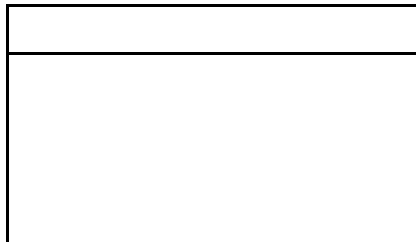


**RESPIRATORY CARE**

C. William Habenicht, Coordinator  
 (616) 471-6551  
 Physical Therapy Building

Andrews University offers prerequisite course work to prepare students who wish to enter a 2-year Associate of Science degree program or a 4-year Bachelor of Science degree program in Respiratory Care. Admission requirements vary among professional respiratory care programs. Not all professional programs accept transfer credits. Therefore, as soon as possible, interested students should contact the programs of choice for the most current prerequisite requirements. A list of accredited respiratory care programs may be obtained from the American Association for Respiratory Care, 11030 Ables Lane, Dallas, TX 75229 (phone 972-243-2272 and ask for the Education Department) or explore the web at [http://www.aarc.org/patient\\_resources/schools.html](http://www.aarc.org/patient_resources/schools.html)

Loma Linda University: Interested students may complete the prerequisites for Loma Linda



<b>Academic Programs</b>	<b>Credits</b>
BS in Clinical Laboratory Science	127
BS in Allied Health Administration	65
MSCLS (Clinical Laboratory Science)	32
Biomedical	
Business	
Computer Information Science	
Education	

The Department of Allied Health prepares students who are committed to preserving and protecting the dignity of life and death. They promote values and attitudes consistent with the Seventh-day Adventist Christian lifestyle. They strive to instill in students a life-long personal quest for individual growth and fulfillment and for continual excellence in health-care practice.

**Clinical Laboratory Science (Medical Technology)**

The degree program includes 3 years of undergraduate (pre-clinical) studies plus one year (3 semesters) of clinical (professional) education.

**Pre-clinical Program.** The first 3 years of undergraduate study include General Education, cognate science, and pre-clinical degree requirements. Program options feature directed elective course work selected in consultation with the faculty adviser according to the student's career goals and interests.

**Clinical (Professional) Program.** The year of

# Undergraduate Programs

## BS in Clinical Laboratory Science—127

### General Education requirements—31 (Adjustments for BSCLS)

Arts & Humanities—3

Social Science—3

Mathematics—3

AU students—statistics. Students transferring into clinical program—any college-level course

PE/Wellness—2

HLED130. Must also pass a physician-administered physical exam before advancement to clinical practicums

Physical/Natural Sciences: see cognate sciences below

Religion—16

(or one course per year of residence)

Service Fieldwork—fulfilled through 24 credits of clinical practicums.

### Cognate Science Requirements—29

BIOL165: BIOL166 or 111, and 3-4 credits of relevant BIOL, PHTH, or ZOOLOG courses; CHEM131, 132, 231, 232.

### Major Requirements—61

*Prerequisites*—11

CLSC101, 102, 230, 250, 260

*Major courses*—50

CLSC320, 400, 401, 402, 411, 412, 413, 421, 423, 431, 432, 433, 441, 442, 443, 451, 452, 453, 460, 463, 490, 495.

### Directed electives—6

Students select courses in consultation with and by the consent of their advisers in a planned program to enhance professional preparation. Courses are chosen from biology, business, chemistry, computer science, electronics, and education. Pre-medical/pre-dental students must include PHYS141 142 General Physics (8 credits).

## BS: Allied Health Administration—65

This degree is designed for health-care professionals seeking to enhance the knowledge they already have and to help them prepare for future career employment requirements. The degree format features a strong general education and administrative/business component and provides an academic foundation for health-care administrative positions. It is open only to individuals holding an associate degree or a two-year certificate in an allied-health professional area with earned certification where applicable in such areas as diagnostic ultrasound, nuclear medicine, physician assistant, radiation therapy, radiologic technology, respiratory therapy, and special procedures in radiologic technology. Admission to the program is by permission of the Department of Allied Health chair.

### Degree Requirements—124

Transfer credits accepted from an AS degree or certificate program—34

### General Education Requirements—54

Complete Bachelor of Science General Education requirements.

### Business/Administration Courses—27

ACCT 121, 122, BSAD335, 341, 355, 384, ECON226, MKTG310 and management courses selected in consultation with and approval of the advisor.

ALHE480 Practicum in Administration—4

# Graduate Programs

## MS in Clinical Laboratory Science—32

The Department of Allied Health offers a graduate program leading to the Master of Science in Clinical Laboratory Science. In response to the diversity of career skills required by the clinical laboratory scientist (medical technologist), the degree features a variety of program emphases, including concentrations in biomedical sciences, business and management, computer information science, and education.

**Admission requirements.** In addition to the minimum general requirements for admission to a graduate program listed in the graduate admission section of this bulletin, the following are departmental requirements:

- Applicants' previous course work must include 16 semester credits of biological sciences, 16 semester credits of chemistry, and one college-level course in mathematics. Deficiencies must be removed prior to admission to the graduate program.
- Applicants must hold professional certification and/or licensure in clinical laboratory science (medical technology) acceptable to the admissions committee. Certification may be either general or in one of the recognized areas of specialization. Acceptable certification is usually defined as that offered by the American Society of Clinical Pathologists or The National Certification Agency for Medical Laboratory Personnel sponsored by the American Society of Clinical Laboratory Science.

Individuals lacking professional certification may be granted provisional admission while they pursue the course work required for eligibility to write the national certification examinations. These clinical courses and their prerequisites require a minimum of 4 academic semesters. The courses include CLSC320, 400, 401, 402, 411, 412, 413, 421, 423, 431, 432, 433, 441, 442, 443, 451, 452, 453, 460, 463, 490, and 495. Students must receive professional certification before completing 16 graduate credits.

### DEGREE REQUIREMENTS

In addition to meeting the general requirements for graduate degree programs, students must meet the following departmental requirements:

- Complete a minimum of 32 semester credits including the core of 20 semester credits and 12 semester credits selected from the emphasis chosen.
- Have the graduate program coordinator

approve course selections and course sequencing. Students may substitute alternate courses listed in this bulletin with the consent of the coordinator and the approval of the dean of the College of Arts and Sciences.

- No grade lower than C is acceptable in the graduate portion of the program.
- Maintain a minimum cumulative GPA of 3.00 for the graduate portion of the program.

### Core courses—20

ACCT500 or 635; BSAD500; CLSC501, 502, 561, 562, 585; os-0.13or. Tw (ofU inZO-9.12 TD ENf 03

**CLSC102 (1)****(was MTCH106)*****Introduction to Clinical Laboratory Science***

Exercises from major clinical laboratory science disciplines are demonstrated or performed.

Weekly: One three-hour lab.

**CLSC230 \$ (3)****(was MTCH235)*****Fundamentals of Clinical Microbiology***

Orientation to clinical microbiology; specimen selection, collection, and transport; microscopic evaluation; stains and sterilization techniques; media and incubation selections; identification of routine and non-routine microorganisms; susceptibility testing; automation and quality assurance. Weekly: two lectures and two labs.

**CLSC250 \$ (3)****(was MTCH255)*****Fundamentals of Clinical Chemistry***

Clinical lab procedures, safety, application of statistical procedures in quality control, and principles of clinical laboratory instrumentation. Topics include carbohydrates, lipids, electrolytes, and hepatic function with selected pathologies.

Weekly: Three lectures and one lab.

**CLSC260 \$ (3)****(merges MTCH215, 245)*****Fundamentals of Human Blood Biology***

Introduces the production, maturation, function of normal blood cells and hemostasis; blood group antigen systems, antibody identification and compatibility testing. Selected routine manual hematology, hemostasis, and immunohe-matology procedures are performed. Weekly: Three lectures and one lab.

**CLSC320 (3)****(was MTCH 345)*****Principles of Immunology***

Innate and acquired immune systems of the human organism; immunoglobulin production, structure, function, and diversity; antigen characteristics, variety, and specific red cell groups; tolerance and memory; complement structure and function; cell mediated immunity function and regulation; autoimmune disorders; transplantation and tumor immunology; immunodeficiency disorders; principles and procedures of techniques used in modern immunology lab. Weekly: Three lectures.

**CLSC400 (2)****(was MTCH400)*****Specimen Procurement and Processing***

Each of the BFA degree emphases has a 3-part curriculum: (1) Art History; (2) Visual Art Foundation; and (3) Advanced Visual Art. Additional cognates along with the General Education requirements complete the specifications for graduation for the BFA degrees.

**BFA 9-hour Complementary Area Requirement:**

BFA students must take courses beyond the introductory level in an area(s) which complement(s) their chosen media emphasis. For example, if the 27 hour emphasis is ceramics (3-dimensional), then the complementary area may be painting and/or printmaking (2-dimensional); and conversely, if the