation of data. Evaluation and comparison of methodologies. Directed study and review include the following immunoassays: chemiluminescence, enzyme and radioisotopic assays, microparticle enzyme immunoassay, and flouresence polarization. Thin-layer and high-pressure liquid chromatography, spectrophotometry, toxicology, amino acids, polymerase and ligase chain reactions, Western blot assays, and current immunologic techniques.

Prerequisite: CLSM 324, 333.

Corequisite: CLSM 472.

CLSM 471 Clinical Practicum I (6)
Thirteen weeks of supervised clinical laboratory experience in selected areas, including: parasitology, hematology, urinalysis, and body fluids. Student performs tests routinely done in these areas of the clinical laboratory. Selected case studies included as part of floor rounds.

Prerequisite: Satisfactory completion of clinical laboratory science program junior-year courses.

Corequisite: CLSM 411, 422.

CLSM 472 Clinical Practicum II (6)
Thirteen weeks of supervised clinical laboratory experience in selected areas, including: microbiology and immunohematology, with experience in transfusion services and in a good collection facility. Student performs tests routinely done in these areas of the clinical laboratory. Special emphasis on clinical laboratory quality control procedures and evaluation.

Prerequisite: Satisfactory completion of clinical laboratory science program junior-year courses.

Corequisite: CLSM 413, 442.

CLSM 473 Clinical Practicum III (6)
Thirteen weeks of supervised clinical laboratory experience in selected areas, including: chemistry and special procedures. Student performs tests routinely done in these areas of the clinical laboratory. Incorporates experience in administrative duties.

Prerequisite: Satisfactory completion of clinical laboratory science program junior-year courses.

Corequisite: CLSM 434, 455.

CLSM 491 Clinical Laboratory Management I (2)
Introduction to theories of quality management, organization, strategic planning, and the decision-making process. Review and analysis of goverment agencies, legislation, and regulatory bodies that impact laboratory management. Comparison of quality systems management philosophies.

Prerequisite: Satisfactory completion of clinical laboratory science program junior-year courses.

CLSM 492 Clinical Laboratory Management II (2)
Introduction to management theory, including: management styles, professional communications, business ethics, group theory, team building, process management, process control, and personnel.

CLSM 493 Clinical Laboratory Management III (2)
Financial management with emphasis on concepts, tools, and strategies underlying financial decision making. Topics include health care reimbursement systems, coding, billing, development of operating budgets, and financial reports. Concepts of financial negotiations, inventory management, and financial planning. Integration and application of analytical techniques used in the service industries.

CLSM 495 Laboratory Science (3)
Clinical laboratory experience, in an area selected for a project, to develop a degree of specialized technical ability.

CLSM 496 Clinical Laboratory Science Seminar I (1)
Introduction to an assigned capstone project, designed to incorporate skills developed and knowledge obtained in the clinical laboratory science program junior year. Project must be of current interest to the laboratory field. Topics related to the project include literature search methods, research methods, presentation skills, team building, assessment of impact on clinical outcomes, and analysis and implementation of clinical applications

Prerequisite: Satisfactory completion of clinical laboratory science program junior-year courses, or consent of instructor.

CLSM 497 Clinical Laboratory Science Seminar II (1)
Continuation of assigned capstone project. Presentation of relevant contemporary topics.

Prerequisite: CLSM 496 or consent of instructor.

CLSM 498 Clinical Laboratory Science Seminar III (2)
Students meet regularly with faculty advisers to formulate plans and provide status reports on progress of capstone project. Additional time outside regular class periods. Submission and presentation of assigned capstone to faculty as a culminating activity.

Prerequisite: CLSM 496, 497; or consent of instructor.

CLSM 499 Medical Technology Independent Study (1-5)
Project or paper to be submitted on a topic of current interest in an area related to medical technology. Regular meetings to provide the student with guidance and evaluation. Elected on the basis of need or interest.

CONJOINT

See CONJOINT COURSES, section III, for course descriptions.

COGNATE

RTMR 301, 302 Introduction to Radiographic Procedures I, II (1-3, 1-3)
Nature and description of radiologic procedures for the nonradiologic technologist. Principles and medical techniques applied to the radiographic setting. Survey of anatomy and instrumentation. Includes observation laboratory.

HEALTH INFORMATION MANAGEMENT

HEALTH INFORMATION SYSTEMS—Master of Health Information Systems
HEALTH INFORMATION SYSTEMS—Post-Master's Certificate in Health Information Systems
HEALTH INFORMATION ADMINISTRATION—Certificate; Bachelor of Science
CODING SPECIALIST—Certificate

MARILYN H. DAVIDIAN, Chair, Program Director; Master of Health Information Systems, Bachelor of Science, Health Information Administration

TERRI ROUSE, Recruitment Coordinator

DIANA S. MEDAL, Program Coordinator, Coding Specialist

JENNIFER GUERRERO, Clinical Coordinator

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Diana S. Medal
Terri Rouse
Ardis E. Wazdatskey
Danielle L. Wright
Ignatius Yacoub
David G. Wren
Grenith J. Zimmerman

CLINICAL FACULTY

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Jere E. Chrispens
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Glynis Roberts
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Betty Ann Wagner
Danielle Wright
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Grenith J. Zimmerman

*ex officio

HEALTH INFORMATION SYSTEMS—Master of Health Information Systems

Currently, there is a strong need for expertise in information systems in the health care setting. According to the U.S. Bureau of Labor Statistics, the two strongest areas of career growth are computer science and health care. Current research indicates that a very small number of graduate programs are available in information systems with a health care emphasis.

The role of the graduate is to facilitate the flow of information throughout a health care facility to enhance administrative and management decision making, financial systems, medical record department functions, strategic planning, and interface with health care information systems, when appropriate.

THE PROGRAM

The Health Information Systems Program leads to a Master of Health Information Systems (M.H.I.S.) degree. The degree may be completed in five quarters (fifteen months).

Evening courses are offered twice a week for four quarters (twelve months). The internship follows completion of all course work.

Completion of the course work in two years (twenty-four months) is possible by special arrangement.

ADMISSION

To be eligible for admission, the applicant must have completed a baccalaureate degree with a G.P.A. of 3.0 or higher.

Prerequisites for Health Information Systems, M.H.I.S.

Baccalaureate degree with a G.P.A. of 3.0 or higher
Principles of accounting
Introduction to computer applications
Foundations of health information systems

NOTE: Students enrolled in this program are expected to have a computer with online access to the Internet.

THE PROGRAM OBJECTIVES

Upon completion of the program, the graduate should be qualified to:

1. Plan, develop, implement, monitor, and maintain information systems in the health care setting.
2. Design and evaluate information/security systems.
3. Evaluate and modify existing health information systems.
4. Implement and evaluate data-communication systems, including local-area and wide-area networks.
5. Use organizational theory and behavioral and management principles.
6. Participate in strategic management.
7. Demonstrate a knowledge of human-resources management, including the human-computer interaction systems.
8. Demonstrate awareness of current issues affecting health care and their implications for health information systems.
9. Demonstrate knowledge of research and statistical methods.
10. Demonstrate knowledge of the legal and ethical issues of health information systems.

PROGRAM OF INSTRUCTION
HEALTH INFORMATION SYSTEMS—Master of Health Information Systems

The program of instruction outlined as follows is for full-time students enrolled during the 2000-2001 academic year.

MHIS	501	Information Systems in Health Organizations	3
MHIS	502	Planning and Implementation of Health Information Systems	3
MHIS	508	Managing Information Resources	3
MHIS	511	Security and Data Communications Theory	3
MHIS	515	Maintenance and Operation of Information Systems	3
MHIS	575	Market Research Methods in Health Care	2
MHIS	595	Seminar in Health Information Systems	2
MHIS	602	Health Systems Operations Management	3
MHIS	604	Strategic Health Information Systems Management	3
MHIS	605	Health Information Systems Internship	5
AHCJ	517	Information Systems Organizational Theory	3
AHCJ	519	Graduate Portfolio	1
AHCJ	525	Biostatistics	3
AHCJ	536	Health Care Financial Management in Information Systems	3
AHCJ	537	Organizational Structure and Behavior in Information Systems	3
AHCJ	539	Human Factors in Technology Management	3
AHCJ	540	Legal and Ethical Issues in Health Information	3
REL_	___	Religious studies	3

HEALTH INFORMATION SYSTEMS—Post-Master's Certificate

The management of health information systems provides essential skills for administrative, clinical, and financial workers in a variety of health care settings. With the rapid increase of technology in health care, facilitation of the flow of information and the integration of systems is increasingly important to the overall management of health care facilities and to the clinicians who provide patient care.

The post-master's certificate in health information systems is a flexible program available to physicians, dentists, administrators, and others interested in acquiring additional skills in this area.

THE PROGRAM

The post-master's certificate program requires completion of a minimum of 18 units chosen from the program courses specified. The program begins in Autumn Quarter and may be completed in four quarters or less, depending on the courses the applicant is required to complete.

Evening courses are offered twice a week for four quarters (twelve months). Completion of the course work in two years (twenty-four months) is possible by special arrangement.

ADMISSION

To be eligible for admission, the applicant must have completed a master's degree or the equivalent. Applicants must submit the following: (1) a statement of professional goals, (2) a current resume, (3) transcripts, and (4) a proposed program of study selected from the specified courses. Approval by the M.H.I.S. degree program committee is required before starting the program

Prerequisites for Health Information Systems, Post-Masters Certificate

Master's degree from an accredited institution.

If deemed necessary, students may be asked to complete one or more of the following prerequisite courses: accounting, foundations of health information systems, introduction to computers.

PROGRAM OF INSTRUCTION
HEALTH INFORMATION SYSTEMS—Post-Master's Certificate

The program of instruction outlined as follows suggest courses from which applicants will choose a minimum of 18 units, based on their previous education and professional experience.

AHCJ	537	Organizational Structure and Behavior in Information Systems	3
AHCJ	536	Health Care Financial Management in Information Systems	3
MHIS	501	Information Systems in Health Organizations	3
MHIS	502	Planning and Implementation of Health Information Systems	3
AHCJ	539	Human Factors in Technology Management	3
MHIS	602	Health Systems Operations Management	3
MHIS	511	Security and Data Communications Theory	3
AHCJ	517	Information Systems Organizational Theory	3
MHIS	515	Maintenance and Operation of Information Systems	3
MHIS	575	Market Research Methods in Health Care	2
MHIS	604	Strategic Health Information Systems Management	3
MHIS	508	Managing Information Resources	3
AHCJ	545	Legal and Ethical Issues in Health Information	3

HEALTH INFORMATION ADMINISTRATION—Certificate; Bachelor of Science

Health care records are part of an integrated system of health information. The data provide a basis for patient care, quality assurance, legal defense, reimbursement, risk management, accreditation, planning, and decision making. The health information department has assumed increased importance with the advent of prospective-payment corporate compliance and the necessity for diagnostic and procedural information.

A career in health information management is likely to appeal to a person who has organizational and leadership abilities and who is interested in and has aptitude for medical science, but whose talents are suited for participation other than physical involvement in human illness. The health information administrator (formerly known as medical record administrator) designs, develops, and maintains systems for storage, retrieval, and dissemination of information in accordance with federal, state, and local statutes and regulations. This person works with the medical staff and other health professionals in research, administrative studies, functions relative to health information, and patient-care evaluation. The health information administrator in a health care facility will provide management leadership in planning and organizing the department, motivating and evaluating employees, and providing in-service programs for departmental employees or other personnel in the facility.

OPPORTUNITIES

While many health information administrators are employed in various areas of acute-care facilities, others work in alternative-delivery health care systems, research facilities, quality assurance, data companies, industrial establishments, governmental agencies, medical departments of insurance companies, accounting firms, or as consultants to skilled nursing and other facilities.

The multiplicity of new technologies, the advent of electronic equipment, the demand for health information, the emphasis on evaluation of care, the surge in research, the emphasis on cost control, and other factors combine to require comprehensive knowledge and increased utilization of administrative talent and judgment.

HEALTH INFORMATION ADMINISTRATION—Certificate

ADMISSION

To be eligible for admission, the applicant must have completed a minimum of 96 quarter units at an accrediated college or university.

Prerequisites for Health Information Administration, Certificate

Bachelor's degree from an accredited college/university
Human anatomy and physiology with laboratories, complete sequence
Pathophysiology
Medical terminology
College algebra/Intermediate algebra
General psychology
Accounting
Computer spreadsheet (MS Excel recommended)
Word processing
Research methods
Statistics
Principles of management

Recommended:
Business communications
Speech

Applicants who have comparable education or experience may be able to gain credit toward the certificate by equivalency examination or evaluation of credit on an individual basis.

PROFESSIONAL REGISTRATION

Upon completion of the program, and on the recommendation of the faculty, graduates are eligible to write the qualifying examination of the American Health Information Management Association (AHIMA), 919 North Michigan Avenue, Suite 1400, Chicago, IL 60611-1683, for the designation of RHIA (registered health information administrator).

PROGRAM OF INSTRUCTION
HEALTH INFORMATION ADMINISTRATION—Certificate

The program of instruction outlined as follows is for full-time students enrolled during the 2000-2001 academic year.

HLIN	301	Introduction to Health Record Science	4*
HLIN	303, 304	Basic Coding Principles and Techniques I, II	3, 3*
HLIN	305	Hospital Census and Administrative Statistics	2*
HLIN	306	E & M Coding for Billing and Reimbursement	2
HLIN	401	Survey of Health Systems Management	4
HLIN	421	The Computerized Patient Record	3
HLIN	441	Legal Aspects of Health Information Administration	3
HLIN	445	Coding Seminar	3
HLIN	451	Quality Improvement in Health Care	3
HLIN	461	Health Information Management Practicum	1-5
HLIN	483	Long-Term and Alternative-Delivery Systems in Health Care	4
HLIN	484	Current Topics in Health Information Administration	4
HLIN	494	Health Information Management	5
HLIN	495	Health Information Affiliation	1-4
AHCJ	407	Financial Management	2
RELE	457	Christian Ethics in Health Care	2

*This course is not required for RHIT progression students. A minimum of 50 units is required for completion. When required, units will be earned with other courses recommended by the student's adviser.

An LLU G.P.A. of 2.5 must be maintained throughout the program.

A minimum grade of C (2.0) is required for all courses in the program.

A minimum of 50 units is required for completion.

Martha Casey, Diana Medal, Jennifer Guerrero, and Marilyn Davidian (department chair) of the Department of Health Information Management.

HEALTH INFORMATION ADMINISTRATION—Bachelor of Science

THE PROGRAM

The Health Information Administration Program, leading to the Bachelor of Science degree, begins with the Autumn Quarter. The freshman and sophomore years, which are taken at an accredited college or university, afford the fundamentals of a liberal education and provide background in science, humanities, social studies, and business. Concentration on health-information-administration subject matter begins at Loma Linda University in the junior year and continues through the senior year.

Students are advised to complete the curriculum in two years as scheduled. Those electing to study on a part-time basis because of a heavy work load or other reasons must complete all course work within a four-year period.

Accreditation

The Health Information Administration Program is accredited by the Commission for the Accreditation of Allied Health Education Programs (CAAHEP), 515 North State, Suite 7530, Chicago, IL 60610-4377, in cooperation with the American Health Information Management Association (AHIMA), Council on Accreditation, 919 North Michigan Avenue, Suite 1400, Chicago, IL 60611-1683.

THE PROGRAM OBJECTIVES

Upon completion of the program, the graduate should be qualified to:

1. Perform assessment and management of information needs for a variety of health care settings.
2. Design, select, implement, and enhance health care information systems.
3. Protect confidential patient, employee, and administrative information.
4. Effectively manage personnel.
5. Understand financial management requirements for institutions and their relationship to clinical data.
6. Integrate financial and clinical databases in order to meet the information needs in various health care settings.
7. Produce written and verbal communication with peers, administrative officers, employees, and health care consumers.
8. Promote continuing education and expansion of professional knowledge.
9. Develop personal and professional ethics with a Christian emphasis.
10. Promote the health information management profession, including professional memberships, recruitment, and mentoring.
11. Participate in research activities that aid in decision-making abilities and quality-outcomes management.

CLINICAL EXPERIENCE

Three complementary types of clinical experience are offered. The first is a variety of assignments in large and small hospitals and other facilities that will acquaint the student with managing information in all aspects of the health care environment. The majority of these assignments are either at Loma Linda University Medical Center or at hospitals located a short distance from the University.

The second type of clinical experience is a two-week practicum during the summer at the end of the junior year. The summer practicum is not required of registered health information record technicians. The third assignment is a four-week affiliation during the Spring Quarter of the senior year.

Arrangements for the summer practicum and affiliation sites are made through the department chair and the clinical coordinator. Students are responsible for their own transportation to those facilities not within walking distance of the University, as well as for food and lodging during the two- and four-week assignments.

PROFESSIONAL REGISTRATION

Upon completion of the program, and on the recommendation of the faculty, graduates are eligible to write the qualifying examination of the American Health Information Management Association for the designation of RHIA (registered health information administrator).

PROFESSIONAL ASSOCIATION

Students and graduates are eligible to become members of the American Health Information Management Association and the California Health Information Association. The purpose of these associations is to promote the art and science of health information management. They grant student membership at a nominal cost to undergraduates of approved schools. The student is expected to become a member of these associations, pay the nominal dues, read the journals, and become familiar with their professional activities.

ADMISSION

To be eligible for admission, the applicant must have completed a minimum of 96 quarter units at an accredited college or university.

Prerequisites for Health Information Administration, B.S.

20 units minimum in humanities (choose minimum of two areas from: history, literature, philosophy, foreign language, art/music appreciation/history)

Religion required, 4 units per year of attendance, if at a Seventh-day Adventist college or university

Human anatomy and physiology, complete sequence

Medical terminology

Select 6 units from chemistry, geology, mathematics, physics, statistics

Two years high school mathematics with grades of C **or** intermediate algebra in college

General psychology

Cultural anthropology **or** an approved course dealing with cultural diversity

Select 4 units from: sociology, economics, geography, political science

English composition, complete sequence

Computers

Word processing

Spreadsheets

Personal health **or** nutrition

Two physical education courses

Introductory accounting (one quarter or semester)

Electives to meet a minimum total requirement of 96 quarter units

For total unit requirement for graduation, see DIVISION OF GENERAL STUDIES, Criteria for General Education Course.

OTHER REQUIREMENT

Introductory accounting (one quarter or one semester)

PROGRAM OF INSTRUCTION

HEALTH INFORMATION ADMINISTRATION—Bachelor of Science

The program of instruction outlined as follows is for full-time students enrolled during the 2000-2001 academic year.

JUNIOR YEAR

HLIN	301	Introduction to Health Record Science	4*
HLIN	303, 304	Basic Coding Principles and Techniques I, II	3, 3*
HLIN	305	Hospital Census and Administrative Statistics	2
HLIN	325	Pharmacology for Health Information Administration	2
HLIN	361-363	Health Information Administration Practicum I, II, III	1, 1, 1*
HLIN	395	Health Information Administration Practicum IV	2*
HLIN	483	Long-Term and Alternative Delivery Systems in Health Care	4
AHCJ	305	HIV/AIDS and the Health Provider	1
AHCJ	308	Professional Communications	2
AHCJ	328	Portfolio Practicum I	1
AHCJ	331	Personnel Management	3
AHCJ	351	Statistics	3
AHCJ	402, 403	Pathology I, II	4, 3
AHCJ	408	Health Care Management	4
AHCJ	431, 432	Database Management I, II	3, 2
REL__	___	Religious studies	3

*This course is not required for RHIT progression students. The necessary units for graduation will be earned with other courses recommended by the student's adviser.

Courses within the senior year may be taken only after completion of the junior year and the summer practicum, with an LLU G.P.A. of 2.5; or by permission of the department chair.

SENIOR YEAR

HLIN	306	E & M Coding for Billing and Reimbursement	2*
HLIN	401	Survey of Health Systems Management	4
HLIN	421	The Computerized Patient Record	3
HLIN	441	Legal Aspects of Health Information Administration	3
HLIN	445	Coding Seminar	3
HLIN	451	Quality Improvement in Health Care	3
HLIN	462, 463	Health Information Administration Practicum V, VI	1, 1
HLIN	471	Applied Research Methods	2
HLIN	484	Current Topics in Health Information Administration	4
HLIN	494	Health Information Management	5
HLIN	495	Health Information Affiliation	4
AHCJ	407	Financial Management	2
AHCJ	433	Special Projects in Computer Applications	2
AHCJ	461	Research Methods	2
AHCJ	498	Portfolio Practicum II	1
RELE	457	Christian Ethics and Health Care	3
RELF	423	Loma Linda Perspectives	2

A minimum grade of C (2.0) is required for all courses in the program.

*Course not required for RHIT Progression students. The necessary units for graduation will be earned with other courses recommended by the student's adviser.

CODING SPECIALIST—Certificate

Health care facilities need coders for accurately figuring ICD-9-CM, CPT, E & M and DRG assignments for diagnostic and surgical information from health records. In most instances, financial reimbursement is tied to these numeric codes. The statistical information generated from the codes is used in research, quality patient care, education, and administrative decision making.

In acute-care facilities the coding specialist usually works in a medical record department and enjoys professional interaction with other medical record practitioners. In physician medical-practice settings, the coding specialist works closely with physicians to identify diagnoses and procedures for optimal reimbursement.

OPPORTUNITIES

Coding specialists are in demand in acute-care and ambulatory-care facilities, including physician-office practices and long-term care facilities. A variety of government agencies require coding expertise as well. The need for accurate, skilled coders is acute in California and throughout the nation. Job opportunities information is mailed to alumni as it becomes available.

THE PROGRAM

The Coding Specialist Certificate Program is a six-quarter program. Classes meet once a week in the evening. The student is introduced to health care records, including the need for confidentiality and ethics.

Professional certification

Upon successful completion of the program, the student is eligible to take the national certification examination of the American Health Information Management Association.

THE PROGRAM OBJECTIVES

Upon completion of the program, the graduate should be qualified to:

1. Use with understanding the instructions in format, organization, and mechanics of the ICD-9-CM, CPT, E & M coding systems.
2. Code with accuracy and consistency.
3. Analyze medical records to identify significant medical conditions and surgical procedures; correctly select the principal diagnosis and procedure; and appropriately sequence other diagnoses, complications, and procedures.
4. Supervise health-data collection and processing through coding, indexing, and maintaining disease and operation statistics.
5. Develop policies and procedures for coding, including a plan for coding quality.
6. Follow federal, state, and professional society guidelines for coding in health institutions.
7. Understand the concepts of the prospective payment system and perform diagnostic related-group and ambulatory-patient classification assignments using decision trees and computerized patient-data groupers.
8. Delineate the difference between optimization of coding in compliance with governmental regulations and fraudulent coding.

ADMISSION

Prerequisite for Coding Specialist, Certificate

High school diploma or equivalent

Human anatomy and physiology

Subject requirement for 2000-2001

The applicant must complete the following subject requirement at an accredited college or university:

Human anatomy and physiology, complete sequence (may take LLU course AHCJ 235 Anatomy and Physiology to fulfill requirement Summer Quarter previous to HLCS 239)

PROGRAM OF INSTRUCTION

CODING SPECIALIST—Certificate

The program of instruction outlined as follows is for students enrolled during the 2000-2001 academic year.

HLCS	238	Essentials of Human Disease	3
HLCS	239	Introduction to Coding and Medical Records	3
HLCS	241	Medical Terminology	3
HLCS	242	Coding I	4
HLCS	243	Coding II	4
HLCS	245	Coding III	4
HLCS	254	E & M Coding for Billing and Reimbursement (optional)	3

A minimum grade of C (2.0) is required for all courses in the program.

COURSES

For information about units of credit and course numbers, see the beginning of section III of this BULLETIN. Multinumbered courses must be completed in sequence.

HLCS 238 Essentials of Human Diseases (3)
Survey of human diseases, including the etiology, pathogenesis, and clinical manifestations of commonly encountered diseases.

HLCS 239 Introduction to Coding and Medical Records (3)
Introduction to health care facilities and the information systems involved in the care of health records. In-depth study of health-record content, confidentiality of health care information, and professional ethics.

HLCS 241 Medical Terminology (3)
Prefixes, suffixes, and root words used in the language of medicine. Terms pertaining to pathology and surgery.

Prerequisite: Human anatomy and physiology.

HLCS 242 Coding I (4)
Principles and conventions for using ICD-9-CM. Coding techniques by body system and disease process: infectious, endocrine, nutritional, metabolic, blood, parasitic diseases, immunity disorders, respiratory, digestive, nervous, sense organs, and circulatory. Laboratory as needed.

Prerequisite: HLCS 239, 241; or equivalent.

HLCS 243 Coding II (4)
Continues coding techniques by body system and disease process: genitourinary, neoplasms, mental disorders, skin and subcutaneous tissue, musculoskeletal, and connective tissue. Congenital anomalies, injury, poisoning, and complications of pregnancy and childbirth. Laboratory as needed.

Prerequisite: HLCS 242.

HLCS 245 Coding III (4)
Focus on advanced coding principle, including: the prospective payment system and decision-making leading to optimal DRG assignment, regulatory agency coding requirements at the state and national level, coding assessment by peer review organizations, coding quality assurance, CPT in in/outpatient settings, physician-based CPT coding, and APCs. Laboratory included.

Prerequisite: HLCS 243.

HLCS 254 E & M Coding for Billing and Reimbursement (3)
Principles of evaluation and management coding, CPT modifier assignment pertaining to physician professional billing in outpatient, inpatient, ER, observation unit, and home health settings. Principles of billing and third-party reimbursement in the health care field, emphasizing billing forms and the billing process.

Prerequisite: HLCS 242, 243, 245; or equivalent.

HLIN 301 Introduction to Health Records Science (4)
History of medical records, professional ethics, and the administration of medical records as a profession and as a health-care facility service. Techniques for numbering and filing records. Sources of information. Reporting requirements. Principles of indexes and registers, collateral records, preservation of records. Philosophy of accreditation, third-party payor, and licensure standards for hospitals. Quantitative and qualitative analysis and chart-completion systems. In-depth study of the medical record, including the problem-oriented record. Laboratory.

HLIN 303 Basic Coding Principles and Techniques I (3)
Principles of disease and operation classification (coding) using ICD-9-CM. Basic coding techniques for diagnoses, surgical procedures, symptomatology, and other reasons for health care encounters. Disease and operation coding techniques by topic: infectious, parasitic, endocrine, nutritional, metabolic, immunity disorders, hematologic, nervous, sense organs, circulatory, respiratory, and digestive. Manual and computerized DRG assignment. Laboratory designed to enhance student coding proficiency.

HLIN 304 Basic Coding Principles and Techniques II (3)
Review of disease and operation coding by system: hepatic, biliary, urogenital, skeletal, neoplastic. Special emphasis on obstetrical and newborn coding, trauma, external causes of trauma, congenital anomalies, and chromosome disorders. History, principles, and purpose of recognized systems of disease and operation nomenclatures and classifications. Indexes used in health care settings. Techniques of indexing utilized to compile, store, and retrieve medical data. Analysis of the major classification systems available. Laboratory designed to enhance student coding. Actual medical record coding emphasizing proficiency.

Prerequisite: HLIN 303.

HLIN 305 Hospital Census and Administrative Statistics (2)
Basic census formulas and definitions. Development and use of statistics as required by health care facilities, clinics, and licensing and accrediting bodies.

Prerequisite: HLIN 301.

HLIN 306 E & M Coding for Billing and Reimbursement (2)
Principles of evaluation and management coding, CPT modifier assignment pertaining to physician professional billing in outpatient, inpatient, ER, observation unit, and home health settings. Principles of billing and third-party reimbursement in the health care field, emphasizing billing forms and the billing process.

Prerequisite: HLIN 303, 304.

HLIN 325 Pharmacology for Health Information Administration (2)
Introduction to understanding of pharmacology as required for medical record analysis, audits, and other related studies. Basic definitions, sources of information, classification of drugs, and principles and mechanisms of drug actions.

HLIN 361, 362, 363 Health Information Administration Practicum I, II, III (1, 1, 1)
Supervised experience in medical record departments and other areas of health care facilities.

HLIN 395 Health Information Administration Practicum IV (2)
Two-week, supervised clinical experience (80 clock hours) during the summer at the end of the junior year in a health facility or health-related organization, as approved by the department chair. Written and oral reports of experience, with classroom discussion. Not required of accredited record technicians.

Prerequisite: Completion of junior-year courses and clinical assignments, or permission of the department chair.

HLIN 401 Survey of Health Systems Management (4)
General systems concepts in health care: analysis, design, implementation, and maintenance. Management of information systems in an integrated or interfaced environment. Emphasis on health information applications. Identification of manual methodology that can be computerized. Development of databases, screens, and reports. Analysis of information-management standard requirements.

HLIN 421 The Computerized Patient Record (3)
Applications of information-systems theory directly to the process of moving a health care facility to a nonpaper, electronic health record. Evaluation of existing vendor software, hardware, and services that could be utilized to accomplish this goal. Development of CPR-user survey and information on request for proposal process discussed.

Prerequisite: HLIN 401.

HLIN 441 Legal Aspects of Health Information Administration (3)
Basic principles of law related to the health care field. Law-making process. Analysis of legislation. Risk-management aspects of medical documentation. Court system in the United States as it relates to negligence. Development of policies and procedures regarding confidentiality. Release of general, psychological, alcohol and drug, and HIV-positive health documentation. Release of information in response to subpoena. Design and analysis of consent forms.

HLIN 445 Coding Seminar (3)
Advanced coding concepts. Issues in reimbursement coding for DRGs, coding quality assurance, and CPT coding. Coding for APCs introduced. Laboratory on coding software included.

Prerequisite: HLIN 304 or equivalent.

HLIN 451 Quality Improvement in Health Care (3)
Quality improvement methodology. Data retrieval, display, and follow up for various sectors of health care. Mechanisms for promoting facility-wide participation in achieving optimum patient care as delineated in medical-staff information management, accreditation, and government standards. Risk management as an integral facet of quality improvement.

HLIN 461 Health Information Management Practicum (1-5)
Supervised experience in health information departments, with emphasis on management projects. Previous management experience considered when assigning the course load, the practicum environment, and the projects. Course may be repeated for additional credit.

HLIN 462, 463 Health Information Administration Practicum V, VI (1, 1)
Supervised experience in health information departments and other areas of health care facilities, with emphasis on the management aspect.

HLIN 471 Applied Research Methods (2)
Laboratory with application of research methodologies to health information administration, including evaluation of published research within the field. Directed experience in a research project.

Prerequisite: AHCJ 351, 461.

HLIN 483 Long-Term and Alternative Delivery Systems in Health Care (4)
Focus on aspects of health information management in delivery systems other than acute care, and their interrelationships. Health-record content, format, regulatory and accreditation requirements, record storage and retention, data collection/reporting, risk management, utilization management, and quality-improvement areas reviewed. Long-term care, hospital-based ambulatory care, free-standing ambulatory care, hospice, home care, dialysis treatment centers, veterinary medicine, subacute care, mental health care, and managed-care organizations.

HLIN 484 Current Topics in Health Information Administration (4)
Topics of current interest in the field of health information administration, including career planning and professionalism. Content varies.

Prerequisite: AHCJ 408; HLIN 494.

HLIN 494 Health Information Management (5)
Advanced approach to record systems and technical aspects of health information administration. Resource management. Projects included. Preparing resumes, practicing interviewing skills, designing and developing a functional layout plan for a department. Disaster preparedness documentation. Organizational, interrelational, and managerial functions and concepts in the health care setting.

Prerequisite: AHCJ 408.

HLIN 495 Health Information Affiliation (1-4)
Directed experience (160 clock hours) at an approved facility. Application of skills and knowledge in management. Written and oral reports of experience with classroom discussion.

Prerequisite: Completion of the first two quarters of the senior year or permission of the department chair.

HLIN 499 Health Information Administration Independent Study (1-4)
Project or paper to be submitted on a topic of current interest in an area of health information administration. Regular meetings to provide the student with guidance and evaluation. Elected on the basis of need or interest.

May be repeated.

MHIS 501 Information Systems in Health Organizations (3)
Concepts of information management, including decision support, executive/management systems, systems modeling, and computer/workstation technology. Exploration of new options for technology in information systems and current hardware and software in use.

MHIS 502 Planning and Implementation of Health Information Systems (3)
Evaluation and modification of existing systems. Planning, design, and implementation of new health information systems. Systems typologies and topologies, methods of critical analysis of needs, and development of models to meet identified needs. Systems design and development. Managing patient information across a continuum of care. Accessing information relavant to the health care organization Emphasis on systems integration, coordination of the planning and development process, setting objectives for a system, and determining whether the objectives are met in the finished product. Scheduled laboratory with practical applications.

MHIS 508 Managing Information Resources (3)
Technology as information. Information as a return on investment. Theory and practice of managing existing information systems. Responsibilities and interactions of the successful information professional in a health care organization. Project selection and prioritization, project management and control, staffing, organizational integration, and communication with other elements of the organization. Scheduled laboratory assignments using project-management and application-development software.

MHIS 511 Security and Data Communications Theory (via web) (3)
How information systems work. Fundamentals of information systems hardware and software, including existing databases on local and national networks. Internet and Intranet projects required. Distributed data processing, client-server systems, local area networks (LAN), wide area networks (WAN), and data communications, including voice and image. Field trips. Scheduled laboratory assignments using various database environments.

MHIS 515 Maintenance and Operation of Information Systems (via web) (3)
Process of maintenance and management of data-communication systems. Network administration. Analysis and development of information-security systems, system auditing, information-system documentation, and system-maintenance plans. Devlopment of maintenance plan and security plan. Scheduled laboratory.

MHIS 575 Market Research Methods in Health Care (2)
Application of health care market data sources, including the Internet, *Dartmouth Health Care Atlas,* government and health care agencies, health care market research firms, publications, and others. Effective presentation of market research data for decision-support systems using multiple communication formats, including written analysis, public speaking/LCD presentations, media strategic planning/business planning documents, accreditation reports, and other resources.

MHIS 595 Seminar in Health Information Systems (2)
Projects and case studies designed to prepare the student for the internship. Techniques of personnel selection, interviewing, vendor evaluation, and management of an HIS department

Prerequisite: To be taken in the last quarter before the internship.

MHIS 602 Health Systems Operations Management (3)
Use of quantitative methods to analyze and improve business processes within an organization. Regression analysis, simulation, decision analysis, capacity planning, inventory models, linear programming, scheduling, and cost-benefit analysis.

MHIS 604 Strategic Health Information Systems Management (3)
Decision making, planned change through the strategic planning process. Purpose, vision, mission, and strategic objectives. Developing strategic alternatives and choices incorporating information technology. System life-cycle method. Concepts of marketing strategy and competition analysis in the health care market. Integration mergers, restructuring, and downsizing; and their effects. Presentation of a health information-system technology business plan.

MHIS 605 Health Information Systems Internship (5)
Practical application of the principles of classroom theory in a health care setting. Major project required.

Prerequisite: Completion of all M.H.I.S. degree course work.

CONJOINT

See CONJOINT COURSES, section III, for course descriptions.

NUTRITION AND DIETETICS

DIETETIC TECHNOLOGY—Associate in Science; Certificate

NUTRITION AND DIETETICS—Progression Bachelor of Science; Bachelor of Science; Certificate

BERTRUM C. CONNELL, Chair

KENNETH I. BURKE, Associate Chair

GEORGIA W. HODGKIN, Program Director, Dietetic Technology

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Grenith J. Zimmerman

*ex officio

DIETETIC TECHNOLOGY—Associate in Science

The dietetic technician is a support member of the nutrition-care team. At the direction of the dietitian, the dietetic technician screens patients for nutrition-care needs, marks menus, teaches individuals or groups, monitors effectiveness of nutrition care, and documents findings in the patient's medical record. Dietetic technicians contribute to the overall success of the food service by developing menus, supervising food-service employees, monitoring quality of food, and providing inservice training for employees.

OPPORTUNITIES

The dietetic technician practices with other members of the nutrition-care team, including the registered dietitian, the dietetic assistant, and food-production and food-service personnel. Employment may be found in a variety of environments, including hospitals and other health care facilities, retirement centers, schools and universities, government and community agencies, food-management companies, and industrial feeding sites.

THE PROGRAM

The program consists of four quarters and integrates the theory of the classroom studies with the experience of the laboratory and supervised clinical experience. Students participate as active learners in a variety of settings planned to develop competent dietetic technicians. The Associate in Science degree is awarded upon successful completion of the program.

Accreditation

The Dietetic Technology Program is currently granted accreditation by the Commission on Accreditation for Dietetic Education of The American Dietetic Association, 216 West Jackson Boulevard, Chicago, IL 60606-6995, 312/899-4876.

PROFESSIONAL REGISTRATION

Upon satisfactory completion of the program and on the recommendation of the faculty, the graduate will be eligible to take the registration examination of the Commission on Dietetic Registration in order to become a dietetic technician, registered (DTR).

PROFESSIONAL ASSOCIATION

Students and graduates are eligible for membership in The American Dietetic Association. The mission of the association is to provide direction and leadership for quality practice, education, and research; and to promote optimal health and nutritional status of the American population. This organization grants student membership at a nominal cost to undergraduates of approved schools. The national office of The American Dietetic Association is at 216 West Jackson Boulevard, Chicago, IL 60606-6995. Along with membership in the American Dietetic Association, students become members of the California Dietetic Association. Students are encouraged to join the Inland District Dietetic Association and, where possible, the Seventh-day Adventist Dietetic Association.

THE PROGRAM OBJECTIVES

Upon completion of the program, the graduate should be qualified to:

1. Perform competently at the entry-level of technical practice.
2. Value life-long learning.
3. Utilize computer software appropriate to the practice of dietetics.
4. Participate as a leader in nutrition care.
5. Recognize the option to pursue a bachelor's degree program upon completion of the Associate in Science degree.

6. Fill the need for registered dietetic technicians, where appropriate, within the health care and educational network of Seventh-day Adventist institutions as well as local organizations.

ADMISSION—Associate in Science

Admission to the program is based upon a selective process. To be eligible for consideration, the applicant must meet the following criteria: completion of prerequisite requirements listed below at an accredited college or university, a 2.5 G.P.A. or above, an interview, letter of application, and recommendations.

Prerequisites for Dietetic Technology, A.S.

Religion required, 4 units per year of attendance, if at a Seventh-day Adventist college

Human anatomy and physiology with laboratory

Introductory chemistry with laboratories, complete sequence

Two years high school matematics with grades of C or better; **or** intermediate algebra in college

Sociology

English composition, complete sequence

Speech

Computer competency

Human nutrition

Electives to meet total minimum requirements of 48 quarter units

Bertrum Connell reviewing Lunch Power menu with Maxine Taylor of the Department of Nutrition and Dietetics.

PROGRAM OF INSTRUCTION
DIETETIC TECHNOLOGY—Associate in Science

The program of instruction outlined below is for full-time students enrolled during the 2000-2001 academic year.

SOPHOMORE YEAR

POST-SUMMER SESSION(4 weeks): August 21-September 15, 2000

DTCH	201	Human Nutrition	3
DTCH	202	Food Selection and Preparation	4
DTCH	203	The Art of Food Presentation	3

AUTUMN QUARTER: September 25-December 14, 2000

DTCH	205	Professional Issues in Nutrition and Dietetics	1
DTCH	239	Life-Cycle Nutrition	2
DTCH	241	Introduction to Clinical Nutrition	3
DTCH	271	Quantity Food Purchasing, Production, and Service	5
AHCJ	407	Financial Management	2

WINTER QUARTER: January 3-March 16, 2000

DTCH	242	Nutritional Care	4
DTCH	272	Food Systems Management	4
DTCH	204	Community Nutrition	4
RELE		Religion Elective	2

SPRING QUARTER: March 26-June 8, 2000

DTCH	281	Operations Management in Quantity Food Production	4
DTCH	291	Dietetic Technology Affiliation	4
AHCJ	305	HIV/AIDS and the Health Provider	1
AHCJ	408	Health Care Management	4
RELF	436	Adventist Heritage Religion and Health	3

A minimum grade of C (2.0) is required for all courses in the program.

DIETETIC TECHNOLOGY—Certificate

ADMISSION

To be eligible for admission, the applicant must have earned a minimum of a baccalaureate degree at an accrediated college or university.

Prerequisites for Dietetic Technology, Certificate

Bachelor's degree from an accredited college/university

Human anatomy and physiology with laboratories, complete sequence

Microbiology with laboratory

Introductory chemistry with laboratories, complete sequence

Sociology

Speech

PROGRAM OF INSTRUCTION
DIETETIC TECHNOLOGY—Certificate

Subject requirements for 2000-2001

Applicants must meet the core professional requirements as specified for the A.S. degree.

The program of instruction for students seeking the certificate in dietetic technology is identical to the program of instruction for the A.S. degree. Courses previously taken which are identical to courses required for the degree may, with proper documentation, be considered as meeting the requirements. The final decision is made through the academic variance process.

This program meets the 450 clock hours of professional practice necessary to establish eligibility to write the registration examination for the dietetic technician.

NUTRITION AND DIETETICS—Progression Bachelor of Science

Prerequisites to the junior year

Progression to the bachelor's degree program to become a registered dietitian requires completion of all the prerequisites for the bachelor's degree. These include general chemistry, microbiology, general psychology, and humanities including cultural diversity/cultural anthropology. The prospective student should complete a year of practice as a registered dietetic technician before applying to the bachelor's degree program.

NUTRITION AND DIETETICS—Bachelor of Science

Dietetics, a vital profession in the field of health promotion, focuses on the sciences of nutrition and management in feeding individuals and groups throughout the life cycle. The Coordinated Program in Dietetics combines supervised professional practice with didactic curriculum to develop professional skills concurrently with cognitive and technical skills.

Admission to the program is based on a selective process. To be eligible for consideration, the applicant must meet the following criteria: completion of subject requirements, as indicated, at an accredited college or university; a 3.0 G.P.A. or above; an interview; a letter of application; and recommendations.

OPPORTUNITIES

Dietetic practice is the application of principles derived from integrating knowledge of food, nutrition, biochemistry, physiology, business and management, journalism, behavioral and social sciences, and the arts to achieve and maintain health, prevent disease, and facilitate recovery from illness.

Members of the dietetics profession practice in a variety of environments, including hospitals and other health care facilities, schools and universities, government and community agencies, business, and industry. A growing number of dietitians are employed in physicians' offices, clinics, home-health care agencies, mass communication, and many other enterpreneurial roles.

By successfully passing the registration examination for dietitians, practice opportunities as a specialist in medical nutrition therapy, administrative dietetics, nutrition education, community nutrition, or research are available. There is increased recognition of the importance of nutrition in the fields of medicine, dentistry, and health promotion, with emphasis on fitness and optimal well-being. This indicates that the dietitian's scope of practice is steadily widening.

CLINICAL NUTRITION

The clinical dietitian applies the science of nutrition to the care of people through health promotion, disease prevention, and medical nutrition therapy. The effective dietitian must be aware of the cultural, social, economic, aesthetic, and psychological factors that affect eating patterns. As a member of the patient-care team, the registered dietitian (RD) is responsible for assessing, implementing, and monitoring the nutritional care of patients. In addition, the RD may serve professionally as a nutrition practitioner in health care; a teacher in an educational institution; a research dietitian; or a nutrition consultant-educator in municipal, state, or federal departments of health.

ADMINISTRATIVE DIETETICS

The administrative registered dietitian (RD) manages food service systems. In a health care institution, the RD is responsible for the effective functioning of food service from the standpoint of patients, administration, medical staff, and personnel. The administrative RD may also teach; manage food systems in educational, public, or commercial facilities; serve as consultant to health care or educational institutions; or enter the field of research.

THE PROGRAM

The Nutrition and Dietetics Program is established to prepare entry-level dietitians to enter the profession and contribute to the wholeness of mankind. The graduate is awarded the Bachelor of Science degree and is eligible to write the registration examination of the Commission on Dietetic Registration. The program is composed of didactic and supervised professional practice experiences in an environment of liberal arts education to prepare an educated graduate. Admission to the professional program at this University begins with the Autumn Quarter of the junior year. The applicant will present at least two years of preprofessional education from an accredited college or university to meet the specific subject requirements for 2000-2001.

The professional program of eight quarters includes theory, laboratory, research, and clinical experiences. Ten-to-eleven weeks of clinical experience are scheduled at the end of the junior year and eight weeks during the Spring Quarter of the senior year. Students participate as active members of the nutrition-care team in multiple clinical settings. Administrative affiliation experiences involve decision-making assignments in volume-feeding operations.

Accreditation

The Coordinated Program in Dietetics is currently granted accreditation by the Commission on Accreditation for Dietetics Education of The American Dietetic Association, 216 West Jackson Boulevard, Chicago, IL 60606-6995.

PROFESSIONAL REGISTRATION

Upon satisfactory completion of the program and upon recommendation of the faculty, the graduate will be eligible to take the registration examination for dietitians in order to become a registered dietitian.

PROFESSIONAL ASSOCIATION

Students and graduates are eligible for membership in The American Dietetic Association. The mission of the association is to provide direction and leadership for quality practice, education, and research; and to promote optimal health and nutrition status of the American population. The association grants student membership at a nominal rate to students in accredited programs. The national office of The American Dietetic Association is at 216 West Jackson Boulevard, Chicago, IL 60606-6995. Along with membership in The American Dietetic Association, students become members of the California Dietetic Association. Students are encouraged to join the Inland District Dietetic Association and, where possible, the Seventh-day Adventist Dietetic Association.

THE PROGRAM OBJECTIVES

Upon completion of the program, the graduate should be qualified to:

1. Perform competently at the entry-level of professional practice.
2. Exhibit Christian ethical and moral values.
3. Exhibit an investigative spirit to continue attaining knowledge and developing professional competency beyond the entry level.
4. Communicate effectively and be computer literate, using and analyzing data in the decision-making process.
5. Develop leadership skills to achieve personal and corporate goals.
6. Incorporate critical thinking skills into professional and personal decisions.
7. Demonstrate, from a historical and contemporary basis, the value of diversity in the personal and professional life from ethnic, gender, generational, and ideological points of view.

ADMISSION

Prerequisites for Nutrition and Dietetics, B.S.

Two years high school mathematics with grades of C or better; **or** intermediate algebra in college

General chemistry with laboratories, complete sequence

Microbiology with laboratory

General psychology

Sociology

Cultural anthropology **or** an approved course dealing with cultural diversity

English composition, complete sequence

Speech

Computer competency

Human nutrition

Two physical education courses

Electives to meet total minimum requirements of 96 quarter units

For total unit requirement for graduation, see DIVISION OF GENERAL STUDIES, Criteria for General Education Course.

PROGRAM OF INSTRUCTION

NUTRITION AND DIETETICS—Bachelor of Science

The program of instruction outlined as follows is for full-time students enrolled during the 2000-2001 academic year.

JUNIOR YEAR

POST-SUMMER SESSION (4 weeks)

DTCS	301	Human Nutrition (if necessary)	3
DTCS	302	Food Selection and Preparation	4
DTCS	303	The Art of Food Presentation	3

AUTUMN QUARTER

DTCS	305	Professional Issues in Nutrition and Dietetics	0.5
DTCS	339	Life Cycle Nutrition	2
DTCS	341	Introduction to Clinical Nutrition	3
DTCS	371	Quantity Food Purchasing, Production, and Service	5
AHCJ	329	Organic Chemistry	5

WINTER QUARTER

DTCS	304	Community Nutrition	4
DTCS	342	Medical Nutrition Therapy I	5
DTCS	372	Food Systems Organization and Management	4
AHCJ	402	Pathology	4

SPRING QUARTER

DTCS	343	Medical Nutrition Therapy II	5
DTCS	442	Nutrition Counseling	3
AHCJ	305	HIV/AIDS and the Health Provider	1
AHCJ	332	Biochemistry	5
RELF	436	Adventist Heritage Religion and Health	3

SENIOR YEAR

	SUMMER Professional Practice Experience (11 weeks)		
DTCS	395	Nutrition and Dietetics Practicum (11 weeks)	6
	AUTUMN		
DTCS	305	Professional Issues in Nutrition and Dietetics	0.5
DTCS	321	Nutrition and Human Metabolism	2
DTCS	444	Medical Nutrition Therapy III	3
DTCS	445	Nutrition Care Management	5
AHCJ	351	Statistics for the Health Professions	3
AHCJ	407	Financial Management	2
RELE	457	Christian Ethics and Health Care	3
	WINTER		
DTCS	425	Pharmacology in Medical Nutrition Therapy	2
DTCS	452	Advanced Nutrition	4
DTCS	461	Food Science	4
DTCS	476	Exercise Physiology in Medical Nutrition Therapy	3
DTCS	491	Orientation to Research in Dietetics Laboratory	1
AHCJ	461	Research Methods	2
	SPRING		
DTCS	453	Advanced Medical Nutrition Therapy	4
or			
DTCS	473	Clinical Nutrition Affiliation (8 weeks)	6
or			
DTCS	474	Advanced Food Systems Management	4
or			
DTCS	477	Advanced Community Nutrition	4
or			
DTCS	478	Community Nutrition Affiliation (8 weeks)	6
or			
DTCS	479	Administrative Dietetics Affiliation (8 weeks)	6
and			
RELF	___	Religion elective	3

Kenneth Burke, Nutrition and Dietetics Department faculty member, teaching students (Margaret Schroer, Sean Mason, and Martha Mays) to evaluate viscosity of a solution.

Crystal Whitten's advanced community nutrition class students—Marcia Roper (front), Sherri Lambert (middle), Rachele Park (back)—benefit from knowledge of guest speaker, Ernie Medina.

NUTRITION AND DIETETICS—Certificate

ADMISSION

To be eligible for admission, the applicant must have earned a minimum of a baccalaureate degree at an accredited college or university.

Subject requirements for 2000-2001

The applicant must complete the core professional courses required for the B.S. degree.

Residency requirement

A minimum of 36 units of credit in residency is required.

PROGRAM OF INSTRUCTION
NUTRITION AND DIETETICS—Certificate

An individualized program of instruction will be developed prior to admission based on the applicant's need and previous courses, to assure that all requirements are met to establish eligibility to write the registration examination of the Commission on Dietetic Registration.*

A minimum grade of C (2.0) is required for all courses in the program.

***Academic course work demonstrating competency in the following areas is required:**

Prerequisites for Nutrition and Dietetics, Certificate

Bachelor's degree from an accredited college
Human anatomy and physiology with laboratories, complete sequence
Microbiology with laboratory
General chemistry withlaboratories, complete sequence
General psychology
Sociology
English
Speech
Writing
Mathematics
Computers

COURSES

For information about units of credit and course numbers, see the beginning of section III of this BULLETIN.

DTCH 201 Human Nutrition (3)
Fundamentals of normal nutrition. Carbohydrates, proteins, fats, vitamins, and minerals; their roles in human metabolism. Introduction to nutrition in the life cycle. Per week: lecture 3 hours.

DTCH 202 Food Selection and Preparation (4)
Foods and their nutritive values. Changes associated with maturation, preservation, table preparation, transportation, and storage in relation to food safety. Per week: lecture 3 hours, practicum 3 hours. Laboratory fee.

DTCH 203 The Art of Food Presentation (3)
Art of food presentation to enhance acceptance of food. Nutritional concepts and cultural food patterns in planning and producing meals. Focus on meal service at home and in professional and social settings. Per week: lecture 2 hours, practicum 3 hours. Laboratory fee.

Prerequisite: DTCH 201, 202; or consent of the instructor.

DTCH 204 Community Nutrition (4)
Education of community members in different areas related to nutrition requiring knowledge of normal nutrition and life-cycle issues. Nutrition assessment; medical nutrition therapy topics such as obesity, CHD, diabetes, etc. Legislative process and politics. Program planning, implementation, management, and evaluation. Counseling, teaching, and facilitating group processes. Interpreting data and research findings. Identifying and accessing community nutrition resources. Community interactions that promote a healthy lifestyle, including but not limited to nutrition topics. Per week: lecture 2 hours, practicum 6 hours.

Prerequisite: DTCH 201.

Corequisite: DTCH 239, 241.

DTCH 205 Professional Issues in Nutrition and Dietetics (1)
Growth of dietetic technology and of nutrition and dietetics as professions. Their role in restoration and maintenance of health. Nontraditional roles of the dietetic technician and registered dietitian illustrated. Emphasis on the development of professionalism and accountability. Preparation of a professional portfolio (the responsibility for lifelong learning).

DTCH 239 Life Cycle Nutrition (2)
Management of the normal nutrition needs of individuals across the life span. Includes focus on pregnancy, lactation, normal infant growth and development, childhood, and adolescence, with an overview of school feeding programs. Adult men's and women's health issues. Geriatrics. Per week: lecture 1 hour, practicum 3 hours.

Prerequisite: DTCH 201.

Corequisite: DTCH 241.

DTCH 241 Introduction to Clinical Nutrition (3)
Basic knowledge of the responsibilities of the clinical dietetic technician and dietitian: medical terminology, patient charts, documentation in the medical record, patient interviewing, and counseling techniques. Utilization of the computer for diet analysis. Introduction to nutrition assessment, vegetarian diets, nutrition quackery, sports nutrition, obesity, eating disorders, osteoporosis, dental nutrition, and labeling requirements. Open to dietetic technician students only. Per week: lecture 1 hour, practicum 6 hours.

Prerequisite: DTCH 201 or equivalent; introductory chemistry, complete sequence with laboratory; anatomy and physiology with laboratory.

Corequisite: DTCH 239.

DTCH 242 Nutritional Care (4)
Basic biochemical and physiological conditions that necessitate dietary modifications in the clinical management of the patient, including diabetes, cardiac disease, burns, allergies, osteoporosis, cancer, physical handicaps, gastrointestinal and renal disease. Continued practice in interviewing and introduction to nutritional counseling. Use of computer-assisted nutritional analysis and learning modules. Medical terminology. Per week: lecture 2 hours, practicum 6 hours.

Prerequisite: DTCH 241.

DTCH 271 Quantity Food Purchasing, Production, and Service (5)
Emphasis on methods to achieve quantitative and qualitative standards in quantity food production. Menu planning for institutions. Purchasing. Practicum in food purchasing, production, and service. Per week: lecture 2 hours, practicum 9 hours.

DTCH 272 Food-Systems Management (4)
Study of food-service systems. Effective utilization of resources within the food system. Computer application in food-systems management. Per week: lecture 2 hours, practicum 6 hours.

Prerequisite: DTCH 271.

DTCH 281 Operations Management in Quantity Food Productions (4)
Application of operations-management techniques to food-systems management, including: quantitative decision making, development of work standards, and productivity management. Operations-analysis evaluation and quality control. The role of the nutritional services department supervisor. Leadership. Per week: lecture 2 hours, practicum 6 hours.

Prerequisite: DTCH 272.

DTCH 291 Dietetic Technology Affiliation (4)
Supervised experience in dietetic technology in community hospitals, extended-care facilities, county hospitals, public health departments, and school food service. Performance review and evaluation. Minimum of three weeks (120 clock hours) at the end of the program.

Prerequisite: DTCH 281.

DTCH 299 Independent Study Dietetic Technology (1-5)
Project or paper to be submitted on a topic of current interest in an area of dietetic technology. Regular meetings to provide the student with guidance and evaluation.

DTCS 301 Human Nutrition (3)
Fundamentals of normal nutrition. Carbohydrates, proteins, fats, vitamins, minerals; their roles in human metabolism. Introduction to nutrition in the life cycle. Per week: lecture 3 hours.

DTCS 302 Food Selection and Preparation (4)
Foods and their nutritive values. Changes associated with maturation, preservation, table preparation, transportation, and storage in relation to food safety. Per week: lecture 3 hours, laboratory 3 hours. Laboratory fee.

DTCS 303 The Art of Food Presentation (3)
Art of food presentation to enhance acceptance of food. Nutritional concepts and cultural food patterns in planning and producing meals. Focus on meal service at home and in professional and social settings. Per week: lecture 2 hours, practicum 3 hours. Laboratory fee.

DTCS 304 Community Nutrition (4)
Education of community members in different areas related to nutrition. Requires knowledge of normal nutrition and life-cycle issues. Nutrition assessment; medical nutrition-therapy topics such as obesity, CHD, diabetes, etc. Legislative processes and politics. Program planning, implementation, management, and evaluation. Counseling, teaching, and facilitating group processes. Interpreting data and research findings. Identifying and accessing community nutrition resources. Community interactions that promote a healthy lifestyle, including but not limited to nutrition topics. Per week: lecture 2 hours, practicum 6 hours.

Prerequisite: DTCS 339, 341.

DTCS 305 Professional Issues in Nutrition and Dietetics (0.5)
Growth of nutrition and dietetics as a profession, and its role in restoration and maintenance of health. Illustrated nontraditional roles of the registered dietitian and dietetic technician, registered. Emphasis on development of professionalism, accountability, and responsibility for life-long learning. Preparation of a professional portfolio.

DTCS 311 Human and Clinical Nutrition for Nursing (4)
Fundamentals of normal nutrition. Carbohydrates, proteins, fats, vitamins, minerals; their roles in human metabolism. Investigating the role of nutrition at various stages in the life cycle of the individual in health and disease. Nutrition intervention in the prevention and treatment of disease in the clinical setting.

DTCS 312 Clinical Nutrition for Nursing (2)
Nutrition intervention in the prevention and treatment of disease in the clinical setting.

DTCS 321 Nutrition and Human Metabolism I (2)
Nutritional requirements and metabolism of essential nutrients for the human organism at the cellular level. Focus on vitamin and mineral metabolism. Per week: lecture 2 hours.

Prerequisite: DTCS 301 or equivalent; general chemistry; anatomy and physiology; biochemistry.

DTCS 339 Life Cycle Nutrition (2)
Management of the normal nutrition needs of individuals across the life span. Includes focus on pregnancy, lactation, normal infant growth and development; childhood, and adolescence, with an overview of school feeding programs. Adult men's and women's health issues. Geriatrics. Per week: lecture 1 hour, practicum 3 hours.

Prerequisite: DTCS 301.

Corequisite: DTCS 341.

DTCS 341 Introduction to Clinical Nutrition (3)
Basic knowledge of the responsibilities of the clinical dietitian: review of the medical record, documentation in the medical record, medical terminology, and patient interviewing. Utilization of the computer for diet analysis. Introduction to nutrition assessment, anemias, food allergies, vegetarian diets, nutrition quackery, sports nutrition, obesity, eating disorders, osteoporosis, dental nutrition, and food labeling requirements. Per week: lecture 1 hour, practicum 6 hours.

Prerequisite: DTCS 301 or equivalent; anatomy and physiology with laboratory; general chemistry.

Corequisite: DTCS 339.

DTCS 342 Medical Nutrition Therapy I (5)
Basic biochemical and physiological processes that necessitate dietary modifications in the clinical management of the patient, including diabetes, cardiac disease, cancer, enteral nutrition support, food allergies, anemias, and rehabilitation. Continued practice in interviewing and nutritional counseling. Utilization of computer-assisted nutritional analysis. Medical terminology. Per week: lecture 3 hours, practicum 6 hours.

Prerequisite: DTCS 339, 341.

Corequisite: AHCJ 402

DTCS 343 Medical Nutrition Therapy II (5)
Basic biochemical and pathophysiologic processes that necessitate dietary modifications in the clinical management of the patient with pulmonary disease, including cystic fibrosis; digestive disorders; disorders of the liver, biliary system, and pancreas; alcoholism; renal disease; solid-organ transplantation; sepsis/trauma and HIV/AIDS. Continuation of nutrition assessment, patient interviewing, and counseling. Application of enteral and parenteral nutrition support when indicated in the clinical management of patients with these conditions. Introduction to preparation of an in-depth case study.

Prerequisite: DTCS 342.

DTCS 371 Quantity Food Purchasing, Production, and Service (5)
Emphasis on methods to achieve quantitative and qualitative standards in quantity food production. Menu planning for institutions. Purchasing. Practicum in food production and service. Open to dietetics students only. Per week: lecture 2 hours, practicum 9 hours.

Prerequisite: Microbiology.

DTCS 372 Food Systems Organization and Management (4)
Study of food-service systems Effective utilization of resources within the food system. Computer application in food-systems management. Per week: lecture 2 hours, practicum 9 hours.

Prerequisite: DTCS 371.

DTCS 395 Nutrition and Dietetics Practicum (6)
Supervised experience in clinical, community, and administrative dietetics in hospitals, outpatient clinics, public health departments, and convenience-food systems. Performance review and evaluation. Eleven weeks (440 clock hours) during the summer at the end of the junior year.

Prerequisite: DTCS 343, 372.

DTCS 405 Senior Seminar (0.5)
Development of professional skills; team efforts to market nutrition in the community; volunteer efforts in the community; professional networking; and, speical topics as determined by nutrition and dietetics faculty. Emphasis on professional portfolio and transition to entry-level nutritionist/dietitian/nutrition educator/food service director.

Prerequisite: DTCS 305.

DTCS 425 Pharmacology in Medical Nutrition Therapy (2)
General overview of pharmacology, including kinetics, dynamics, and therapeutics of drugs. Basic definitions, sources of information, classification of drugs, and principles and mechanisms of drug actions. Special emphasis given to drug-nutrient interactions.

DTCS 442 Nutrition Counseling (3)
Continued application of techniques of nutrition counseling, with emphasis on improving skills in verbal and nonverbal communication, assertiveness, dealing with cultural differences, dealing with death and dying. Skills in administration for the nutrition counselor. Ethical implications in health care. Per week lecture 2 hours, practicum 3 hours.

Prerequisite: DTCS 342.

Co-requisite: DTCS 343

DTCS 444 Medical Nutrition Therapy III (3)
Nutrition intervention in the treatment of high-risk newborns. Inborn errors of metabolism. Fetal alcohol syndrome. Neurological/rheumatological disorders, including Parkinson's disease, Alzheimer's disease, and arthritis. Rehabilitation conditions, including stroke, head and spinal cord injury, and dysphagia management. Endocrine disorders. Infection and wound healing. Burns. Immunology. AIDS. Updates on advanced nutrition topics. Preparation of an in-depth case study. Per week: lecture 2 hours, practicum 3 hours.

Prerequisite: DTCS 343, 395; AHCJ 334.

DTCS 445 Nutrition Care Management (4)
Management theory and principles applicable to administration of nutrition care in many settings. Application of operations analysis, quantitative decision making, and productivity-management techniques to enhance the delivery of nutrition care. Per week: lecture 4 hours.

Prerequisite: DTCS 395.

DTCS 452 Advanced Nutrition (4)
Advanced topics of normal nutrition presented, with emphasis on case studies to illuminate metabolic pathways and effects of disease.

Prerequisite: DTCS 321, 343, 395; AHCJ 334.

DTCS 453 Advanced Medical-Nutrition Therapy (4)
Case study approach to the theory and application of critical-care nutrition to complex medical conditions. Interpretation and synthesis of the following information: fluid and electrolyte balance, acid/base balance, vital signs, ICU monitoring forms, interpretation of laboratory data and diagnostic tests, medical and surgical history, and drug/nutrient interactions. Focus on a problem-list approach to nutrition assessment, documentation, intervention, and outcome evaluation. Clinical rotation in critical-care setting. Per week: lecture 2 hours, practicum 6 hours.

Prerequisite: DTCS 395, 444.

DTCS 461 Food Science (3-4)
Chemical, physical, and biological effects of maturation, processing, storage, and preservation on the structure, composition, palatability, product quality, and microbiological safety of food and its additives. Variable unit is laboratory. Laboratory requirement determined by instructor. Per week: lecture 3 hours, laboratory 3 hours. Laboratory fee.

Prerequisite: Basic foods, human nutrition, organic chemistry.

DTCS 473 Clinical Nutrition Affiliation (6)
Application of knowledge and skills in clinical facilities as a staff dietitian. Regular conferences to aid in developing professional competence. Major applied project relating to clinical or community nutrition. Minimum of eight weeks (320 clock hours) during the Spring Quarter of the senior year.

Prerequisite: DTCS 453.

DTCS 474 Advanced Food-Systems Management (4)
Development of problem-solving competencies in the management of food systems. Production schedules, equipment, layout and design, and work analysis. Presentation of current management philosophy, with application to administrative dietetics. Practicum with computerized management-information system. Per week: lecture 3 hours, practicum 9 hours.

Prerequisite: DTCS 445.

DTCS 476 Exercise Physiology in Medical Nutrition Therapy (3)
Basic preparation for development and leadership of exercise programs. Includes: exercise physiology training, acute and chronic effects of exercise, simple assessment of fitness, role of exercise in prevention of common health problems, and management of selected risk factors. Discussion of endurance, strength, flexibility, and aerobic exercises. Laboratory included.

Prerequisite: Anatomy and physiology.

DTCS 477 Advanced Community Nutrition (4)
Providesstudents access to community professionals in the context of informal round-table discussions. Topics may include school-based nutrition education and interventions; epidemiology (cancer, CHD, or vegetarian diets); addictions; nutrition education and teaching aids; study of an international health organization, nutrition and public policy in the U.S. (FDA, NCI, etc.); nutrition journalism, the RD in private practice; soy protein use around the world; and promoting nutrition in the community. Provides students a weekly opportunity to participate in professional practice, including opportunity to conduct community-based programs and limited research. Assignments include giving a multimedia presentation, professional practice case studies, professional practice diary, writing a nutrition article to be submitted for publication, and a special-interest project (subject to the approval of the instructor).

Prerequisite: DTCS 304, 404.

DTCS 478 Community Nutrition Affiliation (6)
Professional practice in community nutrition settings, about traditional and nontraditional settings. Students who successfully complete DTCS 477 will sign up for DTCS 478. The professional practice includes projects, presentations to the community, research, screening events, association with clinical instructors, assessment and counseling, group instruction, community nutrition events, etc.

Prerequisite: DTCS 477.

DTCS 479 Administrative Dietetics Affiliation (6)
Application of knowledge and skills in the administrative dietetics area as a staff dietitian. Regular conferences to aid in developing professional competence. Minimum of eight weeks (320 clock hours) during hte Spring Quarter of the senior year.

Prerequisite: DTCS 474.

DTCS 491 Orientation to Research in Dietetics Laboratory (1)
Experience in nutrition and dietetics research, including hypothetical formulation research methods, data collection, and presentation of findings. Per week: practicum 3 hours.

Prerequisite: AHCJ 351.

Concurrent: AHCJ 461

DTCS 497 Advanced Clinical Experience (40 to 480 clock hours per term)
Advanced clinical experience in selected areas of professional dietetic practice.

Prerequisite: Completion of DTCS 473 or 479.

DTCS 499 Nutrition and Dietetics Independent Study (1-5)
Project or paper to be submitted on a topic of current interest in an area of nutrition and dietetics. Regular meetings to provide the student with guidance and evaluation. Elected on the basis of need or interest.

CONJOINT

See CONJOINT COURSES, section III, for course descriptions.

COGNATE

RELE 457 Christian Ethics and Health Care (2)
Ethical issues in modern medicine and related fields from the perspective of Christian thought and practice.

RELF 436 Adventist Heritage and Health (3)
Origin and development of Seventh-day Adventist interest in health, from the background of nineteenth-century medicine and health reform to the present.

Bertrum C. Connell, chair of the Department of Nutrition and Dietetics, oversees the creative endeavors of a student.

OCCUPATIONAL THERAPY

OCCUPATIONAL THERAPY ASSISTANT—Associate in Arts

OCCUPATIONAL THERAPY—Entry-Level Master of Occupational Therapy; Post-Professional Master of Occupational Therapy

LIANE H. HEWITT, Department Chair, Occupational Therapy; Program Director, Occupational Therapy Assistant

DONNA M. ANZAI, Program Director, Post-Professional Master of Occupational Therapy

RUTH JEFFRIES, Fieldwork Coordinator, Occupational Therapy Assistant

JUDITH A. PALLADINO, Fieldwork Coordinator, Occupational Therapy

TERESE R. PFEIFFER, Program Coordinator, Distance Learning, Fresno

FACULTY

Donna M. Anzai
Lynn M. Arrateig
Christy L. Billock
Noha S. Daher
Michael K. Davis
Diane S. Hardy
Liane H. Hewitt
Esther M. Huecker
Ruth Jeffries
Judith A. Palladino
Sharon Pavlovich
Karen M. Pendleton
Davena D. Peters
Terese R. Pfeiffer
Donna G. Thorpe
Marilyn Wright
Dorre Yamashiro-Zane

CLINICAL FACULTY

Christy Billock
Sheryl L. Clemons
Lori G. DeVoe
Jeanette S. Fischer
Luella M. Grangaard
Joyce Hoopai
Bonnie G. Johnson
John W. Kerr, Jr.
Tonia A. Kimber
Kathleen J. Marshall
Janette L. Morey
Christine O'Hagan
Theresa O. DeLao
Diana Su-Erickson
Tracy G. Uditsky
Christine M. Wietlisbach
Y. Lynn Yasuda

ADVISORY COMMITTEE

Mary Groves
Liane H. Hewitt
Joyce W. Hopp*
Esther Huecker
LeRoy Nattress
Lynn Nattress

*ex officio

The occupational therapist and occupational therapy assistant work with persons who find it difficult to cope with psychological or physiological dysfunction.

The primary concern of both therapist and assistant is to stimulate those changes in behavior patterns that will increase the patient's personal independence and ability to work within his/her cultural and personal milieu. To accomplish this goal, the occupational therapist evaluates the patient; sets up treatment goals; and works together with the occupational therapy assistant in selecting tasks from the gamut of normal daily selfcare activities, using them to assist the patient in gaining independent-living skills regardless of disability or handicap.

Essential to the role of occupational therapy is an interest in the behavioral sciences and a concern for the individual's need to find proper adjustments to life's circumstances. A desire to teach and a background or interest in medical science are beneficial. Those inclined to mechanical or scientific techniques are suited to helping patients develop their capacities for employment. Others find that they can use their interests in creative arts, crafts, music, and teaching to work with disabled homemakers, children, and retired persons.

OPPORTUNITIES

Occupational therapists and occupational therapy assistants practice in general hospitals, rehabilitation centers, pediatric or psychiatric clinics, schools, skilled-nursing facilities, home care, and outpatient community-centered programs (including hand-rehabilitation, work-evaluation, and adult day-care facilities). Occupational therapy professionals have a wide choice of positions (using varied therapeutic skills with individuals of varying age and disability) and opportunities for advancement.

ACCREDITATION

Both the Occupational Therapy and Occupational Therapy Assistant Programs are accredited by the Accreditation Council for Occupational Therapy Education (ACOTE), 4720 Montgomery Lane, P. O. Box 31220, Bethesda, MD 20824-1220, 301/652-AOTA. Graduates of the programs will be able to sit for the national certification examination for the occupational therapist and occupational therapy assistant, administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this examination, the individual will be an occupational therapist, registered (OTR) or certified occupational therapy assistant (COTA).

PROFESSIONAL REGISTRATION

Upon satisfactory completion of the occupational therapy A.A. or entry-level M.O.T. degree, including completion of Level II fieldwork within twenty-four months following completion of academic preparation, and on the recommendation of the faculty, the graduate is eligible to take the national certification examination administered by The National Board for Certification for Occupational Therapy (NBCOT). NBCOT limits the number of times an unsuccessful examinee may retake the certification examination to three consecutive administrations of the test. If a candidate does not pass the examination after three consecutive administrations, eligibility will be withdrawn. The candidate must apply to reinstate his/her eligibility by filing a remediation plan designed to prepare the candidate to take the examination. Upon approval, the candidate may take the next examination, scheduled at least one (1) year after the last examination for which the candidate was approved.

Graduates of U.S. schools will be required to apply for the examination immediately upon completion of all academic and fieldwork requirements. The three-consecutive-examination limitation will commence with the candidate's first available examination application deadline following completion of these requirements. One or more of the allowable test administrations will be forfeited if missed.

Many states require licensure in order to practice; however, state licenses are based on the results of the NBCOT certification examination. The American Occupational Therapy Association provides recognition essential to the practice of occupational therapy in the United States and most foreign countries. Information about qualifying examinations can be obtained at the office of the department chair.

When the graduate applies to write the certification examination with the NBCOT, s/he will be asked to answer questions related to the topic of felonies. For further information on these limitations, contact NBCOT at 800 South Frederick Avenue, Suite 200, Gaithersburg, MD 20877-4150; or telephone 301/990-7979.

PROFESSIONAL ASSOCIATIONS

Students are eligible for membership in The American Occupational Therapy Association and Occupational Therapy Association of California, two organizations that foster development and improvement of service and education. The student is encouraged to become a member, read the journal, and attend local professional meetings. The national office address is The American Occupational Therapy Association, 4720 Montgomery Lane, P. O. Box 31220, Bethesda, MD 20824-1220.

OCCUPATIONAL THERAPY ASSISTANT—Associate in Arts

THE PROGRAM

The second year of the occupational therapy assistant (OTA) program, leading to the Associate in Arts degree, is based on the completion of one year of prerequisite course work at any accredited college or university. The four quarters of course work at Loma Linda University begin with the Autumn Quarter of the sophomore year. For the two ten-week clinicals during the summer at the end of the program, the student is assigned for experience at approved hospitals and in community health care programs. Level II fieldwork must be completed within eighteen months following academic preparation.

DISTANCE EDUCATION

The OTA program is offered via distance education at Fresno City College, Fresno, California.

CPR CERTIFICATION

Students are required to have current cardiopulmonary resuscitation (CPR) certification for all scheduled clinical experience.

IMMUNIZATIONS

Students are required to have a current TB test, the complete hepatitis B series, and chicken pox immunizations for all scheduled clinical experience. Titers for MMR, Hepatitis B, and varicella must be completed before entering the program. These are essential for fieldwork placements.

TRANSPORTATION

Students are required to have their own transportation to and from clinical sites.

ADMISSION

To be eligible for admission, the applicant must have completed a minimum of 48 quarter units or 32 semester units at an accredited college or university.

PLEASE NOTE: GRADES OF C MINUS (C-) ARE NOT TRANSFERABLE FOR CREDIT.

Prerequisites for Occupational Therapy Assistant, A.A.

Religion required, 4 units per year of attendance if at a Seventh-day Adventist college

Fine arts **or** music appreciation

Human anatomy and physiology with laboratory, one quarter/semester

Introductory chemistry **or** introductory physics (one quarter/semester)

Two years high school mathematics with grades of C or better; **or** intermediate algebra in college

Sociology **or** anthropology

General pychology

English composition, complete sequence

Speech

Computers

Ceramics

Electives to meet minimum total requirement of 48 quarter units.

Work experience

A minimum of forty (40) hours of documented community service of the applicant's choice is required before applicant will be considered for admission.

THE PROGRAM OBJECTIVES

Upon completion of the program, the graduate should be qualified to:

1. Demonstrate a basic level of knowledge and skills for safe and effective delivery of occupational therapy services.
2. Exhibit Christian and ethical values in clinical practice.
3. Implement and reassess appropriate occupational therapy treatment plans that are focused on patient needs.
4. Function as an effective member of an interdisciplinary team.
5. Incorporate clinical reasoning and problem-solving skills into professional practice.
6. Commit to lifelong learning as it pertains to both professional and personal growth.
7. Commit to advancing the philosophy of the Seventh-day Adventist church to achieve its global mission.

PROGRAM OF INSTRUCTION
OCCUPATIONAL THERAPY ASSISTANT—Associate in Arts

The program of instruction outlined as follows is for full-time students enrolled during the 2000-2001 academic year.

AUTUMN QUARTER

OCTA	201	Introduction to Occupational Therapy	1
OCTA	214	Applied Anatomy	2
OCTA	224	Therapeutic Activities I	2
OCTA	228	Intervention Techniques	2
OCTA	233	Occupational Therapy Practice I	5
OCTA	241	Rehabilitation Principles I	2
OCTA	251	Human Pathology I	2

WINTER QUARTER

OCTA	215	Introduction to Functional Neuroanatomy	2
OCTA	217	Occupational Therapy Assistant Practicum I	1
OCTA	225	Therapeutic Activities II	2
OCTA	242	Occupational Therapy Practice II	5
OCTA	252	Human Pathology II	2
OCTA	271	Group Dynamics	2
RELE	416	God and Human Suffering	2

SPRING QUARTER

OCTA	218	Occupational Therapy Assistant Practicum II	1
OCTA	226	Occupational Therapy Assistant Seminar	2
OCTA	235	Occupational Therapy Practice III	5
OCTA	253	Human Pathology III	2
OCTA	256	Professional Self-Management	2
OCTA	261	Aging	2
AHCJ	305	HIV/AIDS and the Health Provider	1
RELE	457	Christian Ethics and Health Care	2

SUMMER QUARTER

OCTA	291	Occupational Therapy Assistant Affiliation I	3
OCTA	292	Occupational Therapy Assistant Affiliation II	3

A minimum grade of C (2.0) is required for all courses in the program.

Descending the walkway near the cottages located just outside Nichol Hall are OT's Madge Oh, Michelle Frasco, Liane Hewitt (department chair), Jeanne Stoddard, and Cerise Bender.

OCCUPATIONAL THERAPY—Entry-Level Master of Occupational Therapy

THE PROGRAM

The occupational therapy program begins with the Summer Quarter. Admission to the entry-level Master of Occupational Therapy program junior and senior years at this University is based on presentation of credit for two academic years of prerequisites earned at an accredited college or university, as listed under Admission—Entry-Level Master of Occupational Therapy.

Students who already have a baccalaureate degree may apply under Option 2 based on specific prerequisites as listed under Admission/Option 2.

The curriculum is built on three levels of learning: foundation, professional, and practice. These levels of learning represent curriculum content that supports the student's progressive growth and knowledge. Initially, the student focuses primarily on combining foundation-knowledge courses with prerequisite courses and experiences completed prior to admission into the program. Next, the curriculum emphasizes student learning of core occupational therapy professional courses. Subsequently, the curriculum provides opportunities for the student to learn in the practice environments. Classroom instruction is integrated with supervised clinical practice at Loma Linda University Medical Center and in approved community programs.

Clinical experience

For the two three-month fieldwork experiences (Winter and Spring Quarters of the second year), the student is assigned for experience at approved hospitals and in community health care programs. Assignments cannot always be arranged in the immediate community because of limited facilities. Students are responsible for their own transportation to those facilities not within walking distance from the University. Level II fieldwork must be completed within twenty-four months of the didactic course work.

CPR CERTIFICATION

Students are required to have current cardiopulmonary resuscitation (CPR) certification for all scheduled clinical experience.

IMMUNIZATIONS

Students are required to have a current TB test and titers for varicella, MMR, and hepatitis B series for all scheduled fieldwork experience.

THE PROGRAM OBJECTIVES

Upon completion of the program, the graduate should be qualified to:

1. Demonstrate a basic level of knowledge and skills for safe and effective delivery of occupational therapy services.
2. Exhibit Christian and ethical values in clinical practice.
3. Evaluate, formulate, and implement appropriate occupational therapy treatment plans that are focused on patient needs.
4. Function as an effective member of an interdisciplinary team.
5. Incorporate clinical reasoning and problem-solving skills into professional practice.
6. Commit to lifelong learning as it pertains to both professional and personal growth.
7. Commit to advancing the philosophy of the Seventh-day Adventist church to achieve its global mission.

ADMISSION—Option One: B.S. and M.O.T. (Bachelor of Science and Master of Occupational Therapy) track

This option is for individuals who do not have an earn bachelor's degree from an accredited college or university. Graduates will receive a Bachelor of Science degree in health science and a Master of Occupational Therapy degree.

To be eligible for admission, the applicant must have completed a minimum of 96 quarter units at an accredited college or university.

PLEASE NOTE: GRADES OF C- ARE NOT TRANSFERABLE FOR CREDIT.

Prerequisites for Entry-level Master of Occupational Therapy

20 units minimum in Humanities (choose minimum of two areas from: history, literature, philosophy, foreign language, art/music appreciation/history)

Religion required, 4 units per year of attendance, if at a Seventh-day Adventist college or university

*Human anatomy and physiology with laboratories, complete sequence

*Introductory chemistry with laboratory

*Introductory physics with laboratory

Two years high school mathematics with grades of C or better; **or** intermeidate algebra in college

Cultural anthropology

Sociology

General psychology

Human growth and development

Select one additional behavioral science

English composition, complete sequence

Speech

Computers

Personal health **or** nutrition

Two physical education courses

Introductory accounting (one quarter or semester)

Electives to meet a minimum total requirements of 96 quarter units

For students with a baccalaureate degree prior to enrolling in the Entry-Level Master of Occupa-tional Therapy Program, only the prerequisites denoted with * are required.

Work experience

A minimum of forty (40) hours of documented community service of the applicant's choice is required before application will be considered for admission.

ADMISSION—Option Two: M.O.T. (Master of Occupational Therapy) track

This option is for individuals who have earned a baccalaureate degree from an accredited college or university. Graduates will receive a Master of Occupational Therapy degree.

To be eligible for admission, the applicant must have earned a baccalaureate degree at an accredited college or university.

Subject requirements for 2000-2001

The applicant must complete the following subject requirements at an accredited college or university:

Human anatomy and physiology with laboratory, complete sequence.

Chemistry with laboratory.

Physics with laboratory.

(Complete sequence of chemistry or physics is also acceptable.)

Work experience

A minimum of forty (40) hours of documented community service of the applicant's choice is required before application will be considered for admission.

PROGRAM OF INSTRUCTION

OCCUPATIONAL THERAPY—Entry-Level Master of Occupational Therapy

The program of instruction outlined as follows is for full-time students enrolled during the 2000-2001 academic year.

YEAR ONE

OCTH	301	Introduction to Occupational Therapy	2
OCTH	306	Group Dynamics	2
OCTH	309	Human Occupation Across the Lifespan	5
OCTH	314	Task Analysis	2
OCTH	315	Therapeutic Media	2
OCTH	316	Design and Technology	2
OCTH	317, 318	Occupational Therapy Practicum I, II	1, 1
OCTH	321	Intervention Techniques	2
OCTH	331	Kinesiology	3
OCTH	341	Neuroanatomy	3
OCTH	344	Professional Self-Development	2
OCTH	451-453	Disorders of Human Performance I, II, III	5, 5, 4
AHCJ	305	HIV/AIDS and the Health Professional	1
AHCJ	311	Medical Terminology	1
AHCJ	312	Anatomy	9
AHCJ	351	Statistics for the Health Professions	3
AHCJ	402, 403	Pathology I, II	4, 3
AHCJ	404	Pharmacology	1
REL_	___	Religion	2, 2

YEAR TWO

OCTH	411	Intoduction to Occupational Therapy Research	2
OCTH	417	Occupational Therapy Practicum III	1
OCTH	431	Intervention Techniques II	3
OCTH	511-513	Case-Management Seminar I, II, III	2, 2, 3
OCTH	517	Occupational Therapy Practicum IV	1
OCTH	524	Intervention Techniques III	3
OCTH	525	Program Seminar	2
OCTH	526	Business Topics in Health Care	2
OCTH	531	Fieldwork Experience I	6
OCTH	532	Fieldwork Experience II	6
OCTH	541	Current Trends in Occupational Therapy Program	4
AHCJ	461	Research Methods	2
RELE	457	Christian Ethics and Health Care	2*
REL_	___	Religion	2

YEAR THREE

OCTH	542	Current Trends in Occupational Therapy Practice II	3
OCTH	544	Advanced Occupational Therapy History	3
OCTH	551-552	Theoretical Perspectives on Occupation I, II	3, 3
OCTH	561-562	Program Development/Design I, II	3, 3
OCTH	571-573	Research I, II, III	2, 2, 2
OCTH	599	Directed Study	2
AHCJ	509	Teaching and Learning Styles	3
AHCJ	601	Writing for Publication	3
REL_	___	Spirituality and occupation	2*

A minimum grade of C (2.0) is required for all courses in the program. The program of instruction is full time for each quarter. Academic credit of less than twelve units per quarter does not indicate less than full-time work.

*Religion courses required for M.O.T. Track students only.

OCCUPATIONAL THERAPY—Post-Professional Master of Occupational Therapy

THE PROGRAM

The post-professional master's degree program is designed for the occupational therapist with an entry-level baccalaureate degree in occupational therapy who wishes to pursue advanced studies in the profession.

ADMISSION

To be eligible for admission, the applicant must have earned a bachelor's degree or post-baccalaureate certificate in occupational therapy from an accredited program, with a minimum G.P.A. of 3.0. The applicant must also be certified by the National Board for Certification in Occupational Therapy (NBCOT). The applicant's recommendations, interview, essay, and work experience are also considered in the admissions screening process

Prerequisites for post-professional Master of Occupational Therapy

Baccalaureate degree in occupational therapy from an accredited institution.

PROGRAM OF INSTRUCTION

OCCUPATIONAL THERAPY—Post-Professional Master of Occupational Therapy

The program of instruction outlined as follows is for full-time students enrolled during the 2000-2001 academic year. The curriculum is four quarters in length for full-time students or eight quarters in length for part-time students.

OCTH	504	Foundations of Human Occupation	3
OCTH	505	Advanced Theories of Occupational Therapy Intervention	3
OCTH	526	Business Topics in Health Care	3
OCTH	594	Occupational Therapy Advanced Specialty Tracks	3
OCTH	598	Occupational Therapy Advanced Specialty Track	3
AHCJ	505	Educational Psychology for Health Professionals	3
AHCJ	509	Teaching and Learning Styles	3
AHCJ	525	Biostatistics	3
AHCJ	526	Introduction to Computer Application I	3
AHCJ	558	Stress and Health Behavior	3
AHCJ	591	Research I	3
AHCJ	592	Research II	3
AHCJ	____	elective/specialty	3
AHCJ	____	elective/specialty	3
AHCJ	____	elective/specialty	3
RELE	____	Religious studies	3

COURSES

For information about units of credit and course numbers, see the beginning of section III of this BULLETIN.

OCTA 201 Introduction to Occupational Therapy (1)
Growth of occupational therapy as a profession and its role in medical rehabilitative care. Human development from birth to death. Self-care, work, and play related to physical function and sociocultural adjustment. Per week: lecture 1 hour.

OCTA 214 Applied Anatomy (2)
Review of upper/lower extremities and trunk anatomy. Analysis-associated pathology as it applies to function. Per week: lecture 1 hour, laboratory 2 hours.

OCTA 215 Introduction to Functional Neuroanatomy (2)
Basic concepts of the anatomy of brain and spinal cord. Introduction to the neuron, synapse, nerve conduction, cell threshold, and feedback system. Per week: lecture 2 hours.

OCTA 217, 218 Occupational Therapy Assistant Practicum I, II (1, 1)
Observation and supervised experience in community programs. Per week: 8 hours.
Prerequisite: Must be completed in sequence.

OCTA 224, 225 Therapeutic Activities I, II (2, 2)
Basic activities used by the occupational therapy assistant in a clinic setting. Problem-solving approach to woodwork, metalwork, and the primitive crafts. Shop maintenance and safety emphasized. Per week: lecture 1 hour, laboratory 2 hours.

OCTA 226 Occupational Therapy Assistant Seminar (2)
Practical application of analyzing an activity for an individual or group of patients and demonstrating the ability to adapt those activities to each patient's needs. Per week: lecture 1 hour, laboratory 2 hours.

OCTA 228 Intervention Techniques (2)
Theory and application of basic skills in the management of disabled persons. Application of skills to body mechanics, self-care, and homemaking. Use of adaptive equipment in laboratory and clinic settings. Per week: lecture 1 hour, laboratory 2 hours.

OCTA 233 Occupational Therapy Practice I (5)
Normal and abnormal growth and development. Diagnosis and treatment of disabilities associated with development. Per week: lecture 4 hours.

OCTA 234 Occupational Therapy Practice II (5)
Intoduction to major categories of physical dysfuntion, with emphasis on intervention strategies and appropriate treatment protocols.
Prerequisite: OCTA 233

OCTA 235 Occupational Therapy Practice III (5)
Theoretical foundations based on mental-health practice. Development of therapeutic relationships, data gathering, treatment methods, and use of adaptive activities to fit the needs of individual patients or groups. Per week: lecture 4 hours, laboratory 2 hours.

OCTA 241 Rehabilitation Principles (2)
Introduction to general rehabilitation principles. Course work emphasis on treatment planning, documentation, and introduction to clinical reasoning. Per week: Lecture 1 hour.

OCTA 242 Occupational Therapy Practice II (5)
Introduction to major categories of physical dysfunction, with emphasis on intervention strategies and appropriate treatment protocols. Per week: lecture 4 hours, laboratory 2 hours.

OCTA 251, 252, 253 Human Pathology I, II, III (2, 2, 2)
Introduction to disorders and diseases. Includes organ-system diseases, central-nervous system dysfunction, orthopaedic problems, and mental illness. Medical- intervention strategies. Per week: lecture 2 hours.

OCTA 256 Professional Self-Management (2)
Social and ethical issues affecting health care and occupational therapy. Per week: seminar 2 hours.

OCTA 261 Aging (2)
Evaluation and treatment of acute and long-term dysfunction of older persons. Addresses age as a developmental stage of the normal life span. Treatment intervention in terms of the model of human occupation frame of reference. Per week: lecture 2 hours.

OCTA 271 Group Dynamics (2)
Theories of group interaction and communication. Laboratory emphasizes the influence and dynamics of social roles in the context of structured occupational therapy group exercise. Per week: lecture 1 hour, laboratory 2 hours.

OCTA 291 Occupational Therapy Assistant Affiliation I (3)
Supervised clinical experience in hospitals or community health care programs, with emphasis on treatment of patients with psychosocial dysfunction. Successful completion necessary before the student is eligible to take the certification examination. Summer, eight weeks (320 clock hours).

OCTA 292 Occupational Therapy Assistant Affiliation II (3)
Supervised clinical experience in hospitals, rehabilitation centers, or community health care programs, with emphasis on treatment of patients with neurophysiological and sensorimotor dysfunction. Successful completion necessary before the student is eligible to take the certification examination. Summer, eight weeks (320 clock hours).

OCTA 299 Directed Study (1-2)
Under the direction of a faculty adviser, student is assigned a special project or clinical assignment related to occupational therapy. Regular discussion with the faculty regarding progress and status of assignment.

OCTH 301 Introduction to Occupational Therapy (2)
Definition of occupational therapy from basic philosophical and historical perspectives. Describes the uniqueness of the profession and various practice areas of occupational therapy. Explores the roles of occupational therapists and describes the professional organizations of occupational therapy. Per week: 5 weeks, lecture 2 hours.

OCTH 306 Group Dynamics (2)
Historical and current knowledge of group dynamics as related to psychosocial aspects of occupational therapy. Principles of group dynamics, leadership skills, and basic treatment planning practiced in group exercises. Per week: 2 hours.

OCTH 309 Human Occupation Across the Lifespan (5)
Understanding of how occupation, embedded in a diverse social-cultural context, is shaped and changed through the human lifespan. Occupation, defined in occupational therapy and occupational science, and examined in historical relationship to human adaptation and health. Delineations among academic studies, theories, models, and frames of reference related to occupation introduced and explored as potential foundations influencing occupational therapy.

OCTH 314 Task Analysis (2)
Occupational performance approach to provide a theoretical framework for task analysis. Selected activities and case analysis across the lifespan provide opportunity to develop skills in inquiry, analysis, reasoning, and creativity. Per week: lecture 2 hours.

OCTH 315 Therapeutic Media (2)
Application of occupational therapy through purposeful activity. Analysis and application of crafts, hobbies, and recreation. Practice in development of resources, presentation skills, observation techniques, and therapeutic use of self. Per week: laboratory 4 hours.

Prerequisite: OCTH 314.

OCTH 316 Design and Technology (2)
Design, construction, and activity analysis of assistive or adaptive devices and equipment for the physically handicapped in the home or community. Per week: laboratory 2 hours.

OCTH 317, 318 Occupational Therapy Practicum I, II (1, 1)
Observation and supervised experience in clinical and/or community-based programs. Per quarter: 80 hours.

OCTH 321 Intervention Techniques I (2)
Introduction to the treatment of performance areas within the temporal and environmental contexts. Emphasis on safety issues and hands-on performance of techniques as they relate to solving problems for specific classifications of dysfunctions. Major topics include functional mobility and transfers, self-care skills, assistive technology, joint protection and energy conservation, body mechanics, universal precautions, home management, and leisure activities. Per week: lecture 1 hour, laboratory 2 hours.

OCTH 331 Kinesiology (3)
Anatomical and mechanical fundamentals of human motion. Application to the analysis of motor skills, including muscle testing and gonismetry. Emphasis on the upper extremities. Per week: lecture 2 hours, laboratory 2 hours.

Prerequisite: AHCJ 312.

OCTH 341 Neuroanatomy (3)
Basic anatomy and function of the central and peripheral nervous systems, common clinical manifestations of neurologic dysfunction, and occupational performance impact on the individual with neurological dysfunction. Per week: lecture 2 hours, laboratory 2 hours.

Prerequisite: AHCJ 312.

OCTH 344 Professional Self-Development (1)
Introductory first step in the student's exploration of his/her own uniqueness: personality, skills, experiences, values, beliefs, attitudes, and sociocultural factors; these components as the source of student's investigative analysis of his/her ability to be an objective practitioner. Students denote their enculturation and socialization into occupational therapy.

OCTH 411 Introduction to Occupational Therapy Research (2)
Application of the research process by systematically identifying and investigating a problem, issue, or question of relevance to occupational therapy practice. Per week: group projects 2 hours.

OCTH 417 Occupational Therapy Practicum III (1)
Observation and supervised experience in clinical and/or community-based programs. Per quarter: 80 hours.

Prerequisite: OCTH 317, 318.

OCTH 431 Intervention Techniques II (2)
Fundamentals of sensorimotor treatment using neurodevelopmental/physiological/muscular facilitation for age-appropriate treatment. Per week: lecture 1 hour, laboratory 3 hours.

OCTH 451 Disorders of Human Performance I (5)
Overview of the etiology, clinical course, evaluation, management, and prognosis of congenital, developmental, acute and chronic disease processes and of traumatic injuries. Includes problems associated with individuals and families having difficulty with social-cultural expectations; emphasis on effect of such conditions on human occupational performance across the lifespan.

Prerequisite: OCTH 309, 341.

OCTH 452 Disorders of Human Performance II (5)
Continuation of overview of etiology, clinical course, evaluatio, management, and prognosis of congenital, developmental, acute, chronic disease processes and of traumatic injuries. Includes problems associated with individuals and families having difficulty with social-cultural expectations; effect of such conditions on human occupational performance across the lifespan.

Prerequisite: OCTH 306, 331, 451.

OCTH 453 Disorders of Human Performance III (4)
Continuation of overview of etiology, clinical course, evaluation, management, and prognosis of congenital, developmental, acute, chronic disease processes and of traumatic injuries. Includes problems associated with individuals and families having difficulty with social-cultural expectations; effect of such conditions on human occupational performance across the lifespan.

Prerequisite: OCTH 452.

OCTH 496 Occupational Therapy Review (1-3)
Guided-study program for occupational therapists preparing for the certification examination. One-to-three quarter units of study may be arranged through the department chair. Use of library, programmed instruction, audiovisual media, and class attendance.

OCTH 497 Advanced Clinical Experience (40 to 480 clock hours per term)
Advanced clinical experience in selected areas of professional practice.

OCTH 499 Occupational Therapy Independent Study (1-2)
Project or paper to be submitted on a topic of current interest in an area related to occupational therapy. Regular meetings to provide the student with guidance and evaluation. Elected on the basis of need or interest.

OCTH 504 Foundations of Human Occupation (3)
Philosophical and historical foundations for linking theories to practice in occupational therapy.

OCTH 505 Advanced Theories of Occupational Therapy Intervention (3)
Systematic review and validation of occupational therapy models and theories. Critical analysis of the student's practice for evidence of theory-based application. Synthesis through proposing feasible approaches for validation of intervention programs.

OCTH 511 Case-Management Seminar I (2)
Introduction to application of clinical reasoning process; effective communication skills with clients/patients, families, and team members. Documentation and overall professional skill-building.

Prerequisite: OCTH 451.

OCTH 512 Case-Management Seminar II (2)
Continuation of case-management process as a means of addressing questions of importance to occupational therapy practice through theoretical perspectives. Application of case-management skills, assessment, intervention planning, implementation, reassessment, and termination when appropriate. Emphasis on clinical reasoning in contemporary models of practice using collaborative service-delivery systems and community resources.

Prerequisite: OCTH 451, 452, 511.

OCTH 513 Case-Management Seminar III (3)
Continuation of case-management process as a means of addressing questions of importance to occupational therapy practice through theoretical perspectives. Application of case-management skills, assessment, intervention planning, implementation, reassessment, and termination when appropriate. Emphasis on clinical reasoning in contemporary models of practice using collaborative service delivery systems and community resources.

Prerequisite: OCTH 451, 452, 511, 512

OCTH 517 Occupational Therapy Practicum IV (1)
Observation and supervised experience in clinical and /or community-based programs. Per quarter: 80 hours.

Prerequisite: OCTH 317, 318, 417.

OCTH 524 Intervention Techniques III (3)
Hand and upper-extremity rehabilitation, evaluation procedures, and treatment protocol for diseases and trauma. Current concepts in design and fabrication of hand splints.

Prerequisite: OCTH 451.

OCTH 525 Program Seminar (2)
Development of clinical reasoning skills. Evaluation of program effectiveness in providing tools to assess, plan, and implement treatment, make referrals, and discontinue occupational therapy services. Emphasis on professional portfolio and transition to entry-level occupational therapy practitioner.

Prerequisite: Senior standing.

OCTH 526 Business Topics in Health Care (2-3)
Introduction to business for occupational therapy practitioners, including financial statements and budgetary processess, marketing, management, and consultation. Emphasis on use of strategic planning for decision-making processes of program development, productivity, and accountability. Major paper and presentation required for the additional unit.

OCTH 531, 532 Fieldwork Experience I, II (6, 6)
Supervised fieldwork experience in clinical and/or community-based programs. Emphasis on assessment, planning, treatment, problem solving, administration, and professionalism. Successful completion necessary before the student is eligible to take the certification examination (480 clock hours each).

OCTH 541 Current Trends in Occupational Therapy Practice (3)
Analysis of current trends in the field of occupational therapy. Preparation for entry into the profession; includes program planning and development, health care economics, health care administration, legal and regulatory issues, employment strategies, professional responsibilities, political and professional trends, advocacy, and community service.

Prerequisite: Senior standing.

OCTH 542 Current Trends in Occupational Therapy Practice II (3)
Explores new and future developments in occupational therapy and health care. Addressses issues of social-political involvement, advocacy, alternate employment possibilities, and management; health care systems, including international occupational therapy perspectives.

OCTH 551 Theoretical Perspectives on Occupation I (3)
Provides the student with an expansive view of diverse influences on occupation and occupational therapy practice by critically investigating occupational theories and academic disciplines; such as anthropology, sociology, psychology, and philosophy.

OCTH 552 Theoretical Perspectives on Occupation II (3)
Provides the student with an expansive view of diverse influences on occupation and occupational therapy practice by critically investigating occupational theories and academic disciplines, such as anthropology, sociology, psychology, and philosophy.

Prerequisite: OCTH 551.

OCTH 561 Program Development/Design I (3)
Focus on selection, research, and design of programs pertinent to occupational therapy practice. Implementation of program planning and evaluation related to health behavior theory and marketing.

OCTH 562 Program Development/Design II (3)
Focus on selection, research, and design of programs pertinent to occupational therapy practice. Implementation of program planning and evaluation related to health behavior theory and marketing.
Prerequisite: OCTH 561.

OCTH 571-573 Research I, II, III (2, 2, 2)
Student develops and implements a scholarly research proposal by systematically identi-fying and investigating a problem, issue, or question of relevance to occupational therapy practice.
Prerequisite: OCTH 411; AHCJ 351, 461.

OCTH 598 Occupational Therapy Advanced Specialty Track (3)
Presentation of in-depth practice application in an area of occupational therapy. Opportunity to pursue various topics related to current trends. Development of advanced clinical skills, where appropriate.

OCTH 699 Directed Study (3)
Student pursues an area of special interest under the direction of the faculty adviser. Topic must be approved by the OT department.

CONJOINT

See CONJOINT COURSES, section III, for course descriptions.

COGNATE

RELE 457 Christian Ethics and Health Care (2)
Ethical issues in modern medicine and related fields from the perspective of Christian thought and practice.

RELF 416 God and Human Suffering (2)
Suffering and evil in relation to the creative and redemptive purposes of God for this world.

PHYSICAL THERAPY

PHYSICAL THERAPIST ASSISTANT—Associate in Science

PHYSICAL THERAPY—Entry-Level Master of Physical Therapy; Progression Master of Physical Therapy; Post-Professional Master of Physical Therapy

PHYSICAL THERAPY—Entry-Level Doctor of Physical Therapy; Post-Professional Doctor of Physical Therapy; Post-Professional Doctor of Physical Therapy Science

EDD J. ASHLEY, Department Chair, Physical Therapy; Program Director, Post-Professional Doctor of Physical Therapy Science

HOWARD W. SULZLE, Associate Department Chair

LAWRENCE E. CHINNOCK, Program Director, Progression Master of Physical Therapy, Entry-Level Master of Physical Therapy, and Entry-Level Doctor of Physical Therapy

EVERETT B. LOHMAN III, Program Director, Post-Professional Master of Physical Therapy

JEANNINE STUART-MENDES, Academic Coordinator of Clinical Education, Entry-Level Master of Physical Therapy and Entry-Level Doctor of Physical Therapy Programs

ANTONIO VALENZUELA, Academic Coordinator of Clinical Education, Progression Master of Physical Therapy Program

DESMYRNA R.. TAYLOR, Program Director, Physical Therapist Assistant

CAROL J. APPLETON, Academic Coordinator of Clinical Education and Assistant Program Director, Physical Therapist Assistant

SUSAN BAKER, Program Coordinator, Oakwood College Physical Therapist Assistant Program

FACULTY

Sharon P. Anderson
Carol J. Appleton
Edd J. Ashley
Susan Baker
Gail A. Brennan-Polvoorde
Lawrence E. Chinnock
Gary A. Coleman
Nicceta Davis
Intithar S. Elias
Bonnie J. Forrester
Delia P. Gutierrez
Joseph Godges
Brian L Haddock
Joyce W. Hopp
Susan M.Huffaker
W. William Hughes
Eric Glenn Johnson
Afsaneh Kazemi
Everett B. Lohman III
Helen H. Marshak
Jerrold S. Petrofsky
Ronald M. Rea
Gail T. Rice
Ernest R. Schwab
Jeannine Stuart-Mendes
Howard W. Sulzle
James M. Syms
Desmyrna R. Taylor
Donna G. Thorpe
Antonio Valenzuela
William E. Walthall
Melanie A. Westberg
Stephen W. Zecher
Grenith J. Zimmerman

CLINICAL FACULTY

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Mei Lee Chiu
Henry Garcia
Ronald A. Hershey
Patricia A. Hokama
Norma Huckaby
Leota Janzen
Christine Jaynes
Kevin D. Larson
Steven D. Newton
Melvin A. Orser
Ralph W. Perrin
Lily L. Young

ADVISORY COMMITTEE

Edd J. Ashley
Dennis Canig
Lawrence E. Chinnock
Liane H. Hewitt
Joyce W. Hopp*
Wendy Lantz
Lee Nattress
Lyn Nattress
Theresa O. DeLao

*ex officio

PHYSICAL THERAPIST ASSISTANT—Associate in Science

The physical therapist assistant is a skilled paraprofessional health worker who, under the supervision of a physical therapist, carries out the patient's treatment program. The extent to which the physical therapist assistant is involved in treatment depends upon the supervising therapist.

A planned patient-care program is carried out by the assistant, following established procedures. Duties of the physical therapist assistant include: training patients in exercises and activities of normal daily living; conducting treatments; utilizing special equipment; assisting in performing tests, evaluations, and complex treatment procedures; and observing and reporting the patient's responses.

The other members of the rehabilitation team include the occupational therapist, nurse, speech and hearing therapist, respiratory therapist, recreational therapist, physician, social worker, chaplain, vocational counselor, dietitian, and psychologist. This team has as its objective the optimum functional restoration and rehabilitation of patients disabled by illness or injury.

OPPORTUNITIES

Physical therapy offers a career for men and women who are interested in medical science and who enjoy working with people. Physical therapist assistants are in demand. Graduates have a wide choice of opportunities with medical groups, hospitals, rehabilitation centers, out-patient clinics, national and state agencies, and schools of physical therapy.

Some of the faculty and staff from the physical therapy programs: (standing, left to right) James Syms, Sue Huffaker, Ernie Schwab, Edd Ashley (department chair), Everett Lohman, Barbara Cassimy, Jerrold Petrofsky, Allie Kazemi, Gail Brennan-Polvoorde; (seated, left to right) Jeannine Stuart-Mendes, Howard Sulzle, Larry Chinnock, Jan Fisher, Carol Appleton.

THE PROGRAM

The physical therapist assistant program leads to the Associate in Science degree and professional certification. The program begins with the sophomore year. Instruction begins in June; graduation is the following June. Official program completion, however, is when clinical affiliations are completed, usually by the end of September.

Clinical experience

Supervised clinical experience is obtained in a variety of settings during the program. Students complete a two-week practicum and three major clinical assignments, each six weeks in length.

All clinical assignments will be made by the coordinator of clinical education or a designate (or program director). Because of the limited number of local facilities available, assignments cannot be made on the basis of the student's family/marital status or personal preference. Although the department makes an effort to accommodate the student's preference, the student agrees to accept the clinical assignment made by the department at any of the affiliated facilities, whether local or out of state.

Accreditation

The program is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association, 1111 North Fairfax Street, Alexandria, VA 22314; 703/706-3245.

DISTANCE EDUCATION

The Physical Therapist Assistant Program is offered via distance education at Oakwood College in Hunstville, Alabama.

CPR CERTIFICATION

Students are required to have current cardiopulmonary resuscitation (CPR) certification for all scheduled clinical experiences.

TRANSPORTATION

Students are required to have their own transportation to and from clinical sites.

IMMUNIZATIONS

Students are required to have a current TB test, the complete hepatitis B series, and chicken pox immunization for all scheduled clinical experiences.

PROFESSIONAL REGISTRATION

Satisfactory completion of the degree requirements and clinical affiliation qualifies the student to sit for the National Physical Therapy Assistant Licensing Examination. Licensure or registration is not required in all states for the physical therapist assistant to practice. Information about licensure or registration in the state in which one wishes to practice can be obtained on the web: www.fsbpt.org/directory.cfm.

PROFESSIONAL ASSOCIATION

Students and graduates are eligible for membership in the American Physical Therapy Association. The objective of the association is to foster development and improvement of service and education. This organization grants student membership at a nominal cost to undergraduates of approved schools. The student is required to become a member of this association while in the program. The national office of the American Physical Therapy Association is at 1111 North Fairfax Street, Alexandria, VA 22314.

THE PROGRAM OBJECTIVES

Upon completion of the program, graduates should be qualified to:

1. Demonstrate a basic level of knowledge and skills appropriate for the safe and effective practice of physical therapy.
2. Demonstrate Christian values, attitudes, and behaviors to themselves, to others, and to their profession.
3. Demonstrate ethical and legal accountability to themselves and their patients.
4. Commit to proactive, long-term involvement in professional and personal growth.
5. Participate as part of the resource personnel assisting the Seventh-day Adventist church to achieve its global mission.

In addition, the Physical Therapist Assistant faculty and staff have identified four "core objectives" that are being addressed in each class of each quarter. The student will:

1. Demonstrate effective written, verbal, and nonverbal communication with instructors, classmates, and clinical personnel.
2. Demonstrate effective problem-solving skills.
3. Exhibit professionalism to instructors, classmates, and clinical personnel.
4. Demonstrate ability to work effectively in a team setting.

ADMISSION

PLEASE NOTE: GRADES OF C MINUS (C-) ARE NOT TRANSFERABLE FOR CREDIT.

Prerequisites for Physical Therapist Assistant, A.S.

Religion required, 4 units per year of attendance, if at a Seventh-day Adventist college

Select 4 units from one area: history, literature, philosophy, foreign language, art/music appreciation/ history)

Human anatomy and physiology with laboratory, complete sequence

Introductory physics with laboratory, one quarter/semester

Two years high school mathematics with grades of C or above, **or** intermediate algebra in college

General psychology

Human growth and development **or** developmental psychology or abnormal psychology

English composition, complete sequence

Speech

Personal health; **or** nutrition**; or** two physical education courses

Electives to meet the minimum total requirements of 48 quarter units

PTA faculty and staff with distance learning equipment. (Left to right) PT's Larry Chinnock; PTA's Carol Appleton, Ron Rea, Susan Huffaker; Susan Baker (on screen), Jodee Shaw, and program director Desmyrna Taylor.

PROGRAM OF INSTRUCTION
PHYSICAL THERAPIST ASSISTANT—Associate in Science

The program of instruction outlined as follows is for students enrolled during the 2000-2001 academic year.

SOPHOMORE YEAR

PTAS	201	Applied Anatomy and Physiology	4
PTAS	203	Applied Kinesiology	4
PTAS	205	Introduction to Physical Therapy	1
PTAS	206	Documentation Skills	1
PTAS	212	Physical Therapy Procedures	3
PTAS	224	General Medicine	3
PTAS	225	Neurology	3
PTAS	226	Orthopaedics I	3
PTAS	227	Therapeutic Exercises	2
PTAS	231	Physical Therapy Modalities	3
PTAS	234	Wound Care	1
PTAS	236	Applied Electrotherapy	3
PTAS	241	Applied Pediatrics	2
PTAS	243	Applied Geriatrics	3
PTAS	251	Orthopaedics II	3
PTAS	252	Applied Neurology	3
PTAS	261	Physical Therapy Practice	1
PTAS	264	Applied Prosthetics and Orthotics	2
PTAS	265	Professional Seminar	1
PTAS	275	Psychosocial Aspects of Health	2
PTAS	291	Physical Therapist Assistant Practicum	1
PTAS	293	Physical Therapist Assistant Affiliation I	3
PTAS	294	Physical Therapist Assistant Affiliation II	3
PTAS	295	Physical Therapist Assistant Affiliation III	3
AHCJ	305	HIV/AIDS and the Health Provider	1
RELR	475	The Art of Integrative Care	2
RELE	456	Personal and Professional Ethics	2

A minimum grade of C (2.0) is required for all courses in the program.

PHYSICAL THERAPY—
Entry-Level Master of Physical Therapy
Progression Master of Physical Therapy
Post-Professional Master of Physical Therapy
Entry-Level Doctor of Physical Therapy
Post-Professional Doctor of Physical Therapy
Post-Professional Doctor of Physical Therapy Science

Physical therapists evaluate and treat patients with disease, injury, or disabilities. In many states, registered physical therapists work as independent practitioners. The physical therapy techniques are applied to restore strength, flexibility, and coordination; to reduce pain; and generally to prepare the patient to function more effectively at work and in activities of daily living. Agents such as heat, light, electricity, water exercise, and massage are used. While working with patients, psychological and sociological principles are used to motivate and instruct.

Within the profession there are many specialties, including orthopaedics, neurology, pediatrics, geriatrics, cardiopulmonary, hand rehabilitation, and sports physical therapy. Physical

therapists work in acute-care and convalescent hospitals, rehabilitation centers, children's centers, private practice, athletic training and sports-medicine programs, research institutions, school systems, and home-care agencies.

CPR CERTIFICATION

Students are required to have current cardiopulmonary resuscitation (CPR) certification for all scheduled clinical experiences.

PROFESSIONAL ASSOCIATION

Students and graduates are eligible for membership in the American Physical Therapy Association (APTA). The objective of the association is to foster development and improvement of service and education. This organization grants student membership at a nominal cost to undergraduates of approved schools. The student is required to become a member of this association while in the program and is encouraged to read the journal and attend the APTA-sponsored meetings.

PROFESSIONAL REGISTRATION

Satisfactory completion of the degree requirements and clinical affiliation qualifies the student to sit for all state registration examinations.

Information about the state registries of physical therapists can be obtained at the office of the department chair. All states require that a physical therapist pass the national qualifying examination for registration to practice. California application form and fee are submitted to the Physical Therapy Board of California, 1434 Howe Avenue, Suite 92, Sacramento, CA 95852.

The Life-Support Education Program team—Ruel Alipoon-(program director), Janine Hernandez, and Monica Noutfia —are kept busy by students as well as personnel from various medical fields throughout the Southland.

PHYSICAL THERAPY—Entry-Level Master of Physical Therapy

THE PROGRAM

The Entry-Level Master of Physical Therapy Program is designed for individuals who have no previous degree in physical therapy and wish to pursue a Master of Physical Therapy degree and professional certification. Admission to the University follows presentation of two academic years of prerequisites earned at an accredited college or university. Graduation is in the Spring Quarter following completion of the clinical affiliations. The emphasis in the program is on professional courses, ethics, and practical experience at Loma Linda University Medical Center and affiliated hospitals and clinics.

Accreditation

The program is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association, 1111 North Fairfax Street, Alexandria, VA 22314; 703/684-2782.

Clinical experience

Supervised experience is obtained in a variety of settings and at different times during the program. First-year students complete one two-week practicum assignment during the Spring Quarter. Second-year students complete two three-week assignments during the Autumn and Spring Quarters. The major clinical assignments, (thirty-three weeks), are during the third year.

All clinical assignments will be made by the academic coordinator of clinical education or a designate. Because of the limited number of local facilities available, assignments cannot be made on the basis of the student's family/marital status or personal preference. Although the department makes an effort to accommodate the student's preference, the student agrees to accept the clinical assignments made by the department at any of the affiliated facilities, whether local or out of state.

THE PROGRAM OBJECTIVES

Upon completion of the program, the graduate should be qualified to:

1. Demonstrate a basic level of knowledge, skills, and behaviors appropriate for the safe and effective practice of physical therapy. This will be evidenced by the graduate's ability to—
   a) evaluate a patient and identify problems amenable to physical therapy;
   b) formulate and carry out a therapeutic treatment plan focused on solving the identified problems;
   c) develop discharge plans that include education of patients in a home-care program and preventive lifestyle;
   d) function as a viable member of an interdisciplinary health care team.
2. Conduct clinically relevant research activities and critically review and interpret professionally published research material.
3. Demonstrate ethical and legal accountability to themselves, their patients, and their profession.
4. Commit to proactive, long-term involvement in professional and personal growth.
5. Actively contribute as an alumnus of Loma Linda University through involvement in clinical education and support of student endowment funds.
6. Address the spiritual and emotional needs of patients—exhibiting compassion and empathy to all people, as embodied in the biblical teaching of Jesus Christ.
7. Participate as part of the resource personnel assisting the Seventh-day Adventist church in achieving its global mission, through its church ministries, educational programs, and health care systems.

ADMISSION

Subject requirements for 2000-2001

To be eligible for admission, the applicant must have a minimum G.P.A. of 3.3 and have completed a minimum of 98 quarter units at an accredited college or university. Admission is a selective process. Criteria used include: G.P.A., completion of subject requirements, interview, essay, recommendations, and work experience. The minimum subject admission requirements in quarter units are listed under the two options that follow. Grades of C minus (C-) and below are not transferrable for credit.

OPTION ONE—B.S./M.P.T. track

This option is for individuals who DO NOT have an earned bachelor's degree from an accredited college or university. Graduates will receive a Bachelor of Science degree in health science and a Master of Physical Therapy degree.

For students with a baccalaureate degree prior to enrolling in the Entry-Level M.P.T. degree program, only the prequisites denoted with an asterisk (*) are required.

Prerequisites for Entry-Level Master of Physical Therapy

20 units minimum in humanities (choose a minimum of two areas from: history, literature, philosophy, foreign language, art/music appreciation/history)

Religion required, 4 units per year of attendance, if at a Seventh-day Adventist college

*Human anatomy and physiology with laboratories, complete sequence; **or** general biology with laboratories, complete sequence

*Microbiology with laboratory

*Statistics

*Select one of the following two:

1: General chemistry with laboratories, complete sequence AND a minimum of 6 quarter units of any physics with laboratory

2: General physics with laboratory, complete sequence AND a minimum of two academic terms of any sequenced chemistry with laboratories

Cultural anthropology **or** an approved course dealing with cultural diversity

*General psychology (alternate course with approval for D.P.T. degree)

*Human growth and development

English composition, complete sequence

*Speech

*Computers

Personal health **or** nutrition

Two physical education courses

Electives to meet minimum total requirements of 98 quarter units

Work experience

A minimum of eighty hours of work/observation experience (volunteer/employee) in a physical therapy department, twenty hours of which are expected to be in an inpatient setting.

Test requirement

No test is required.

OPTION TWO—M.P.T.-only track

This option is for individuals who have an earned baccalaureate degree from an accredited college or university. Graduates will receive a Master of Physical Therapy degree.

For students with a baccalaureate degree prior to enrolling in the Entry-Level M.P.T. degree program, only the prequisites denoted with an asterisk (*) are required.

Prerequisites for Entry-Level Master of Physical Therapy

20 units minimum in humanities (choose a minimum of two areas from: history, literature, philosophy, foreign language, art/music appreciation/history)

Religion required, 4 units per year of attendance, if at a Seventh-day Adventist college

*Human anatomy and physiology with laboratories, complete sequence; **or** general biology with laboratories, complete sequence

*Microbiology with laboratory

*Statistics

*Select one of the following two:

1: General chemistry with laboratories, complete sequence AND a minimum of 6 quarter units of any physics with laboratory

2: General physics with laboratory, complete sequence AND a minimum of two academic terms of any sequenced chemistry with laboratories

Cultural anthropology **or** an approved course dealing with cultural diversity

*General psychology (alternate course with approval for D.P.T. degree)

*Human growth and development

English composition, complete sequence

*Speech

*Computers

Personal health **or** nutrition

Two physical education courses

Electives to meet minimum total requirements of 98 quarter units

Work experience

A minimum of eighty hours of work/observation experience (volunteer/employee) in a physical therapy department, twenty hours of which must be in an inpatient setting, are required.

Test requirement

No test is required.

PROGRAM OF INSTRUCTION

PHYSICAL THERAPY—Entry-Level Master of Physical Therapy

The program of instruction outlined as follows is for students enrolled during the 2000-2001 academic year.

YEAR ONE

PHTH	321	Kinesiology	3
PHTH	327	Human Life Sequences	3
PHTH	328	Manual Muscle Testing	3
PHTH	343	Neuroanatomy	4
PHTH	371	Therapeutic Exercise	4
PHTH	373	Therapeutic Procedures	3
PHTH	413	Clinical Neurology	2
PHTH	434	PT Communication and Documentation	2
PHTH	435	Hydrotherapy and Massage	3
PHTH	465	Exercise Physiology	3
PHTH	471	Physical Therapy Practicum I	1
PHTH	477	Locomotion Studies	3
AHCJ	305	HIV/AIDS and the Health Provider	1
AHCJ	311	Medical Terminology	2
AHCJ	312	Anatomy	9
AHCJ	318, 419	Physiology I, II	4, 3
AHCJ	328	Portfolio Practicum I	1
AHCJ	402, 403	Pathology I, II	4, 3
AHCJ	426	Introduction to Computer Applications I	2
AHCJ	444	Functional Neuroanatomy	2
AHCJ	538	Histology	2-3
RELF	4___	Adventist selective	2
RELR	4___	Religion selective	3

YEAR TWO

PHTH	411	Clinical Orthopaedics	2
PHTH	412	Clinical Psychiatry	2
PHTH	424	Electrotherapy	3
PHTH	495, 496	Research I, II	3, 2
PHTH	501-503	Neurorehabilitation I, II, III	3, 2, 3
PHTH	504, 505	Pediatric Care I, II	3, 2
PHTH	521-523	Orthopaedics I, II, III	3, 3, 3
PHTH	525, 526	General Medicine I, II	3, 3
PHTH	531	Soft-Tissue Techniques	2
PHTH	561	Physical Therapy Administration	4
PHTH	572, 573	Physical Therapy Practicum II, III	1.5, 1.5
PHTH	595	Applied Research I	1
AHCJ	404	Pharmacology	1
AHCJ	405	Dynamics of Learning and Teaching	1
AHCJ	421	Psychology of Physical Disability	2
AHCJ	498	Portfolio Practicum II	1
HPRO	508	Aspects of Health Promotion	2
RELE	457	Christian Ethics and Health Care	2
RELE	4__	Religion selective	2

YEAR THREE

PHTH	583-585	Physical Therapy Affiliation I, II, III	5.5, 5.5, 5
PHTH	591	Advanced Orthopaedic Studies	6
PHTH	592	Advanced Neurologic Studies	6
PHTH	594	Advanced General Medicine Studies	6
PHTH	596, 597	Applied Research II, III	2, 1

A minimum grade of C (2.0) is required for all courses in the program.

PHYSICAL THERAPY—Progression Master of Physical Therapy

THE PROGRAM

The Progression Master of Physical Therapy Program is specifically for men and women who have graduated from an accredited physical therapist assistant program and wish to pursue a Master of Physical Therapy degree and professional certification. Admission to the University follows completion of an associate degree in physical therapy, the same prerequisites as for the Entry-Level Master of Physical Therapy Program, and a minimum of 2500 hours as a physical therapist assistant earned in no less than 16 months following graduation as a physical therapist assistant but within the past five (5) years of graduation prior to application. The emphasis throughout the program is on professional courses, ethics, and practical experience at Loma Linda University Medical Center and affiliated hospitals and clinics.

*The program is two and one-quarter years in length.

Classes begin in June. Graduation is in the Spring Quarter followed by one quarter of didactic and one quarter of clinical affiliation.

Accreditation

The program is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association, 1111 North Fairfax Street, Alexandria, VA 22314; 703/684-2782.

Clinical experience

Supervised experience is obtained in a variety of settings and at four different times during the program. In the Spring Quarter of the first year, students complete one three-week practicum. In the Winter Quarter of the second year, students complete one eight-week affiliation. In the final quarter of the program, students complete two eight-week affiliations. All clinical assignments will be made by the academic coordinator of clinical education or a designate. Because of the limited number of local facilities available, assignments cannot be made on the basis of the student's family/marital status, or personal preference. Although the department makes an effort to accommodate the student's preference, the student agrees to accept the clinical assignments made by the department at any of the affiliated facilities whether local or out of state.

ADMISSION

Subject requirements for 2000-2001.

To be eligible for admission, the applicant must have a minimum G.P.A. of 3.0, 2500 hours of work experience as a physical therapist assistant, and a minimum of 98 quarter units at an accredited college or university. Admission is a selective process. Criteria used include: G.P.A., completion of subject requirements, interview, essay, recommendations, and work experience. The minimum subject admission requirement in quarter units are the same as for the Entry-Level Master of Physical Therapy Program. Grades of C- and below are not transferable for credit.

For students with a baccalaureate degree prior to enrolling in the Progression M.P.T. degree program, only the prequisites denoted with an asterisk (*) are required.

Prerequisites for Progression Master of Physical Therapy

20 units minimum in humanities (choose a minimum of two areas from: history, literature, philosophy, foreign language, art/music appreciation/history)

Religion required, 4 units per year of attendance, if at a Seventh-day Adventist college

*Human anatomy and physiology with laboratories, complete sequence; **or** general biology with laboratories, complete sequence

*Microbiology with laboratory

*Statistics

*Select one of the following two:

1: General chemistry with laboratories, complete sequence AND a minimum of 6 quarter units of any physics with laboratory

2: General physics with laboratory, complete sequence AND a minimum of two academic terms of any sequenced chemistry with laboratories

Cultural anthropology **or** an approved course dealing with cultural diversity

*General psychology (alternate course with approval for D.P.T. degree)

*Human growth and development

English composition, complete sequence

*Speech

*Computers

Personal health **or** nutrition

Two physical education courses

Electives to meet minimum total requirements of 98 quarter units

Progression M.P.T. degree students must have graduated from an accredited physical therapist assistant program and have a minimum of 3200 hours of work experience as a PTA. A minimum G.P.A. of 3.0 is required for prerequisites and PTA studies.

PROGRAM OF INSTRUCTION

PHYSICAL THERAPY—Progression Master of Physical Therapy

The program of instruction outlined as follows is for students enrolled during the 2000-2001 academic year.

YEAR ONE

PHTH	343	Neuroanatomy	4
PHTH	413	Clinical Neurology	2
PHTH	465	Exercise Physiology	3
PHTH	477	Locomotion Studies	3
PHTH	501, 503	Neurorehabilitation I, III	3, 3
PHTH	504, 505	Pediatric Care I, II	3, 2
PHTH	521-523	Orthopaedics I, II, III	3, 3, 3
PMPT	321	Kinesiology	2
PMPT	328	Manual Muscle Testing	2
PMPT	371	Therapeutic Exercise	3
PMPT	427	Human Life Sequence	2
PMPT	5___	Physical therapy practicum	1.5
AHCJ	311	Medical Terminology	2
AHCJ	312	Anatomy	9
AHCJ	318	Physiology I	4
AHCJ	328	Portfolio Practicum I	1
AHCJ	402, 403	Pathology I, II	4, 3
AHCJ	419	Physiology II	3
AHCJ	426	Computer Applications I	2
AHCJ	444	Functional Neuroanatomy	2
AHCJ	538	Histology	2-3
RELF	4___	Adventist selective	2

YEAR TWO

PHTH	411	Clinical Orthopaedics	2
PHTH	412	Clinical Psychiatry	2
PHTH	495, 496	Research I, II	3, 2
PHTH	502	Neurorehabilitation II	2
PHTH	531	Soft-Tissue Techniques	2
PHTH	561	Physical Therapy Administration	4
PHTH	595-597	Applied Research I, II	1, 2
PMPT	4___	Therapeutic Modalities	3
PMPT	434	Physical Therapy Communication and Documentation	2
PMPT	525, 526	General Medicine I, II	3, 3
PMPT	583	Physical Therapy Affiliation I	3
PMPT	591	Advanced Ortho Studies	5
PMPT	592	Advanced Neuro Studies	5
PMPT	594	Advanced GM Studies	3
AHCJ	305	HIV/AIDS and the Health Provider	1
AHCJ	404	Pharmacology	1
AHCJ	405	Dynamics of Learning	1
AHCJ	421	Psychology of Physical Disability	2
AHCJ	498	Portfolio Practicum II	1
HPRO	508	Aspects of Health Promotion	2
RELE	457	Christian Ethics	3
RELE	4___	Religion selective	2

YEAR THREE

PHTH	597	Applied Research III	1
PMPT	584, 585	Physical Therapy Affiliation II, III	4, 4

PHYSICAL THERAPY—Post-Professional Master of Physical Therapy

ADMISSION

To be eligible for admission, the applicant must have earned a bachelor's degree in physical therapy from an accredited program.

TOEFL SCORE

A TOEFL score of 550 is required for foreign students. All foreign transcripts, including high school, must be submitted to an approved evaluation service. The list of the four approved services can be obtained from the School of Allied Health Professions admissions office. Results of the evaluation are to be sent to this University directly from the evaluation center. Official foreign transcripts must be sent to the School of Allied Health Professions, directly from school to school, at the time of application.

THE PROGRAM

The Post-Professional Master of Physical Therapy Program is designed for individuals with a degree in physical therapy who wish to pursue advanced studies in their profession.

To practice physical therapy in the United States one must meet the criteria of the state in which s/he wises to practice. Credentials are evaluated based on the applicant's entry-level education. Post-professional education cannot be used for this purpose.

PROGRAM OF INSTRUCTION

PHYSICAL THERAPY—Post-Professional Master of Physical Therapy

The program of instruction outlined as follows is for students enrolled during the 2000-2001 academic year.

PHTH	529	Pathokinesiology of Gait	3
PHTH	531	Soft-Tissue Techniques	3
PHTH	598	Advanced Specialty Tracks	3
AHCJ	444	Functional Neuroanatomy	3
AHCJ	505	Educational Psychology for Health Professionals	3
AHCJ	509	Teaching and Learning Styles	3
AHCJ	525	Biostatistics	3
AHCJ	526	Introduction to Computer Applications I	3
AHCJ	538	Histology	2-3
AHCJ	546	Orthopaedic Interventions: Mobilization of Peripheral Nerves and Joints of the Extremities	3
AHCJ	591	Research I	3
AHCJ	592	Research II	3
MFAM	558	Advanced Human Growth and Development	3
RELR	575	The Art of Integrative Care	3
____	___	Elective course	3

PHYSICAL THERAPY—Entry-Level Doctor of Physical Therapy

THE PROGRAM

The Entry-Level Doctor of Physical Therapy Program (D.P.T.) is designed for individuals who have no previous degree in physical therapy and wish to pursue a Doctor of Physical Therapy degree and professional certification. Admission to the University follows presentation of a bachelor's degree earned at an accredited college or university. The program is 3.5 years in length. The emphasis in the program is on professional courses, ethics, and practical experience. Additional emphasis is placed on research and specialized clinical affiliations.

Accreditation

The program is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association, 111 North Fairfax Street, Alexandria, VA 22314; 703/684-2782.

Clinical experience

Supervised experience is obtained in a variety of settings and at different times during the program. First-year students complete one two-week practicum assignment during the Spring Quarter. Second-year students complete two three-week assignments during the Autumn and Spring Quarters. The major clinical assignments are during the third year. The student will be assigned one eleven-week and one twelve-week affiliation in the Summer and Winter Quarters respectively. The final affiliation will be twenty-two weeks in length and will be assigned at a facility where the clinical instructor is an APTA board-certified specialist.

All clinical assignments will be made by the academic coordinator of clinical education or a designate. Because of the limited number of local facilities available, assignments cannot be made on the basis of the student's family/marital status or personal preference. Although the department makes an effort to accommodate the student's preference, the student agrees to accept the clinical assignments made by the department at any of the affiliated facilities, whether local or out of state.

ADMISSION

Subject requirements for 2000-2001.

To be eligible for admission, the applicant must have an earned bachelor's degree from an accredited college or university and have a minimum G.P.A. of 3.5. Admission is a selective process. Criteria used include: G.P.A., completion of subject requirements, interview, essay, recommendations, and work experience.

For students with a baccalaureate degree prior to enrolling in the Entry-Level D.P.T. degree program, only the prequisites denoted with an asterisk (*) are required.

The minimum subject admission requirements in quarter units are:

Prerequisites for Entry-Level Doctor of Physical Therapy

20 units minimum in humanities (choose a minimum of two areas from: history, literature, philosophy, foreign language, art/music appreciation/history)

Religion required, 4 units per year of attendance, if at a Seventh-day Adventist college

*Human anatomy and physiology with laboratories, complete sequence; **or** general biology with laboratories, complete sequence

*Microbiology with laboratory

*Statistics

*Select one of the following two:

1: General chemistry with laboratories, complete sequence AND a minimum of 6 quarter units of any physics with laboratory

2: General physics with laboratory, complete sequence AND a minimum of two academic terms of any sequenced chemistry with laboratories

Cultural anthropology **or** an approved course dealing with cultural diversity

*General psychology (alternate course with approval for D.P.T. degree)

*Human growth and development

English composition, complete sequence

*Speech

*Computers

Personal health **or** nutrition

Two physical education courses

Electives to meet minimum total requirements of 98 quarter units

Work experience

A minimum of eighty hours of work/observation experience (volunteer/employee) in a physical therapy department, twenty hours of which must be in an inpatient setting, are required.

PROGRAM OF INSTRUCTION

PHYSICAL THERAPY—Entry-Level Doctor of Physical Therapy

The program of instruction outlined as follows is for students enrolled during the 2000-2001 academic year.

YEAR ONE

PHTH	321	Kinesiology	3
PHTH	327	Human Life Sequence	3
PHTH	328	Manual Muscle Testing	3
PHTH	343	Neuroanatomy	4
PHTH	371	Therapeutic Exercise	4
PHTH	373	Therapeutic Procedures	3
PHTH	413	Clinical Neurology	2
PHTH	434	Physical Therapy Communication and Documentation	2
PHTH	435	Hydrotherapy and Massage	3
PHTH	465	Exercise Physiology	3
PHTH	471	Physical Therapy Practicum I	1
PHTH	477	Locomotion Studies	3
PHTH	495	Research I	3
AHCJ	305	HIV /AIDS for the Health Provider	1
AHCJ	311	Medical Terminology	2
AHCJ	312	Anatomy	9
AHCJ	318, 419	Physiology I, II	4, 3
AHCJ	328	Portfolio Practicum I	1
AHCJ	402, 403	Pathology I, II	4, 3
AHCJ	426	Introduction to Computer Application I	2
AHCJ	444	Functional Neuroanatomy	2
AHCJ	525	Biostatistics	3
AHCJ	530, 531	Research and Statistics I, II	3, 3
AHCJ	538	Histology	2-3
RELR	4___	Religion selective	3

YEAR TWO

PHTH	411	Clinical Orthopaedics	2
PHTH	412	Clinical Psychiatry	2
PHTH	424	Electrotherapy	3
PHTH	501-503	Neurorehabilitation I, II, III	3, 2, 3
PHTH	504, 505	Pediatric Care I, II	3, 2
PHTH	521-523	Orthopaedics I, II, III	3, 3, 3
PHTH	525, 526	General Medicine I, II	3, 3
PHTH	531	Soft-Tissue Techniques	2
PHTH	561	Physical Therapy Administration	4
PHTH	572, 573	Physical Therapy Practicum II, III	1.5, 1.5
AHCJ	404	Pharmacology	1
AHCJ	405	Dynamics of Learning and Teaching	1
AHCJ	421	Psychology of Physical Disability	2
AHCJ	498	Portfolio Practicum II	1
AHCJ	505	Educational Psychology	3
AHCJ	532	Research and Statistics III	3
AHCJ	557	Professional Systems in Management	3
AHCJ	574	Behavior Modification and Personal Change	2
AHCJ	601	Writing for Publication	3
RELE	457	Christian Ethics and Health Care	3

YEARS THREE, FOUR

PHTH	583, 584	Physical Therapy Affiliation I, II	5.5, 5.5
PHTH	591	Advanced Orthopaedic Studies	6
PHTH	592	Advanced Neurologic Studies	6
PHTH	594	Advanced General Medicine Studies	4
PHTH	5__	D.P.T. affiliation	11
AHCJ	533	Research and Statistics IV	3

PHYSICAL THERAPY—Post-Professional Doctor of Physical Therapy

ADMISSION

The post-professional Doctor of Physical Therapy degree track is designed for the individual with a degree in physical therapy who wishes to pursue advanced studies in the profession. To be eligible for admission, the applicant must have earned a bachelor's degree in physical therapy from an accredited program and a masters degree in any area.

PROGRAM OF INSTRUCTION

PHYSICAL THERAPY—Post-Professional Doctor of Physical Therapy

AHCJ	501	Advanced Clinical Practice I	3
AHCJ	502	Advanced Clinical Practice II	3
AHCJ	503	Advanced Clinical Practice III	3
AHCJ	507	Pharmacology in Physical Therapy Practice	3
AHCJ	516	Musculoskeletal Pathology	3
AHCJ	518	Neurobiology	3
AHCJ	527	Medical Screening in Physical Therapy	3
AHCJ	557	Professional Systems in Management (elective)	3
AHCJ	605	Critical Analysis of Scientific Literature	3
AHCJ	629	Lower-Quarter Biomechanical Relationships	3
RELR	525	Health Care and Dynamics of Christian Leadership	3

PHYSICAL THERAPY—Post-Professional Doctor of Physical Therapy Science

ADMISSION

The post-professional Doctor of Physical Therapy Science degree track is designed for the physical therapist who wishes to pursue advanced studies in the area of education and research. To be eligible for admission, a candidate must have completed 35 quarter hours of course work beyond a masters degree.

PROGRAM OF INSTRUCTION

PHYSICAL THERAPY—Post-Professional Doctor of Physical Therapy

AHCJ	506	Educational Evaluation and Clinical Assessment	3
AHCJ	530	Research and Statistics I	3
AHCJ	531	Research and Statistics II	3
AHCJ	532	Research and Statistics III	3
AHCJ	533	Research and Statistics IV	3
AHCJ	534	Advanced Neurological Rehabilitation	3
AHCJ	535	Exercise and Thermoregulation	3
AHCJ	564	Group Process/Dynamics	3
RELF	557	Theology of Human Suffering	3
____	___	Electives	9

COURSES

For information about units of credit and course numbers, see the beginning of division III of this BULLETIN.

PHTH 321 Kinesiology (3)
Functional anatomy of the musculoskeletal system. Analysis and application of the biomechanics of normal and pathological movement of the human body. Lecture and laboratory.
Prerequisite: ANAT 312.

PHTH 327 Human Life Sequences (3)
Sequential human development from neonate through adolescence, as applied to normal and abnormal neurological development. Includes concepts of pre- and postnatal care, delivery, and neonatal assessment. Incorporates the interrelationship of the physical, perceptual, and motor components in treatment of the neurologically disabled patient. Development of the human organism from young adult to death. Special emphasis on the problem of aging.

PHTH 328 Manual Muscle Testing (3)
Methods of evaluating muscle strength and function by use of specific and gross manual muscle tests. Lecture, demonstration, and laboratory.

PHTH 343 Neuroanatomy (4)
Basic anatomy and function of the central, peripheral, and autonomic nervous systems and related structures. Gross anatomy of brain and spinal cord. Functional consideration of cranial nerves, tracks, and nuclei of major systems. Lecture, slides, and laboratory with specimens.

PHTH 371 Therapeutic Exercise (4)
Application of physical, mechanical, and soft-tissue biomechanical considerations in the formulation of exercise prescriptions. Consideration of the neurophysiological basis of motor control and motor-learning acquisition. Selection of exercise modes for treatment of musculoskeletal and neurological disorders of the nonpathological individual.

PHTH 373 Therapeutic Procedures (3)
Blood pressure determination and aseptic techniques. Principles and utilization of posture and body mechanics. Selection and use of wheelchairs, ambulation aids, and other equipment. Progressive planning toward complete activities of daily living.

PHTH 411 Clinical Orthopaedics (2)
Systematic review of disease and injury affecting the musculoskeletal system (particularly the hands), resulting in physical disability. Conditions caused by congenital deformities, fractures, trauma, tumors, disease, and sports injuries. Radiologic terminology, properties, and imaging.

PHTH 412 Clinical Psychiatry (2)
Introduction to mental and personality disorders. Review of abnormal behaviors commonly found in a clinical setting.

PHTH 413 Clinical Neurology (2)
Systematic review of clinical disorders of the central and peripheral nervous systems, with emphasis on sensorimotor sequelae of injury and disease.

PHTH 424 Electrotherapy (3)
Principles and techniques of electrotherapy procedures, including electrodiagnosis. Basic physical and physiological indications and contraindications. Lecture, demonstration, and laboratory.

PHTH 434 PT Communication and Documentation (2)
Introduction to the principles and dynamics of professional communication. Emphasis on the basic skills needed in a clinical setting, including but not limited to the following: evaluations, progress notes, discharge summary, workers' compensation, prescriptions, patient interviews, letters of justification, electric formats, and legal considerations related to all aspects of the above.

PHTH 435 Hydrotherapy and Massage (3)
Fundamental principles, physiological effects, and techniques of hydrotherapy and massage used in preventive medicine and diagnostic techniques. Lecture, demonstration, and laboratory.

PHTH 465 Exercise Physiology (3)
Principles and application of human response to exercise, including body composition. Tests and measurements. Techniques of physical fitness. Cardiorespiratory considerations. Exercise prescriptions.

PHTH 471 Physical Therapy Practicum I (1)
Two-week assignment, to be completed during the Spring Quarter of third year, in an affiliated clinical setting. Forty clock hours per week of supervised clinical experience.

PHTH 477 Locomotion Studies (3)
Development of competencies in the identification and evaluation of normal and abnormal gait patterns, progressing to development of treatment programs. Includes current prosthetic and orthotic devices and their assistance with gait.

PHTH 495 Research I (3)
Introduces the scientific methods in health-science research. Focuses on the major steps of the research process: problem identification, literature review, conceptual framework, identification of variables, statement of hypothesis, experimental design, and analysis and presentation of data. Includes critical evaluation of research literature.

PHTH 496 Research II (2)
Application of the research process to problems in related specific allied health fields. Development of a research proposal.

PHTH 497 Advanced Clinical Experience (40 to 480 clock hours)
Advanced clinical experience in selected areas of professional practice.

PHTH 499 Physical Therapy Independent Study (1-3)
Project or paper to be submitted on a topic of current interest in an area related to physical therapy. Regular meetings to provide the student with guidance and evaluation. Elected on the basis of need or interest.

PHTH 501 Neurorehabilitation I (3)
Basic physiological and neurophysiological mechanisms specific to therapeutic concepts. Clinical approach to pathology and trauma of the central and peripheral nervous systems. Stroke, spinal cord injury, and head injuries. Emphasis on clinical application.

PHTH 502 Neurorehabilitation II (2)
Basic physiological and neurophysiological mechanisms specific to therapeutic concepts. Clinical approach to pathology and trauma of the central and peripheral nervous systems. Emphasis on proprioceptive neuromuscular facilitation.

PHTH 503 Neurorehabilitation III (3)
Continuation of basic physiological and neurophysiological mechanisms specific to therapeutic concepts. Clinical approach to pathology and trauma of the central and peripheral nervous systems. Emphasis on comparing and contrasting facilitation techniques.

PHTH 504 Pediatric Care I (3)
Discussion of the etiology, associated problems, and physical therapy care of clients with cerebral palsy, spina bifida, and various orthopaedic disorders. Includes presentation and demonstration of adaptive equipment options. Laboratory demonstrations. Introduction to the physical therapist's role in the NICU.

PHTH 505 Pediatric Care II (2)
Discussion of the etiology, associated problems, and physical therapy care of clients with arthrogryposis, osteogenesis imperfecta, muscular dystrophies, cystic fibrosis, and hemophilia. Expands further on various therapy techniques available to the client with cerebral palsy.

PHTH 507 Lower-Quarter Biomechanical Relationships (3)
Advanced examination procedures for performing a biomechanical assessment of the lower extremities. Emphasis on identifying causes of, compensations for, and complications of movement dysfunctions associated with lower-extremity musculoskeletal pain syndromes. Physical therapy management of gait abnormalities.

PHTH 521 Orthopaedics I (3)
Basic theory of extremity mobilization. Each joint presented in relationship to articular and periarticular structures that determine joint function and dysfunction. Evaluation and mobilization techniques.

PHTH 522, 523 Orthopaedics II, III (3, 3)
Basic theory of spinal evaluation and treatment techniques. General principles of functional anatomy, tissue and joint biomechanics, pathology, and treatment. Medical exercise training.

PHTH 525, 526 General Medicine I, II (3, 3)
Medical and surgical disorders. Basic pathology and/or etiology and clinical manifestations. Medical treatment for conditions within selected specialties: cardiac, respiratory, burns, arthritis, oncology, hematology, immunology, and endocrinology.

PHTH 529 Pathokinesiology of Gait (3)
Advanced observational analysis of normal and abnormal human locomotion, with comparison of pathological differences.

PHTH 531 Soft-Tissue Techniques (2-3)
Trends in soft-tissue manipulation. Lecture, demonstration, and laboratory.

PHTH 561 Physical Therapy Administration (4)
Principles of organization and administration in health care delivery. Multidisciplinary approach to patient management and patient-therapist relations. Administration of physical therapy services. Professionalism, medicolegal considerations, supervision and training of supportive personnel. Departmental design and budgetary considerations.

PHTH 565 Sports Physical Therapy (1)
Advanced study of the neuromusculoskeletal system as it applies to the athletic population. Selected competencies of advanced clinical practice for the sports physical therapist as outlined by the American Board of Physical Therapy Specialties in the Description of Advanced Clinical Practice in Sports Physical Therapy. Emphasizes the development and implementation of a sports medicine program, pre-participation physical examination, medical emergencies in the sports medicine setting, criteria for return to play, types and frequency of sport-specific injuries, pre-game sideline/courtside set up, techniques of athletic-tape application to various body locations, and onfield examinations.

PHTH 566 Sports Physical Therapy II (1)
Advanced study of the neuromusculoskeletal system as it applies to the athletic population. Selected competencies of advanced clinical practice for the sports physical therapist as outlined by the American Board of Physical Therapy Specialties in the Description of Advanced Clinical Practice in Sports Physical Therapy. Emphasizes recognition and intervention for emergency medical conditions, including abdominal trauma, cardiac pathology, and respiratory emergencies in the athletic/sports medicine arena; protective equipment utilized in athletics; environmental conditions of heat, cold, altitude, and playing sufaces; and criteria utilized for determination of return to play.

PHTH 568 Advanced Diagnosis and Management: Patellofemoral (1)
Advanced study of the patellofemoral joint as it applies to the general and athletic populations. Emphasis on examination, classification, diagnosis, and management of patellofemoral pain syndromes. Physical therapy intervention primarily focused on evidence-based treatment approaches including: joint mobilization, passive range of motion, therapeutic exercise, and a variety of bracing and taping techniques. First course in a series of three courses dealing with the diagnosis and management of lower-chair disorders.

PHTH 569 Advanced Diagnosis and Management of Foot and Ankle Disorders (1)
Advanced study of diagnosis and management of foot and ankle disorders. Clinical course designed to strengthen knowledge and application of orthotic therapy. Effective protocols for managing and trouble shooting orthotic therapy patients.

PHTH 572, 573 Physical Therapy Practicum II, III (1.5, 1.5)
Two three-week assignments, to be completed during the Summer and Spring Quarters of the fourth year, in affiliated clinical settings. Forty clock hours per week of supervised clinical experience.

PHTH 583, 584, 585 Physical Therapy Affiliation I, II, III (5.5, 5.5, 5)
Three twelve-week assignments—to be completed in the Summer, Winter, and Spring Quarters during the fifth year—in affiliated clinical settings. Emphasis on a variety of clinical settings: acute care, rehabilitation, orthopaedics, geriatrics, and pediatrics. Forty clock hours per week of supervised clinical experience, special assignments, in-services, lectures, demonstrations, and conferences.

PHTH 591 Advanced Orthopeadic Studies (6)
Specialty track designed to provide opportunity to pursue, in greater depth, various topics related to current trends in orthopedic physical therap and development of advanced clinical skills where appropriate.

PHTH 592 Advanced Neurologic Studies (6)
Specialty track designed to provide opportunity to pursue, in greater depth, various topics related to current trends in neurologic physical therapy and development of advanced clinical skills where appropriate.

PHTH 594 Advanced General Medicine Studies (4)
Specialty track designed to provide opportunity to pursue, in greater depth, various topics related to current trends in general medicine physical therapy and development of advanced clinical skills where appropriate.

PHTH 595 Applied Research I (1)
Pilot testing of a research proposal in a practice setting. Testing of procedures and data forms.

PHTH 596 Applied Research II (2)
Implementation of a research proposal in a practice setting. Computer data analysis and preparation of a preliminary research report.

PHTH 597 Applied Research III (1)
Preparation and presentation of a research report both in written and oral formats. Graphics, tables, Power-point presentations, poster, and abstract.

PHTH 598 Advanced Specialty Tracks (3)
Presentation of the newest clinical treatment applications over the spectrum of the patient population in the field of physical therapy. Includes ortho, neuro, and general medicine.

PMPT 312 Anatomy (6)
Gross and miscroscopic anatomy of the human body. Lecture, laboratory, demonstration, and slides. Orientation to structure of various systems of the body.

PMPT 321 Kinesiology (2)
Functional anatomy of the musculoskeletal system. Analysis and application of biomechanics of normal and pathological movement of the human body. Lecture and laboratory
Prerequisite: PMPT 312.

PMPT 328 Manual Muscle Testing (2)
Methods of evaluating strength and function by use of specific and gross manual muscle tests. Lecture, demonstration, and laboratory.
Prerequisite: PMPT 312.

PMPT 371 Therapeutic Exercise (3)
Application of physical, mechanical, and soft-tissue biomechanical considerations in the formulation of exercise prescriptions. Considerations of the neurophysiological basis of motor control and motor-learning acquisition, and selection of exercise modes for treatment of musculoskeletal and neurological disorders and the non-pathological individual. Class modified for the progression-program PTA graduate who has received some basic knowledge.

PMPT 424 Electrotherapy (2)
Principles and techniques of electrotherapy procedures, including electrodiagnosis. Basic physical and physiological indications and contraindications. Lecture, demonstration, and laboratory. Modified for the PMPT program.

PMPT 427 Human Life Sequence (2)
Sequential development of the human organism from neonate through old age. Modern concepts of postnatal care through the normal process of aging. Evaluation of developmental reflexes and gross motor function of the pediatric population and balance of the geriatric population. Demonstration of treatment techniques as adapted to pediatric and geriatric patients. Discussion of cultural awareness. Ethical and legislative issues as they relate to the human life sequence.

PMPT 434 PT Communication and Documentation (2)
Dynamic and principles of professional communication. Basic skills include, but are not limited to, the following: initial evaluations, progress notes, discharge summary, patient interviews, letters of justification, legal consideration, and computer documentation programs. This class has been modified for the Progression M.P.T. program.

PMPT 435 Hydrotherapy and Massage (2)
Fundamental principles, physiological effects, and techniques of hydrotherapy and massage used in preventative medicine and diagnostic techniques. Lecture, demonstration, and laboratory. Modified for the PMPT program.

PMPT 477 Locomotion Studies (3)
Development of competencies in the identification and evaluation of normal and abnormal gait patterns, progressing to development of treatment programs. Includes current prosthetic and orthotic devices and their assistance with gait. This class is modified for the progression program.

PMPT 583, 584, 585 PT Affiliation I, II, III (3, 3, 3)
Three eight-week assignments: in the Winter Quarter of the second year, students complete one eight-week affiliation. In the final quarter of the program, the students complete two eight-week affiliations. Emphasis on a variety of clinical settings: acute care, rehabilitation, orthopaedics, geriatrics, and pediatrics. Forty clock hours per week of supervised clinical experience, special assignments, in-services, lectures, demonstrations, and conferences.

PMPT 591 Advanced Orthopaedic Studies (5)
Specialty tracks designed to provide opportunity to pursue in greater depth various topics related to current trends in orthopaedic physical therapy. Development of advanced clinical skills where appropriate.

PMPT 592 Advanced Neurologic Studies (5)
Specialty tracks designed to provide opportunity to pursue in greater depth various topics related to current trends in neurologic physical therapy. Development of advanced clinical skills where appropriate.

PMPT 593 Advanced General Medicine Studies (3)
Specialty tracks designed to provide opportunity to pursue in greater depth various topics related to current trends in general medicine physical therapy. Development of advanced clinical skills where appropriate.

PTAS 201 Applied Anatomy and Physiology (4)
Anatomy of the human body, with emphasis on the neuromuscular and skeletal systems, including anatomical landmarks. Basic neuroanatomy of the central nervous system.

PTAS 203 Applied Kinesiology (4)
Introduction to functional anatomy of the musculoskeletal system. Application of biomechanics of normal and abnormal movement in the human body. Introduction to components of gait. Lecture and laboratory.

Prerequisite: PTAS 201.

PTAS 205 Introduction to Physical Therapy (1)
Physical therapy practice and the role of the physical therapist assistant in providing patient care. Quality assurance. Interpersonal skills. Introduction to the multidisciplinary approach. Familiarization with health care facilities and government agencies.

PTAS 206 Documentation Skills (1)
Introduction to basic abbreviations, medical terminology, chart reading, and note writing.

PTAS 212 Physical Therapy Procedures (3)
Principles of basic skills in the physical therapy setting. Goniometry. Sensory- and gross-muscle testing. Mobility skills in bed and wheelchair; and transfer training. Gait training and activities of daily living. Body mechanics, positioning, and vital signs. Architectural barriers identified. Teaching techniques for other health care providers, patients, and families. Wheelchair measurement and maintenance. Lecture and laboratory.

PTAS 224 General Medicine (3)
Introduction to general medicine conditions, including pathology and management of medical problems. Diseases of the body systems, including urinary, reproductive, digestive, circulatory, nervous, endocrine, and musculoskeletal. Theoretical principles and practical application of respiratory techniques, exercises, and postural drainage. CPR certification must be obtained before the end of the term.

PTAS 225 Neurology (3)
Introduction to neurological conditions, including pathology and management of medical problems of stroke, head injury, Parkinson's disease, spinal cord and nerve injuries, and other conditions.

PTAS 226 Orthopaedics I (3)
Introduction to common orthopaedic conditions, pathologies, and surgical procedures of the peripheral joints. Joint mobilization techniques. Procedures and progression of therapeutic exercises for each specific joint will be covered as these exercises relate to tissue repair and healing response. Practical laboratory to include the integration of treatment plans and progressions.

PTAS 227 Therapeutic Exercise (2)
Introduction to therapeutic exercise theories and practical applications. Tissue response to range-of-motion, stretch, and resistive exercise. Laboratory covers practical applications of various types of exercise techniques and machines used in the clinics, and a systematic approach to therapeutic exercise progression.

PTAS 231 Physical Therapy Modalities (3)
Basic physical therapy modalities, including, heat and cold application, hydrotherapy and massage, pool therapy, physiology and control of edema, stump wrapping, standard precautions, sterilization techniques, and chronic-pain management. Lecture and laboratory.

PTAS 236 Applied Electrotherapy (3)
Principles and techniques of electrotherapy procedures, including basic physiological effects; and indications and contraindications of specific electrotherapy modalities. Practical application and demonstration of modalities in a laboratory setting.

PTAS 238 Wound Care (1)
The normal structure and function of the skin. Pathology of the skin, including problem conditions, burns, and wounds. Lecture and laboratory to include wound identification, measuring, dressing, treatments, and debridement. Model wounds used for hands-on training.

PTAS 241 Applied Pediatrics (2)
Normal and abnormal development from conception to adolescence. Emphasis on developmental sequence, testing, and treatment of neurological and orthopaedic disorders. Practical laboratory.

PTAS 243 Applied Geriatrics (3)
Introduction to various aspects of geriatric care. Wellness care and adaptation to exercise modalities. Procedures pertaining to the geriatric patient. Diagnosis and aging changes that affect function in geriatric rehabilitation.

PTAS 251 Orthopaedics II (3)
Introduction to common orthopaedic conditions, pathologies, and surgical procedures of the spine. Treatments, procedures, and progression of therapeutic exercises of the spine as related to tissue repair and healing response. Practical laboratory includes the integration of treatment plans and progressions.

PTAS 252 Applied Neurology (3)
Introduction to facilitation techniques of neurodevelopmental treatment, proprioceptive neuromuscular facilitation, Brunnstrom, and principles of therapeutic exercise of the cardiac patient. Practical laboratory.

PTAS 261 Physical Therapy Practice (1)
Observations of evaluations, treatments, and various diagnoses. Billing procedures and third-party payors. Completion of a resume and a state licensing application. Preparation and presentation of case study and in-service.

PTAS 264 Applied Prosthetics and Orthotics (2)
Introduction to basic principles in the use of selected prosthetic and orthotic devices. Exposure to various types of devices and adjustment to devices; examination of indications and contraindications for orthotic and prosthetic use with patients seen in physical therapy.

Prerequisite: PTAS 203.

PTAS 265 Professional Seminar (1)
Contemporary theories and practices of physical therapy. Topics covered by faculty and guest lecturers include: sports taping, ortho taping, soft tissue, affective learning. Lecture and laboratory.

PTAS 275 Psychosocial Aspects of Health (2)
Psychological and sociological reactions to illness or disability. Includes trauma, surgery, and congenital and terminal illness. Individual and family considerations.

PTAS 291 Physical Therapist Assistant Practicum (1)
Two-week assignment to be completed during the Winter Quarter in an affiliated clinical setting. Emphasis on patient and staff working relationships. Awareness of patient disorders and limited application of physical therapy techniques (forty clock hours per week of supervised clinical experience).

PTAS 293, 294, 295 Physical Therapist Assistant Affiliation I, II, III (3, 3, 3)
I: One six-week assignment to be completed during the Spring Quarter.
II, III: Two six-week assignments to be completed during the second Summer Quarter in affiliated clinical settings. Students exposed to a variety of clinical settings (forty clock hours per week of supervised clinical experience). The combined total of twenty weeks of clinical experience prepares the student for entry-level performance.

CONJOINT

See CONJOINT COURSES, section III, for course descriptions.

COGNATE

HPRO 508 Aspects of Health Promotion (2)
Dynamics of community and individual health. Factors in the promotion of a healthful lifestyle, including cardiovascular enhancement, stress reduction and coping mechanisms, nutritional awareness, weight management, and substance control.

RELE 456 Personal and Professional Ethics (2)
Introductory exploration of the foundations, norms, and patterns of personal integrity in professional contexts.

RELE 457 Christian Ethics and Health Care (2)
Ethical issues in modern medicine and related fields from the perspective of Christian thought and practice.

RELR 475 The Art of Integrative Care (2)
Principles, concepts, and practices that affect the ministry of health care and the Christian witness in the clinical setting.

RELR 575 Art of Integrative Care (3)
Examination of the attitudes and actions of the health care professional relative to personal spirituality and patient witnessing.

RELF 423 Loma Linda Perspectives (2)
History and philosophy of Loma Linda University as a Christian health-sciences institution that fosters human wholeness.

MFAM 553 Family Systems Theory (3)
Review of Bowen theory and theory of family systems. Introduction to family psychotherapy as an outgrowth of the theory. Students examine their own families of origin.

MFAM 558 Advanced Human Growth and Development (3)
Human biological, psychological, and social development from conception to death, including but not limited to, childbirth, child rearing, childhood, adolescence, adulthood, marriage, divorce, blended families, step-parenting, and geriopsychology. Overview of concepts, theories, and research relevant to human development. Emphasis on development over the life span in the context of family interaction and its impact on family therapy.

PSYC 405 Psychology of Human Relations (3)
Human relations for career and personal success. Topics include the effective use of human resources, communication, leadership skills, decision making, stress management, assertiveness training, managing conflicts, career development, and achieving balance.

RADIATION TECHNOLOGY

Degree Programs

MEDICAL RADIOGRAPHY—Associate in Science

RADIATION SCIENCES—Bachelor of Science

RADIATION THERAPY TECHNOLOGY—Bachelor of Science

Certificate Programs

DIAGNOSTIC MEDICAL SONOGRAPHY

NUCLEAR MEDICINE TECHNOLOGY

RADIATION THERAPY TECHNOLOGY

SPECIAL IMAGING TECHNOLOGY: CT /MRI

ARTHUR W. KROETZ, Department Chair; Program Director, Nuclear Medicine Technology

MARK J. CLEMENTS, Associate Department Chair; Program Director, A.S. Medical Radiography; Coordinator, Diagnostic Medical Sonography

LAURA L. ALIPOON, Program Director, Radiation Sciences

STEVEN L. LEBER, Clinical Coordinator, Medical Radiography; Program Director, Special Imaging Technology

CAROL A. DAVIS, Clinical Program Director, Radiation Therapy Technology

MARIE M. DELANGE, Clinical Program Director, Diagnostic Medical Sonography

GREGORY E. WATKINS, Medical Adviser, Medical Radiography Program

GLENN A. ROUSE, Medical Director, Diagnostic Medical Sonography Program

JAMES M. SLATER, Medical Director, Radiation Therapy Technology Program

KOUSHA ZARNEGAR, Medical Director, Nuclear Medicine Technology Program

FACULTY

Laura L. Alipoon
Mark J. Clements
Noha S. Daher
Carol A. Davis
Marie M. DeLange
Intithar S. Elias
Barbara S. Holshouser
Arthur W. Kroetz
Steven L. Leber
Glenn A. Rouse
James M. Slater

CLINICAL FACULTY

Robert C. Darwin
Linda W. Gossett
Brenda S. Holden
Helen J. King, SN

Representing the Radiation Technology Department, Art Kroetz (department chair), Laura Alipoon, Carol Davis, Marie DeLange, Steve Leber, Mark Clements, and Connie Daniel.

MEDICAL RADIOGRAPHY—Associate in Science

The medical radiographer, or radiologic technologist, is responsible for the accurate demonstration of body structures on a radiograph or other receptor. The technologist determines proper exposure factors, manipulates medical imaging equipment, evaluates the radiographic image or quality, and provides for patient protection and comfort.

The technologist frequently assists the physician team member in specialized procedures. These often require the administration of chemical mixtures to the patient for enhanced viewing of the function of body systems.

THE PROGRAM

The medical radiography program begins with the Autumn Quarter and is based on the completion of one year of prerequisite course work at any accredited college or university. The first quarter at Loma Linda University primarily emphasizes the theoretical aspects of radiography, with one day per week in clinical orientation. The remaining five quarters combine clinical training on a two-to-five-days-per-week basis, with more advanced classroom topics. The schedule extends through vacation periods and involves some evening and weekend duties.

Affiliations

For the clinical portion of the program, students are assigned to one of the affiliated medical centers: Loma Linda University Medical Center and Loma Linda University Community Medical Center, Inland Valley Regional Medical Center, Hemet Valley Medical Center, Eisenhower Medical Center, Desert Hospital, Redlands Community Hospital, Menifee Valley Medical Center, Pioneer Memorial Hospital, El Centro Regional Medical Center, or White Memorial Medical Center.

Accreditation

The program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 North Wacker Drive, Suite 900, Chicago, IL 60606-2901; 312/704-5300. The program is also approved by the State of California Department of Health Services.

CPR CERTIFICATION

Students are required to have current cardiopulmonary resuscitation (CPR) certification (adult and child) for all scheduled clinical experience.

PROFESSIONAL REGISTRATION AND CERTIFICATION

Upon completion of the requirements for the Associate in Science degree, the graduate is eligible to write the qualifying examination of The American Registry of Radiologic Technologists (ARRT) and become certified by the state of California.

PROFESSIONAL ASSOCIATION

Students and graduates are eligible for membership in The American Society of Radiologic Technologists (ASRT) and The California Society of Radiologic Technologists (CSRT). The objectives of the association are to advance the science of radiologic technology, to improve education, and to elevate the quality of patient care. Clinical-year students are encouraged to become members of The California Society of Radiologic Technologists (CSRT).

THE PROGRAM OBJECTIVES

Upon completion of the program, the graduate should be qualified to:

1. Complete all certification requirements of the state of California and the American Registry of Radiologic Technologists.
2. Anticipate and provide basic patient care, comfort, and education, as needed.
3. Practice radiation protection by utilizing principles of basic x-ray production and interactions to limit radiation exposure to the patient, self, and other members of the health care team.
4. Understand the limits of equipment operation, including the recognition of equipment malfunctions and problem-reporting procedures.
5. Obtain optimum images by properly utilizing equipment, accessories, techniques, and procedures; and apply knowledge of human structure, function, and pathology to varying patient situations.
6. Demonstrate knowledge and skills relating to quality-assurance activities.
7. Provide services to humanity, with full respect for the dignity of all persons.

8. Communicate appropriately with patients, colleagues, and others with whom s/he comes in contact.
9. Behave in a professional manner in all interactions.
10. Demonstrate teamwork in the clinical setting and other situations where this concept leads to completion of goals that an individual could not easily meet alone.
11. Support the profession's code of ethics and comply with the profession's scope of practice.
12. Continue to improve knowledge and skills by participating in educational and professional activities, sharing knowledge with colleagues, and investigating new and innovative aspects of professional practice.

ADMISSION

To be eligible for admission, the applicant must have completed high school from an accredited institution or passed the GED and completed a minimum of 42 quarter units at an accredited college or university.

Prerequisites for Medical Radiography, A.S.

Religion required, 4 units per year of attendance, if at a Seventh-day Adventist college

Human anatomy and physiology with laboratories, complete sequence

Two years high school mathematics with grades of C or above; **or** intermediate algebra in college

Medical terminology

One year high school-level physics; **or** Introductory physics (one quarter/semester)

General psychology **or** sociology

English composition, complete sequence

Speech

Computers

Electives to meet minimum total requirements of 42 units

Observation experience

A minimum of twelve hours of observation in a radiology department is required. Contact the department to obtain the appropriate form.

PROGRAM OF INSTRUCTION

MEDICAL RADIOGRAPHY—Associate in Science

The program of instruction outlined below is for students enrolled during the 2000-2001 academic year. Certain aspects of the curriculum require individual scheduling. Time arrangements may be subject to change. Entrance to the clinical year is contingent upon the completion of all prior requirements.

SOPHOMORE YEAR

RTMR	202	Orientation Laboratory	1
RTMR	221	Radiologic Patient Care	2
RTMR	253, 254	Medical Radiography Procedures I, II	3, 4
RTMR	253L-254L	Medical Radiography Procedures Laboratory I, II	1, 1
RTMR	283	Radiologic Physics	3
RTMR	284	Radiation Protection and Biology	2
RTMR	285, 286	Principles of Radiography I, II	3, 4
RTMR	371	Medical Radiography Affiliation I	1
AHCJ	326	Patient Care Methods	2
RELE	457	Christian Ethics and Health Care	2
RELE	___	Religious studies	2

CLINICAL YEAR

RTMR	255	Medical Radiography Procedures III	1
RTMR	287	Principles of Radiography III	2
RTMR	321	Radiographic Film Critique	1
RTMR	331	Special Technical Procedures	2
RTMR	334	CT and Cross-sectional Anatomy	2
RTMR	342	Computer Applications in Radiology	1
RTMR	345	Radiologic Pathology	2
RTMR	363	Comprehensive Review	1
RTMR	372-375	Medical Radiography Affiliation II, III, IV, V	2, 3, 2, 2
AHCJ	305	HIV/AIDS and the Health Provider	1
AHCJ	328	Portfolio Practicum I	1
WRIT	317	Writing II	1

A minimum grade of C (2.0) is required for all courses in the program.

RADIATION SCIENCES—Bachelor of Science

For radiologic technologists educationally prepared beyond the level of the Associate in Science degree, there are numerous career options. Radiology departments in large hospitals offer career opportunities in management, supervision, and research. Excellent opportunities also exist for those who are qualified to teach radiologic technology. In addition, commercial enterprises and state governments continually need technologists with advanced training to serve as customer representatives, technical consultants, and health physicists.

THE PROGRAM

The Bachelor of Science degree program, which begins at the level of the junior year, emphasizes the more advanced areas in radiologic technology and is designed to prepare graduates for careers in administration, clinical specialties, teaching, or health physics.

Students choosing to study on a part-time basis must complete the junior and senior years within a four-year period.

Accreditation

Loma Linda University is regionally accredited by Western Association of Schools and Colleges (WASC), 985 Atlantic Avenue, Suite 100, Alameda, CA 94501; telephone, 510/748-9001; FAX, 510/748-9797; www.wascweb.org.

PROFESSIONAL REGISTRATION AND CERTIFICATION

Students electing to take the clinical practice emphasis are eligible upon graduation to write the qualifying examination of the second clinical specialty.

THE PROGRAM OBJECTIVES

Upon completion of the program, the graduate should be qualified to:

1. Demonstrate leadership skills through advanced and multilevel thinking in the areas of administation and education, science, and clinical practice.
2. Develop and refine critical thinking skills to enhance his/her ability to analyze and develop the most effective means of care for patients, to manage a department, or to educate students.
3. Behave in a professional manner in all interactions, including communicating appropriately with patients, colleagues, and others with whom s/he comes in contact.
4. Demonstrate teamwork in the clinical setting and other situations where this concept leads to completion of goals that an individual could not easily meet alone.
5. Continue to improve knowledge and skills by participating in educational and professional activities, sharing knowledge with colleagues, and investigating new and innovative aspects of professional practice.
6. Support the profession's code of ethics and comply with the profession's scope of practice.
7. Utilize Loma Linda University's program as a linkage to other programs and disciplines, as desired.

ADMISSION

Educational background

To be eligible for admission, the applicant must be a graduate of an approved associate degree program (or the equivalent) in radiologic technology, radiation therapy, nuclear medicine, or diagnostic ultrasound. A maximum of 70 semester or 105 quarter units from an accredited junior college will be accepted as transfer credit, including units for clinical training. Students who have completed a hospital training program are allowed 55 quarter units of academic credit on the basis of their registry certificate.

Certification

The applicant must have certification from The American Registry of Radiologic Technologists (ARRT). Applicants who are eligible to take the ARRT examination for certification but who have not had opportunity to do so are given provisional status for one quarter. Eligibility to continue is subject to student's obtaining certification. It should be understood that the University will not sign or validate registry documents of students who obtained their training in another program.

PROGRAM OF INSTRUCTION

RADIATION SCIENCES—Bachelor in Science

The student in the baccalaureate degree program completes (I) the general studies requirements; (II) the radiation technology core requirements; and (III) an area of emphasis (administration and education, clinical practice, or science). Electives to meet the needs of the individual student are selected from existing courses after consultation with the department chair.

Prerequisites for Radiation Sciences, B.S.

20 units minimum in humanities (choose minimum of two areas from: history, literature, philosophy, foreign language, art/music appreciation/history)

Religion required, 4 units per year of attendance, if at a Seventh-day Adventist college or university

Human anatomy and physiology with laboratories, complete sequence

Additional natural science units form: chemistry, geology, mathematics, physics, and statistics

Must have a total of 12 quarter hour, including up to 6 units from anatomy and physiology

Two years high school mathematics with grades of C or above; **or** intermediate algebra in college

Cultural anthropology **or** an approved course dealing with cultural diversity

Select 8 quarter units from: economic, geography, political science, psychology, sociology

English composition, complete sequence

Electives to meet a minimum total requirements of 42 units

RADIATION SCIENCES CORE AND RELIGIOUS STUDIES **(39 units)**

RTCH	417	Applied Research Methods	1
RTCH	494	Senior Project	3
RTCH	385	Current Issues in Radiation Sci I	2
RTCH	485	Current Issues in Radiation Sci II	2
RTMR	451	Management of a Radiologic Service	3
AHCJ	305	HIV/AIDS course	1
AHCJ	324	Psycho-Social Models	2
AHCJ	328	Portfolio Practicum I	1
AHCJ	351	Statistics for the Health Professions	3
AHCJ	464	Research Methods for Allied Health Professions	2
AHCJ	465	Seminars in Leadership	2
AHCJ	498	Portfolio Practicum II	1
EMMC	314	Introduction to 12-Lead ECG Interpretation	1
EMMC	316	12-Lead EKG Interpretation	2
EMMC	405	Trauma and Surgery	2
EMMC	431	Emergency Case Studies	2
EMMC	484	Legal Issues in Health Care	2
RELE	457	Christian Ethics and Health Care	3
RELF	406	SDA Beliefs and Life	2
RELF	416	God and Human Suffering	3

AREA OF EMPHASIS

A. ADMINISTRATION AND EDUCATION (10 units)

RTCH	411	Student Teaching Practicum	2
RTCH	413	Management Practicum	2
RTCH	475	Curriculum Development in Health Sciences	2
RSTH	471	Instructional Techniques	2
RTMR	452	Quality Management in Radiation Sciences	2

A minimum grade of C (2.0) is required for all classes.

B. CLINICAL PRACTICE

A six to twenty-four month, full-time internship in a second clinical specialty selected from the following areas—

CLINICAL SPECIALTY	UNITS GIVEN TOWARD B.S. DEGREE
Medical sonography	31 units
Nuclear medicine technology	18 units
Special imaging technology	18 units
Radiation therapy technology	26-41 units

Acceptance into these specialties is separate from acceptance to the baccalaureate program. For more detailed information about admission requirements and the program of instruction, request an outline of the certificate programs in these specialties.

C. SCIENCE

12-15 quarter units selected from the natural sciences in the areas of: biology, anatomy, physiology, medical terminology, physics; and AHCJ 402 and 403 Pathology I and II are highly recommended.

DIAGNOSTIC MEDICAL SONOGRAPHY—Certificate

The diagnostic ultrasound profession is a multispecialty field comprised of diagnostic medical sonography (with subspecialties in abdominal, neurologic, obstetrical/gynecologic, and ophthalmic ultrasound); diagnostic cardiac sonography (with subspecialties in adult an pediatric echocardiography); vascular technology; and other emerging fields. These diverse specialties are distinguished by their use of diagnostic medical ultrasound as primary technology in their daily work. The diagnostic ultrasound professional is an individual qualified by professional credentialing and academic clinical experience to provide diagnostic patient-care services using ultrasound and related diagnostic procedures. Diagnostic ultrasound professionals perform patient assessments, acquire and analyze data obtained using ultrasound related diagnostic technologies, provide a summary of findings to the physician to aid in patient diagnosis and management, and use independent judgment and systematic problem solving methods to produce high quality diagnostic information and optimize patient care.

THE PROGRAM

The twenty-four-month certificate program in medical sonography consists of study in ultrasound technology and other closely related areas. The program includes complete didactic and clinical experience in OB-GYN, abdomen, cardiac, neuro-, pediatrics, and vascular sonography. The program begins with the Autumn Quarter. The clinical portion of the program includes orientation to the clinical aspects of medical sonography; practical demonstrations in the use of ultrasound equipment; and an opportunity to participate, under close supervision, in actual medical sonographic procedures within the department. The clinical calendar varies from the University calendar in that the clinical schedule is full time (forty clock hours per week), arranged around lectures and coordinated with the operation of the Loma Linda University Medical Center ultrasound department.

Accreditation

The program is accredited in both general sonography and echocardiography by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) 35 East Wacker Drive, Suite 1970, Chicago, IL 60601-2208; and the Joint Review Committee on Education in Diagnostic Medical Sonography, 1248 Harwood, Bedford, TX 76021; telephone, 817/685-6629.

Professional registration

Upon completion of the certificate requirements, the student is eligible to write the qualifying examination of the American Registry of Diagnostic Medical Sonographers.

ADMISSION

Requirements for 2000-2001

The applicant must fulfill one of the following two requirements. Specific course requirements must be completed at an accredited college or university.

Applicant must be an ARRT-registered radiologic technologist **and** have credits in the following:

- Human anatomy and physiology with laboratory complete sequence

OR

Be a graduate of an accredited allied health program, including nursing (two years minimum training)

OR

Have a baccalaureate degree in one of the natural sciences **and** have credits in the following:

- Human anatomy and physiology with laboratory, complete sequence
- Introductory physics with laboratory, complete sequence
- Medical terminology
- Patient-care methods

PROGRAM OF INSTRUCTION
DIAGNOSTIC MEDICAL SONOGRAPHY—Certificate

The program of instruction outlined below is for students enrolled during the 2000-2001 academic year.

RTMS	344-347	Medical Sonography I, II, III, IV	4, 4, 5, 4
RTMS	371-378	Medical Sonography Affiliation I, II, III, IV, V, VI, VII, VIII	x, x, x, x, x, x, x, x
RTMS	379	Ultrasound Physics and Instrumentation	3
RTMS	381-383	Topics in Medical Sonography I, II, III	3, 3, 3
HPRO	543	Writing for the Health Professional	2

A minimum grade of C (2.0) is required for all courses in the program.

PROGRAM OF INSTRUCTION
DIAGNOSTIC MEDICAL SONOGRAPHY—Certificate
with
RADIATION SCIENCES—Bachelor of Science

Students enrolled in the ultrasound program who wish to complete a B.S. degree in radiation sciences will need to complete the following: the General Education requirements (which can be found in section V), the ultrasound emphasis, and the modified B.S. degree core of courses listed below.

B.S. DEGREE CORE COURSES AND RELIGIOUS STUDIES FOR DIAGNOSTIC MEDICAL SONOGRAPHY CERTIFICATE STUDENTS (26 units)

RTCH	385	Current Issues in Radiation Sciences I	2
RTCH	494	Senior Project	3
RTMR	451	Management of a Radiologic Service	3
EMMC	484	Legal and Ethical Issues	2
AHCJ	305	HIV/AIDS and the Health Provider	1
ACHJ	328	Portfolio Practicum I	1
AHCJ	351	Statistics for the Health Professions	3
AHCJ	465	Seminars in Leadership	2
AHCJ	498	Portfolio Practicum II	1
RELE	457	Christian Ethics and Health Care	3
RELF	416	God and Human Suffering	3
RELF	423	Loma Linda Perspectives	2

Laura Alipoon (program director) reviews x-rays with students from radiation sciences.

NUCLEAR MEDICINE TECHNOLOGY—Certificate

Nulcear medicine uses radioactivity to diagnose and treat disease. This medical specialty provides information about both the structure and function of virtually every major organ system within the body. Nuclear medicine procedures are safe, involve little or no patient discomfort, and do not require the use of anesthesia. The Nuclear medicine technologist is responsible for preparing and administering radiopharmaceuticals; performing patient imaging procedures; accomplishing computer processing and image enhancement; analyzing biologic specimens; and providing images, data analysis, and patient information for diagnostic interpretation by the physician health care team member.

THE PROGRAM

During the twelve-month certificate program of clinical studies in nuclear medicine, students take formal course work along with instruction in the clinical aspects of nuclear medicine. This includes participation, under close supervision, in the actual procedures within the nuclear medicine department. The clinical calendar varies from the University calendar in that the clinical schedule is full time (forty clock hours per week), arranged around lectures and coordinated with affiliated nuclear medicine departments. The program begins with the Autumn Quarter.

Accreditation

The program is accredited by the Joint Review Committee on Educational Programs in Nuclear Medicine Technology, #1 2nd Avenue East, Suite C, Polson, Montana 59860-2320; 406/883-0003.

PROFESSIONAL REGISTRATION AND CERTIFICATION

Upon completion of the certificate requirements, the student is eligible to write the qualifying examination in nuclear medicine of The American Registry of Radiologic Technologists (ARRT), the certifying examination of the Nuclear Medicine Technology Certification Board (NMTCB) and of the state of California (CTNM).

ADMISSION

Prerequisites for Nuclear Medicine Technology, Certificate

The applicant must fulfill one of the following requirements:

Be a graduate of an accredited radiologic technology program; **or**

Be an ARRT-registered radiologic technologist; **or**

Be an ASCP-certified medical technologist; **or**

Be a registered nurse with at least two years of college credit, with a minimum of an associate degree; **or**

Have a baccalaureate degree in one of the natural sciences;

AND

Must have credits in the following:

Two years high school mathematics with grades of C or above; **or** intermediate algebra in college

Chemistry with laboratory

General physics with laboratory, complete sequence (highly recommended)

Human anatomy and physiology with laboratory, complete sequence

Medical terminology

Patient-care methods

Observation experience

A minimum of twenty-four hours of observation in a nuclear medicine department is required.

Certifications

CPR certification (adult, child)#

Venipuncture*

ECG/EKG interpretation*

(If the student is unable to complete these three certifications prior to entering the program, equivalent courses—offered by Loma Linda University Life Support Education [#] or Loma Linda University Medical Center Staff Development [*]—can be taken concurrently with the program.

PROGRAM OF INSTRUCTION
NUCLEAR MEDICINE TECHNOLOGY—Certificate

The program of instruction outlined below is for students enrolled during the 2000-2001 academic year.

RTNM	351, 352	Principles of Nuclear Medicine I, II	3, 3
RTNM	353, 354	Nuclear Medicine Procedures I, II	2, 2
RTNM	371-374	Nuclear Medicine Affiliation I, II, III, IV	1, 1, 1, 1
RTNM	381	Topics in Nuclear Medicine I	2
RELE	457	Christian Ethics and Health Care	2

A minimum grade of C (2.0) is required for all courses in the program.

RADIATION THERAPY TECHNOLOGY—Bachelor of Science
RADIATION THERAPY TECHNOLOGY—Certificate

Under the direction of the radiation oncologist, the radiation therapist assists in treating diseases by exposing affected areas of a patient's body to prescribed doses of x-ray or other forms of ionizing radiation. The therapist assists in the preparation and treatment of the patient, maintains proper operation of the controlling devices and equipment during treatment, and is responsible for treatment records.

The B. S. degree in radiation therapy technology and the certificate in radiation therapy technology will run concurrently for the 2000-2001 academic year.

PROFESSIONAL REGISTRATION AND CERTIFICATION

Upon completion of the certificate requirements, the student is eligible to write the qualifying examination for radiation therapy technology of The American Registry of Radiologic Technologists (ARRT) and the certifying examination of the state of California.

ADMISSION

Prerequisites for Radiation Therapy Technology, Certificate and Registration

The applicant must fulfill one of the following requirements:

Be an ARRT-registered radiologic technologist; **and/or**

Be a graduate of an accredited radiologic technology program;

AND

Must have credits in the following:

Radiation physics

Human anatomy and physiology with laboratory, complete sequence

Two years high school mathematics with grades of C or above; **or** intermediate algebra in college

Radiation protection (available in professional program for those who have not taken it)

Patient-care methods

Computers

OR

Be a registered nurse; **or**

Be a graduate of an accredited allied health program (minimum training of two years)

AND

Must have credits in the following:

Human anatomy and physiology with laboratory, complete sequence

Two years high school mathematics with grades of C or above; **or** intermediate algebra in college

Medical terminology

Patient-care methods

Radiation physics

Radiation protection (available in professional program for those who have not taken it)

Principles of radiography

Computers

Observation experience

A minimum of forty hours of work observation in a radiation therapy department is required.

PROGRAM OF INSTRUCTION
RADIATION THERAPY TECHNOLOGY—Certificate

The program of instruction outlined below is for students enrolled during the 2000-2001 academic year.

RTTH	332	Radiation Biology	1
RTTH	342	Patient-Care Practices in Radiation Therapy	2
RTTH	344	Radiation Therapy Procedures	2
RTTH	348	Radiation Therapy Review	1
RTTH	355	Physical Principles of Radiation Therapy I	3
RTTH	356	Physical Principles of Radiation Therapy II	3
RTTH	357	Applied Dosimetry	2
RTTH	364, 365	Radiation Oncology I, II	3, 3
RTTH	371-374	Radiation Therapy Affiliation I, II, III, IV	1, 1, 1, 1
RTTH	381-384	Topics in Radiation Therapy I, II, III, IV	1-3, 1-3, 1-3, 1-3
AHCJ	403	Pathology II	3

THE PROGRAM CERTIFICATE

During the twelve-month certificate program of clinical studies in radiation therapy technology, students take formal course work along with instruction in the clinical aspects of radiation therapy. The program begins with the Autumn Quarter. The clinical portion of the program consists of practical demonstrations in the use of radiation therapy equipment and an opportunity to participate, under close supervision, in actual radiation therapy procedures in a variety of radiation oncology departments. The clinical calendar varies from the University calendar in that the clinical schedule is full time (forty clock hours per week), arranged around lectures, and coordinated with the operation of the Loma Linda University Medical Center radiation medicine department.

Accreditation

The program is accredited by the Joint Review Committee on Education in Radiologic Technology, 20 North Wacker Drive, Suite 900, Chicago, IL 60606-2901; 312/704-5300.

BACHELOR OF SCIENCE DEGREE IN RADIATION THERAPY TECHNOLOGY

Radiation therapy is a multifaceted career that combines working in a highly technical environment with the opportunity to work closely with patients and members of many other professions to provide a high standard of clinical care. Radiation therapy is the therapeutic application of ionizing radiation to malignant and benign conditions. The therapist is responsible for delivering the treatment, which is prescribed by a radiation oncologist; maintaining accurate treatment records; and implementing quality-assurance plans. A radiation therapist must be detail oriented; able to work accurately under pressure; and, most important, be able to interact empathically with patients. Individuals who show initiative and are capable of critical thinking and problem solving make good radiation therapists. The job demand in this field is currently high, and starting salaries are between $38,000-40,000 per year.

ADMISSION

Prerequisites for Radiation Therapy Technology, B.S.

20 units minimum in humanities (choose a minimum of two areas from: history, literature, philosophy, foreign language, art/music appreciation/history)

Religion required, 4 units per year of attendance, if at a Seventh-day Adventist college or university

Human anatomy and physiology with laboratories, complete sequence or general biology with laboratories, complete sequence

Select additional natural science units from: chemistry, geology, mathematics, physics, and statistics. Must have a minimum total of 12 quarter hours, including up to 6 units from anatomy and physiology.

Two years high school mathematics with grades of C or above; **or** intermediate algebra in college

Cultural anthropology **or** an approved course dealing with cultural diversity

Select 8 quarter units from: economics, geography, political science, psychology, and sociology

English composition, complete sequence

Computers

Personal health **or** nutrition

2 physical education courses

Electives to meet minimum total requirements of 96 quarter units

For total unit requirement for graduation, see DIVISION OF GENERAL STUDIES, Criteria for General Educationn Course.

PROGRAM DESCRIPTION

This B.S. degree two-track program is twenty-four months long and leads to an advanced degree in radiation therapy technology.

Track A is for ARRT-registered radiologic technologists, registered nurses, or graduates from another accredited allied health program who have fulfilled the prerequisites and who wish to be educated as radiation therapists. It is designed as a full-time, twenty-four month degree course and will fully prepare students to pass the national board examinations at the end of the program.

Track B is designed for radiation therapists who are ARRT registered in radiation therapy and who wish to obtain a baccalaureate degree. It is a twenty-four-month program that is didactic in nature and helps prepare the therapist for duties in the areas of teaching or administration.

Courses will be a combination of web-based learning and traditional learnin; some, therefore, may not meet weekly.

DEGREE REQUIREMENTS

The student in the baccalaureate program completes:
(1) the General Education requirements;
(2) the radiation sciences core requirements; and
(3) an area of emphasis (administration and education is the only emphasis offered through distance learning at this time). Electives to meet the needs of the individual students are selected from existing courses after consultation with the program adviser.

BACHELOR OF SCIENCE CORE AND RELIGIOUS STUDIES (28 units)

RTCH	385	Current Issues in Radiation Science I	2
RTCH	417	Applied Research Methods	1
RTCH	494	Senior Project	2
RTMR	451	Management of a Radiologic Service	3
RTMR	454	Quality Management in Radiation Service	2
AHCJ	305	HIV/AIDS course	1
AHCJ	328	Portfolio Practicum I	1
AHCJ	351	Statistics for the Health Professions	3
AHCJ	461	Research Methods	2
AHCJ	498	Portfolio Practicum II	1
EMMC	314	Introduction to ECG's	1
EMMC	484	Legal Issues in Health Care	2
RELF	416	God and Human Suffering	3
RELF	423	Loma Linda Perspectives	2
RELE	457	Christian Ethics and Health Care	3

Radiation Therapy Core—Track A (45 units)

RTTH	332	Radiation Biology	1
RTTH	342	Patient Care Practices in Radiation Therapy	2
RTTH	344	Radiation Therapy Procedures	2
RTTH	345	Quality Assurance in Radiation Technology	1
RTTH	348	Radiation Therapy Review	1
RTTH	353	Psycho Oncology	2
RTTH	355	Physical Principles of Radiation Therapy	3
RTTH	356	Physical Principles of Dosimetry	3
RTTH	357	Applied Dosimetry	2
RTTH	358	Advanced Dosimetry (with lab)	3
RTTH	364	Radiation Oncology I	3
RTTH	365	Radiation Oncology II	3
RTTH	371-378	Radiation Therapy Affiliation I	8
AHCJ	402	Pathology I	4
AHCJ	403	Pathology II	3-4
AHCJ	404	Pharmacology	4
DTCS	301	Human Nutrition	3

Radiation Therapy Core—Track B (26 units)

RSTH	471	Instructional Techniques	2
RTCH	411	Student Teaching Practicum	2
RTCH	413	Management Practicum	2
RTCH	464	Moral Leadership	4*
RTCH	470	Curriculum Development in Health Science	2
RTTH	353	Psycho-Oncology	2
RTTH	358	Advanced Dosimetry	3
AHCJ	402	Pathology I	4
AHCJ	403	Pathology II	3-4
AHCJ	404	Pharmacology	2
AHCJ	465	Seminars in Leadership	2*
DTCS	301	Human Nutrition	3

*Note: either AHCJ 465 or RTCH 464 may be taken

SPECIAL IMAGING TECHNOLOGY—CT /MRI Certificate

The Special Imaging Technology Program (computed tomography/magnetic resonance imaging radiography) is nine months in length. Technologists spend forty hours per week in a combination of clinical and didactic training.

THE PROGRAM

Computed Tomography (CT) / Magnetic Resonance Imaging (MRI)

Students in the CT/MRI Special Imaging Program spend nine months in clinical and formal course work. Each student spends four and one-half months in each of the modalities. The program begins once a year, starting with Autumn Quarter (near the end of September). The clinical portion of the program consists of practical demonstrations in the use of CT and MRI equipment and an opportunity to participate, under close supervision, in actual CT and MRI procedures in the departments.

Prerequisites for Special Imaging Technology-CT/MRI Certificate

The applicant must:

Be an AART-registered radiologic technologist
Be a certified radiologic technologist (CRT, state of California)
Have current CPR certification

Observation experience

Sixteen hours of observation, eight hours each in CT and MRI is required. A form to document this experience is provided in the application packet or may be obtained by calling the Department of Radiologic Technology.

Schedule

The program is full time and requires forty hours per week of the student's time in clinical and didactic learning experience. Clinical rotations are normally scheduled during daytime hours, Monday through Friday; but several four-week evening rotations are required. Didactic classes are held once each week during daytime hours at Loma Linda University. Students at affiliated sites will be required to drive to the campus for classes each week. Students are given vacation, holiday, and sick time appropriate to the total length of the program.

PROFESSIONAL REGISTRATION AND CERTIFICATION

Upon completion of the certificate requirements, and if the student has completed the new competency requirements of The American Registry of Radiologic Technologists (ARRT), the student is eligible to write the qualifying examination for computer tomography and/or magnetic resonance imaging of the ARRT. It is possible that a student may not be able to complete all of the competencies now required by the ARRT. If this is the case, it is the responsibility of the student to find an appropriate site to finish the required competencies after completing the program before writing the ARRT examination.

PROGRAM OF INSTRUCTION

COMPUTED TOMOGRAPHY /MAGNETIC RESONANCE IMAGING—Certificate

The program of instruction outlined below is for students enrolled during the 2000-2001 academic year.

RTSI	367	Cross-sectional Radiographic Anatomy	3
RTSI	368, 369	Special Imaging I, II	3, 3
RTSI	371-373	Special Imaging Affiliation I, II, III	1, 1, 1
RTSI	381-383	Topics in Special Imaging I, II, III	1-3, 1-3, 1-3*
RTMR	451	Management of a Radiologic Service	2**
RTMR	452	Quality Management in Radiologic Sciences	2
EMMC	484	Legal Issues in Health Care	2
RELE	___	Religious studies	2

RTSI 381-383 Topics in Special Imaging I, II, III may be taken concurrently with RTSI 371-373 Special Imaging Affiliation I, II, III for credit toward the baccalaureate degree.

*RTSI 381-383 is not part of the course requirement for nonbaccalaureate students.
**B.S. degree students take course for 3 units

A minimum grade of C (2.0) is required for all courses in the program.

COURSES

For information about units of credit and course numbers, see the beginning of section III of this BULLETIN.

RTCH 385 Current Issues in Radiation Sciences I (2)
A faculty-facilitated course that includes class discussion, small-group work, and presentation of student projects. Students choose the direction of their learning within the scope of the content by choosing the content of their group work and projects.

RTCH 411, 412 Student Teaching Practicum I, II (2, 2)
Classroom teaching experience. Includes preparation of lecture outlines, objectives, and tests. Presentation of lectures and laboratory sessions. Practical application of teaching techniques.

RTCH 413, 414 Radiologic Management Practicum I, II (2, 2)
Observation of and discussion with selected administrative personnel in a radiology service. Emphasis on practical application of management theory. Projects assigned.

RTCH 464 Moral Leadership (2)
Methods of applying servant leadership to management and educational settings. Concepts of managing learners and professionals, assessing leadership style, the essence of leadership, leadership skill building, and conflict management discussed within a moral framework. Assigned readings, discussions, papers, and personal inventories utilized to aid in assessing the learner's leadership skills.

RTCH 471 Applied Research Methods (1)
Application of research methods to radiation sciences. Directed experience with a research project. Laboratory.
Prerequisite: AHCJ 351.
Concurrent: AHCJ 454 or 461.

RTCH 475 Curriculum Development in Health Sciences (2)
Curriculum development theories and approaches applied to the health-science arena. Development of a seminar, course, or curriculum. Designing assessment tools and procedures, designing a learning experience, selecting appropriate technology, developing a learner-centered handout/syllabus, and cultivating respect for diversity in learning.

RTCH 485 Current Issues in Radiation Sciences II (2)
A student-centered, faculty-facilitated course that is a continuation of RTCH 385. Class discussion, small-group work, and presentation of student projects/paper. New technology and its impact on the radiology department.
Prerequisite: RTCH 385.

RTCH 494 Senior Project (3)
Project associated with the development of radiologic procedures and techniques. Units chosen in consultation with advisor.

RTCH 497 Advanced Clinical Experience (40 to 480 clock hours per term)
Advanced clinical experience in selected areas of professional practice.

RTCH 499 Radiation Technology Independent Study (.5-2)
Project or paper to be submitted on a topic of current interest in an area related to radiation technology. Regular meetings to provide the student with guidance and evaluation. Elected on the basis of need or interest. The .5 unit of credit is designed to offer directed experience in the prevention of AIDS and other communicable diseases in the clinical setting.

RTMR 202 Orientation Laboratory (1)
Clinical orientation to the functions of radiologic technologists. Laboratory sessions conducted at Loma Linda University Medical Center, Eisenhower Medical Center, Glendale Adventist Medical Center, Hemet Valley Medical Center, or Victor Valley Community Hospital.

RTMR 221 Radiologic Patient Care (2)
Aspects of patient care in the radiology service. Emphasis on aseptic techniques. Physical and emotional care of the patient in relation to radiologic procedure. Contrast media and other drugs used in the practice of radiology.

RTMR 253, 254, 255 Medical Radiography Procedures I, II, III (3, 4, 1)
Application of anatomy and physiology to the radiographic situation. Proper patient positioning, equipment usage, and technical film-quality factors.

RTMR 253L, 254L Medical Radiography Procedures Laboratory I, II (1, 1)
Principles of patient positioning and radiographic exposure applied to the laboratory setting. Clinical patient simulations and radiographic phantoms used to determine optimum techniques.

RTMR 283 Radiologic Physics (3)
Physics of radiation and radioisotopes. Theoretical basis for understanding the nature, production, and interaction of radiation with matter. Requirements of the state radiation-control law. Background for understanding radioactivity and its application in nuclear medicine and radiation therapy. Laboratory.
Prerequisite: Pass basic mathematics examination.

RTMR 284 Radiation Protection and Biology (2)
Fundamental concepts of radiation protection and biological effects of radiation on patients and occupationally exposed personnel. Application of radiation-safety laws.

RTMR 285 Principles of Radiography I (3)
Principles of producing the optimum radiograph. Physical factors involved in photographic processing techniques. Instruction in the use of accessory equipment in obtaining the optimum radiograph under any situation. Laboratory.

RTMR 286 Principles of Radiography II (4)
Advanced instruction in the principles of radiographic theory and technique. Application of television, cineradiography, and other photographic equipment and principles to medical radiography.

RTMR 287 Principles of Radiography III (2)
Applications of fluoroscopy to radiographic imaging. Introduction to new DIGITAL imaging modalities and their impact upon diagnostic radiography. Review of quality-assurance/quality-control practices in radiography.

RTMR 301, 302 Introduction to Radiographic Procedures I, II (1-3, 1-3)
Nature and description of radiologic procedures for the nonradiologic technologist. Principles and medical techniques applied to the radiographic setting. Survey of anatomy and instrumentation. Includes observation laboratory.

RTMR 321 Radiographic Film Critique (1)
Weekly conference for the critical evaluation of the fine points of the radiographic examination.

RTMR 322 Radiographic Film Critique II (1)
Weekly conference for the critical evaluation of the fine points of the radiographic examination.

RTMR 331 Special Technical Procedures (2)
History, techniques, and purposes of selected advanced radiologic procedures.

RTMR 334 CT and Cross-sectional Anatomy (2)
Recognition of basic anatomical landmarks as visualized in axially created digital images.

RTMR 342 Computer Applications in Radiology (1)
Application of computer-generated images in medical radiography. Includes computed tomography, digital subtraction angiography, nuclear medicine, ultrasound, radiation therapy, and magnetic resonance imaging.

Prerequisite: RTMR 285, 286, 287.

RTMR 345 Radiologic Pathology (2)
Appearance of common pathologic processes using radiologic imaging methods.

RTMR 363 Comprehensive Review (1)
Review of the major content areas emphasized on certification examinations. Student evaluation and performance analysis. Time provided to make class presentations, organize study materials, and take simulated registry examinations.

RTMR 371, 372, 373, 374, 375 Medical Radiography Affiliation I, II, III, IV, V (1, 2, 3, 2, 2)
Clinical experience of fifteen months covering a wide variety of technical procedures. Transmission and prevention of AIDS and other communicable diseases, with specific application to medical radiography. Clock hours per quarter: winter 208, spring 416, summer 520, autumn 416, winter 416.

RTMR 379 Special Project (1-3)
Project to be submitted in the form of a paper or a visual aid representing a topic of current interest in an area related to radiation sciences. Regular meetings to provide guidance to the student.

RTMR 381, 382, 383, 384, 385 Topics in Medical Radiography I, II, III, IV, V (3, 3, 3, 1-3, 1-3)
Survey of selected topics in medical radiography. Procedure summaries, projects, literature reviews. May be taken concurrently with RTMR 371-375 Radiography Affiliation I, II, III, IV, V for credit toward the baccalaureate degree.

RTMR 401, 402, 403, 404 Advanced Clinical Procedures I, II, III, IV (1-3, 1-3, 1-3, 1-3)
Credit for full-term, postcertification clinical practice in a radiology service. Periodic evaluations by the clinical supervisor.

RTMR 451 Management of a Radiologic Service (1-3)
Techniques of organization, planning, and management, with specific applications to a hospital radiology service.

RTMR 452 Quality Management in Radiation Sciences (2)
An in-depth look at continuous quality management of all aspects in a radiology department from equipment to personnel.

Prerequisite: RTMR 451.

RTMS 344 Medical Sonography I (4)
Introduction to sonography, including OB-GYN, abdo-men, vascular, neurosonography, cardiac, and pediatric. Terminology and scan techniques of all areas.

RTMS 345 Medical Sonography II (4)
OB-GYN and neonatal neurosonography specialties and scan techniques. Student case presentations and case studies.

RTMS 346 Medical Sonography III (5)
Vascular technology, doppler, abdomen, small-parts, and cross-sectional anatomy covered. Continued case studies and case presentations.

RTMS 347 Medical Sonography IV (4)
Cardiac sonography, including pediatrics. Continued case studies and case presentations.

RTMS 371, 372, 373, 374, 375, 376, 377, 378 Medical Sonography Affiliation I, II, III, IV, V, VI, VII, VIII (Attendance credit)
Clinical experience in medical sonography (416 clock hours per term) covering a wide variety of technical procedures.

Prerequisite: Completion of each course in sequence, beginning with RTMS 371.

RTMS 379 Ultrasound Physics and Instrumentation (3)
Study of the basic physical principles and instrumentation of ultrasound production and imaging. Selected case-study presentations, as assigned.

RTMS 381, 382, 383 Topics in Medical Sonography I, II, III (3, 3, 3)
Survey of selected topics in medical sonography. Procedure summaries, projects, literature reviews.

RTMS 385, 386 Topics in Medical Sonography V, VI (1-3, 1-3)
Selected projects that may be taken concurrently with RTMS 371-378 Medical Sonography I-VII for credit toward the B.S. degree.

RTMS 401, 402, 403, 404 Advanced Clinical Procedures I, II, III, IV (1-3, 1-3, 1-3, 1-3)
Credit for full-time, postcertification clinical practice in a medical sonography service. Periodic evaluations by the clinical supervisor.

RTNM 351, 352 Principles of Nuclear Medicine I, II (3, 3)
Radioactivity and its application in medicine. Atomic and nuclear structure, nuclear reactions, sources of radiation, modes of radioactive decay, dosage calculations, radiation hazards, biological effects, instrumentation, and basic measurements. Laboratory.

RTNM 353, 354 Nuclear Medicine Procedures I, II (2, 2)
Clinical applications of the principles discussed in RTNM 351, 352. Transmission and prevention of AIDS and other communicable diseases, with specific application to nuclear medicine. Laboratory.

RTNM 371, 372, 373, 374 Nuclear Medicine Affiliation I, II, III, IV (1, 1, 1, 1)
Clinical experience of twelve months (416 clock hours per term) covering a wide variety of technical procedures.

RTNM 381, 382, 383, 384 Topics in Nuclear Medicine I, II, III, IV (1-3, 1-3, 1-3, 1-3)
Survey of selected topics in nuclear medicine. Procedure summaries, projects, literature reviews. May be taken concurrently with RTNM 371-374 for credit toward the baccalaureate degree.

RTNM 401, 402, 403, 404 Advanced Clinical Procedures I, II, III, IV (3, 3, 3, 3)
Credit for full-time, postcertification clinical practice in a nuclear medicine service. Periodic evaluations by the clinical supervisor.

RTSI 367 Cross-sectional Radiographic Anatomy (3)
Overview of gross anatomy. Identification of normal anatomy in two-dimensional as well as three-dimensional planes. Relation of the structural as well as the physiological functions of the different body systems.

RTSI 368, 369 Special Imaging I, II (3, 3)
Part I: Basic principles, physics, imaging parameters, biological effects, management, and patient protocol of magnetic resonance imaging (MRI).

Part II: Basic principles, physics, imaging parameters, radiological effects, management, and patient protocol of computed tomography (CT).

RTSI 371, 372, 373 Special Imaging Affiliation I, II, III (attendance credit)
Clinical experience of nine months (three quarter terms of 520 clock hours per term) that provides a wide variety of experiences in computerized tomography (CT) and magnetic resonance imaging (MRI).

RTSI 381, 382, 383 Topics in Special Imaging I, II, III (1-3, 1-3, 1-3)
Survey of selected topics in special imaging. Procedure summaries, projects, literature reviews. May be taken concurrently with RTSI 371-373 for credit toward the baccalaureate degree.

RTSI 389 Special Project (1)
Project to be submitted in the form of a paper or a visual aid representing a topic of current interest in an area related to radiation sciences. Regular meetings to provide guidance to the student.

RTSI 391, 392, 393 Internships I, II, III (3, 3, 3)
Advanced clinical training for qualified CRT, AART-certified individuals, with current CPR and fluoro permit. Training involves three quarters (nine months) of clinical time in the areas of cardiovascular/general angiography and interventional radiography. Clinical learning experience is full-time involving forty hours per week.

RTSI 401, 402, 403, 404 Advanced Clinical Procedures I, II, III, IV (3, 3, 3, 3)
Credit for full-time, postcertification clinical practice in a radiology service. Periodic evaluations by the clinical supervisor.

RTTH 332 Radiation Biology (1)
Radiation effects on living systems.

RTTH 342 Patient-Care Practices in Radiation Therapy (2)
Aspects of radiation therapy patient care. Emphasis on equipment, treatment, and psychological support of the patient. Transmission and prevention of AIDS and other communicable diseases, with specific application to radiation therapy.

RTTH 344 Radiation Therapy Procedures (2)
Study and/or practical applications of patient support and immobilization devices. Principles of choosing patient-treatment modalities. Methods of tumor localization. Purposes and utilization of beam direction and modification equipment.

RTTH 345 Quality Assurance in Radiation Technology (1)
General aspects of continuous quality improvement (CQI) and specific aspects of quality management as they relate to the Department of Radiation Therapy. Examination of the comprehensive nature of a quality- managment program, and quantification of the radiation therapist's role on the CQI team.

RTTH 348 Radiation Therapy Review (1)
Comprehensive review of radiation physics, protection, and dosimetry. Application of radioactive materials. Radiobiology. Technical aspects of radiation oncology.

RTTH 353 Psycho-Oncology (2)
Examination of potential psychological effects of malignant disease on the patient and family. The patient's emotional responses to the initial diagnosis, and methods of coping and adapting to the disease and its treatment. The role of the radiation therapist as a member of the patient's emotional support team.

RTTH 355 Physical Principles of Radiation Therapy I (3)
Nature and description of the structure of matter and energy. Radioactive decay schemes and interaction of photons and gamma radiation. Instrumentation involved in measurement of ionizing radiation, beam quality, and dose. Laboratory.

RTTH 356 Physical Principles of Radiation Therapy II (3)
Calibration techniques of photon, particulate, and electron beams. Percentage depth dose, tissue-air ratios, treatment planning, scatter functions, field flatness, and symmetry. Field shaping, arc therapy, and tissue inhomogeneities. Clinical dosimetric considerations. Laboratory.

RTTH 357 Applied Dosimetry (2)
Brachytherapy sources, isotope calibration, protection, and implantation techniques. Teletherapy equipment and protection. Quality assurance for external and brachytherapy procedures. Laboratory.

RTTH 358 Advanced Dosimetry (3)
Development of student's ability to construct treatment plans using the 3-D planning system. Integrates theory with practice. Student completes a number of plans that utilize all major treatment techniques.
Prerequisite:RTTH 357 (or equivalent)

RTTH 364, 365 Radiation Oncology I, II (3, 3)
A two-term course covering pathology, etiology, epidemiology, histopathology, metastasis, staging, and treatment of major types of malignant neoplasms. Includes technique/simulation laboratory.

RTTH 371, 372, 373, 374 Radiation Therapy Affiliation I, II, III, IV (attendance credit)
Clinical experience of twelve months (520 clock hours per term) covering a wide variety of technical procedures.

RTTH 381, 382, 383, 384 Topics in Radiation Therapy I, II, III, IV (1-3, 1-3, 1-3, 1-3)
Survey of selected topics in radiation therapy. Procedure summaries, projects, literature reviews. May be taken concurrently with RTTH 371-374 for credit toward the baccalaureate degree.

RTTH 401, 402, 403, 404 Advanced Clinical Procedures I, II, III, IV (3, 3, 3, 3)
Credit for full-time, postcertification clinical practice in a radiation therapy service. Periodic evaluations by the clinical supervisor.

CONJOINT

See CONJOINT COURSES, section III, for course descriptions.

Steve Leber, director of the Special Imaging Technology Program.

COGNATE

DTCS 301 Human Nutrition (3)
Fundamentals of normal nutrition. Carbohydrates, proteins, fats, vitamins, minerals; their roles in human metabolism. Introduction to nutrition in the life cycle. Per week: lecture 3 hours.

EMMC 314 Introduction to 12-Lead ECG Interpretation (1)
Development of basic ECG interpretation skills. Focus on anatomy and physiology, underlying pathophysiology, basic rhythm recognition, and overview of related treatments. Special emphasis on skills needed by bedside practitioner to differentiate between benign and life-threatening dysthythmias.

EMMC 484 Legal Issues in Healthcare (2)
Introduction to the legal system as it pertains to health care professionals. Concepts of malpractice, litigation, consent for and refusal of medical treatment, advanced directives, and patient confidentiality. Discussion of employment issues, including discrimination and sexual harassment. Development of health and safety programs per OSHA regulations, risk management, legal issues in vehicle operations and equipment, and EMS and law enforcement interactions.

HPRO 543 Writing for the Health Professional (2-3)
Writing by health professionals for popular, lay, or professional publications. Selection of journal or magazine, writing of query letter, preparation of abstract and manuscript in final form for submission. Includes preparation of camera-ready art. One publishable paper for 2 units; two for 3 units.

RELE 457 Christian Ethics and Health Care (2)
Ethical issues in modern medicine and related fields from the perspective of Christian thought and practice.

SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY

SPEECH-LANGUAGE PATHOLOGY—Certificate
SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY—Bachelor of Science

KEIKO KHOO, Chair

FACULTY

Noha S. Daher
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Jean B. Lowry
Karen J. Mainess
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CLINICAL FACULTY

Melissa K. Backstrom-Gonzales
Juli A. Baer-Spiller
Gary A. Lucas
David G. McGann

Speech-language pathologists are concerned with evaluating and treating children and adults with communication disorders. Difficulties in the areas of speech, language, fluency, and voice are associated with a variety of disorders, including developmental delay, hearing impairment, cleft palate, cerebral palsy, stroke, and head injury. Audiologists are concerned with prevention, identification, assessment, and rehabilitation of hearing disorders. For both professions it is important that the student have an interest in working with people.

OPPORTUNITIES

Employment opportunities for speech-language pathologists and audiologists exist within speech and hearing clinics, public schools, hospitals, universities, health departments, skilled nursing facilities, home-health agencies, rehabilitation centers, industry, and private practice. These fields allow for considerable flexibility relative to personal interest within the profession. There is ample opportunity for employment.

GRADUATE PROGRAM

A program leading to the Master of Science degree in speech-language pathology is described in the BULLETIN of the Graduate School.

SPEECH-LANGUAGE PATHOLOGY—Certificate

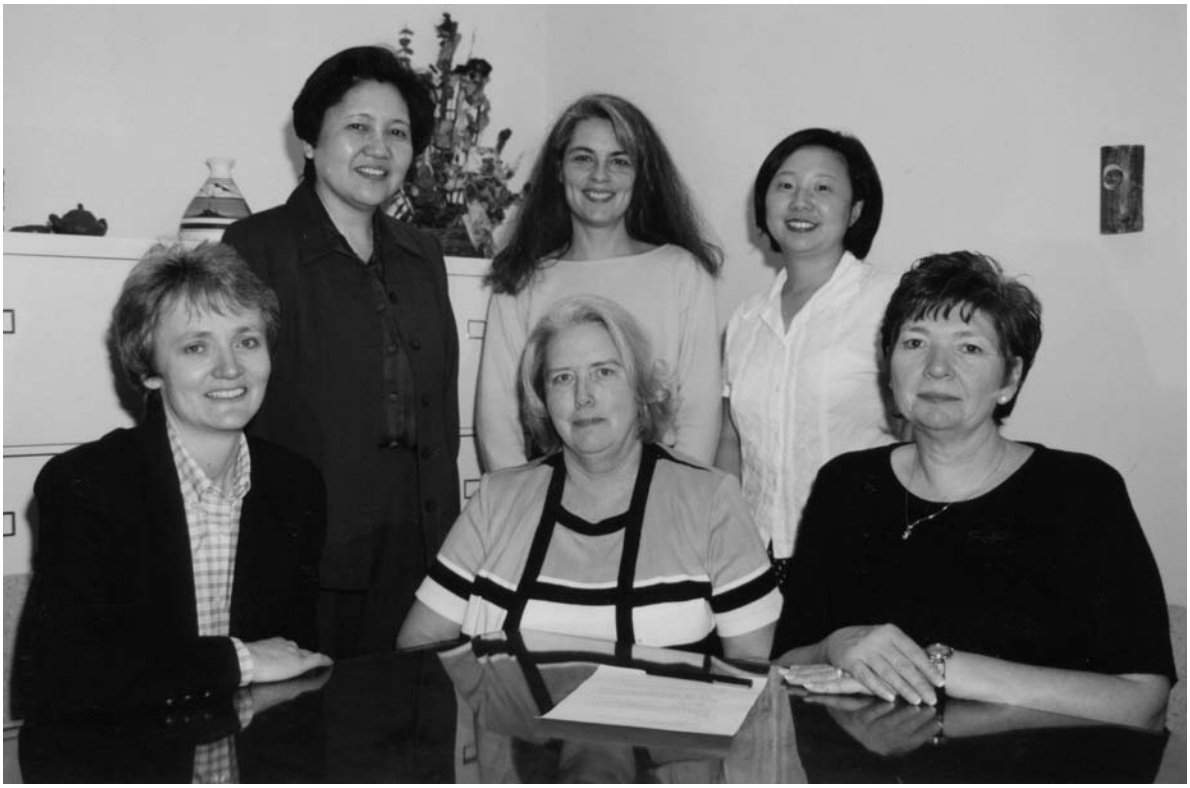
Any individual with a bachelor's degree from an accredited institution is eligible for the certificate program. This program permits completion of undergraduate prerequisites before entering the graduate program. The individual must have a bachelor's degree from an accredited institution with a G.P.A. of 3.0, and GRE scores will be required before admission to the graduate program. It is recommended that the applicant take the GRE before applying to the certificate program. Completion of the certificate program does not guarantee admission into the graduate program.

CURRICULUM

SPPA	201	Observation of Clinical Management in Speech Pathology	1
SPPA	277	Development of Speech and Language	4
SPPA	304	Hearing Science	4
SPPA	317	Acoustic, Physiological, and Transcription Phonetics	2
SPPA	318	Transcription Phonetics	3
SPPA	324	Language Disorders of Children	4
SPPA	334	Phonological and Articulation Disorders	4
SPPA	376	Anatomy of Speech-Hearing Mechanism	4
SPPA	377	Bilingualism and Biculturalism I	1
SPPA	424	Adult Language Pathology	4
SPPA	434	Disorders of Fluency	4
SPPA	444	Organic Speech Disorders	4
SPPA	454	Hearing Problems and Basic Audiometry	4
SPPA	485	Procedures and Materials in Speech-Language Pathology	3
SPPA	486	Diagnostic Methods in Speech-Language Pathology	4
SPPA	499	Independent Study: Voice Disorders	2

Students who plan to complete a Clinical Rehabilitative Services Credential-Language, Speech, and Hearing will need to take the following additional course:

PSYC	305	Psychological Foundations of Education	4



(Standing, left to right) Kay Khoo (department chair), Susan Stefanni, Yoomi Kim; (seated, left to right) Marcia Hill, Jean Lowry, and Paige Schaughnessy—taking a break from refining this year's course curriculum in the Speech-Language Pathology and Audiology Program.

SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY—Bachelor of Science

THE PROGRAM

The Speech-Language Pathology and Audiology Program, leading to the Bachelor of Science degree, begins with the Autumn Quarter of the junior year. The freshman and sophomore years, which are taken at an accredited college or university, afford the fundamentals of a liberal education. The emphasis in the junior and senior years is on professional courses and practical experience.

Clinical experience

Supervised clinical practicum is an integral part of the student's education. Completion of specific theoretical courses precedes placement for practicum.

Accreditation

The program is approved by the Educational Standards Board of the American Speech-Language-Hearing Association, 10801 Rockville Pike, Rockville MD 20852; 301/897-5700.

PREPARATION FOR CREDENTIAL

The Speech-Language Pathology and Audiology Program is approved by the Commission on Teacher Credentialing to prepare students for the California Clinical Rehabilitative Services Credential in Language, Speech, and Hearing. Requirements for this credential include the completion of specific academic and clinical work at the graduate level.

A student preparing for a career in California schools should consult the department regarding specific course and practicum requirements for this credential.

THE PROGRAM OBJECTIVES

Upon completion of the program, the graduate should be qualified to:

1. Demonstrate a basic knowledge of the human communication processes, including:
   a) the anatomic and physiologic bases for the normal development and use of speech, language, and hearing;
   b) the physical bases and processes of the production and perception of speech, language, and hearing;
   c) the linguistic variables related to normal development of speech, language, and hearing;
2. Demonstrate a basic knowledge of the major types of human communication disorders.
3. Demonstrate ethical behavior in their personal and professional lives.
4. Demonstrate a commitment to the communicatively handicapped community and to the betterment of humankind.
5. Seek employment for positions that require a college degree or are indirectly related to speech-language pathology and audiology, or
6. Seek admission to a graduate program in speech-language pathology or audiology or related disciplines.

PROFESSIONAL REGISTRATION

In most states, including California, graduate study is required before entering the profession. After satisfactorily completing the Master of Science degree, the graduate is eligible to take the qualifying examination for licensure in the state of California and for the Certificate of Clinical Competence. After completing a one-year clinical fellowship, the individual is eligible to apply for licensure and for certification by the American Speech-Language-Hearing Association (ASHA).

STUDENT PROFESSIONAL ASSOCIATION

Students are eligible for membership in the National Student Speech-Language-Hearing Association. The student is encouraged to become a member, read the journals, and attend local meetings. The national office address is the National Student Speech-Language-Hearing Association, 10801 Rockville Pike, Rockville, MD 20852.

ADMISSION

To be eligible for admission, the applicant must have completed a minimum of 96 quarter units at an accredited college or university. The student completes (1) the General Education requirement and (2) the speech-language pathology and audiology core. Electives to meet the needs of the individual student are selected from existing courses after consultation with the department chair.

Prerequisites for Speech-Language Pathology and Audiology, B.S.

20 units minimum in humanities (choose a minimum of two areas from: history, literature, philosophy, foreign language, art/music appreciation/history)

Religion required, 4 units per year of attendance, if at a Seventh-day Adventist college or university

Human anatomy and physiology, complete sequence

Introductory physics, one quarter/semester (recommended)

Select a total of 12 quarter units natural sciences, including anatomy and physiology, and physics. Select from chemistry, geology, biology, physics, mathematics. (No more than 6 units may count toward one area.)

Two years high school mathematics with grades of C or above; **or** intermediate algebra in college

General psychology

Cultural anthropology **or** an approved course dealing with cultural diversity

Human growth and development **or** developmental psychology

English composition, complete sequence

Speech

Personal health **or** nutrition

Two physical education courses

Electives to meet a minimum total requirement of 96 quarter units

For total unit requirement for graduation, see DIVISION OF GENERAL STUDIES, Criteria for General Educationn Course.

SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY CORE

SPPA	201	Observation of Clinical Management in Speech Pathology	1
SPPA	217	Beginning Sign Language	2
SPPA	277	Development of Speech and Language	4
SPPA	284	Introduction to Speech-Language Pathology and Audiology	3
SPPA	304	Hearing Science	4
SPPA	317	Acoustic, Physiological, and Transcription Phonetics	2
SPPA	318	Transcription Phonetics	3
SPPA	324	Language Disorders of Children	4
SPPA	334	Phonological and Articulation Disorders	4
SPPA	376	Anatomy of Speech-Hearing Mechanism	4
SPPA	377	Bilingualism and Biculturalism I	2
SPPA	415	Intermediate Sign Language	2
AHCJ	305	HIV/AIDS and the Health Provider	1
AHCJ	328	Portfolio Practicum	1
AHCJ	351	Statistics for the Health Professions	3
AHCJ	461	Research Methods	2
AHCS	498	Portfolio Practicum II	1
PSYC	305	Psychological Foundations of Education	4
PSYC	404	Psychological Tests and Measurements	3
PSYC	460	The Exceptional Child	3
ENGL	478	Theory and Application of Linguistics	4
PSYC	479	Human Neuropsychology	4

Select 23 units from:

SPPA	424	Adult Language Pathology	4
SPPA	434	Disorders of Fluency	4
SPPA	435	Voice Disorders	4
SPPA	444	Organic Speech Disorders	4
SPPA	454	Hearing Problems and Basic Audiometry	4
SPPA	467	Speech-Language Pathology and Audiology Practicum	1-4
SPPA	477	Bilingualism and Biculturalism II	2
SPPA	485	Procedures and Materials in Speech-Language Pathology	3
SPPA	486	Diagnostic Methods in Speech-Language Pathology	4

A minimum grade of C (2.0) is required for all courses in the program.

COURSES

For information about units of credit and course numbers, see the beginning of section III of this BULLETIN.

SPPA 201 Observation of Clinical Management in Speech Pathology (1-2)
Attendance at scheduled sessions to observe clinical management of the communicatively handicapped. May be repeated once for additional credit.

SPPA 216 Deaf Bicultural Bilingual Development (2)
Issues important to speech, language and literacy development. Clinicianship that is sensitive to Deaf culture.

SPPA 217 Beginning Sign Language (2)
Focus on learning American Sign Language (ASL) for conversational purposes. Students will learn fingerspelling, aquire a sign vocabulary of approximately 500 words, and explain and demonstrate the basic grammatical rules of ASL. Opportunity provided to use ASL with nature signers. Students discuss ASL in contrast to the various sign systems currently being used in educational settings in this country.

SPPA 277 Development of Speech and Language (4)
Normal speech and language development of children, including social dialects as well as standard English. Influencing physiological and environmental factors.

SPPA 284 Introduction to Speech-Language Pathology and Audiology (3)
Major types of disorders. Etiology and treatment. Survey course for students majoring in speech-language pathology and audiology, prospective teachers, and others who may encounter speech-language or hearing disorders in their professions.

SPPA 304 Hearing Science (4)
Introduction to basic theories and laboratory exercises in acoustics, psychoacoustics, and physiological acoustics.

SPPA 317 Acoustic, Physiological, and Transcription Phonetics (2)
Acoustic and physiological correlates of speech-sound production.

SPPA 318 Transcription Phonetics (3)
Development of transcription skills using the international phonetics alphabet.

SPPA 324 Language Disorders of Children (4)
Impairments of language development in children. Formal and informal assessment of children. Program planning and remediation procedures.
Prerequisite: SPPA 277.

SPPA 334 Phonological and Articulation Disorders (4)
Definition, classification, etiology, diagnosis, and treatment of phonological/articulation disorders.
Prerequisite: SPPA 319.

SPPA 376 Anatomy of Speech-Hearing Mechanism (4)
Anatomy and physiology of auditory-vocal communicative process.

SPPA 377 Bilingualism and Biculturalism I (2)
Explores the psycholinguistic views of bilingualism in childhood. Advantages of the dual linguistic systems for problem solving and disadvantages due to the less-than-well-developed primary language. Introduces the applied linguistic views of adolsecent and adult speakers of second languages and discusses major methods currently used in facilitating balanced bilingualism.

SPPA 415 Intermediate Sign Language (2)
Further development of sign-language skills, with emphasis on ASL grammar. Introduction to deaf culture and various perspectives on deafness or approaches to aural rehabilitation.

SPPA 424 Adult Language Pathology (4)
Impairment of language and speech related to organic neuropathology.
Prerequisite: SPPA 376.

SPPA 434 Disorders of Fluency (4)
Characteristics, theories of etiology, and principles of management of stuttering and other fluency disorders.

SPPA 435 Voice Disorders (4)
Definition, classification, etiology, diagnosis, and treatment of voice disorders. Pitch, intensity, quality, and resonance.
Prerequisite: SPPA 376.

SPPA 444 Organic Speech Disorders (4)
Introduction to the classification, cause, manifestations, assessment, and treatment of craniofacial disorders/cleft palate, tongue thrust, dysarthria, apraxia of speech, and dysphagia.
Prerequisite: SPPA 376.

SPPA 454 Hearing Problems and Basic Audiometry (4)
Anatomy and physiology of the auditory mechanism. Nature of the acoustic stimulus, disorders of the ear, problems of the hard-of-hearing. Pure-tone audiometry. Applicable toward California audiometric certification.

SPPA 467 Speech-Language Pathology and Audiology Practicum (1-4)
Supervised practice in diagnosis and therapy. Minimum of thirty clock hours required for each unit of credit.
Prerequisite: SPPA 324, 334, 485, 486.

SPPA 477 Bilingualism and Biculturalism II (2)
Addresses the clinical competencies and cultural sensitivity needed in dealing with bicultural and bilingual clients. Discusses the impact of such knowledge on assessment and intervention.

SPPA 485 Procedures and Materials in Speech-Language Pathology (3)
Principles and procedures of speech-language therapy within and across disorders. Methods of determining treatment effectiveness. Regulations governing public school services.

SPPA 486 Diagnostic Methods in Speech-Language Pathology (4)
Purpose for assessment. Procedures employed in describing and diagnosing speech-language impairments.

Prerequisite: SPPA 319, 324, 334.

SPPA 496 Workshops in Speech-Language Pathology and Audiology (1-4)
May be repeated with new content for additional credit.

SPPA 499 Speech-Language Pathology and Audiology Independent Study (1-2)
Project or paper to be submitted on a topic of current interest in an area related to speech-language pathology and audiology. Regular meetings to provide the student with guidance and evaluation. Elected on the basis of need or interest.

CONJOINT

See CONJOINT COURSES, section III, for course descriptions.

COGNATE

ENGL 478 Theory and Application of Linguistics (3)
Introduces general linguistics. Covers the core linguistic areas of syntax, phonetics, phonology, morphology, and semantics. Also peripheral linguistic areas such as socio-linguistics, pragmatics, and psycholinguistics.

PSYC 305 Psychological Foundations of Education (4)
Studies psychological development as it relates to the learning process and to evaluation techniques for learners in elementary and secondary schools.

Prerequisite: General psychology.

PSYC 404 Psychological Tests and Measurements (3)
Develops competencies and understandings for selecting, administering, and interpreting the major types of standardized tests and inventories used in psychology and education. Presents theoretical principles and issues together with hands-on applications. Practicum required.

PSYC 460 The Exceptional Individual (3)
Study of the determinants, characteristics, problems, and adjustments of individuals who deviate markedly from the norm in their mental, physical, emotional, or social aptitudes, traits, and tendencies. Emphasis on education and career planning . Open to upper-divisio graduate and postgraduate students only.

PSYC 479 Human Neuropsychology (4)
Introduction to brain-behavior relationships, including cerebral asymmetry, disconnection syndromes, disorders of memory and language, biological substrates of affective behavior, motor and perceptual dysfunction, and drug actions.

GRADUATE

Consult Graduate School BULLETIN for details.

SPPA 524 Language Disorders of Children, Advanced (3)

SPPA 535 Voice Disorders (3)

SPPA 544 Cleft Palate (3)

SPPA 564 Auditory Rehabilitation and Hearing Aids (3)

SPPA 567 Clinical Practice in Speech-Language Pathology and Audiology, Advanced (1-6)

SPPA 568 Clinical Practice in Speech-Language Diagnostics (1-3)

SPPA 575 Instrumentation in Speech and Hearing (1)

SPPA 577 Applied Psycholinguistics (3)

SPPA 585 Professional Aspects of Speech-Language Pathology and Audiology (2)

SPPA 586 Advanced Diagnostics in Speech-Language Pathology (3)

SPPA 587 Counseling in Communication Disorders (2)

SPPA 588 Directed Teaching in Speech-Language Pathology (3-6)

SPPA 596 Workshop in Speech-Language Pathology/Audiology (3)

SPPA 598 Research Methods and Professional Literature (2)

SPPA 681 Seminar: Motor Speech Disorders/ Augmentative Communication (3)

SPPA 682 Seminar: Traumatic Brain Injury (3)

SPPA 684 Seminar: Adult Language Disorders (3)

SPPA 685 Seminar: Stuttering (3)

SPPA 687 Seminar: Open Seminar (1-3)

SPPA 688 Seminar: Articulation (3)

SPPA 697 Research (1-4)

SPPA 698 Thesis (1-6)

SPPA 699 Directed Study (1-3)

IV

FACULTY OF RELIGION

Mission Statement

Courses

Faculty of Religion

MISSION STATEMENT

The Faculty of Religion is committed to the following four tasks as informed by the teachings and practice of the Seventh-day Adventist heritage and mission:

1. To promote Christian wholeness for faculty and students in their personal and professional lives and witness.
2. To provide a religion curriculum with the following emphases:
   - Foundational Studies (biblical, theological, mission, and historical).
   - Ethical Studies (personal, professional, and social).
   - Relational Studies (applied theology, clinical ministry, and psychology of religion).
3. To foster and support research in the foundational, ethical, and relational disciplines.
4. To serve the University, the church, and the larger world community by personal involvement in fostering deeper spirituality, theological integrity, and social justice

COURSES

FOUNDATIONAL STUDIES

BIBLICAL STUDIES

RELF 404 New Testament Writings (2-3)
Interpretation of selected letters and passages of the New Testament, with a view to their theological and practical significance for today.
Additional project required for third unit.

RELF 419 Gospel of John (2-3)
Key passages and themes in John, with an exploration of its message for today.
Additional project required for third unit.

RELF 424 Hebrew Prophets (2-3)
Selected books, passages, and themes in the Old Testament prophets, with an exploration of their theological and practical significance for today.
Additional project required for third unit.

RELF 426 Mission and Message of Jesus (2-3)
Study of the healing ministry and redemptive message of Jesus, with application to health professionals.
Additional project required for third unit.

RELF 428 Gospel of Mark (2-3)
Key passages and themes in Mark, with an exploration of its message for today.
Additional project required for third unit.

RELF 429 Gospel of Luke (2-3)
Key passages and themes in Luke, with an exploration of its message for today.
Additional project required for third unit.

RELF 439 Gospel of Matthew (2-3)
Key passages and themes in Matthew, with an exploration of its message for today.
Additional project required for third unit.

RELF 464 Paul's Letter to the Romans (2-3)
Chapter-by-chapter interpretation of Paul's most influential letter, in which the good news of God's salvation is applied to the issues of Christian life and community.
Additional project required for third unit.

RELF 468 Daniel (2-3)
Nature, purpose, and message of the apocalyptic book of Daniel.
Additional project required for third unit.

RELF 469 Revelation (2-3)
Nature, purpose, and message of the apocalyptic book of Revelation.
Additional project required for third unit.

RELF 474 Love and Sex in Biblical Teaching (2-3)
Study of Scripture on the reality, nature, and challenges of love, both divine and human; and of key biblical passages on the goodness, meaning, and distortions of human sexuality.
Additional project required for third unit.

RELF 475 Spirituality and the Contemporary Christian (2-3)
Exploration of the meaning of spirituality in the light of Scripture and Christian thought, and study of practices and disciplines that form and mature an individual's spiritual life.
Additional project required for third unit.

RELF 476 The Bible and Ethics (2-3)
Ways in which the Bible and ethics are related. Major ethical themes in biblical teaching.
Additional project required for third unit.

RELF 499 Directed Study (1-3)
Prerequisite: Consent of instructor.

RELF 558 Old Testament Thought (3-4)
Introduction to the literature and key theological themes of the Old Testament.
Additional project required for fourth unit.

RELF 559 New Testament Thought (3-4)
Introduction to the literature and key theological themes of the New Testament.
Additional project required for fourth unit.

RELF 699 Directed Study (1-6)
Prerequisite: Consent of instructor.

THEOLOGICAL STUDIES

RELF 406 Adventist Beliefs and Life (2-3)
Fundamental tenets of Seventh-day Adventist faith and the lifestyle that such faith engenders.
Additional project required for third unit.

RELF 415 Philosophy of Religion (2-3)
Philosophical study of religion, including the nature and function of religious language, evidence for the existence of God, the problem of evil, and religious diversity.
Additional project required for third unit.

RELF 416 God and Human Suffering (2-3)
Suffering and evil in relation to the creative and redemptive purposes of God for this world.
Additional project required for third unit.

RELF 417 Christian Beliefs and Life (2-3)
Introduction to what is basic to Christianity, in terms of beliefs and lifestyle.
Additional project required for third unit.

RELF 437 Current Issues in Adventism (2-3)
Selected theological, ethical, and organizational questions of current interest in Adventism, with the goal of preparation for active involvement in the life of the Seventh-day Adventist church. Recommended for students with a Seventh-day Adventist background.
Additional project required for third unit.

RELF 538 Doctrine of Humanity (3-4)
The Christian understanding of the nature and destiny of human beings.
Additional project required for fourth unit.

RELF 539 Doctrine of God (3-4)
Study of the nature and attributes of God, the trinitarian concept of God, and God's relation to the temporal world.
Additional project required for fourth unit.

RELF 557 Theology of Human Suffering (3-4)
Suffering and evil in relation to the creative and redemptive purposes of God for this world. Focus on formation of student's theology of human suffering.
Additional project required for fourth unit.

RELF 604 Seminar in Religion and Science (3-4)
Research seminar in the relation between religion and science.
Prerequisite: Consent of instructor.

RELF 615 Seminar in Philosophy of Religion (3-4)
Examination of the concept of God, arguments for the existence of God, the relationship of faith and reason, and the nature of religious language.
Additional project required for fourth unit.

MISSION STUDIES

RELF 440 World Religions (2-3)
Survey of the origins, beliefs, and contemporary practices of the world's major religious systems. Attention to the interaction between specific religions and their cultures and to similarities, differences, and potential for understanding among the religions.
Additional project required for third unit.

RELF 444 Christian Mission (2-3)
Biblical theology applied to defining the concerns, structures, and methods of Christian mission. Concept of the Church, the definition of missionary, and the priorities of mission.
Additional project required for third unit.

RELF 447 Crosscultural Ministry (2-3)
Study of the challenges of serving crosscultural situations from a Christian mission perspective, using the insights of missiology and cultural anthropology as they relate to personal and professional growth, social change, and effective intercultural communication and service.
Additional project required for third unit.

RELF 534 Anthropology of Mission (3-4)
Study of Christian mission, applying the findings of anthropology as they relate to cultural change. Processes of religious development, means of diffusion, factors affecting religious acculturation, and analysis of programs intended to effect changes in religion.
Additional project required for fourth unit.

HISTORICAL STUDIES

RELF 407 Comparative Religious Experience (2-3)
Examination of the religious experience held by adherents of various Christian confessions.
Additional project required for third unit.

RELF 423 Loma Linda Perspectives (2-3)
History and philosophy of Loma Linda University as a Christian health-sciences institution that fosters human wholeness.
Additional project required for third unit.

RELF 425 Contemporary Religious Issues (2-3)
Analysis of prominent topics in religion discussed in contemporary journals.
Additional project required for third unit.

RELF 436 Adventist Heritage and Health (2-3)
Origin and development of Seventh–day Adventist interest in health, from the background of nineteenth–century medicine and health reform to the present.
Additional project required for third unit.

RELF 555 Adventist Experience (3-4)
Introduction to the beliefs and values that shape the Seventh-day Adventist community.
Additional project required for fourth unit.

ETHICAL STUDIES

RELE 448 Christian Business Ethics (2-3)
Christian and other perspectives on ethical issues in business and their pertinence to health care delivery and administration.
Additional project required for third unit.

RELE 455 Christian Understanding of Sexuality (2-3)
Interpretations of human sexuality in ancient, medieval, and modern Christian thought, with emphasis on contemporary issues such as marriage, divorce, homosexuality, and artificial human procreation.
Additional project required for third unit.

RELE 456 Personal and Professional Ethics (2-3)
Introductory exploration of the foundations, norms, and patterns of personal integrity in professional contexts.
Additional project required for third unit.

RELE 457 Christian Ethics and Health Care (2-3)
Ethical issues in modern medicine and related fields from the perspective of Christian thought and practice.
Additional project required for third unit.

RELE 458 Ethical Issues in Health Care (2-3)
Discussions of ethical issues in modern medicine and related fields. (For off–campus program only.)
Additional project required for third unit.

RELE 499 Directed Study (1-3)
Prerequisite: Consent of instructor.

RELE 505 Clinical Ethics (3)
In-depth, case-based analysis of bioethics, with emphasis on clinical applications. Background conceptual and historical readings orient students to the issues highlighted by classic cases in bioethics.
Additional project required for fourth unit.

RELE 522 Bioethical Issues in Social Work (3-4)
Theoretical and practical dilemmas in contemporary biomedical ethics. Emphasis on the distinctive contributions social workers can make to the identification, clarification, and resolution of these dilemmas.
Additional project required for fourth unit.

RELE 524 Christian Bioethics (3-4)
Advanced analysis of ethical issues and options in medicine and related fields. Contributions of Christian thought and life. Topics selected in part by student priorities.
Additional project required for fourth unit.

RELE 525 Ethics for Scientists (3-4)
Ethical presuppositions and obligations of scientific research, particularly in the physical and biological sciences. Identification, clarification and resolution of ethical issues in scientific research, with emphasis on Christian contributions.
Additional project required for fourth unit.

RELE 534 Ethical Issues in Public Health (3-4)
Theoretical and practical appraisals of the ethical issues and alternatives encountered by public health administrators, educators, and investigators.
Additional project required for fourth unit.

RELE 548 Christian Social Ethics (3-4)
Implications of Christian belief for selected problems in social ethical theory and practice.
Additional project required for fourth unit.

RELE 554 Clinical Intensive in Biomedical Ethics I (4)
Theories and applications of clinical biomedical ethics.

RELE 555 Clinical Intensive in Biomedical Ethics II (4)
Theories and applications of clinical biomedical ethics.
Prerequisite: RELE 554.

RELE 577 Theological Ethics (3-4)
Primary theological legacies of Western culture. Relationships between doctrinal formulations and interpretations of health and healing; possible contribution of each legacy to contemporary therapeutic endeavors.
Additional project required for fourth unit.

RELE 588 Philosophical Ethics (3-4)
Critical analysis of the basic theories propounded in Western philosophical ethics. Study of writings of major ethical theorists, including Plato, Aristotle, Kant, and Mill. Philosophical ethics compared with Christian faith.
Additional project required for fourth unit.

RELE 589 Biblical Ethics (3-4)
Exploration of the nature of biblical ethics and the contribution which the Bible makes to ethical reflection and action.
Additional project required for fourth unit.

RELE 624 Seminar in Christian Ethics (3-4)
Advanced study of selected topics in Christian ethics.
Prerequisite: Consent of instructor.

RELE 699 Directed Study (1-6)
Prerequisite: Consent of instructor.

RELATIONAL STUDIES

APPLIED THEOLOGY

RELR 404 Christian Service (1-2)
Participation in approved service learning with written reflection on the Christian reasons for service.
Prerequisite: Consent of instructor

RELR 448 Leadership in the Church and Community (2-3)
Theology and practice of lay church involvement and leadership by health care professionals.
Additional project required for third unit.

RELR 528 Christian Citizenship and Leadership (3-4)
Christian principles for fostering healthy communities and transforming the institutions of society. Study will include the function of religion in society and the significance of Christian faith for public leadership and social policies.
Additional project required for fourth unit.

RELR 565 Introduction to Pastoral Theology (3-4)
Study of the biblical, theological, and historical foundations for the practice of ministry.
Additional project required for fourth unit.

RELR 567 Introduction to Pastoral Counseling (3-4)
Overview of theology, history, theory, and practice of pastoral counseling.
Additional project required for fourth unit.

RELR 574 Introduction to Preaching (3-4)
Exploration of the theology, content, and practice of Christian proclamation, with emphasis on the development of basic skills for the preparation and delivery of biblical messages in a variety of settings.
Additional project required for fourth unit.

CLINICAL MINISTRY

RELR 398 Practicum in Integrative Health Care (2)
Practical study of knowledge, values, attitudes, and skills contributing to student's personal growth and to healing of the patient. Special attention to personal wholeness, including physical, mental, relational, and spiritual dimensions.
For off–campus program only.

RELR 409 Christian Perspectives on Death and Dying (2-3)
From a Christian perspective, consideration of the meaning of death, including: the process of dying, cultural issues regarding death and dying, grief and mourning, suicide, and other related issues.
Additional project required for third unit.

RELR 427 Crisis Counseling (2-3)
Crisis phenomena, current crisis theory, a Christian model of crisis care, and the dynamics and practices of crisis care.
Additional project required for third unit.

RELR 475 Art of Integrative Care (2-3)
Principles, concepts, and practices that affect the ministry of health care and the Christian witness in the clinical setting.
Additional project required for third unit.

RELR 524 Clinical Pastoral Education (6-12)
Twelve-week course including supervised experience with patients, lectures by hospital staff, hospital rounds with physicians, seminars and conferences. Five eight-hour days per week. [Limited enrollment. Credit earned in this course is recognized by the Association for Clinical Pastoral Education, Incorporated.]

RELR 525 Health Care and the Dynamics of Christian Leadership (3-4)
Focus on the components of leadership principles in the practice of health care. Exploration of the imperative of moral leadership in the community, administrative, and clinical setting.
Additional project required for fourth unit.

RELR 527 Crisis Counseling (3-4)
Crisis phenomena, current crisis theory, a Christian model of crisis care, and the dynamics and practices of crisis care.
Additional project required for fourth unit.

RELR 568 Care of the Dying and Bereaved (3-4)
Study of the biblical, theological, cultural, relational and psychological aspects of dying and death.
Additional project required for fourth unit.

RELR 575 Art of Integrative Care (3-4)
Examination of the attitudes and actions of the health care professional relative to personal spirituality and patient witnessing.
Additional project required for fourth unit.

RELR 694 Seminar in Clinical Ministry (3-4)
Principles and practice of effective interaction with patients, parishioners, inmates, and other populations.
Additional project required for fourth unit.

PSYCHOLOGY OF RELIGION

RELR 408 Christian Perspectives on Marriage and the Family (2-3)
From a Christian perspective, an overview of the family lifecycle.
Additional project required for third unit.

RELR 415 Christian Theology and Popular Psychology (2-3)
From a Christian perspective, exploration of the psychological principles, concepts, and practices apparent in popular American culture; and their effect on the general public.
Additional project required for third unit.

RELR 429 Cultural Issues in Religion (2-3)
Study of similarities and differences between European–American culture and "minority" cultures in America, and the differences pertaining to the way religion is perceived and practiced.
Additional project required for third unit.

RELR 499 Directed Study (1-3)
Prerequisite: Consent of instructor.

RELR 564 Religion, Marriage, and the Family (3-4)
The family in theological, historical, and ethical perspectives, with a Christian assessment of contemporary theories regarding the family.
Additional project required for fourth unit.

RELR 584 Culture, Psychology, and Religion (3-4)
Introduction to the major contours of Western culture as they relate to various schools of psychological thought and the influence of religious beliefs.
Additional project required for fourth unit.

RELR 585 Psychological Study of Religion (3-4)
Psychological research of religion from an eclectic approach. Faith development, ethnographic varieties of religious experiences, narrative analysis, and crosscultural religious experiences.
Additional project required for fourth unit.

RELR 586 Psychology of Moral and Faith Development (3-4)
Study of logical, moral, and faith reasoning from a cognitive–developmental perspective. How cultural and religious norms affect moral thinking.
Additional project required for fourth unit.

RELR 699 Directed Study (1-6)
Prerequisite: Consent of instructor.

GENERAL RELIGIOUS STUDIES

RELG 504 Research Methods (2-4)
Examination of the presuppositions and procedures for graduate research in religious studies. Use of libraries and research centers. Ways and means of preparing and presenting term papers, theses, and scholarly articles.
Additional project required for fourth unit.

RELG 674 Reading Tutorial (3-4)
Reading course for graduate students in religious studies. Topics vary depending on student and instructor interests.
Additional project required for fourth unit.
Prerequisite: Consent of instructor.

RELG 696 Project (1-4)
Prerequisite: Consent of instructor and of student's adviser.

RELG 697 Independent Research (1-8)
Prerequisite: Consent of instructor and of student's adviser.

RELG 698 Thesis (1-4)
Prerequisite: Consent of instructor and of student's adviser.

V

DIVISION OF GENERAL STUDIES

LLU Philosophy of General Education
Criteria for LLU General Education Course
LLU General Education Requirements
School-Recommended General Education Courses
LLU General Education Courses Booklet

Division of General Studies

The Division of General Studies, directed by the dean of the Graduate School, coordinates the offering of courses that apply to the Bachelor of Science degree programs in the Schools of Nursing, Dentistry, Allied Health Professions, and Public Health as well as in the Graduate School. These courses contribute to the fulfillment of General Education Requirements.

LOMA LINDA UNIVERSITY PHILOSOPHY OF GENERAL EDUCATION

As a Seventh-day Adventist health-sciences institution, Loma Linda University seeks to exemplify a life of service and sensitivity beyond the requirements of academic excellence within a professional discipline. With its rich spiritual heritage, the University places special emphasis on educating its students for a life of service in a multicultural world.

General education at Loma Linda University is therefore unique. In addition to the basics of cultural heritage and diversity, scientific inquiry and analysis, communication, and wellness, the curriculum emphasizes the University's spiritual heritage as well as moral and ethical decision-making that is grounded in Christian principles. Thus, general education is considered to be the cornerstone upon which students begin cultivating their abilities to:

1. Understand the fundamental Christian principles and Adventist heritage that undergird Loma Linda University.
2. Make informed moral and ethical decisions.
3. Incorporate critical thinking skills into personal and professional experience.
4. Value individuals with diverse capabilities and ideological, ethnic, gender, and generational perspectives.
5. Communicate effectively.
6. Undertake scientific inquiry and analysis.
7. Appreciate the contributions of the arts and humanities to society.
8. Examine the historical basis of the health sciences professions.
9. Develop self-awareness through balance of mental, physical, social, and spiritual aspects of daily living.
10. Model servant-leadership in health care as exemplified by Jesus of Nazareth.

The Loma Linda University philosophy of general education creates a unique learning environment committed to the concept of human wholeness. Faculty are selected who embrace the spirit as well as the specifics of general education and who purpose to extend its goals into all aspects of university life—from the residence hall programs to the core of professional studies—thus adding an invisible curriculum to the required course offerings. It is this spirit in tandem with the specifics of a liberal arts education that inspires students to achieve academic excellence, value diversity, pursue lifelong learning, and live to bless others.

CRITERIA FOR LLU GENERAL EDUCATION COURSE

1. The course assists the health-sciences student in cultivating abilities in one or more of the ten aspects described in the Loma Linda University Philosophy of General Education for B. S. degrees.
2. The course contributes to relevant knowledge and understanding within one of the domains described in the Loma Linda University General Education requirements, expected of a health sciences B.S. graduate entering today's society.
3. The course reflects an area of content within the domains described in the Loma Linda University General Education requirements that is global to the health-sciences professions and is open to all appropriately prepared B.S. degree students of Loma Linda University for General Education credit.
4. The course is based on appropriate prerequisites, particularly when offered at the upper-division level.
5. Courses transferred to Loma Linda University for General Education credit from another accredited institution must fall within one of the domains described in this University's General Education requirements for the B.S. degree and/or must ordinarily be approved for such credit at the other institution.
6. The primary focus of the course deals with the knowledge and understanding of a subject area within one of the following domains described in the Loma Linda University General Education requirements for B.S. degrees.

LLU GENERAL EDUCATION REQUIREMENTS (68 quarter credits)

In harmony with its commitment to wholeness, Loma Linda University requires all students graduating with a baccalaureate degree to complete a minimum of 68 quarter credits of general education, which are integrated into the entire undergraduate program. Requirements are organized into five domains, as outlined in the following pages.

DOMAIN 1: SPIRITUAL AND CULTURAL HERITAGE (28-32 quarter credits)

Study of spiritual heritage must include a minimum of four (4) credits in religious studies per year of full-time course work (or the equivalent) while attending a Seventh-day Adventist college or university and must include a religion course dealing with the spiritual heritage of the philosophy and mission of Loma Linda University. Four of the units in religious studies may include a course dealing specifically with the religious, moral, and ethical questions of health care. Other courses may be selected from such content areas as Christian ethics; clinical ministry; comparative religions; and doctrinal, historical, and systematic theology. Required credits in spiritual heritage must be earned from the Seventh-day Adventist institution.

Study of cultural heritage must include a minimum of 12 credits and must include one course, or components integrated in several courses, dealing specifically with issues of human diversity among peers. The remainder of credits in cultural heritage may be selected from the following content areas: civilization/history, fine arts, literature, modern language, performing/visual arts (not to exceed 2 quarter credits) or philosophy.

DOMAIN 2: SCIENTIFIC INQUIRY AND ANALYSIS (24-32 quarter credits)

Scientific inquiry and analysis encompasses both the natural and social sciences. Content areas from which students must choose 12-16 credits within the natural sciences include biology, chemistry, geology, mathematics, physics, and statistics. No more than 6 credits in any one area may count toward the natural sciences requirements.

Study of social sciences must include 12-16 credits in two or more of the following content areas: anthropology, economics, geography, political science, psychology, and sociology.

DOMAIN 3: COMMUNICATION (9-13 quarter credits)

Course work in communication must include a complete sequence in freshman English which meets the baccalaureate degree requirements of a four-year college or university. Other areas of study in communication may include courses in computer information systems, critical thinking, and public speaking.

DOMAIN 4: HEALTH AND WELLNESS (2-6 quarter credits)

To encourage the pursuit of lifelong leisure activities and wellness, the study of health and wellness must include at least two physical activities totaling a minimum of 1 quarter credit, and one course in personal health or nutrition. Additional credits may include other areas of health, nutrition, and physical fitness.

DOMAIN 5: ELECTIVES

Electives from the previous four domains may be selected to complete the General Education minimum requirements of 68 quarter credits.

SCHOOL-RECOMMENDED GENERAL EDUCATION COURSES

The following courses are recommended for students in the School of Public Health.

DOMAIN 1: SPIRITUAL AND CULTURAL HERITAGE (28-32 quarter credits)

Cultural Heritage

ANTH 436 Cultural Contexts of Religion (4)
Anthropological approach to the study of religious beliefs and practices, focusing on the diversity of religious expressions that can give us insight into what makes us human and how we can battle the frailties of humanity. Promotes empathy with people from cultural and religious traditions other than our own, as well as tolerance and even respect for their differences.

ARTA 205 The Language of Art (2-4)
Basic concepts, materials, and history of the visual arts that will enable the nonart major to develop an art vocabulary and gain insight into the creative process.

ENGL 206 Introduction to Literature (4)
Introduces reading and analysis of major literary genres: poetry, drama, short story, and essay.

ENGL 246 Literary Forms and Ideas (4)
Varied content from quarter to quarter, with specific areas listed in the class schedule (such as drama, the short story, contemporary literature, women in literature, C. S. Lewis). Offered primarily for general students but applies toward a major in English. May be repeated with new content for additional credit.

ENGL 445 Bible Literature: Discourse Analysis (4)
Specific books of the Bible studied in depth using "discourse analysis," a textual analytical tool developed by linguists.

ENGL 478 Theory and Applications of Linguistics (3)
Introduces general linguistics. Covers the core linguistic areas of syntax, phonetics, phonology, morphology, and semantics; also peripheral linguistic areas such as sociolinguistics, pragmatics, and psycholinguistics.

ENSL 177 English as a Second Language (2-12)
Enables University students to improve their proficiency in speaking and in understanding spoken, academic American English. Special emphasis placed on appropriate listening and conversation skills, as well as attention to problems arising from the student's native language.

MUHL 205 Introduction to Music (4)
Basic music literature, with some attention to other arts.

Spiritual Heritage

RELR 427 Crisis Counseling (2-3)
Crisis phenomena, current crisis theory, a Christian model of crisis care, and the dynamics and practices of crisis care.

Additional project required for third unit.

RELR 475 Art of Integrative Care (2-3)
Principles, concepts, and practices which affect the ministry of health care and the Christian witness in the clinical setting.

Additional project required for third unit.

DOMAIN 2: SCIENTIFIC INQUIRY AND ANALYSIS (24-32 quarter credits)

Natural Sciences

ANTH 304 Biocultural Anthropology (4)
(meets Diversity requirement)
Explores the interaction between biology and culture in producing the variations in physical traits currently found worldwide. Examines processes of change resulting from heredity, ecological adaptation, dietary differences, mate selection, disease, and other factors. Examines the problems of paleopathology (disease in ancient populations), humankind in the fossil record, and the place of biological and ecological factors in the fall of ancient civilizations. Detailed consideration of scientific and social bases for popular conceptions of "race."

ANTH 306 Language and Culture (4)
(meets Diversity requirement)
Surveys anthropological linguistics and sociolinguistics. Considers the place of language and communication in social interaction. Introduces descriptive and structural linguistics and discourse analysis. Examines linguistic pluralism in the United States. Contrasts language of health care givers with the language styles of people they serve. Language productions such as folklore, humor and other forms of "word play," curses and blessings, and glossalalia.

ANTH 315 Cultural Anthropology (4)
(meets Diversity requirement)
Advanced course in ethnology and social organization. Explores the nature of culture, giving special attention to such features as technology, economic activities, community organization, kinship and marriage, social control, magic and religion, the arts, and other forms of cultural behavior. Presents a wide array of examples from societies around the world.

ANTH 448 Medical Anthropology (4)
(meets Diversity requirement)
Studies sickness and health as universal factors in the human condition. Examines world view as an explanatory system for human behavior, giving ethnographic examples of curing systems and coping mechanisms. Deals with crosscultural communication of health principles and practices

BIOL 107 Human Biology (4)
Man as an integrated organism; systems of the body; the basis of healthful living. Four class hours per week.

STAT 414 Introduction to Biostatistics I (3)
Fundamental procedures in collecting, summarizing, presenting, analyzing, and interpreting data. Measures of central tendency and variation. Investigation of binomial and normal probability distributions. Topics include: probability; confidence intervals; and hypothesis testing using t-tests, chi-square, correlation, and regression. Brief introduction to ANOVA and multivariate analysis. Emphasis on practical application. Laboratory use of the personal computer in statistical problem solving.

Prerequisite: Competency in algebra.

Social Sciences

ANTH 316 Archaeology (4)
Studies principles of archaeological research and the discoveries of centers of civilization in the Middle East, the Mediterranean, the New World, the Far East, Africa, and other parts of the world—particularly recent discoveries. Also covers the main features of Biblical archaeology. Some attention given to research into prehistoric cultures.

PSYC 224 Developmental Psychology: Childhood / Adolescence (3-4)
Physical, mental, emotional, social, and religious/moral development that occurs within the family context during the interim from conception through adolescence. Observations and/or laboratory experience.

PSYC 225 Developmental Psychology: Adulthood and Aging (3-4)
Physical, mental, emotional, social, and religious/moral development of adults that occurs within the family and social context. Changes that occur from young adulthood through middle age, old age, and death. Observations and/or laboratory experience.

PSYC 226 Life-Span Development (4)
Life-span course emphasizing the physical, mental, emotional, social, and religious/moral development from conception through adulthood, aging, and death.

PSYC 305 Psychological Foundations of Education (4)
Studies psychological development as it relates to the learning process and to evaluation techniques for learners in the elementary and secondary schools.

Prerequisite: General psychology.

PSYC 404 Psychological Tests and Measurements (3)
Develops competencies and understandings for selecting, administering, and interpreting the major types of standardized tests and inventories used in psychology and education. Presents theoretical principles and issues together with hands-on applications. Practicum required.

PSYC 405 Psychology of Human Relations (3)
Human relations for career and personal success. Topics include the effective use of human resources, communication, leadership skills, decision making, stress management, assertiveness training, managing conflicts, career development, and achieving balance.

PSYC 414 Interviewing and Counseling (4)
Procedures, methods, and problems of collecting personal data in a professional interview situation. Theories and techniques of academic, vocational, and therapeutic counseling in various settings designed to improve intra- and interpersonal behavioral patterns for more effective living. Consideration of clinical, educational, and crisis-intervention counseling application.

PSYC 460 The Exceptional Individual (3)
Study of the determinants, characteristics, problems, and adjustments of individuals who deviate markedly from the norm in their mental, physical, emotional, or social aptitudes, traits, and tendencies. Emphasis on education and career planning. Open to upper-division graduate and postgraduate students only.

PSYC 479 Human Neuropsychology (4)
Introduction to brain-behavior relationships, including cerebral asymmetry, disconnection syndromes, disorders of memory and language, biological substrates of affective behavior, motor and perceptual dysfunction, and drug actions.

SOCI 104 Introduction to Sociology (4)
Introduces the scientific study of human society and behavior in social settings. Course topics include: sociological theory and research, culture and social structure, socialization, groups and organizations, social problems, social institutions, and social change. Assists the student in achieving a greater understanding of self and society, and preparing for successful personal and professional life.

DOMAIN 3: COMMUNICATION
(9-13 quarter credits)

CPTG 115 Introduction to PC Operating Systems and Environments (1)
Introduces the internal/external commands of the latest version of DOS. Essential processes for using microcomputers, protecting data, and storing/retrieving data. Windows 3.1x and the file manager, program manager, print manager, and task-list features covered in depth. Students expected to be able to customize Windows to suit particular environments.

CPTG 125 Word Processing Essentials (2)
Essential word processing tasks and principles presented. Students expected to demonstrate competence in preparing a variety of documents using the latest version of one of the following software packages: WordPerfect for DOS, WordPerfect for Windows, Excel for Windows, Quatro Pro for Windows.

Prerequisite: CPTG 115 or consent of instructor.

CPTG 215 Spreadsheet Essentials (2)
Essential spreadsheet tasks and principles covered in detail. Students expected to demonstrate competence with the latest version of one of the following software packages: Lotus for DOS, Lotus for Windows, Excel for Windows, Quattro Pro for Windows.

Prerequisite: CPTG 115 or consent of instructor.

CPTG 216 Database Essentials (2)
Essential database tasks and principles covered in detail. Students expected to demonstrate competence with the latest version of one of the following software packages: dBase for DOS, dBase for Windows, Paradox for Windows, Access for Windows, FoxPro for Windows.

Prerequisite: CPTG 115 or consent of instructor.

CPTG 217 Presentation Graphics Essentials (1)
Essential presentation graphics tasks and principles covered in detail. Students expected to demonstrate competence with the latest version of one of the following software packages: Harvard Graphics for DOS, Harvard Graphics for Windows, PowerPoint for Windows, WordPerfect Presentations for Windows.

Prerequisite: CPTG 115 or consent of instructor.

RDNG 177 ABLE II (2)
Advanced reading course to enhance success in academic programs. Causes and effects of academic stress; ways of handling stress. Memory techniques, test-taking strategies, skills for dynamic information processing, and more efficient reading comprehension.

RDNG 277 ABLE III (2)
Advanced reading course to increasing student's rate of reading by developing cognitive organizational strategies such as: special information-processing techniques while reading textbooks; previewing, skimming, and scanning techniques; advanced skills for improving memory, taking tests, and reducing anxiety.

WRIT 117 WRITING I (2)
Basic writing techniques essential for academic success, developed in three major areas: understanding of concepts within writing; understanding and following the overall writing process; and building specific grammar skills on a conceptual framework of language structure. Course develops specific skills: building vocabulary; spelling; understanding the special and peculiar words, idioms, and expressions of American culture; building sentences; structuring paragraphs; organizing content; creating logical arguments; and clarifying thoughts (writing what the student means to express). Emphasizes correct use of punctuation, capitalization, and the general mechanics of writing.

WRIT 317 WRITING II (2)
Advanced writing. Combines creative and affective procedures (visualization skills, music, the visual arts) in a proactive, lateral-thinking process to enrich traditional academic/logical/cognitive learning approaches and to develop highly conceptual, high-level critical-thinking/cognitive skills essential for successful academic writing. Skills include: preplanning techniques; organizing, prioritizing, and structuring ideas; revising and editing; using a consistent personal style; citing sources with correct fo otnote and bibliographic content and format; applying metalingual understanding to grammar, English language concepts, and English metaphors. Applies these skills to quality writing of expository compositions, assignments, projects, clinical reports, observational reports, and case studies.

WRIT 417 WRITING III (2)
Advanced technical writing. Provides advanced skills for technical/scientific writing of research assignments, major projects, clinical reports, observational reports, case studies, etc. Highly conceptual writing combines technical skills with creative/critical-thinking skills. Combines traditional cognitive learning with enriching affective learning styles and methods. Specific skills include: prewriting techniques; organizing, prioritizing, and structuring of ideas; revising and editing; correct annotation style (e.g., APA, MLA, etc.); and applying metalingual understanding to grammar and to English language concepts.

DOMAIN 4: HEALTH AND WELLNESS
(2-6 quarter credits)

HPRO 414 Personal Health and Fitness (4)
Application of health principles to the student's physical, mental, spiritual, and social health.

DOMAIN 5: ELECTIVES

Electives from the previous four domains may be selected to complete the General Education minimum requirements of 68 quarter credits.

LLU GENERAL EDUCATION COURSES BOOKLET

A complete listing of courses offered at this University to meet General Education domain requirements is included in the *Loma Linda University General Education Philosophy, Requirements, and Courses* booklet. For information regarding General Education courses, the student should consult his/her academic adviser.

VI

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All Sports Therapy Athletic Rehabilitation, Hanford
Allcare Therapy Services, Ridgecrest
Allentown Sports Medicine & Human Performance Center, Allentown, PA
Alliant Health Systems, dba Alliant Medical Pavilion, Louisville, KY
Allied Services Skilled Nursing Center, Scranton, PA
Almaden Health & Rehab Center, San Jose
Alpine Special Treatment Center, Alpine
Alta Loma School District, Alta Loma
Alvord School District, Riverside
Alvarado HMC & San Diego Rehab (Tenet Health System), San Diego
AM Health, Riverside
American Health Information Management, Washington, DC
American Ambulance and American Medical Response, Riverside
Anaheim Union High School District, Anaheim
Anberry Rehabilitation Hospital, Atwater
Anderson Baim, PT, Inc., Modesto
Ando and Aston Physical Therapy, Anaheim Hills
AngMo Kio Community Hospital, Singapore
Ann Marie Stauble/San Bernardino Scottish Rite Childhood Language Center, San Bernardino
Annette Levy (see Orthopedic Hosp)
Antelope Valley Hospital, Lancaster
Anza Nursing and Rehabilitation, El Cajon
Apple Valley Care Center, Apple Valley
Arbor Village, Fresno
Ardmore P.T., Inc., Ardmore, OK
Arrowhead Orthopaedic & PT, San Bernardino
Arroyo Grande Community Hospital (Vista Hospital Sytem, Inc.), Arroyo Grande
Asante Health System dba Three Rivers Community Hospital, Medford, OR
Ashland Community Hospital, Ashland, OR
Ather Sports Injury Clinic, Castro Valley
Athletic & Industrial Rehab, Modesto
Athletic Rehab Center, West Covina
Athletic Training Department, Lincoln, NE
ATS Physical Therapy, Las Vegas, NV
Augusta Medical Center, Fishersville, VA
Avalon Municipal Hospital and Clinic, Avalon
Avista Therapy Clinic, Louisville, CO

Back and Sports Injury PT, Inc., Denver, CO
Bakersfield Memorial Hospital, Catholic HealthCare West, Central California, Bakersfield
Ballard and Associates, Raleigh, NC
Banner Health Systems, Phoenix, AZ
Banning Unified School District, Banning
Baptist Hospital Affiliate of the Voluntary Hospital, Nashville, TN
Baptist Montclair, a division of Baptist Health Systems, Inc, Birmingham, AL
Barton Memorial Hospital, South Lake Tahoe
Battle Creek Sanitarium Hospital, Battle Creek, MI
Bauer Physical Therapy, Laguna Hills
Bay Harbor Hospital, 3-Way, Harbor City
Bay Harbor Rehabilitation Center, Torrance
Bay Rehabilitation, Montebello
Baylor University Medical Center, Dallas, TX
Bear Valley Community Healthcare, Big Bear Lake
Beaver Medical Clinic, Inc., Redlands
Behavioral Medicine Center, Loma Linda University, Redlands
Bella Vista Hospital, Mayaguez, Puerto Rico
Bellview-Redmond Physical Therapy Center, Redmond, WA
Bertolucci Physical Therapy and Rehabilitation, Citrus Heights
Beverly Health Care Center, Monterey
Beverly Manor Convalescent, La Mesa
Beverly Manor Convalescent, Seal Beach
Beverly Manor Convalescent Hospital, Seal Beach
Beverly Manor Nursing & Rehabilitation, Burbank
BHC Canyon Ridge Hospital, Inc., Chino
BHC Fairfax Hospital, Kirkland, WA
Blodgett Memorial Medical Center, Grand Rapids, MI
Blood Bank of San Bernardino-Riverside Counties, San Bernardino
Blossomland Learning Center/Berrien Co. Inter. School District, Berrien Spring, MI
Blue Jay Physical Therapy, Blue Jay
Blue Mountain Valley PT Clinic, Milton, Freewater, OR
Boca Raton Rehabilitation Center, Boca Raton, Florida
Body Rx Physical Therapy, Glendale
Boone Hospital Center, Columbia, MO
Borden Physical Therapy, Flagstaff, AZ
Bothwell Regional Health Center, Sedalia, MO
Bradley Rehab Center, Cleveland, TN
Brea Community Hospital, Brea
Breech Medical Center, Lebanon, MO
Brooktrails P.T., Willits
Brotman Medical Center (Tenet Health System), Culver City
Broughton Hospital, Morgantown, NC
Burbank Airport Hilton and Convention Center, Burbank
Burbank Unified School District, Burbank
Burger Physical Therapy and Rehabilitation Agency, Folsom

Cabrini Medical Center, New York, NY
California Pacific Med Center, San Francisco
California Rehab Center, Camarillo
California School for the Deaf, Riverside
California (State of) University, Fullerton
California (State of) Fairview Developmental Center, Costa Mesa
California (University of) Irvine Medical Center, Orange
California (University of) Los Angeles Hospital, Los Angeles
California (University of) Los Angeles Neuropsychiatric, Los Angeles
California (University of) San Diego, La Jolla
Canton & Company, Beverly Hills
Canyon Lake Physical Therapy, Canyon Lake
Caremark Kingsridge Center for Physical Therapy, Dayton, OH
Carillion Health Systems, Roanoke, VA
Caring Hands Pediatric Therapy, Winston-Salem, NC
Carlsbad Physical Therapy, Carlsbad
Carnahan Therapy/The Work Center, Lompoc
Carter Physical Therapy, Covina
Casa Colina Hospital for Rehabilitative Medicine, Pomona
Cascada PT & Sports, Sedro Woole, WA
Cass Medical Center, Harrisonville, MI
Castle Medical Center, Kailua, HI
Catawba Memorial Hospital, Hickory, NC
Catholic Healthcare West, So California
Cedars-Sinai Medical Center, Los Angeles
Center for Comprehensive Rehab, Tampa, FL
Center for Sports & Wellness, Mission Viejo
Center of Rehab Excellence, Longview, TX
Center Rehabilitative Medicine Watson Clinic, Lakeland, FL
Centinela Hospital Medical Center (Tenet Health System), Inglewood
Central Peninsula General Hospital, Soldotna, AK
Central Washington Hospital, Wenatchee, WA
Centre for Neuro Skills, Bakersfield
Centré for Plastic Surgery, San Bernardino
Century City Hospital, Los Angeles
Chancellor Health Care, Santa Rosa
Chapman Convalescent, Riverside
Chehalis Valley PT, Chehalis, WA
Cherry Valley Health Care, Banning
Child Health Disability Prevention Program, San Diego
Child Nutrition Services, Norco
Children's Center of Riverside, Riverside
Children's Hospital of Los Angeles, Los Angeles
Children's Hospital of Orange County, Orange
Children's Medical Center, Dayton, OH
Children's Medical Services CCS-Ventura, Ventura
Children's Mercy Hospital, Kansas City, MO
Children's Therapy Center, Camarillo
Children's Therapy Center, Las Vegas
Chino Valley Medical Center, Chino
Christ Hospital (The), Cincinnati, OH
Citrus Valley Medical Center, West Covina
City of Hope National Medical Center, Duarte
CMPT Associates PT, Greenville, PA
Coast Physical Therapy, La Jolla
Coastal Communities Hospital (Tent Health System), Santa Ana
Coastal Physical Therapy, Brookings, OR
Coastherapy, Huntington Beach
College Hospital of Costa Mesa, Costa Mesa
Colorado Physical Therapy Institute, Broomfield, CO
Colorado Sports and Spine Center, Colorado Springs, CO
Colton Joint Unified School District, Colton
Columbia Chugach PT & Health Center, Anchorage, AK
Columbia Good Samaritan Hospital, San Jose
Columbia Rehab, Longview, WA
Combined Therapy Specialists, Ashland, NC
Community Convalescent Center, Riverside
Community Convalescent of San Bernardino, San Bernardino
Community Health Center of King County, Kent, WA
Community Hospital, Santa Rosa
Community Hospital of Chula Vista, Chula Vista
Community Hospital of Onaga, Onaga, KS
Community Hospital of San Bernardino, San Bernardino
Community Hospitals of Central California, Fresno
Community Medical Center, Missoula, MT
Community Medical Group of Riverside, Riverside
Community Memorial Hospital of Buena Ventura, Ventura
Comprehensive Cancer Center, Palm Springs
Comprehensive PT and Sports Medicine, Coon Rapids, MN
Comprehensive Rehabilitation, Henderssonville, TN
Concentra Health Services, Carrolton, TX
Cook Children's Medical Center, Fort Worth, TX
Cooper Wellness Program, Dallas, TX
Cornerstone Medical Group, San Bernardino
Corona Regional Medical Center, (Vista Hospital Systems, Corona
Corona/Norco Unified School District (Child Nutrition Services), Norco
Cottonwood Hospital Back Institute, Murray, UT
Cottonwoods Extended Care Facility of Kelowna General, Kelowna, British Columbia
County of Orange Health Care Agency, Orange
County of Riverside Department of Public Health, Riverside
County of San Bernardino Department of Public Health, San Bernardino
County of San Luis Obispo CCS, San Luis Obispo
County of San Mateo Health Services Agency, San Mateo
County of Santa Clara Valley Medical Center, San Jose
County of Ventura-California Children's Services, Ventura
Covenant Healthcare (19 sites)
Cox Health Systems, Springfield, MO
CPC Fairfax Hospital, Kirkland, WA
CPC Millwood Hospital, Arlington, TX
CPC Sierra Vista Hospital, Sacramento
CPR Therapy Services, Lakewood, CO
Crawford Long Hospital, Physical Therapy, Atlanta, GA
Cresswell Physical Therapy, Redding
Cumberland County Hospital System, Inc., Fayette, NC
CVE, Inc., San Francisco
Cypress Gardens, Riverside

Dallmeyer Physical Therapy, Santa Barbara
Dan Wyand PT & Assoc/Northeastern Vermont Regional Hospital, Lyndonville, VT
Daniel Freeman Memorial Hospital, Inglewood
Deaconess Rehabilitation Institute, Spokane, WA
DeKalb Medical Center, Decatur, GA
Deloitte & Taucho, Costa Mesa
DePaul Medical Center, Norfolk, VA
Desert Knolls Convalescent, Premier Healthcare, Inc., Victorville
Desert Life Rehabilitation and Care Center, Tucson, AZ
Desert Regional Medical Center (Tenet Health System), Palm Springs
Desert Valley Hospital, Victorville
DeSoto Memorial Hospital, Arcadia
Detroit Medical Center, Detroit, MI
Devonshire Care Center/Locomotion Therapy, Hemet
Dewitt Physical Therapy, Merced
Dimensions in Food and Nutrition, Inc., Burtonsville, MD
Detroit Medical Center, Detroit, MI
Doctors Hospital-Manteca, Manteca
Doctors Hospital of Sarasota, Sarasota, FL
Dominican Hospital, Santa Cruz
Don Lowe Pavilion and Barbara Arons Pavilion, San Jose
Dos Caminos Physical Therapy and Sports Rehab, Camarillo
Downey Regional Medical Center, Downey
Downey Unified School District, Downey
Dr. McDougalls Right Foods/Veggie Life Magazine, Concorde
Drs. Hayashi, Sakai, and Dahms, Thousand Oaks
Durango Sports Club PT, Durango, CO

East Jefferson General Hospital, Metairie, LA
East Pasco Medical Center, Zephyrillis, FL
East Valley, SELPA, Colton
Easter Seal Society, Sacramento
Easter Seal Society of Inland Counties, San Bernardino
Easter Seal Children's Guild Therapy Center, Salem, OR
Eastside Physical Therapy, Oviedo, FL
Eclipse Therapies, Inc., San Rafael
Ed Ayub Ortho and Sports, San Diego
Egleston's Children's Hospital, at Emory University, Inc., Atlanta, GA
Eisenhower Memorial Hospital, Rancho Miriage
El Centro Regional Medical Center, El Centro
El Paso Physical Therapy Services, El Paso, TX
Elite Performance, Newport Beach
Elkin's Park Hospital (Tenet Health System) Elkin's Park, PA
Elks Rehabilitation Hospital, Boise, ID
Elmhurst Memorial Hospital, Elmhurst, IL
Ember Healthcare, Pomona
Emerald Bay Physical Therapy, South Lake Tahoe
Emilie Gamelin Institute, Portland, OR
Enloe Medical Center, Chico
Etiwanda School District, Etiwanda
Eureka Physical Therapy, Inc., Eureka
Evergreen Hospital Medical Center, Kirkland, WA
Excel Physical Therapy, Walla Walla, WA
Explorabilities, Albuquerque, NM

Fairview Training Center, Physical Medicine Department, Salem, OR
Fallbrook Physical & Occupational Therapy, Fallbrook
Fayetteville Therapy Services, Fayetteville, NC
Feather River Rehabilitation Center, Paradise
Felder Physical Therapy, Inc., Santa Ana
First Healthcare Corporation, Tacoma, WA
Fit for Life, Riverside
Fitness Center Health Park East, Brandenton, FL
Flagstaff Medical Center and Northern Arizona Rehab Center, Flagstaff, AZ
Flanders Physical Therapy Portland, OR
Florida Hospital Waterman, Tamares, FL
Focus on Health, Newport Beach
Fontana Unified School District, Fontana
Foothills Ortho & Sports Therapy, Loveland, CO
Foothills Provincial General Hospital, Calgary, Alberta, Canada
Fort Sanders Regional Medical Center, Knoxville, TN
Fortenase and Associates, Arcadia
Fountain Valley Regional Hospital, Fountain Valley
Fox Occupational Medicine Center, San Bernardino
Franciscan Health System-West, Tacoma, WA
Freeman Ortho and Sports Medicine Center, Joplin, MO
Fresno Fire Department, Fresno
Friends of Jefferson House, Riverside
Futures Rehab and Heritage Healthcare, St. Helena
Fysiocur NV, Curacao, Netherlands

Galen of Kansas, Overland Park, KS
Galesburg Cottage Hospital, Galesburg, Illinois
Garfield Medical Center (Tenet Health System), Monterey Park
Gaspa Physical Therapy, Encinitas
Gateways Hospital, Los Angeles
General Hospital, Eureka
Genesys Regional Medical Center Health Park, Grand Blanc, MI
Gentilly Physical Therapy & Sports Rehab, New Orleans, LA
Geri Care, Newport Beach
Gerontic Therapy Services, Seal Beach
Gila Regional Medical Center PT Dept., Silver City, NM
Glendale Adventist Medical Center, Glendale
Glendale Memorial Hospital, Catholic Health Care West, So Cal, Glendale
Glendale Unified School District, Glendale
Global Medical Cneter, Monclair
Glynn & Giordano PT, Bakersfield
Good Samaritan Hospital and Rehabilitation Center, Puyallup, WA
Granada Hills Community Hospital, Granada Hills
Greater Victoria Hospital Society, Victoria, British Columbia, Canada
Green Hospital (Cecil H. and Ida M.) of Scripps, La Jolla
Gresham Sports Care PT, Gresham, OR
Group Health Cooperative of Puget Sound, Seattle, WA
Guardian Healthcare Group, Modesto

H & W Therapy, Pueblo, CO
H & W Therapy, Soldotna, AZ
Hairston and Daley Physical Therapy, Orange
Halifax Medical Center, Daytona Beach, FL
Hamilton Physical Therapy, Hamilton, MT

Hanford Community Hospital, Hanford
Harbor View Medical Center, Seattle, WA
Hardee PT/Rehab Service, Inc., Wauchula, FL
Hawaii (State of) Hawaii State Hospital, Kaneohe, Oahu, HI
Hawaiian Electric Company, Honolulu, HI
Hawaiian Rehabilitation Services, Kailua-Kona, HI
Health Alliance Hospital, Leominster, MA
Health Pro Physical Therapy, Walnut Creek
Health Services Agency, Modesto
Health Services Agency, Modesto
Health South Corporation Birmingham, AL
Health South Corporation, Las Vegas, NV
Health South Rehabilitation, Willowbrook, IL
Health South Western Rehabilitation Institute, Sandy, UT
Healthcare Partners Medical Group, Torrance
HealthEast, St. Paul, MN
HealthEast-Bethesda Lutheran Hospital and Rehabilitation Center
HealthEast-D.R. Hospital
HealthEast-Midway Hospital
HealthEast-Saint John's Hospital
HealthEast-Saint Joseph's Hospital, St. Paul, Minnesota
HealthSouth Community Re-Entry Center of Texas, Dallas, TX
HealthSouth Community Re-Entry of South Florida, Ft. Lauderdale, FL
HealthSouth Comprehensive Rehabilitation Unit, Birmingham, AL
HealthSouth Dallas Rehabilitation Institute, Dallas, TX
HealthSouth Doctor's Hospital, Coral Gables, FL
HealthSouth Head Injury Rehabilitation Center, St. Louis, MO
HealthSouth Rehabilitation Center of Tucson, Tucson, AZ
HealthSouth Rehabilitation Center of Van Nuys, Van Nuys
HealthSouth Rehabilitation Corporation, dba Sea Pines, Birmingham, AL
HealthSouth Sub-Acute Hospital of North Houston, Conroe, TX
HealthSouth Sunrise Rehabilitation Hospital, Ft. Lauderdale, FL
HealthSouth Treasure Coast Rehabilitation Hospital, Vero Beach, FL
Healthwin Hospital-St. Clair Darden Health Systems, South Bend, IN
Heart Institute of the Desert, Rancho Mirage
Hemet Healthcare, Hemet
Hemet Unified School District, Hemet
Hendrick Medical Center, Abilene, TX
Henry Mayo Newhall Memorial Hospital, Valencia
Heritage Hospital, Rancho Cucamongo
Hi Desert Medical Center, Joshua Tree
Highland Physical Therapy, San Bernardino
Hillcrest Medical Center, Tulsa, OK
Hillcrest Baptist Medical Center, Waco, TX
Hillhaven-Alta Vista, Riverside
Hillhaven Fair Oaks, Carmichael
Hillhaven Corporation, Tacoma, WA
Hollywood Medical Center, Hollywood, FL
Holmes Regional Nursing Home, Melbourne, FL
Holy Family Hospital, Spokane, WA
Holy Rosary Medical Center, Ontario, OR
Hospitale Maternidade de Jundiai, San Paulo, Brazil
Houston Rehabilitation Institution, Houston, TX
Howard Memorial Hospital, Willits
Hudson and Walker PT, Apple Valley
Huguley Memorial Medical Center, Ft. Worth, TX
Huntington Beach Hospital & Medical Center, Huntington Beach
Huntington Drive Skilled Nursing Center, Arcadia
Huntington East Valley Hospital, Glendora
Huntington Memorial Hospital, Pasadena
Huntsville Pool and Land Therapy, Huntsville, AL
Hurley Medical Center, Flint, MI
Hy-Lond Convalescent, Modesto

Idaho Physical Therapy, Nampa, ID
IHC Health Services/Primary Children's Medical Center, Salt Lake City, UT
IHC Rehab Services of St. George, St George, UT
Immanuel Medical Center, Omaha, NE
Imperial Valley Therapy Centers, El Centro
Independent PT-Torrance, Torrance
Inglish & Petersen PT, Mesa, AZ
Inland Hand Therapy, Rancho Cucamonga
Inland Surgery Center, Redlands
Inland Valley Regional Medical Center, Wildomar
Innovative Health Systems, Inc., Sacramento
Integris Baptist Medical Center, Oklahoma City, OK
Intergro Rehab Services, Huntington Beach
Interlink Rehabilitation, Van Nuys
Intermountain Health Care, Orem, UT
Island Physical Therapy Center, Anacortes, WA

Jack D. Close & Associates, Las Vegas, NV
Jayne Shover Easter Seal Rehabilitation Center, Elgin, IL
Jean Hanna Clark Rehabilitation Center, Las Vegas, NV
Jefferson County Health Department, Louisville, KY
Jennie Edmundson Hospital, Council Bluffs, IA
JF Kennedy Memorial Hospital (Tenet Health System), Indio
Jim Thorp Rehabilitation, Oklahoma City, OK
John Breuer Rehab Services, Coos Bay, OR
Johns Hopkins Physical Medicine & Rehab, Baltimore, MD
Joyner Sports Medicine Institute, Division of Novacare, Harrisburgh, PA
JP Therapy, Villa Rehab Hospital, Riverside
June Weinstein and Associates, Villa Park
Jurupa Unified School District, Riverside

Kaiser Foundation Hospital-Baldwin Park, Baldwin Park
Kaiser Foundation Hospital-Bellflower, Bellflower
Kaiser Foundation Hospital-Fontana, Fontana
Kaiser Foundation Hospital-Los Angeles, Los Angeles
Kaiser Foundation Hospital, Panorama City
Kaiser Foundation Hospital-Riverside, Riverside
Kaiser Foundation Hospital-San Diego, San Diego
Kaiser Foundation Hospital, Woodland Hills
Kaiser Foundation Hospitals, Honolulu, HI
Kaiser Permanente Hospitals and the Permanente Medical Group, Oakland
Kaiser Permanente, Fresno Medical Center, Fresno
Kaiser Permanente Medical Group-North
Kaiser Permanente-Southern California Region, Pasadena

Kansas Rehabilitation Hospital, Topeka, KS
Kaweah Delta Rehabilitation Hospital, Visalia
Kennebec Valley Medical Center, Augusta, ME
Kennewick General Hospital, Kennewick, WA
Kensington Physical Therapy, Inc., Gaithersburg, MD
Kentfield Rehabilitation Hospital, Kentfield
Kern Valley Health District, Mt. Mesa
Kettering Medical Center, Kettering, OH
Keystone Vocational Services, San Francisco
Kimbro Medical Center, Cleburne, TX
King Faisal Specialist Hospital and Research Centre, Riyadh, Saudi Arabia
Kingman Community Hospital, Kingman, KS
Kingston Hospital, Kingston, NY
Kitsap PT and Sports Clinic, Poulsbo, WA
Knollwood Psychiatric Center, Riverside
Knox Community Hospital, Mt. Vernon, OH
Kodiak Island Hospital and Care Center, Kodiak, AL
Kona Hospital, Kealakeug, HI
Kootenai Medical Center, Coeur d'Alene, ID
Kornhill Physiotherapy Centre, Quarry Bay, Hong Kong
KPMG Peat Marwick, Long Beach
Kruppa Physical Therapy, and Rimrock Villa Convalescent, Barstow

L & J Telesmanic & Associate (Horizon Subacute), Fresno
La Palma Intercommunity Hospital, La Palma
La Pine Physical Therapy, La Pine, OR
Lake Arrowhead Physical Therapy/Mountains Community Hospital, Lake Arrowhead
Lake Chelan Community Hospital, Lake Chelan, WA
Lake City Orthopedic & Sports Physical Therapy, Coeur d'Alene, ID
Lakeland Regional Health System, Lakeland, MO
Lakeland Regional Health System, Berrien Center, MI
Lanterman Developmental Center, Pomona
LaPalma Intercommunity Hospital, La Palma
Las Virgenes Unified School District, Calabasas
Laurie Lewis/Therapy 4 U, San Jacinto
LDS Hospital Rehabilitation Center, Salt Lake City, UT
Learning Service Corp., Gilroy
Lee Memorial Hospital, Fort Myers, FL
Legacy Rehabilitaiton Services, Portland, OR
Lewis, Bower & Associates, Claremont
Life Care of Corona, Corona
Lifecare Center of Hawaii, Hilo, HI
Lifespan Wellness Clinic, Fullerton
Lifestyle Center of America, Sulphur, OK
Lihue PT & Sports Rehab of T.O.R.C.H., Hilo, HI
Lincoln Regional Center, Lincoln, NE
Linda Brown and Associates, Visalia
Locomotion Therapy, Inc., 3-Way Hemet Convalescent, Los Angeles
Lodi Memorial Hospital, Lodi
Loma Linda University Community Medical Center, Loma Linda
Loma Linda University Medical Center, Loma Linda
Long Beach Community Hospital, Long Beach
Long Beach WIC Program, Long Beach
Lorien Columbia Nursing & Rehabilitation Center, Columbia, MD
Los Alamitos Medical Center, Los Alamitos
Los Angeles (County of) University of Southern California Medical Center, Los Angeles
Los Robles Regional Medical Center, Thousand Oaks
Louis A. Weiss Memorial Hospital, Chicago, IL
Lourdes Medical Center, Pasco, WA
Lutheran Community Health Services, dba Lutheran Rehab, Wheat Ridge, CO
Lutheran Social Services of Southern California, Riverside
Lynne K. Nishikawa, MS, Inc., Colton

Macon Health Care, Macon, MO
Madonna Rehabilitation Hospital, Lincoln, NE
Megan Clinic, Covina
Manor Care Nursing & Rehabilitation Center, Hemet
Manor Care Nursing Center, Palm Desert
Marcus Daly Memorial Hospital, Hamilton, MT
Marguerite Physical Therapy Clinic, Inc., Mission Viejo
Marian Medical Center, Santa Maria
Mariners Rehabilitation, Costa Mesa
Marshall Hospital, Placerville
Martin Luther Hospital, Anaheim
Matrix, Lodi
Maywood Health Care, Oxnard
Medford Sports Injury & Therapy Center, Medford, OR
Medical Arts Physical Therapy, Honolulu, HI
Medical Center of Central Massachusetts, Worcester, MA
Medical Rehab & Sports Rehab Center, Jacksonville, FL
Medina General Hospital, Medina, OH
Meeting Street Center, East Providence, RI
Memorial HealthCare, Worcester, MA
Memorial Hospital, Chatanooga, TN
Memorial Hospital of Carbondale, Carbondale, IL
Menifee Valley Medical Center, Sun City
Mercy Air, Fontana
Mercy Healthcare Sacramento
Mercy Hospital and Health Services, Merced
Mercy Hospital Catholic Healthcare West, Central California, Bakersfield
Mercy Hospital and Medical Center, San Diego
Mercy Hospital Medical Center, Des Moines, IO
Mercy Medical Center, Nampa, ID
Mercy Medical Center, Redding
Mercy Medical Center, Roseburg, OR
Methodist Hospital of Southern California, Arcadia
Methodist Hospitals of Memphis, Memphis, TN
Methodist Medical Center, Jacksonville, FL
Metro Ortho & Sports Therapy, Silver Spring, MD
Mid Coast Hospital, Brunswick, ME
Mid-America Rehabilitation, Overland Park, KS
Middle Tennessee Medical Center, Inc., Murfreesboro, TN
Middleton Village Nursing and Rehabilitation Center, Middleton, WI
MidMichigan Medical Center, Midland, MI
Mills-Peninsula Hospitals (2 sites), Burlingame
Milpitas Physical Therapy, Milpitas
Mintz Therapy Services, Los Olivas
Mission Hospital Regional Medical Center, Mission Viejo
Mission Orthopedic Physical Therapy, Mission Viejo
Missouri Rehabilitation Center, Mt. Vernon, MO
Modesto Back School, Modesto
Mohave Physical Therapy & Sports Medicine, Victorville
Monett Physical Therapy, Monett, MO
Montrose Memorial Hospital, Montrose, CO
Moreno Valley Unified School District, Moreno Valley
Morrison's Healthcare Inc., Smyrna, GA

Morton Plant Mease Healthcare, Clear Water, FL
Mount Alvernia Hospital, Singapore
Mount San Antonio Gardens, Pomona
Mount Shasta Physical Therapy, Mt. Shasta
Mount Washington Pediatric Hospital, Baltimore, MD
Mountain Land Rehabilitation, Salt Lake City, UT
Mountain View Child Care Center, Loma Linda
Mountains Community Hospital, Lake Arrowhead
Mt. Washington Pediatric Hospital, Baltimore, MD
Murietta Valley Unified School District, Murrieta
Muskogee Rehabilitation & Sports Medicine, Muskogee, OK
Myers & Associates, Mammoth Lake

Napa Valley Physical Therapy Center, Napa
Nashville Sports Therapy, Hermitage, TN
National Center for Equine Facilital, Therapy, Woodside
National Guard Health Affairs, Riyhad, Saudi Arabia
National Medical Specialty Hospital of Redding, Redding
Naval Medical Center, San Diego, San Diego
Neuro Sports Rehab Associates, Fremont
New England Rehabilitation Hospital, Inc., Danbers, MA
New River Wellness, Christiansbung, VA
Nordstrom Rehabilitation Services, Palo Alto
North East Georgia Health System, Inc., Gainseville, GA
North East Oregon Physical Therapy, La Grande, OR
North Georgia Pediatric Therapies, Ringgold, Georgia
North Idaho P.T., Coeur d'Alene, ID
North Kansas City Hospital, North Kansas City, MO
North Western Memorial Health South Sports Medicine, Chicago, IL
Northbay Health Care Services, Fairfield
Northeast Oklahoma Rehabilitation Hospital, Tulsa, OK
Northern Michigan Hospital, Petosky, MI
Northern Star Therapy Limited, St. Cloud, MN
Northridge Hospital Medical Center, Catholic Healthcare West, So-Cal, Northridge
Northwest Country Place, Inc., McMinnville, OR
Northwest Hospital, Seattle, WA
Northwest Kidney Centers, Seattle, WA
Northwest Physical Therapy, Bellingham, WA
Northwest Physical Therapy, Mt. Vernon, WA
Northwoods Rehab Associates/Howard Young Medical Center, Woodruff, WI
NOTAMI Hospitals of California, Inc., San Jose
Nova Care, Huntington Beach
NOVA CARE Contract Division, Genesco, IL
NOVA CARE-Inland Industrial, Ontario
NOVA CARE Outpatient Rehab-Las Vegas, Las Vegas, NV
NOVACARE, Inc., Phoenix, AZ
NOVA CARE Outpatient Rehabilitation, Phoenix, AZ
Nova Care Outpatient Rehabilitation Division, Atlanta, GA
NOVA CARE Phoenix General Community Hospital, Phoenix, AZ
Nutrition and Lifestyle Medical Clinic, Calimesa
Nutrition Consultation (Margaret K. Heath), Loma Linda

O'Conner Hospital-Physical Medicine, San Jose
Oceania, Palo Alto
Odessa Physical Therapy, Odessa, TX
Ojai Unified School District, Ojai
Options, San Diego
Orange County Health Care Agency, Santa Ana
Oregon Health Sciences University, Human Performance Laboratory, University Hospital, Portland, OR
Ortho Sports Physical Therapy, Mission Viejo
Orthopaedic and Neurological Rehabilitation, Inc., Sacramento
Orthopaedic Sports, Inc., Stillwater, MN
Orthopedic & Sports PT, Santa Rosa
Orthopedic Associates, Silver Spring, MD
Orthopedic Hospital, Los Angeles
Orthopedic Physical Therapy Institute, Riverside
Orthopedic Surgery and Sports Medicine Physical, La Habra
Osteopathic Medical Center of Texas, Ft. Worth, TX
Outreach Therapy Consultants, Spokane, WA
Oxnard Physical Therapy Center/Cardio-Pulmonary, Oxnard

P.O.S.T. Rehabilitation Clinic, Moreno Valley
PACE-Christian Heritage, Upland
PACE-Claremont Care Center, Pomona
PACE-Parkmont Care Center, Paramont
PACE-Rancho Encinitas, Encinitas
PACE Therapy, Inc.-Heritage Garden, Loma Linda
PACE Therapy-Las Villas Del Norte Health Professions, Escondido
PACE-Therapy Vista Del Mar, Vista
PACE-Therapy, Western Care Center, Pomona
Pacific Care Insurance Company, Cypress
Pacific Gardens, Fresno
Pacific Health Education Center, Bakersfield
Pacific Southwest Therapies, Inc., Las Vegas, NV
Pacific Therapies, Inc., Huntington Beach
Page Hospital, Page, AZ
Pain Management Clinic of Hawaii, Inc., Honolulu, HI
Palm Beach Medical Center, Palm Beach, FL
Palm Springs Health Care, Palm Springs
Palm Springs Unified School District, Palm Springs
Paradise Valley Hospital SouthBay Rehab Center, National City
Park Manor Rehabilitation Center, Walla Walla, WA
Parkridge Centre, Saskatoon, Canada
Parkview Community Hospital (Soderno Marriot), Riverside
Parkview Episcopal Medical Center, Pueblo, CO
Parkview Memorial Hospital, Brunswick, ME
Pasadena Department of Health WIC Program, Pasadena
Pasadena Rehabilitation Institute, Pasadena
Paul Chang's Rehabilitation Services, Blue Springs, MO
Peace Arch Hospital, White Rock, British Columbia, Canada
PeaceHealth, Eugene, OR
Peachwood PT Sports and Spine Center, Glendora
Peak Performance, Chino
Pediatric Building Blocks, San Ramon
Pediatric Rehabilitation Services, Ft. Worth, TX
Pediatric Therapy Associates, Shrewsbury, MA
Pediatric Therapy Association, Plantation, FL
Performance Physical Therapy, Orem, UT
Perform PT, Littleton, CO
Performax PT, Riverside
Perspective Therapy, Oceanside
Phoenix Baptist Hospital/NOVA Care, Phoenix, AZ

Phoenix Memorial Hospital and NOVACARE, Phoenix, AZ
PhyCor, Inc., Honolulu, HI
Physical Rehabilitation Center of Orange, Westminister
Physical Therapy & Sports Rehabilitation Services, Sunnyside, WA
Physical Therapy Associates, Worcester, MA
Physical Therapy Institute, Inc., Poway
Physical Therapy, Northwest, Salem, OR
Physical Therapy Services, Tyler, TX
Physiotherapy Associates, Madison, TN
Physiotherapy Associates, Glen Burnie, MD
Physiotherapy Associates, Holland, MI
Pincerest Rehabilitation Hospital, (Tenet Health System), Delray Beach, FL
Pinnacle Rehabilitation, Nashville, TN
Pioneer Valley Hospital, West Valley City, UT
Pioneers Memorial Hospital, Brawley
Pisgah PT & Sports Rehabilitation, Hendersonville, NC
Point West Physical Therapy, Santa Rosa
Pomona Valley Hospital, Pomona
Portals, Los Angeles
Portercare Memorial Hospital, Denver, CO
Portland VA Medical Center, Portland, OR
PPTS of Blythe, Blythe
Premier Healthcare, Victorville
Premier Healthcare, Inc., dba Desert Knolls Convalescent, Orange
Presbyterian Intercommunity Hospital, Whittier
Prince Sultan Cardiac Center, Riyadh, Saudi Arabia
Priority Rehabilitation, San Bernardino
Pro Rehab, St. Louis, MO
Professional Orthopedic & Sports Care, Fontana
Professional Physical Therapy Services, Anchorage, AK
Professional Therapy Associates, Inc., Strongsville, OH
Professional Therapy Systems, Chattanooga, TN
Progressive Therapy, Columbia, SC
Providence Alaska Medical Center, Anchorage, AK
Providence Health Systems, Everett, WA
Providence Health Systems, Los Angeles
Providence Hospital-Chehalis and Black Hills PT, Chehalis, WA
Providence Seattle Medical Center, Seattle, WA
Providence Speed & Hearing Center, Orange
Providence St. Peter Hospital, Olympia, WA
Public Health Foundation WIC Program, Irwindale

QuadraMed, Seal Beach
Queen of Angels-Hollywood Presbyterian Medical Center, Los Angeles
Queen of the Valley Hospital-Napa, Napa
Queen's Medical Center, Honolulu, HI

R.J. Therapy, Long Beach
Radiation Therapy Medical Group, Riverside
Ralph K. Davies Medical Center, San Francisco
Ramona Physical Therapy, Ramona
Rancho Physical Therapy, Murrietta
Ranier Vista Care Center, Puyallup, WA
Rasco and Associates, Blue Jay
RCI Image Systems, El Segundo
Reading Rehabilitation Hospital, Reading, PA
Rebound Orthopedic & Sports Medicine, Portland, OR
Rebound Physical Therapy, Bend, OR
Reche Canyon Convalescent, Colton
Redingtom Fairview General Hospital, Skowhegan, ME
Redlands Community Hospital, Redlands
Redlands Unified School District, Redlands
Regency Care Center, Spokane, WA
Regency Care Center at Walla Walla, Walla Walla, WA
Regional Medical Center of Orangeburg and Calhoun, Orangeburg, SC
Rehab Associates LLC, Hermiston, OR
Rehab Hospital of the Pacific, Honolulu, HI
Rehab Specialists, Inc., Portland OR
Rehab Visions, Omaha, NE
Rehabaccess, Decatur, AL
Rehabilitation Dynamics, Inc., New Florence, MO
Rehabilitation Hospital of Nevada, Las Vegas, NV
Rehabilitation Hospital of Nevada, Reno, NV
Rehabilitation Hospital of the Pacific, Honolulu, HI
Rehabilitation Institute of Chicago, Chicago, IL
Rehabilitation Institute of Orange, Santa Ana
Rehabilitation Institute at Santa Barbara (The), Santa Barbara
Rehabilitation Network, Salem, OR
Rehabilitation Providers, Monterey
Rehabilitation Technology Works, San Bernardino
Rehability, Smyrna, TN
Rehability Center, Harlingen, TX
Rehability Corporation, Wharton, TX
REHABNET, Inc., Tustin
Restorative Care Center, Seattle, WA
Return to Work Center, North Quincy, MA
Reykjavik Hospital, Iceland
Rialto Unified School District, Rialto
Richards HealthCare, Inc., Houston, TX
Ridgecrest Community Hospital, Ridgecrest
Ridgecrest Physical Therapy, Ridgecrest
Riverside Community Hospital, Riverside
Riverside County Regional Medical Center, Moreno Valley
Riverside Unified School District, Riverside
Robert F. Kennedy Medical Center, Hawthorne
Robert H. Ballard Hospital for Rehabilitation/CMS, San Bernardino
Robert J. Yahne Physical Therapy Corp, Hanford
Rockwood Ortho and Sports PT, Portland, OR
Rogue Valley Manor, Medford, OR
Rosenberry PT Center for Sports Medicine and Spine, Solvang
Rusk Rehabilitation Center, Columbia, MO

S.C.O.R.E., Tucson, Arizona
Saddleback Memorial Medical Center, Laguna Hills
Salt Lake City County Health Department, Salt Lake City, UT
Samaritan Health System, Phoenix, AZ
San Antonio Community Hospital, Upland
San Bernardino County Medical Center, San Bernardino
San Bernardino (County of) Mental Health Department, San Bernardino
San Bernardino County Preschool Services Department, San Bernardino
San Bernardino (County of) Public Health Department, San Bernardino
San Diego Hospital Association, San Diego
San Gabriel Valley Medical Center, San Gabriel
San Gorgonio Memorial Hospital, Banning
San Joaquin Community Hospital, Bakersfield

San Joaquin General Hospital, Stockton
San Joaquin Valley Rehabilitation Hospital, Fresno
San Pedro Peninsula Hospital, San Pedro
Santa Ana Tustin Physical Therapy, Santa Ana
Santa Barbara County California Children's Center, Santa Barbara
Santa Clarita Healthcare, Valencia
Santa Monica Orthopedic Sports Medical Group, Santa Monica
Scottish Rite Children's Medical Center, San Bernardino
Scripps Clinic Wellness Program, La Jolla
Scripps East County Hospital, El Cajon
Scripps Health Ornish Program, LaJolla
Scripps Mercy Hospital, San Diego
Scripps Memorial Hospital, Chula Vista
Scripps Memorial Hospital, San Diego
Scripps Memorial Hospital-Encinitas,
Sea Pines Rehabilitation Corp.
Seaton Medical Center, Daly City
Seattle Physical Therapy, Seattle, WA
Seattle-King County Department of Public Health, Seattle, WA
Seattle Medical and Rehabilitation Center, Seattle, WA
Select Therapy, Inc., & Corona Meadows, Irvine
Sentara Bayside Hospital, Virginia Beach, VA
Seton Medical Center, Daly City
Shady Grove Adventist Hospital, Rockville, MD
Shady Grove Center for Sports Medicine & Rehabilitation, Rockville, MD
Sharp Cabrillo Hospital, San Diego
Sharp Chula Vista Medical Center, San Diego
Sharp Coronado Hospital & Healthcare Center, San Diego
Sharp Grossmont Hosptial, San Diego
Sharp Healthcare, San Diego
Sharp Homecare, San Diego
Shawnee Mission Medical Center, Shawnee Mission, KS
Shea Health Center, San Bernardino
Shriners Hospitals for Crippled Children Northern California, Sacramento
Shriners Hospitals for Children, Lexington, KY
Sierra Ortho & Athletic Rehabilitation, Diamond Springs
Sierra Vista Regional Medical Center (Tenet Health System), San Luis Obispo
Simi Valley Adventist Hospital, Simi Valley
Simonean Pediatric Center for Child Development, San Jose
Siskin Hospital, Chattanooga, TN
Sisters of Providence in California, Burbank
Sisters of Providence in Washington, Olympia, WA
Sisters of Saint Joseph of Orange Corp., Mission Viejo
Sky Life Ambulance, Fresno
SO CA Center for Sports Medicine, Long Beach
Sodexho Marriott Services (Parkview Community Hospital), Riverside
Sonoma Physical Therapy Center, Sonoma
Sonoma Valley Hospital, Sonoma
Sonora Community Hospital, Sonora
South Coast Medical Center, Laguna Beach
South County Orthopedic Specialists, Laguna Hills
South Haven Community Hospital, South Haven, MI
South Pacific Rehab Services, Encino
South Umpquaq Physical Therapy, Roseburg, OR
Southeast Rehabilitation Hospital, Dothan, AL
Southern Hills Medical Center, Nashville, TN
Southill Physical Therapy/Sports Rehabilitation, Spokane, WA
Southside Regional Medical Center, Petersburg, VA
Southside Rehab Services, Colonial Heights, VA
Southwest Physical Therapy, Littleton, CO
Southwest Texas Methodist Hospital, San Antonio, TX
Southwest Washington Medical Center, Vancouver, WA
Special Kids, Murfreesbono, TN
Specialized PT Center, Orange City, FL
Specialty Hospital of Southern California, La Mirada
Spectrum Health East Campus, Grand Rapids, MI
Spooner Physical Therapy, Scottsdale, AZ
Sport and Spine Physical Therapy, San Bernardino
Sports Fit P.T., San Ramon
Sports & Orthopedic Physical Therapy, Inc., Minneapolis, MN
Sports Care of San Francisco Physical Therapy, San Francisco
Sports Medicine and Ortho Rehab Center, Vienna, VA
Sports Medicine Giant, Columbus, OH
Sports Medicine Institute of Sinai Samaritan Medical Center, Mequon, WI
Sports Performance, Pleasant
Square One Rehabilitation, Kansas City, KS
SSM Health Care of Oklahoma, OK
St. Alexis Hospital and Medical Center, Cleveland, OH
St. Agnes Medical Center, Fresno
St. Agnes Medical Cneter Adult Day Care, Fresno
St. Alphonsus Physical Therapy Institute, Boise, ID
St. Bernardine Medical Center, San Bernardino
St. Charles Hospital, Port Jefferson, NY
St. Charles Medical Center, Bend, OR
St. Elizabeth Community Health Center, Lincoln, NE
St. Francis Healthcare Network, Honolulu, HI
St. Francis Medical Center, Lynwood
St. Francis Medical Center-West, Ewa Beach, HI
St. George Care & Rehab Center, St George, UT
St. George Physical Therapy, Charlotte, NC
St. Helena Hospital and Health Center, Deer Park
St. John's Health System, Lebanon, MO
St. John's Hospital & Health Center, Santa Monica
St. John's Medical Center, Tulsa, OK
St. John's Mercy Hospital, Washington, MO
St. John's Regional Medical Center, Oxnard
St. Joseph Hospital, Lexington, KY
St. Joseph Hospital Orange County, Orange
St. Joseph Medical Center, Burbank
St. Joseph Regional Medical Center, Lewiston, ID
St. Joseph's Hospital of Atlanta, Atlanta, GA
St. Joseph's Medical Center of Stockton, Stockton
St. Jude Medical Center, Fullerton
St. Louis Health Care Network, St Louis, MO
St. Luke's Hospital, Kansas City, MO
St. Luke's Hospital, Phoenix, AZ
St. Luke's Rehabilitation Institute, Spokane, WA
St. Mary Medical Center, Apple Valley
St. Mary Medical Center, Catholic Healthcare West So. CA, Long Beach
St. Mary Medical Center and Turning Point Rehab, Walla Walla, WA
St. Patrick Hospital, Missoula, MT
St. Vincent Information Medical Center, Little Rock, AR

Sisters of Providence in California
Sisters of Providence in Washington
State of Alaska, Department of Health and Social Services, Division of Public Health, Anchorage, AK
Stein Education Center, San Diego
Stevens Memorial Hospital, Edmond, WA
Stewart Rehabilitation Center, McKay Dee Hospital, Ogden, UT
Storm Physical Therapy, Medford, OR
Strategic Health Services, Riverside
Summit Medical Center, Hermitage, TN
Sun City Cancer Care Center, Sun City
Sun Health Corporation/Sundance, San Diego
Sunbelt East/Rehab Works, Orlando, FL
Sunbelt Therapy Management Services, Ocean Springs, MS
Sunbelt Therapy Management Services, Inc., Decatur, AL
Sundance Rehab Corporation, Walla Walla, WA
Sundance Rehabilitation, Seattle, WA
Sundance Rehabilitation Corporation, Houston, TX
Sunplus Home Health Services, Upland
Sunrise Hospital and Medical Center Therapy Management, Las Vegas, NV
Susan Jane Smyth, Eureka
Sutter Auburn Faith Community Hospital, Auburn
Sutter Davis Hospital, Davis
Sutter Health Central, Sacramento
Sutter Merced Medical Center, Merced
Sutter Roseville Medical Center, Roseville
Swanson Sports Training & PT, Franklin, TN
Swedish Covenant Hospital, Chicago, IL
Symphony Rehab Services, Inc. & Christian Heritage, Upland
Symphony Rehabilitation Services-Willow Care Center, Hannibal, MO
Symphony Rehabilitation, Inc. & Center Health Care, Colton

Tahlequah City Hospital, Tahlequah, OK
Tarzana Regional Medical Center, Tarzana
Telecare Corporation, Santa Maria
Tenet California HealthSystem, Santa Ana
Tenet Health Care Corporation, Monterey Park
Tenet Western Division, Inglewood
Tennessee Christian Medical Center, Madison, TN
Terrebonne General Hospital, Houma, LA
Texas Orthopedic Hospital, Houston, TX
The Aspen Club Sports Medicine Institute, Aspen, CO
The Huntsville Hospital, Hunstville, AL
The Institute for Rehabilitation and Research, Houston, TX
The Jewish Hospital of St Louis, St. Louis, MO
The Therapy Source, P.A., Boise, ID
Thera TX & Lake Forest Nursing Home, Lake Forest
Therapy Center (The), Knoxville, TN
Therapy Partners at Dakota Heartland Hospital, Fargo, ND
Therapy Source PA, Boise, ID
Therapy Specialists, San Diego
Therasport North West, Spokane, WA
Think Physical Therapy, Santa Ana
Thompson Physical Therapy Associates, Inc., Yuba City
Tokos Medical Corporation, Santa Ana
Torrance Memorial Hospital Medical Center, Torrance
Total Rehabilitation and Conditioning, Anaheim
Total Rehab Care, Fullerton
Tri-Cities Physical Therapy, Kennewick, WA
Tri-City Medical Center, Oceanside
Tri-City Mental Health, Pomona
Tripler Army Medical Center, Honolulu, HI
Tuality Community Hospital, Hillsboro, OR
Tulare District Hospital, Tulare
Tuomey Regional Medical Center, Sumter, SC
Tustin Rehab Hospital, Tustin

UCSF Stanford Health Services, Stanford
United Cerebral Palsy Association of Central Arizona, Phoenix, AZ
United Cerebral Palsy, Dallas, TX
Universidad de Montemorales, Nuevo Leon, Mexico
University Hospital, Denver, CO
University Medical Center, Fresno
University of California-Irvine, Irvine
University of California-Davis Medical Center, Davis
University of California-Los Angeles, Los Angeles
University of California Medical Center (Irvine), Orange
University of California, San Diego Medical Center, San Diego
University of Connecticut Health Center, Farmington, CT
University of Kentucky Metabolic Research Group, Lexington, KY
Upper Valley Physical Therapy, Troy, OH
US HealthWork Medical Group, Ontario
USC University Hospitals (Tenet Health System), Los Angeles
Utah Valley Regional Medical Center, Provo, UT

Valley Children's Hospital, Fresno
Valley Health Systems, dba Hemet Valley Hospital, Hemet
Valley Medical Center, Renton, WA
Valley Physical Therapy, Alamosa, CO
Valley Physical Therapy and Rehabilitation, Yakima, WA
Valley Presbyterian Hospital, Van Nuys
Valley PT, Walla Walla, WA
Valley Radiation Oncology Center (Sisters of Providence) in California
Valley View Sports Medicine & Rehabilitation, Cedar City, UT

Vancouver Children's Therapy Center, Vancouver, WA
Vanderbilt Sports Medicine Center, Nashville, TN
Vanderbilt University, Nashville, TN
Vartabedian & Associates Designs for Wellness, Loma Linda
Vegetarian Institute of Nutrition & Culinary Art, Columbia, MD
Vencor-Hillhaven Corporation, Concord
Vencor, Inc., Puyallup, WA
Vencore Hospital-Ontario, Ontario
Ventura County Public Health, Ventura
Veranda Nursing & Rehab Center, Orlando, FL
Veterans Administration Hospital San Diego, San Diego
Veterans Administration Medical Center, Lexington, KY
Veterans Administration Medical Center Long Beach, Long Beach

Veterans Administration Northern Indiana Health Care, Fort Wayne, IN
Veterans Affairs Medical Center, Fresno
Veterans Hospital, Jerry L. Pettis Memorial, Loma Linda
Victor Valley Community Hospital, Victorville
Virginia Baptist Hospital, Lynchburg, VA
Virginia Mason Medical Center, Seattle, WA
Virginia Rehab, Stauton, VA
Vista Hospital Systems, Inc., Regional Medical Center, Corona
Vitas Healthcare Corp., San Bernardino
VNA-Ramona, Sun City

Walker Physical Therapy-Sun City, Sun City
Walters Physical Therapy, Claremont
Warburton Hospital, Warburton, Victoria, Australia
Washington Hospital Center, Washington, DC
Washington Physical Therapy, Pasco, WA
Waterman Physical Therapy Services, San Bernardino
Way Station, Inc., Frederick, MD
Wayne L. Shelton, PT, Spanish Fork, UT
Wesley Woods Geriatric Hospital, Atlanta, GA
West Allis Memorial Hospital, Peak Performance Clinic, West Allis, WI
West Anaheim Extended Care, Anaheim
West Coast Spine Restoration Center, Riverside
West Gate Convalescent Center, San Jose
West Tennessee Rehabilitation Center, Jackson, TN
West-Star Physical Therapy, City of Industry
Western Medical Center-Santa Ana, Santa Ana
Western Medical Center Hospital-Anaheim, Anaheim
Western Rehabilitation NOVA Care & Phoenix Baptist Hospital Medical Center, Phoenix, AZ
Westside Physical Therapy Clinic, Yakima, WA
White Memorial Medical Center, Los Angeles
Wilcox Memorial Hospital, Lihue, HI
Whittier Hospital Medical Center, Whittier
Wilcox Physical Therapy Center, Anaheim
William Beaumont Hospital, Troy, MI
Wimbledon Park Physical Therapy, Victorville
Winways, Orange
Worthington Foods, Inc., Worthington, OH
Yakima Valley Memorial Hospital, Yakima, WA
Yavapai Regional Medical Center, Prescott, AZ
Yonemoto PT Services, Alhambra
Yonkers General Hospital, Yonkers, NY
Yorba Hills Hospital, Stockton

Ziprick, Schlitz, Heinrich & Cramer, Redlands

SUMMARY OF GRADUATES

CARDIOPULMONARY SCIENCES

CLASS	A.S.	B.S.	TOTAL
1972	7		7
1973	18		18
1974	15	2	17
1975	18	5	23
1976	16	3	19
1977	16	2	18
1978	15	6	21
1979	19	12	31
1980	22	15	37
1981	22	13	35
1982	20	13	33
1983	19	12	31
1984	12	5	17
1985	18	5	23
1986	11	9	20
1987	8	8	16
1988	23	12	35
1989	8	6	14
1990	9	8	17
1991	14	4	18
1992	14	5	19
1993	20	10	30
1994	17	7	24
1995	40	13	53
1996	42	19	61
1997	18	5	23
1998	26	15	41
1999	22	8	30
2000	14	11	25
TOTAL	523	233	756

CLINICAL LABORATORY SCIENCES

CLASS	CERT.	B.S.	TOTAL
1938	5	–	5
1939	6	–	6
1940	6	–	6
1941	6	–	6
1942	8	–	8
1943	7	–	7
1944	–	5	5
1945	–	2	2
1946	5	2	7
1947	1	2	3
1948	5	6	11
1949	2	12	14
1950	2	11	13
1951	2	16	18
1952	2	15	17
1953	–	15	15
1954	–	9	9
1955	2	10	12
1956	1	13	14
1957	2	13	15
1958	–	7	7
1959	–	8	8
1960	–	9	9
1961	–	11	11
1962	–	13	13
1963	–	12	12
1964	–	11	11
1965	–	18	18
1966	–	6	6
1967	–	21	21
1968	–	16	16
1969	–	13	13
1970	–	12	12
1971	–	15	15
1972	–	21	21
1973	–	23	23
1974	–	26	26
1975	–	8	8
1976	–	16	16
1977	–	15	15
1978	–	18	18
1979	–	23	23
1980	–	21	21
1981	–	21	21
1982	4	22	26
1983	4	11	15
1984	–	25	25
1985	–	13	13
1986	2	17	19
1987	3	15	18
1988	5	15	20
1989	–	16	16
1990	5	7	12
1991	2	11	13
1992	4	14	18
1993	3	12	15
1994	2	9	11
1995	1	12	13
1996	4	20	24
1997	4	16	20
1998	5	11	16
1999	6	8	14
2000	—	7	7
TOTAL	116	756	872

HEALTH INFORMATION MANAGEMENT

CLASS	CODING	CERT.	B.S.	TOTAL
1966	–	–	7	7
1967	–	–	3	3
1968	–	–	16	16
1969	–	–	12	12
1970	–	–	7	7
1971	–	–	4	4
1972	–	–	10	10
1973	–	–	12	12
1974	–	–	13	13
1975	–	–	11	11
1976	–	–	17	17
1977	–	–	16	16
1978	–	–	17	17
1979	–	–	15	15
1980	–	–	21	21
1981	–	–	13	13
1982	–	–	11	11
1983	–	–	9	9
1984	–	–	11	11

CLASS	CODING	CERT.	B.S.	M.S.	TOTAL
1985	–	–	5		5
1986	–	–	8		8
1987	–	–	7		7
1988	22	–	18		40
1989	40	–	15		55
1990	34	–	13		47
1991	42	–	2		44
1992	–	–	8		8
1993	26	–	10		36
1994	24	–	6		30
1995	10	1	10		21
1996	9	_	7		16
1997	15	3	10		28
1998	28	1	8		37
1999	26	0	13	6	45
2000			11	12	23
TOTAL	276	5	376	18	675

NUTRITION AND DIETETICS

CLASS	A.S.	B.S.	CERT.	TOTAL
1975	–	6	–	6
1976	–	21	–	21
1977	–	20	–	20
1978	–	26	–	26
1979	–	10	–	10
1980	–	24	–	24
1981	–	24	–	24
1982	–	21	–	21
1983	–	12	–	12
1984	–	22	–	22
1985	–	18	–	18
1986	–	18	–	18
1987	–	17	–	17
1988	–	9	–	9
1989	1	7	–	8

CLASS	A.S.	B.S.	CERT.	TOTAL
1990	2	14	–	16
1991	1	8	–	9
1992	1	14	–	15
1993	4	20	–	24
1994	2	7	4	13
1995	–	22	3	25
1996	3	20	2	25
1997	1	17	–	18
1998	1	15		16
1999		12	4	16
2000	1	12	6	19
TOTAL	17	416	19	452

OCCUPATIONAL THERAPY

CLASS	CERT.	B.S.	A.A.	TOTAL
1961		3		3
1962		3		3
1963	–	9	–	9
1964	–	8	–	8
1965	–	10	–	10
1966	–	3	–	3
1967	–	9	–	9
1968	–	5	–	5
1969	–	9	–	9
1970	–	8	–	8
1971	–	6	–	6
1972	–	11	–	11
1973	–	20	–	20
1974	–	22	–	22
1975	–	16	–	16
1976	–	24	–	24
1977	–	22	–	22
1978	–	21	–	21
1979	–	24	–	24
1980	–	25	–	25
1981	–	23	–	23
1982	–	24	–	24
1983	–	25	–	25
1984	–	29	–	29
1985	–	22	–	22
1986	–	26	–	26
1987	–	22	–	22
1988	–	22	–	22
1989	3	36	8	47
1990	0	35	8	43
1991	13	32	3	48
1992	8	34	2	44
1993	9	37	9	55
1994	16	38	24	78
1995	15	38	49	102
1996	14	52	47	113
1997	15	4	45	64
1998	16	43	62	121
1999	4	48	41	93
2000	4	53	19	76
TOTAL	117	901	317	1335

PHYSICAL THERAPY

CLASS	CERT.	A.S.	B.S.	M.P.T.	D.P.T.	TOTAL
1944	2					2
1945	8	–	1	–	–	9
1946	22	–	5	–	–	27
1947	11	–	3	–	–	14
1948	11	–	5	–	–	16
1949	2	–	5	–	–	7
1950	3	–	12	–	–	15
1951	9	–	9	–	–	18
1952	2	–	10	–	–	12
1953	9	–	2	–	–	11
1954	4	–	11	–	–	15
1955	5	–	8	–	–	13
1956	8	–	5	–	–	13
1957	5	–	12	–	–	17
1958	–	–	1	–	–	1
1959	1	–	22	–	–	23
1960	–	–	24	–	–	24
1961	–	–	31	–	–	31
1962	–	–	33	–	–	33
1963	–	–	30	–	–	30
1964	–	–	33	–	–	33
1965	–	–	38	–	–	38
1966	–	–	38	–	–	38
1967	–	–	28	–	–	28
1968	–	–	41	–	–	41
1969	–	–	44	–	–	44
1970	–	–	30	–	–	30
1971	–	–	49	–	–	49
1972	–	–	48	–	–	48
1973	–	–	48	–	–	48
1974	–	–	50	–	–	50
1975	–	–	56	–	–	56
1976	–	–	48	–	–	48
1977	–	–	50	–	–	50
1978	–	–	55	–	–	55
1979	–	–	54	–	–	54
1980	–	–	56	–	–	56
1981	–	–	49	–	–	49
1982	–	–	56	–	–	56
1983	–	–	62	–	–	62
1984	–	–	57	–	–	57
1985	–	–	59	–	–	59
1986	–	–	58	–	–	58
1987	–	–	59	–	–	59
1988	–	–	63	–	–	63
1989	–	–	65	–	–	65
1990	–	22	69	–	–	91
1991	–	17	–	–	–	17
1992	–	32	48	–	–	80
1993	–	48	–	79	–	127
1994	–	58	–	58	–	116
1995	–	62	–	111	–	173
1996	–	62	91	86	–	239
1997	–	64	95	101	–	260
1998		64	72	86	6	228
1999		76	98	106	1	281
2000		54		144	5	203
TOTAL	102	559	1,996	771	12	3440

RADIATION TECHNOLOGY

CLASS	CERT.	A.S.	B.S.	TOTAL
1944	5	–	–	5
1945	5	–	–	5
1946	4	–	–	4
1947	2	–	–	2
1948	6	–	–	6
1949	6	–	–	6
1950	6	–	–	6
1951	7	–	–	7
1952	7	–	–	7
1953	6	–	–	6
1954	5	–	–	5
1955	9	–	–	9
1956	8	–	–	8
1957	8	–	–	8
1958	5	–	–	5
1959	6	–	–	6
1960	10	–	–	10
1961	4	–	–	4
1962	4	–	–	4
1963	4	–	–	4
1964	3	–	–	3
1965	5	–	–	5
1966	8	–	–	8
1967	6	–	–	6
1968	6	2	–	8
1969	1	11	–	12
1970	1	3	2	6
1971	2	10	1	13
1972	2	15	2	19
1973	6	12	1	19
1974	6	21	7	34
1975	8	19	3	30
1976	–	26	1	27
1977	19	23	1	43
1978	18	28	2	48
1979	14	22	4	40
1980	11	22	5	38
1981	13	25	3	41
1982	8	22	2	32
1983	19	15	2	36
1984	13	16	–	29
1985	13	15	5	33
1986	15	16	3	34
1987	15	15	1	31
1988	17	16	5	38
1989	14	17	2	33
1990	17	16	2	35
1991	27	15	6	48
1992	19	17	2	38
1993	23	24	5	52
1994	24	31	3	58
1995	24	36	4	64
1996	15	–	7	22
1997	12	–	2	14
1998		31	8	39
1999		21	8	29
2000		22	3	25
TOTAL	521	584	102	1207

SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY

CLASS	B.S.
1967	7
1968	4
1969	4
1970	11
1971	7
1972	9
1973	14
1974	8
1975	11
1976	7
1977	11
1978	8
1979	6
1980	7
1981	8
1982	11
1983	7
1984	11
1985	12
1986	5
1987	3
1988	13
1989	9
1990	12
1991	7
1992	12
1993	12
1994	9
1995	4
1996	22
1997	14
1998	13
1999	18
2000	14
TOTAL	330

ACCREDITATION STATUS

THE UNIVERSITY

Founded as College of Evangelists 1905-06. Chartered as College of Medical Evangelists by the state of California December 13, 1909. Accredited by Northwest Association of Secondary and Higher Schools April 7, 1937. Accredited by Western Association of Schools and Colleges (prior to January 1962, Western College Association) February 24, 1960. Became Loma Linda University July 1, 1961. Professional curricula started and approved as indicated.

THE GRADUATE SCHOOL: Started in 1954. Accredited through University accreditation.

THE PROFESSIONS

CLINICAL LABORATORY SCIENCE (FORMERLY: MEDICAL TECHNOLOGY): Started in 1937. Approved by the Council on Medical Education of the American Medical Association since August 28, 1937. Currently approved by the Commission on Accreditation of Allied Health Education Programs in collaboration with the National Accrediting Agency for Clinical Laboratory Sciences.

CYTOTECHNOLOGY: Started in 1982. Initial approval by the Commission on Accreditation of Allied Health Education Programs in collaboration with the Cytotechnology Programs Review Committee January 20, 1983.

DENTAL HYGIENE: Started in 1959. Approved by the Commission on Dental Accreditation of the American Dental Association since September 7, 1961.

DENTISTRY: Started in 1953. Approved by the Commission on Dental Accreditation of the American Dental Association since May 23, 1957.

DIETETIC TECHNOLOGY: Started in 1988. Approved by The American Dietetic Association Commission on Accreditation and Dietetic Education April 25, 1988.

EMERGENCY MEDICAL CARE: Started in 1993 as a baccalaureate degree program for paramedics, respiratory therapists, and other allied health professionals desiring education, science, or management credentials in emergency medical services.

ENDODONTICS: Started in 1967. Approved by the Commission on Dental Accreditation of the American Dental Association since December 1969.

HEALTH INFORMATION MANAGEMENT: Started as medical record administration in 1963. Approved by the Council on Medical Education of the American Medical Association since December 1, 1963. Currently approved by the Commission on Accreditation of Allied Health Education Programs in collaboration with the American Health Information Management Association.

MEDICAL RADIOGRAPHY: Started in 1941 as radiological technology. Approved by the Council on Medical Education of the American Medical Association November 19, 1944. Currently approved by the Joint Review Committee on Education in Radiologic Technology and the state of California Department of Health Services.

MEDICAL SONOGRAPHY: Started in 1976 as diagnostic medical sonography. Approved by the Joint Review Committee on Education in Diagnostic Medical Sonography October 24, 1985.

MEDICINE: Started in 1909. Approved by the Association of American Medical Colleges and the Council on Medical Education of the American Medical Association since November 16, 1922.

NUCLEAR MEDICINE: Started in 1970. Approved by the Council on Medical Education of the American Medical Association June 23, 1973. Currently approved by the Joint Review Committee on Educational Programs in Nuclear Medicine Technology.

NURSING: Hospital school started at Loma Linda in 1905. Hospital school added at Los Angeles in 1924. Degree school organized in 1948. Accredited by the National Nursing Accrediting Service December 10, 1951, with approval continuing under the National League for Nursing. Initial 1917 approval of the California State Board of Health extended until college program approved July 1, 1952, by the California Board of Registered Nursing. California Board of Registered Nursing approval since 1952. Public health nursing preparation recognized, 1959.

NUTRITION AND DIETETICS: Started in 1922 as a certificate program; baccalaureate degree conferred 1932-54; graduate program offered since 1954. Internship program continuously approved by The American Dietetic Association from 1957 through 1974; reestablishment of baccalaureate degree program authorized October 1971. Coordinated undergraduate program accredited by The American Dietetic Association Commission on Accreditation/Dietetics Education, 1974.

OCCUPATIONAL THERAPY: Started in 1959. Initial approval by the Council on Medical Education of the American Medical Association June 10, 1960. Full approval March 30, 1962. Currently approved by the Accreditation Council for Occupational Therapy Education.

OCCUPATIONAL THERAPY ASSISTANT: Started in 1988. Approved by the Commission on Accreditation of Allied Health Education Programs in collaboration with The American Occupational Therapy Association (AOTA) April 13, 1989. Currently accredited by the Accreditation Council for Occupational Therapy Education of the AOTA.

ORAL AND MAXILLOFACIAL SURGERY: Started in 1978. Approved by the Commission on Dental Accreditation of the American Dental Association since 1981.

ORTHODONTICS AND DENTOFACIAL ORTHOPEDICS: Started in 1960. Approved by the Commission on Dental Accreditation of the American Dental Association since May 1965.

PEDIATRIC DENTISTRY: Started in 1993. Approved by the Commission on Dental Accreditation of the American Dental Association since December 1972.

PERIODONTICS: Started in 1979. Approved by the Commission on Dental Accreditation of the American Dental Association since December 1972.

PHYSICAL THERAPIST ASSISTANT: Started in 1989. Approved by the American Physical Therapy Association April 4, 1990.

PHYSICAL THERAPY: Started in 1941. Initial approval by the Council on Medical Education of the American Medical Association June 6, 1942. Currently approved by the American Physical Therapy Association.

PROSTHODONTICS: Started in 1993. Approved by the Commission on Dental Accreditation of the American Dental Association since February 1995.

PUBLIC HEALTH: Started in 1948; reorganized in 1964. Approved by the American Public Health Association June 23, 1967. Currently approved by the Council on Education for Public Health.

RADIATION THERAPY: Approved by the Council on Medical Education of the American Medical Association December 1, 1974. Currently approved by the Joint Review Committee on Education in Radiologic Technology.

RESPIRATORY THERAPY: Started in 1971. Initial approval by the Council on Medical Education of the American Medical Association September 1972. Full approval June 1973. Currently approved by the Commission on Accreditation of Allied Health Education Programs in collaboration with the Joint Review Committee for Respiratory Therapy Education.

SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY: Approved by the American Speech-Language-Hearing Association June 1, 1991.

SURGICAL TECHNOLOGY: Started in 1995. Approval by the Council on Medical Education of the American Medical Association December 1972. Currently approved by the Commission on Accreditation of Allied Health Education Programs in collaboration with the Accreditation Review Committee on Education in Surgical Technology.

ACCREDITING AGENCIES

THE UNIVERSITY

Loma Linda University is accredited by WASC:

Accrediting Commission for Senior Colleges and Universities of the Western Association of Schools and Colleges
P.O. Box 9990
Mills College
Oakland, California 94613-9990
Phone: 510 / 632-5000
FAX: 510 / 632-8361

WASC is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Commission on Recognition of Postsecondary Accreditation.

In addition to WASC, the following agencies accredit specific University schools or programs*:

GRADUATE SCHOOL

Drug and Alcohol Counseling
California Association of Alcoholism and Drug Abuse Counselors (CAADAC)
3400 Bradshaw Road, Suite A5
Sacramento, CA 95827
Phone: 916 / 368-9412
FAX: 916 / 368-9424
Web Site: www.caadac.org
Email: caadac@jps.net

Marriage and Family Therapy
Commission on Accreditation for Marriage and Family Therapy Education of the American Association for Marriage and Family Therapy
1133 15th Street, NW, Suite 300
Washington, DC 20005-2710
Phone: 202 / 467-5111 or 452-0109

Social Work
Council on Social Work Education
Division of Standards and Accreditation
1600 Duke Street
Alexandria, Virginia 22314-3421
Phone: 703 /683-8080
FAX: 703 / 683-8099

SCHOOL OF ALLIED HEALTH PROFESSIONS

Cardiopulmonary Sciences

Respiratory Therapy
Committee on Accreditation for Respiratory Care
1248 Harwood Road
Bedford, TX 76021-4244
Phone: 817 / 283-2835
FAX: 817 / 354-8519 or 817 / 252-0773
Web Site: www.coarc.com
Email: richwalker@coarc.com

Surgical Technology
Accreditation Review Committee on Education in Surgical Technology (ARC-ST)
7108-C South Alton Way

Englewood, CO 80112-2106
Phone: 303 / 694-9262
FAX: 303 / 741-3655
Web Site:www.arcst.org
Email: coa@ast.org

Clinical Laboratory Sciences

Phlebotomy Certificate

National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)
8410 West Bryn Mawr Avenue, Suite 670
Chicago, IL 60631
Phone: 773 / 714-8880
FAX: 773 / 714-8886
Web Site:www.naacls.org
Email: naaclsinfo@naacls.org

Clinical Laboratory Science (formerly Medical Technology)

National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)
8410 West Bryn Mawr Avenue, Suite 670
Chicago, IL 60631
Phone: 773 / 714-8880
FAX: 773 / 714-8886
Web Site:www.naacls.org
Email: naaclsinfo@naacls.org

Cytotechnology

Commission on Accreditation of Allied Health Education Programs (CAAHEP)
35 East Wacker Drive, Suite 1970
Chicago, IL 60601-2208
Phone: 312 / 553-9355
FAX: 312 / 553-9616
Web Site:www.caahep.org
Email: caahep@caahep.org

Health Information Management

Health Information Administration

Commission on Accreditation of Allied Health Education Programs (CAAHEP)
35 East Wacker Drive, Suite 1970
Chicago, IL 60601-2208
Phone: 312 / 553-9355
FAX: 312 / 553-9616
Web Site:www.caahep.org
Email: caahep@caahep.org

Nutrition and Dietetics

Dietetic Technician Program
Nutrition and Dietetics

Commission on Accreditation for Dietetics Education (CADE)
The American Dietetic Association
216 West Jackson Boulevard, 7th floor
Chicago, IL 60606-6995
Phone: 800 / 877-1600
FAX: 312 / 899-4817
Web Site:www.eatright.org/cade
Email: education@eatright.org

Occupational Therapy

The Accreditation Council for Occupational Therapy Education (ACOTE)
American Occupational Therapy Association, Inc. (AOTA)
P.O. Box 31220
Bethesda, MD 20824-1220
Phone: 301 / 652-2682
or toll free 800 / 377-8555
FAX: 301 / 652-7711
Web Site:www.aota.org
Email: accred@aota.org

Physical Therapy

Commission on Accreditation in Physical Therapy Education
American Physical Therapy Association (APTA)
1111 North Fairfax Street
Alexandria, VA 22314
Phone: 703 / 706-3245
FAX: 703 / 838-8910
Web Site:www.apta.org
Email: see Web site

Radiation Technology

Medical Radiography—A.S.
Radiation Therapy Technology—certificate

Joint Review Committee on Education in Radiologic Technology
20 North Wacker Drive, Suite 900
Chicago, IL 60606-2901
Phone: 312 / 704-5300
FAX: 312 / 704-5304
Web Site:www.jrcert.org
Email: mail@jrcert.org

[Diagnostic] Medical Sonography— certificate

Joint Review Committee on Education in Diagnostic Medical Sonography (JRCE-DMS)
1248 Harwood Road
Bedford, TX 76021-4244
Phone: 817 / 685-6629
FAX: 817 / 354-8519
Web Site: www.caahep.org
Email: sharonworthing@coarc.com

Nuclear Medicine Technology— certificate

Joint Review Committee on Education Programs in Nuclear Medicine Technology
One 2nd Avenue East, Suite C
Polson, MT 59860-2320
Phone: 406 / 883-0003
FAX: 406 / 883-0022
Email: jrcnmt@ptinet.net

Speech-Language Pathology and Audiology

American Speech-Language-Hearing Association
10801 Rockville Pike
Rockville, MD 20852
Phone: 301 / 897-5700
FAX: 301 / 571-0481 (2-1-00 their FAX)
Web Site:www.sha.org
Email:accreditation@asha.org

SCHOOL OF DENTISTRY
Commission on Dental Accreditation
American Dental Association
211 East Chicago Avenue
Chicago, IL 60611
Phone: 800 / 621-8099
FAX: 312 / 440-2915
Web Site:www.ada.org
Email: licarif@ada.org

SCHOOL OF MEDICINE
Liaison Committee on Medical Education
Association of American Medical Colleges
2450 N Street NW
Washington, DC 30037
Phone: 202 / 828-0596
FAX: 202 / 828-1125
Web Sites: www.lcme.org; www.aamc.org

SCHOOL OF NURSING
National League for Nursing
Accrediting Commission
61 Broadway
New York, NY 10006
Phone: 212 / 363-5555, ext. 153
or toll free 800 / 669-1656
FAX: 212 / 812-0390
Web Site:www.nlnac.org

Board of Registered Nursing
1170 Durfee Avenue, Suite G
South El Monte, CA 91733
Phone: 626 / 575-7080
FAX: 626 / 575-7090
Web Site:www.rn.ca.gov
Commission on Collegiate Nursing Education
(CCNE)
One Dupont Circle NW, Suite 530
Washington, DC 20036-1120
Phone: 202 / 887-6791
FAX: 202 / 887-8476
Web Site:www.aacn.nche.edu/accreditation

SCHOOL OF PUBLIC HEALTH
Council on Education for Public Health
1015 15th St. NW, Suite 402
Washington, DC 20001
Phone: 202 / 789-1050
FAX: 202 / 789-1895
Web Site:www.ceph.org

Certified Health Education Specialist (CHES)
National Commission for Health Education
Credentialing, Inc.
944 Marcon Boulevard, Suite 310
Allentown, PA 18103
Phone: 610 / 264-8200
FAX: 800 / 813-0727
Email: www.nchec.org

Drug and Alcohol Counseling
California Association of Alcoholism and Drug
Abuse Counselors (CAADAC)
3400 Bradshaw Road, Suite A5
Sacramento, CA 95827
Phone: 916 / 368-9412
FAX: 916 / 368-9424
Web Site:www.caadac.org
Email: caadac@jps.net

Environmental Health Specialist
State of California
Environmental Health Specialist
Registration Program
601 North 7th Street, MS 396
P.O. Box 942732
Sacramento, CA 94234-7320
Phone: 919 / 324-8819
FAX: 916 / 323-9869
Web Site:www.dhs.ca.gov

Public Health Nutrition and Dietetics
Commission on Accreditation for
Dietetics Education (CADE)
The American Dietetic Association
216 West Jackson Boulevard, 7th floor
Chicago, IL 60606-6995
Phone: 800 / 877-1600
FAX: 312 / 899-4817
Web Site:www.eatright.org/cade
Email: education@eatright.org

***All entry-level degrees are accredited by their respective professional accrediting associations..**

THE UNIVERSITY LIBRARIES

Major library resources

Four major library resources on campus support the University's academic programs. These are: the Del E. Webb Memorial Library, the Jorgensen Learning Resources Center, the Jesse Medical Library and Information Center, and the Veterans Administration Library Services. In addition to these facilities, specialized libraries are located in various medical and school departments on campus.

Central library

The Del E. Webb Memorial Library is the central library of Loma Linda University. Its historical roots go back to 1907, when a small library collection was started in a room of the old Loma Linda Sanitarium. In 1953 the growing collection was moved to its own building on the Loma Linda campus. Then in 1981, a new library building was built from a grant by the Del E. Webb Foundation, giving the library a total floor space of 87,670 square feet. This structure now houses the main library, while the old structure is now shared between the Department of Archives and Special Collections and the bound retrospective journals. As of April 2000, the library has a total collection of 402,455 books, bound and current journals, and media items (193,679 books; 125,752 bound journals and 1,403 current periodical subscriptions; and 81,621 media items).

Library mission

The mission of the Library is to stimulate and support the information needs of the University's instructional, research, and service programs. To this end the Library provides a full range of information support services, including, but not limited to, reference, circulation, reserve, access to the internet, and hundreds of online databases, e.g., full-text, selective, automatic dissemination of information services (SDI); database end-user training programs; library orientations; interlibrary loans; photocopy and pull services; a microcomputer laboratory; a learning service resource center; class-integrated library instruction programs; and services that support distance education and University outreach programs.

Worldwide access

The Library provides access to other collections worldwide using internet technologies. It also participates in a number of national and regional networks. One of these is the National Network of the Libraries of Medicine, founded by the National Library of Medicine. This structure is divided into eight regional sections, one of which is the Pacific Southwest Region. The Del E. Webb Memorial Library belongs to this region and is the designated medical resource library for San Bernardino and Riverside counties. Local library cooperatives include the IEALC (Inland Empire Academic Library Cooperative) and SIRCULS (San Bernardino, Inyo, Riverside Counties United Library Services). Membership in these cooperatives gives our students, faculty, and staff access to the collections of these libraries.Archives and special collections

Archives and special collections

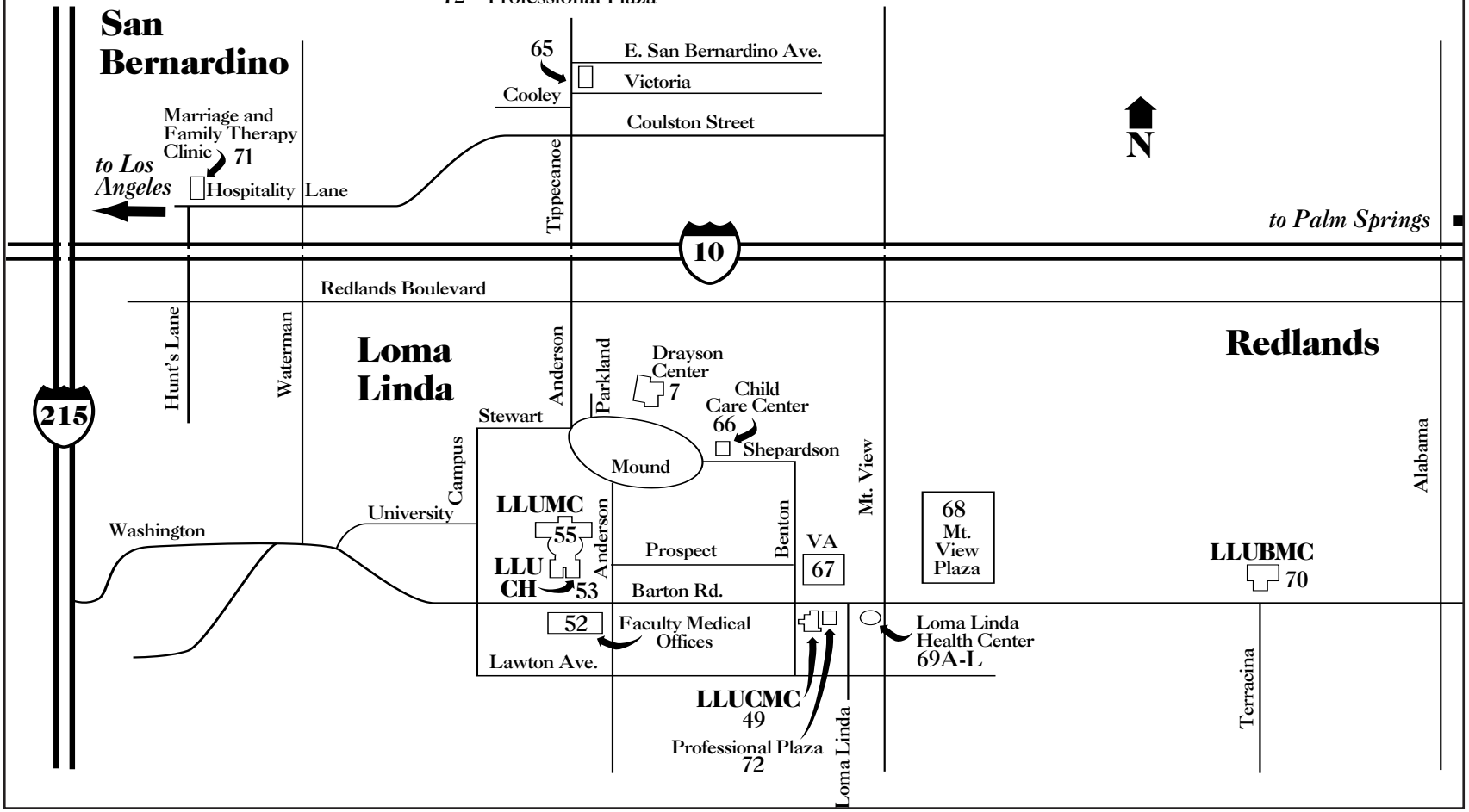
The Department of Archives and Special Collections is the central repository of information on the history of Loma Linda University, the health sciences, and major collections on Adventism. In addition to print materials which include rare books, theses, and dissertations, there are microforms, sound recordings, and several thousand photographs. Searchable digitized indexes for various document files are also available via the Library's website. The collection also includes 14,000 linear feet of archival materials, which include papers of various denominational and University officials, as well as the congressional papers of the Honorable Jerry and Shirley Pettis.

ELLEN G. WHITE ESTATE LOMA LINDA BRANCH OFFICE

Also located in the Library is a branch office of the Ellen G. White Estate. It contains 60,000 typewritten pages of Ellen G. White's letters and manuscripts; 4,600 of her published articles; and several different files of materials pertaining to various aspects of her life and ministry. A computerized concordance to her published writings is available to researchers. A link to a bibliography of the different variant editions of her works is available on the Library's home page.

Area Map
and numerical legend

1-64 (see Campus Map)
65 – Material Supply and Distribution Support Services Center
66 – Loma Linda Children's Center
67 – Jerry L. Pettis Memorial Veterans Medical Center (VA Hospital)
68 – Mountain View Plaza
69 – Loma Linda Health Center
70 – Behavioral Medicine Center
71 – Marriage and Family Therapy Clinic
72 – Professional Plaza



Key to abbreviations and symbols
(See also key on campus map)

X = **Nearest cross street**
> = **See Area Map**
LLU = Loma Linda University:
BMC Behavioral Medicine Center
CH Children's Hospital
CMC Community Medical Center
MC Medical Center

Campus Map (numerical)

1. Gentry Gymnasium
2. Media Services (University, MC)
3. Geoscience Research Institute; Housekeeping (University); Radiation / Hazardous Materials Safety
4. Campus Engineering (maintenance shops); Lock and Key; Campus Receiving (University); 4G=Garage buildings
5. Purchasing (University); Campus Engineering (Machine Shop)
6. University Printing Services and Design Department
7. Drayson Center: Activities Center; Superfield; Student Union; Student Association
8. Speech and Hearing Clinic (AH)
9. Nichol Hall: School of Public Health; School of Allied Health Professions; 9C = Cottages: #60 ("Blue")—Marketing and Retention (AH); #70 ("Brown")—OT Field Work Office; #80 ("Green")—SIMS, Center for Health and Development (PH)
10. Daniells Residence Complex (men; graduate women)
11. Lindsay Hall (women's residence)
12. Campus Hill SDA Church
13. Linda Hall (Campus Hill SDA Church)
14. Evans Hall: Center for Health Promotion; Cutler Amphitheater; Student Health Service; Teaching Learning Center
15. Shryock Hall: Anatomy; Embryology Museum
16. Alumni Hall for Basic Sciences: Microbiology; Pathology; Courville Museum (pathology)
17. Risley Hall: Physiology; Pharmacology; Kellogg Amphitheater
18. Burden Hall: Academic Publications; University Relations; AH lab
19. Block Building: Orthopaedic Bioengineering Research Labs; Tribology Lab
20. Randall Visitors Center: Amphitheater; Jorgensen Learning Center
21. University Library, Del E. Webb Memorial: Main library; E. G. White Estate Branch Office; Heritage Room; Micro-Systems Support
22. Magan Hall: Administration, LOMA LINDA UNIVERSITY; Faculty Records; Gift Records; Advancement
23. Griggs Hall: Biology; Faculty of Religion; Graduate School
24. Mortensen Hall: Biochemistry; Center for Molecular Biology and Gene Therapy
25. Campus Security; Rideshare
26. University Church; Fellowship Hall; Campus Chapel
27. Good Samaritan sculpture
28. Prince Hall: School of Dentistry
29. Cogeneration Plant (power plant)
30. Advanced Periodontics Education; Dentistry faculty endodontics (private practice)
31. Educational Support Services (SD)
32. Central Building: Psychology (GS)
33. Center for Dental Research; University Computing (Rm. 208)
34. University Arts: Human Resource Management (personnel, payroll, benefits); Purchasing (MC); Advanced Life Support Education; Dentistry (private practice)
35. Faculty Dental Offices (private practice)
36. Occupational therapy lab (AH)
37. Grants Management (post-award, University); LLU Foundation Rental Office
38. Office of Sponsored Research (pre-award)
39. Bank of America
40. U. S. Post Office
41. Upper level: Business offices; Accounting; Foundation; Lower level: Student Services Center–Student Affairs (student life, international student services, off-campus housing, dean of students); Financial Aid; Student Finance / Accounting; Admissions; Loan Collections; University Records
42. La Loma Credit Union
43. Campus Cafeteria
44. Risk Management
45. Safety Education Center
46. Campus Store (bookstore, camera shop, Apple computer sales and service); LL Market (bakery, natural foods); Patio Pantry; Campus Pharmacy
47. Alumni Center: Alumni offices; Alumni Federation; Staff Development; Planned Giving; General Conference liason
48. A.C.T.S. (emergency relief)
49. LOMA LINDA UNIVERSITY COMMUNITY MEDICAL CENTER
50. Ronald McDonald House
51. University Kidney Center (dialysis)
52. Faculty Medical Offices (FMO) (private practice)
53. LOMA LINDA UNIVERSITY CHILDREN'S HOSPITAL: Heliport, H South; Cafeteria; Central Computing (MC)
54. Proton Treatment Center
55. LOMA LINDA UNIVERSITY MEDICAL CENTER: School of Medicine; Heliport, H North; Lost and Found, B-404; Cafeteria; Amphitheaters: A-512, Lobby-1506; Transplantation Institute
56. Schuman Pavilion: International Heart Institute
57. Chan Shun Pavilion: Cancer Research Institute
58. Coleman Pavilion: School of Medicine; Center for Christian Bioethics
59. Wong Kerlee International Conference Center
60. Emergency Department
61. Express Care (urgent care, workers' compensation, employee health care)
62. Mail Service (University, MC)
63. Nelson House: Decision Support Services (MC)
64. West Hall: School of Nursing; Graduate School Admin.

Area Map (numerical)

65. Material Supply and Distribution Support Services Center (Receiving, Mercantile, etc.) (MC), 1269 E. San Bernardino Ave., SB (X Tippecanoe)
66. Loma Linda Children's Center, 25228 Shepardson Dr.
67. Veterans Medical Center, Jerry L. Pettis Memorial (VA Hospital), 11201 Benton St. (X Barton Rd.)
68. Mountain View Plaza (X Barton Rd.): Education and Training Department (computer training, JTPA training) (University, MC); Diabetes Treatment Center (MC); Osteoporosis Research Center (LLU administrative office); Radiology Medical Group, administrative office; Hospice (MC); LL Medical Supply (MC); Home Care Services (respiratory, family) (MC); Judkins Library (MC); LLUMC Managed Care Finance; Health Care Patient Business Office (FMO billing); Adventist Health Managed Care
69. Loma Linda Health Center *("Cape Cod" buildings),* Mountain View Ave. (X Barton Rd.):
    A –11306 *Providence:* LL Community Medical Group
    B –11314 *Cambridge:* Psychiatry and Behavioral Medicine (SM)
    C –11320 *Gloucester:* Psychiatry conference rooms; Medical staff administration (BMC, CH, CMC, MC)
    D –11326 *Worcester:* Special Projects (MC); Physician Referral and Circle of Care
    E –11332 *Westerly:* Medical (private practice)
    F –11354 *Walden:* Medical
    G –11360 *Hartford:* LLU Cancer Institute: Administration; Cancer Data Center; Clinical oncology research
    H –11346 *Concord:* Marketing (MC); Medical (private practice)
    I –11368 *Springfield:* LLU Cancer Institute: Region 5 Cancer Surveillance Program; Pharmaceutical research
    J –11374 *Dover:* see Counseling, below, 69J>
    K –11382 *Danbury:* Loma Linda Health Pharmacy; Dental (private practice)
    L –11340 *Bridgeport:* LLU Cancer Institute: Cancer Information

    Counseling and chemical dependency treatment centers (students, employees):

69. B –11314 *Cambridge:* Student counseling; Psychiatry (SM)
    G –11360 *Hartford,* Suite A: Employee Assistance Program
    J –11374 *Dover:* Student Psycholological counseling services (MC); Medical faculty (private practice)
70. LOMA LINDA UNIVERSITY BEHAVIORAL MEDICINE CENTER, 1710 Barton Road (X Terracina Blvd.): Crisis hotline; Partial hospitalization (days only); Inpatient
71. Marriage and Family Therapy Clinic, 164 W. Hospitality Lane, Suite 15, SB (X Hunt's Lane)
72. Professional Plaza, 25455 Barton Frontage Road (X Loma Linda Drive; X Benton St.): Family and Child Therapy (FACT, Suite 108-A, LLUCH); Loma Linda Pharmacy; MC / SM teaching, administrative, and private practice offices

Campus and Area maps (alphabetical)

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To update information for the next edition of the campus and area maps and legends, please contact:
Academic Publications, ext. 4-4525

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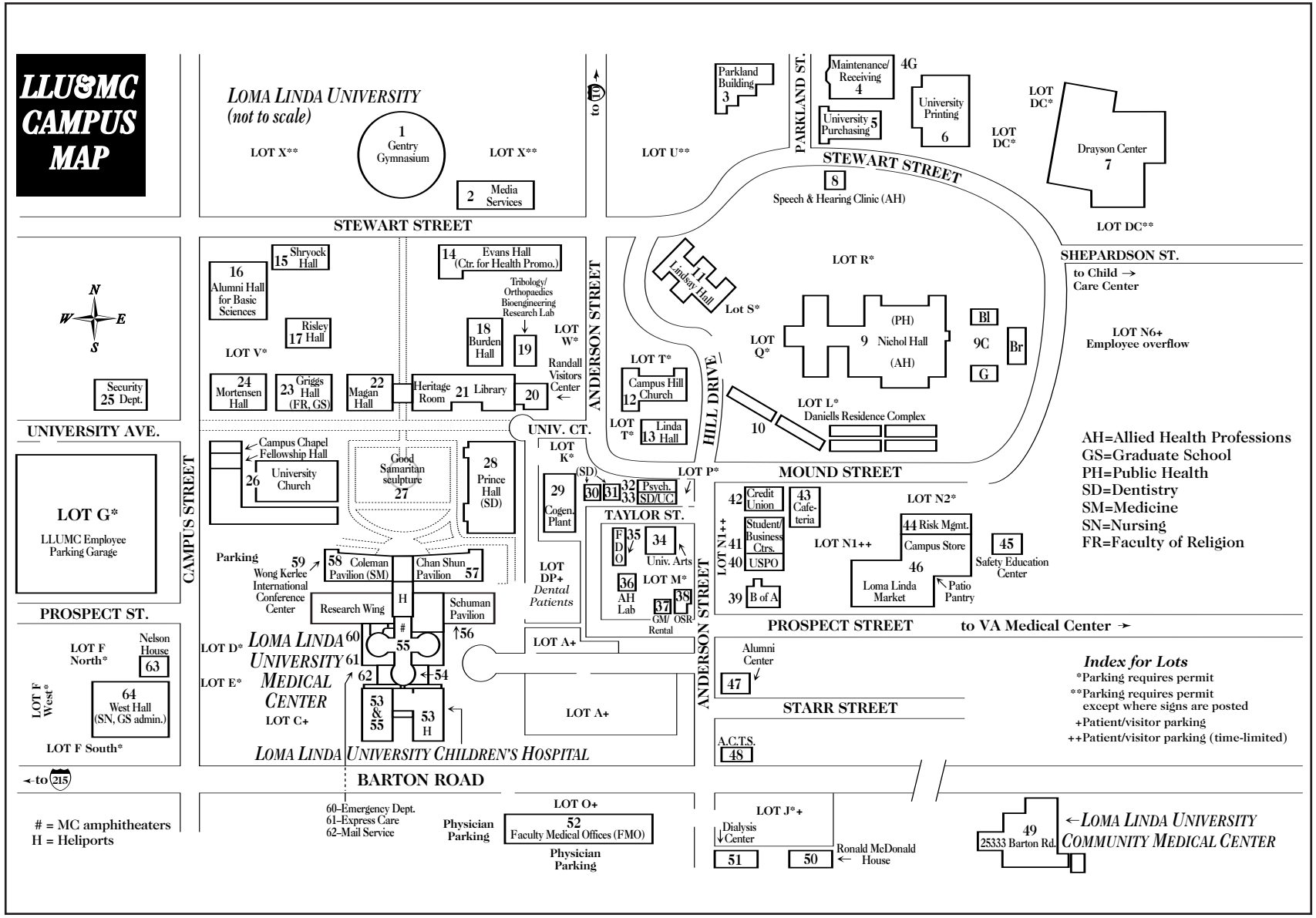
LLU&MC CAMPUS MAP
LOMA LINDA UNIVERSITY
(not to scale)
LOT X**
1 Gentry Gymnasium
LOT X**
2 Media Services
to 10
LOT U**
Parkland Building 3
PARKLAND ST.
Maintenance/ Receiving 4
4G
University Purchasing 5
University Printing 6
LOT DC*
LOT DC*
Drayson Center 7
STEWART STREET
8 Speech & Hearing Clinic (AH)
LOT DC**
STEWART STREET
SHEPARDSON ST.
to Child → Care Center
LOT N6+ Employee overflow
15 Shryock Hall
16 Alumni Hall for Basic Sciences
14 Evans Hall (Ctr. for Health Promo.)
Tribology/ Orthopaedics Bioengineering Research Lab
18 Burden Hall
19
LOT W*
Randall Visitors Center
LOT V*
17 Risley Hall
24 Mortensen Hall
23 Griggs Hall (FR, GS)
22 Magan Hall
Heritage Room
21 Library
20
ANDERSON STREET
Lindsay Hall 11
LOT R*
Lot S*
LOT Q*
(PH)
9 Nichol Hall
(AH)
Bl
9C
Br
G
LOT T*
Campus Hill Church 12
LOT T*
Linda 13 Hall
HILL DRIVE
10
LOT L*
Daniells Residence Complex
UNIVERSITY AVE.
Security 25 Dept.
UNIV. CT.
LOT K*
Campus Chapel
Fellowship Hall
University Church 26
Good Samaritan sculpture 27
28 Prince Hall (SD)
29 Cogen. Plant
(SD)
30
31
32
33
Psych. SD/UC
LOT P*
MOUND STREET
AH=Allied Health Professions
GS=Graduate School
PH=Public Health
SD=Dentistry
SM=Medicine
SN=Nursing
FR=Faculty of Religion
LOT G*
LLUMC Employee Parking Garage
CAMPUS STREET
TAYLOR ST.
F D O
35
34 Univ. Arts
36 AH Lab
LOT M*
37
38
GM/ Rental
OSR
42 Credit Union
43 Cafe-teria
LOT N2*
LOT N1++
LOT N1+
41 Student/ Business Ctrs.
40 USPO
39 B of A
44 Risk Mgmt.
Campus Store
45 Safety Education Center
46 Loma Linda Market
Patio Pantry
Parking
59 Wong Kerlee International Conference Center
58 Coleman Pavilion (SM)
Chan Shun Pavilion 57
LOT DP+ Dental Patients
PROSPECT ST.
Research Wing
H
Schuman Pavilion
56
PROSPECT STREET
to VA Medical Center →
LOT D*
LOMA LINDA UNIVERSITY MEDICAL CENTER
60
61
62
55
54
LOT E*
LOT C+
53 & 55
53 H
LOT A+
LOT A+
ANDERSON STREET
Alumni Center
47
STARR STREET
A.C.T.S. 48
LOT F North*
Nelson House 63
LOT F West*
64 West Hall (SN, GS admin.)
LOT F South*
LOMA LINDA UNIVERSITY CHILDREN'S HOSPITAL
←to 215
BARTON ROAD
60–Emergency Dept.
61–Express Care
62–Mail Service
LOT O+
Physician Parking
52 Faculty Medical Offices (FMO)
Physician Parking
LOT J*+
Dialysis Center
51
50
Ronald McDonald House
49 25333 Barton Rd.
←LOMA LINDA UNIVERSITY COMMUNITY MEDICAL CENTER
Index for Lots
*Parking requires permit
**Parking requires permit except where signs are posted
+Patient/visitor parking
++Patient/visitor parking (time-limited)
# = MC amphitheaters
H = Heliports

INDEX

TO COMMUNICATE WITH LLU . . .

MAIL: **Loma Linda University**
Loma Linda, California 92350

WORLDWIDE WEB: http://www.llu.edu

PHONE:
For information about LLU 1/800-422-4LLU
dialing from Canada 1/800-548-7114

Area Code: **909 /**

Switchboard: **558-1000, 558-4300**

Off-campus PHONE:	On-campus PHONE:		Off-campus FAX:	On-campus FAX:
558-4540	44540	**President**	558-0242	80242
558-4787	44787	**Diversity**	558-0140	80140
558-4510	44510	**Student Affairs**	558-4879	44879
		Student welfare, housing, visas...		
558-4955	44955	**International Student Services**	558-4879	44879
558-4520	44520	**Student Finance**	558-4879	44879
558-4509	44509	**Student Financial Aid**	558-4879	44879
558-4508	44508	**University Records**	558-4879	44879
558-8770	88770	**Student Health Service**	558-0433	80433
558-6028	66028	**Student Counseling**	558-6090	66090
558-8625	88625	**Teaching Learning Center**	558-0179	80179
558-6050	66050	**Student Assistance Program**	558-6051	66051
558-4570	44570	**Spiritual Counseling**	558-4186	44186
335-4275	34275	**Crisis Hotline**	1-800-752-5999	
793-9333	34008	Behavioral Medicine Center	558-9262	34262
558-4536	44536	**Faculty of Religion**	558-4856	44856
558-8434	88434	Dean	558-4856	44856
558-4956	44956	Biomedical and Clinical Ethics	558-0336	80336
558-4956	44956	Center for Christian Bioethics	558-0336	80336
558-8433	88433	Clinical Ministry	558-4856	44856
558-1000	ext. 43983	Center for Spiritual Life and Wholeness	558-0336	80336
		The Schools:		
		Allied Health Professions		
558-4599	44599	Admissions	558-4291	44291-attn. Admissions
558-4545	44545	Dean	558-4291	44291-attn. Dean
558-4932	44932	Cardiopulmonary Sciences	558-4701	44701-attn. CPSC
558-4966	44966	Clinical Laboratory Sciences	558-4291	44291-attn. CLSC
558-4976	44976	Health Information Management	558-0404	80404-attn. HLIN
558-4593	44593	Nutrition and Dietetics	558-4291	44291-attn. DTCS
558-4628	44628	Occupational Therapy	558-0239	84239-attn. OCTH
558-4948	44948	Occupational Therapy Assistant	478-0239	84239-attn. OCTA
558-4632	44632	Physical Therapy	558-4291	44291-attn. PHTH
558-4634	44634	Physical Therapist Assistant	558-4291	44291-attn. PTAS
558-4931	44931	Radiation Technology	558-4291	44291-attn. RTCH
558-4998	44998	Speech-Language Pathology/Audiology	558-4291	44291-attn. SPPA
558-4222	1616	**Dentistry**		
558-4621	44621	Admissions	558-4211	44211
558-4683	44683	Dean	558-0483	80483
558-8624	88624	Advanced Programs	558-0122	80122
558-4601	44601	Dentistry Program	558-4211	44211
558-4631	44631	Dental Hygiene Program	558-0313	80313
558-4669	44669	International Dentist Program	558-0133	80133
558-4790	44790	SD Student Affairs	558-4211	44211

Off-campus PHONE:	On-campus PHONE:		Off-campus FAX:	On-campus FAX:
		Graduate		
558-4529	44529	Admissions	558-4859	44859
558-4528	44528	Dean	558-0441	80441
558-4462	44462	**Medicine**	558-4146	44146
558-4467	44467	Admissions	558-0359	80359
558-4481	44481	Dean	558-4146	44146
558-1000	ext. 44360	**Nursing**	558-4134	44134
558-4923	44923	Admissions	558-4134	44134
558-8061	88061	Graduate	558-4134	44134
558-8060	88060	Undergraduate	558-4134	44134
		Pharmacy		
558-4529	44529	Admissions	558-4859	44859
558-4528	44528	Dean	558-0441	80441
558-4546	44546	**Public Health**	558-4087	44087
558-4694	44694	Admissions/Academic Records	558-4087	44087 attn. Admissions
558-4578	44578	Dean	558-4087	44087 attn. Dean
558-8750	88750	Environmental and Occupational Health	558-0493	84493 attn. ENVH
558-8750	44590	Epidemiology and Biostatistics	558-0126	80126 attn. EPDM/STAT
558-4573	44573	Health Administration	558-0469	80469 attn. HADM
558-4575	44575	Health Promotion and Education	558-0471	80471 attn. HPRO
558-4902	44902	International Health	558-0389	80389 attn. INTH
558-4575	44575	Maternal and Child Health	558-0471	80471 attn. MCH
558-4598	44598	Nutrition	558-4095	44095 attn. NUTR
558-4918	44918	Preventive Medicine Residency Program	558-0630	80630 attn. PMR

	WEB SITE:	EMAIL:
Student Services	www.llu.edu/ssweb	
Teaching Learning Center	www.llu.edu/llu/tlc	
University Records		registrar@univ.llu.edu
The Faculty of Religion	http://www.llu.edu/llu/fr/	
Dean; director of M.A. in bio--medical and clinical ethics	http://ethics.llu.edu	gwinslow@rel.llu.edu
Director of M.A. in clinical ministry	http://ministry.llu.edu	rlroberts@rel.llu.edu
Center for Christian Bioethics	http://bioethics.llu.edu	gsample@ethicscenter.llu.edu
Center for Spiritual Life and Wholeness	http://www.llu.edu/llu/wholeness/	innerweave@som.llu.edu

The Schools:

Allied Health Professions	http://www.llu.edu/llu/sahp/	
Admissions		admissions@sahp.llu.edu attn. Admissions
Cardiopulmonary Sciences		admissions@sahp.llu.edu attn. CPSC
Clinical Laboratory Sciences		admissions@sahp.llu.edu attn. CLSC
Health Information Management		admissions@sahp.llu.edu attn. HLIN
Nutrition and Dietetics		admissions@sahp.llu.edu attn. DTCS
Occupational Therapy		admissions@sahp.llu.edu attn. OCTH
Physical Therapy		admissions@sahp.llu.edu attn. PHTH
Radiation Technology		admissions@sahp.llu.edu attn. RTCH
Speech-Language Pathology/ Audiology		admissions@sahp.llu.edu attn. SPPA
Dentistry	http://www.llu.edu/llu/dentistry/	DentAO@sd.llu.edu
Admissions	http://www.llu.edu/llu/dentistry/	sDavis@sd.llu.edu
Graduate	http://www.llu.edu/llu/grad/	brippon@univ.llu.edu
Admissions	http://www.llu.edu/llu/grad/	gradschool@univ.llu.edu
Medicine	http://www.llu.edu/llu/medicine/	ledwards@som.llu.edu
Nursing	http://www.llu.edu/llu/nursing/	dsalinas@sn.llu.edu
Public Health	http://www.llu.edu/llu/sph/	
Recruitment	http://www.llu.edu/llu/sph/	sphinfo@sph.llu.edu