

one 4-hour laboratory. Prerequisite: concurrent enrollment in CHEM431. *F*

CHEM442 § § (1)
C L H

Experiments related to the course content of CHEM432. Weekly: one 4-hour laboratory. Prerequisite: concurrent enrollment in CHEM 432.

CHEM470 § § (2)

mental office by February 15th prior to their anticipated clinical-study year.

Admission requires an overall GPA of 2.50. In the admissions process, the GPAs for the cognate science courses and clinical laboratory science content courses are computed together. This combined GPA must be a minimum of 2.50. Should applications exceed class capacity, preference is given to students with the higher GPAs.

Applicants must be able to meet the program's published *E* and *F*, copies of which are incorporated into the application packet, and express a willingness to comply with the principles, rules, regulations, and policies of both the university and the program as they relate to the ideals and values of the Seventh-day Adventist Church and the clinical laboratory science profession.

All prerequisite course work, including General Education, cognate science, and pre-clinical courses, must be completed prior to entry into the clinical year. A personal interview may be required at the discretion of the Admissions Committee.

In exceptional circumstances, the Admissions Committee may accept students outside the stated policy.

Student Progression in Clinical Year. The clinical year is highly structured and sequential. Enrolled students may not drop a class, audit a class, or earn a grade lower than C- in any class. Students may enter clinical practica only upon satisfactory completion of on-campus course work. Satisfactory completion is defined as a senior-year minimum cumulative GPA of 2.50 and the recommendation of the faculty. A student receiving a cumulative GPA of less than 2.50 may be allowed to advance if the program faculty identifies exceptional circumstances and recommends that the student continue in the program.

Student continuance in the clinical practica is conditional upon acceptable ethical deportment and exemplary patient-care practices. The hospital supervisors and program faculty are final arbiters in determining student continuance.

Professional Certification. Students who complete the degree program are eligible to write national certification examinations sponsored by the American Society for Clinical Pathology (ASCP) and the National Credentialing Agency for Laboratory Personnel (NCA).

Program Accreditation. The Andrews University Program for Clinical Laboratory Sciences holds accreditation from the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 8410 West Bryn Mawr Avenue, Suite 670, Chicago, IL 60631-3415, (773) 714-8880 fax (773) 714-8886, email at info@naacls, or the web at www.naacls.org.

ACADEMIC CALENDAR 2004-2005

2004

July 23 Senior Summer session (Clinicals) ends
July 26 Registry Review Week begins
July 31 Clinical Laboratory Science Certification Ceremony

2005

April 29 Senior Spring semester (Clinicals) ends
May 2 Senior Summer semester (Clinicals) begins
July 29 Senior Summer session (Clinicals) ends
August 1 Registry Review Week begins
August 6 Clinical Laboratory Science Certification Ceremony

Undergraduate Programs

BS in Clinical Laboratory Science (BSCLS)—124

General Education requirements—37

(Adjustments for BSCLS)

Directed Electives—6

Arts & Humanities—3

Language/Communication

Social Science—3

Mathematics—3

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

PE/Wellness—2

HLED120 plus one activity course. Must also pass a physician-administered physical exam before advancement to clinical practica

Physical/Natural Sciences: see cognate sciences below

Religion—12

(or one course per year of residence)

Service Fieldwork—fulfilled through 23 credits of clinical practicum.

Cognate Science Requirements—26

BIOL165: BIOL166 or 111; CHEM131, 132, 231, 232, 241, 242.

Major Requirements—61

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Graduate Programs

MS in Clinical Laboratory Science (MSCLS)—32

The Department of Clinical and Laboratory Sciences 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, 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 for Clinical Pathology or The National Credentialing Agency for 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 four 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, and 495. Students must receive professional certification before completing 12 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; plus a minimum of 3 graduate religion credits selected in consultation with graduate program coordinator

A minimum of 12 semester credits from one of the following options:

B **E** : BCHM421, 422, 430; BIOL419, 444, 445, 446, 447, PHTH417, 427, 447, 457, BOT525, ZOOL464, 475, 500

B **E** : ACCT635 (f), BSAD515, 530, 531, 638, 670, MKTG500, 540, NRS517
E **E** : EDAL520, EDCI547, 565, 636, 655, EDFN500, EDPC514, EDTE408, 424

Enrollment Continuation Requirements. A student whose cumulative graduate GPA falls below 3.00 in any given semester is placed on academic probation. Academic probation students are not allowed to register for or continue participation in CLSC585.

In consultation with the graduate program coordinator, the clinical laboratory science graduate faculty determines the student's proposed course load for the following semester. The faculty's recommendation is referred to the dean/graduate program coordinator of the College of Arts and Sciences for final approval.

A student who does not raise his/her graduate GPA to 3.00 within one full-time equivalent semester (12 credits) is terminated from the program. Exceptions require the approval of the clinical laboratory science graduate faculty and the dean/graduate program coordinator of the College of Arts and Sciences.

Courses

(Credits)

See inside front cover for symbol code.

ALHE440 (1-4)

Repeatable in different areas. Prerequisite: permission of Program Director.

ALHE480 (4)

Prerequisite: Permission of Program Director.

CLSC105 (1)

Exercises from major clinical laboratory science disciplines are demonstrated or performed. Weekly: One three-hour lab.

CLSC110 (1)

An in-depth study of medical terms and abbreviations relating to diseases, disorders, and drugs. (This course is also available to off-campus students through Distance Learning. Prerequisite: permission of instructor.)

CLSC230 \$ (3)

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)

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)

F H B B

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 immunohematology procedures are performed. Weekly: Two lectures and one lab.

CLSC320 (3)

I

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.

CLSC370 (3)

C D

An introduction to the application of clinical diagnostic data in selected areas of laboratory medicine. Designed for students entering careers in the health professions. Prerequisites: CLSC110 or permission of the instructor.

CLSC400 (2)

Clinical specimen collection and processing; point-of-care testing, professional ethics; phlebotomy practicum. Prerequisite: permission of the instructor.

CLSC401, 402 (0)

C I, II

Introduction to educational methodology, team building, clinical laboratory sciences literature and research design and practice.

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