

**Clinical & Diagnostic Sciences
Clinical Laboratory Science Program
2019-2020**



STUDENT HANDBOOK

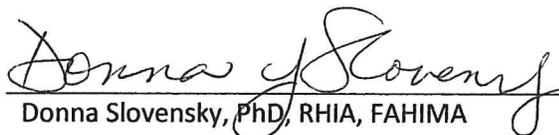
UAB SCHOOL OF HEALTH PROFESSIONS
DEPARTMENT OF CLINICAL AND DIAGNOSTIC SCIENCES
CLINICAL LABORATORY SCIENCE PROGRAM
2019-2020 ACADEMIC HANDBOOK



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Program Director

9/23/19

Date



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INTRODUCTION

DEAN'S WELCOME MESSAGE

Welcome to the University of Alabama at Birmingham School of Health Professions, a national leader in the health care industry.

We are home to one of the largest health professions schools in the nation with more than 25 programs at the baccalaureate, master's, and doctoral levels, with over 2,000 undergraduate and graduate students enrolled. The School of Health Professions, part of UAB's thriving academic health center, offers you the opportunity to work side-by-side with world-renowned researchers and faculty, utilize advanced technologies, and experience cutting-edge approaches to clinical treatment.

We understand that healthcare needs are constantly changing. That is why we continue to add innovative programs such as Biotechnology. We also offer graduate programs you will only find in Alabama at UAB like Genetic Counseling, Nuclear Medicine Technology, Low Vision Rehabilitation, Healthcare Quality and Safety, Ph.D. in Rehabilitation Science, and Biomedical and Health Sciences, which can be completed within eleven months. Plus, our newest programs – Healthcare Simulation and Clinical Pathologist Assistant – are each one of only a handful of their kind offered in the U.S.

Our degrees and programs are fully accredited by their respective professional organizations. This means you will be eligible for licensure, national certification or registration and enjoy being in high demand within the job market. Our first-time student exam pass rate on many credentialing exams is an astounding 98 percent or higher.

All of our programs with rankings reside among the nation's top of the *U.S. News and World Report*, including our #1 ranked M.S. in Health Administration program. We continue to be rated at the top of the list in research funding from the National Institutes of Health, and the School is one of only a small number in the country to house both an NIH-funded Nutrition and Obesity Research Center and an NIH-funded Diabetes Research and Training Center.

Graduating from the School of Health Professions means you will acquire an esteemed degree, have a host of job opportunities in healthcare – an industry that continues to grow rapidly – and be well prepared to make a difference in your community.

Our alumni give advice to current students that is worth repeating: “learn your craft, be a better professional for your patients, be open minded to future possibilities, and remember to have a healthy work/ life balance”.

I look forward to seeing you grow in your respective field and watching you become the leader we know you can be.

Andrew Butler, PhD

Dean, UAB School of Health Professions

OVERVIEW OF THE SCHOOL OF HEALTH PROFESSIONS

A leader in federally funded research, the UAB School of Health Professions (SHP), is one of the largest academic institutions of its type in the United States and currently boasts several nationally ranked programs. What began in the 1950's as a collection of courses in various para-professional disciplines has grown into an internationally recognized center of academic excellence.

The SHP initially took shape in 1969 as UAB gained autonomy within the University of Alabama System. Originally christened the School of Community and Allied Health Resources (SCAHR), the school incorporated the School of Health Services Administration and the Division of Allied Health Sciences from the College of General Studies with parts of the Department of Public Health and Epidemiology from the medical school. An innovative facility designed to meet the growing needs of the health care industry, the SCAHR was divided into four academic divisions that functioned like regular academic departments: Health Services Administration, Public Health and Environment, Allied Health Sciences, and the Regional Technical Institute for Health Occupations.

Throughout the 1970's and 80's the school's offerings were amended to reflect the changing health care industry. As a result of the changes, SCAHR became the School of Public and Allied Health (SPAHE). Next it became the School of Community and Allied Health (SCAH) and later the School of Health Related Professions (SHRP). During this time, the school added several new areas of study including the consistently nationally ranked program in Nutrition Sciences. Through their visionary leadership and guidance, the school is experiencing unparalleled success.

Today, the School of Health Professions is comprised of more than 25 programs – at the baccalaureate, master's and doctoral levels – across five academic departments: Clinical and Diagnostic Sciences, Health Services Administration, Nutrition Sciences, Occupational Therapy, and Physical Therapy. The school is housed in three buildings, the Susan Mott Webb Nutrition Sciences Building, the Learning Resource Center Building, and the School of Health Professions Building (SHPB).

With more than 2,200 faculty, staff, and students, SHP is one of six schools comprising the world-renowned UAB Academic Health Center. Students have access to vast academic resources, state-of-the-art facilities, and progressive research.

SHP is proud of many accomplishments including:

- U.S. News & World Report ranks SHP programs in the nation's top 25
- Research funding is over \$14 million and growing
- The school is at the top of the list in research funding from the National Institutes of Health for schools of its type and has been either first or second in funding received since 1969

OFFICE FOR STUDENT RECRUITMENT, ENGAGEMENT AND SUCCESS (OSRES)

The SHP Office for Student Recruitment, Engagement and Success (OSRES) supports UAB's mission and values with a focus on achievement, collaboration and diversity. It furthers the School of Health Professions' mission to be a leader shaping the future of healthcare by recruiting the best and brightest to SHP; developing students to impact the campus and communities; and graduating tomorrow's healthcare leaders. Guided by these commitments, the OSRES provides support to all students through a number of programs including the following:

- Academic Coaching
- Tutoring and Supplemental Instruction
- Campus Resource Referral
- Management of school-wide Scholarships in SHP

The OSRES also coordinates the School of Health Professions Student Affairs Committee (SAC.) SAC is responsible for student activities, services, programs, organizations, policies and procedures consistent with the university's non-academic conduct policies. Subcommittees of SAC include the following:

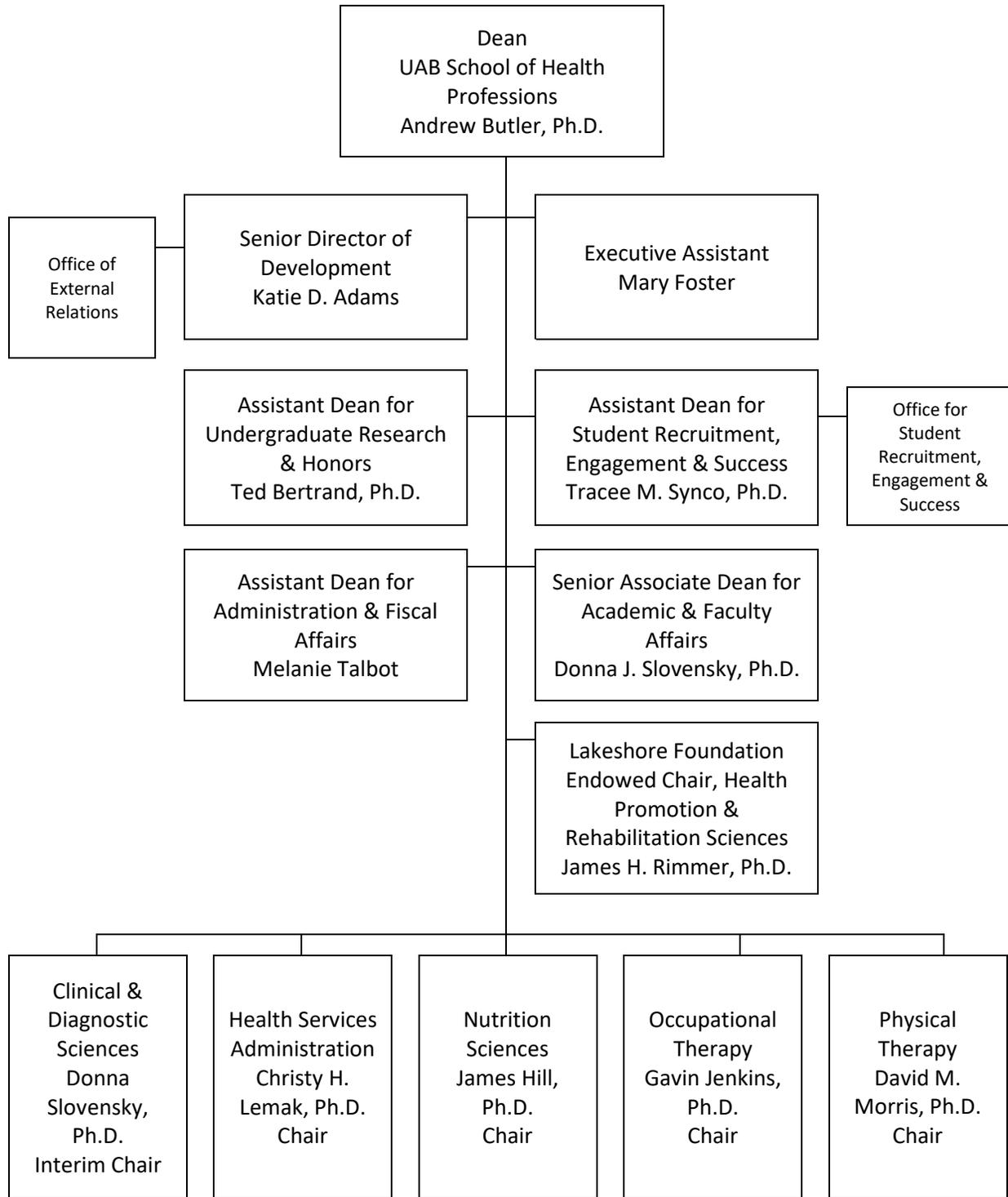
- Homecoming
- Orientation
- Student Activities
- Non Academic Misconduct/ Breaches in Professional Behaviors

Additionally, the OSRES team recognizes that with classes and labs, internships, and studying, students have particularly demanding schedules. In response, we bring resources to you and serve as liaison between SHP and university departments across student services.

The team at OSRES is here to support students. We have an open-door policy and encourage students to connect. Students should feel free to drop-by, with no appointment needed; call, email or schedule a meeting. We are here to help students in the School of Health Professions make the most of their UAB experience.

OSRES - Location: SHPB 230 Telephone: 205-934-4195 or 205-934-4194 Email: shp@uab.edu

SCHOOL OF HEALTH PROFESSIONS ORGANIZATIONAL CHART - 2019-2020



SECTION 1 – SCHOOL AND UNIVERSITY INFORMATION

ACADEMIC CALENDAR

All dates related to registration, payments of tuition and fees drop/add dates, other administrative requirements, and official school holidays are recorded on the UAB Academic Calendar available at www.uab.edu/academiccalendar.

ACADEMIC HONOR CODE (UAB)

The University of Alabama at Birmingham expects all members of its academic community to function according to the highest ethical and professional standards. Students, faculty, and the administration of the institution must be involved to ensure this quality of academic conduct. Academic misconduct undermines the purpose of education. Such behavior is a serious violation of the trust that must exist among faculty and students for a university to nurture intellectual growth and development. Academic misconduct can generally be defined as all acts of dishonesty in an academic or related matter.

Academic dishonesty includes, but is not limited to, the following categories of behavior:

ABETTING is helping another student commit an act of academic dishonesty. Allowing someone to copy your quiz answers or use your work as their own are examples of abetting.

CHEATING is the unauthorized use or attempted use of unauthorized materials, information, study aids, the work of others, or computer-related information.

PLAGIARISM means claiming as your own the ideas, words, data, computer programs, creative compositions, artwork, etc., done by someone else. Examples include improper citation of referenced works, the use of commercially available scholarly papers, failure to cite sources, or copying another person's ideas.

FABRICATION means presenting falsified data, citations, or quotations as genuine.

MISREPRESENTATION is falsification, alteration, or the misstatement of the contents of documents, academic work, or other materials related to academic matters, including work substantially done for one class as work done for another without receiving prior approval from the instructor.

Violations of the UAB Academic Honor Code are punishable by a range of penalties, from receiving a failing grade on an assignment, to an F in the course, to dismissal. Any course grade of F for academic misconduct supersedes any other grade or notation for that class. Withdrawal from a course while a possible violation of the Academic Honor Code is under review will not preclude the assignment of a course grade that appropriately reflects the student's performance prior to withdrawal if the violation is substantiated.

For more information go to: www.uab.edu/students/one-stop/policies/academic-honor-code

ASKIT

AskIT is the technology help desk for faculty, staff, and students. They provide free support via telephone, email, or in-person. You will be asked to supply your BlazerID when you request assistance.

Phone: (205) 996-5555 Email: askit@uab.edu Website: https://uabprod.service-now.com/service_portal

ATTENDANCE

Class attendance is expected in all SHP programs. Specific class, laboratory or clinical site attendance requirements may be more stringent than university guidelines. Refer to the program requirements in this handbook and in course syllabi for policies. The UAB policy for undergraduates follows.

The University of Alabama at Birmingham recognizes that the academic success of individual students is related to their class attendance and participation. Each course instructor is responsible for establishing policies concerning class attendance and make-up opportunities. Any such policies, including points for attendance and/or participation, penalties for absences, limits on excused absences, total allowable absences, etc., must be specified in the course syllabus provided to students at the beginning of the course term. Such policies are subject to departmental oversight and may not, by their specific prescriptions, negate or circumvent the accommodations provided below for excused absences.

The University regards certain absences as excused and in those instances requires that instructors provide an accommodation for the student who misses assignments, presentations, examinations, or other academic work of a substantive nature by virtue of these excused absences. Examples include the following:

Absences due to jury or military duty provided that official documentation has been provided to the instructor in a timely manner in advance.

Absences of students registered with Disabilities Services for disabilities eligible for "a reasonable number of disability-related absences" provided students give their instructors notice of a disability-related absence in advance or as soon as possible.

Absences due to participation in university-sponsored activities when the student is representing the university in an official capacity and as a critical participant, provided that the procedures below have been followed:

Before the end of the add/drop period, students must provide their instructor a schedule of anticipated excused absences in or with a letter explaining the nature of the expected absences from the director of the unit or department sponsoring the activity.

If a change in the schedule occurs, students are responsible for providing their instructors with advance written notification from the sponsoring unit or department.

Absences due to other extenuating circumstances that instructors deem excused. Such classification is at the discretion of the instructor and is predicated upon consistent treatment of all students. In these instances, instructors must devise a system for reasonable accommodation including, for example, policies allowing for dropped exams/quizzes, make-up exams, rescheduling of student classroom presentations or early or later submission of written assignments.

AWARDS AND HONOR SOCIETIES

All students in the School of Health Professions are eligible for consideration for the following awards or society memberships.

- Alfred W. Sangster Award for Outstanding International Student – This award is presented annually to an international student in recognition of his or her academic and non-academic achievements.
- Alpha Eta Society – The UAB Chapter of this Society recognizes students registered in the final term of a baccalaureate or graduate health professions program. Inductees must have a cumulative grade point average of 3.0 (4.0 = A), and be in the upper 10% of their program. Nominations are made by program directors in spring and summer terms.
- Cecile Clardy Satterfield Award for Humanism in Health Care – This award is made annually to recognize one outstanding student for humanitarianism, professionalism, and commitment to health care. Nominations are coordinated by program directors, but may also be made by faculty, students, patients, or preceptors.
- Charles Brooks Award for Creativity – This award is made annually in recognition of creative accomplishments such as written publications or artistic contributions which complemented the student’s academic activities. Nominations are made by program directors.
- Dean’s Leadership and Service Award – Presented to a maximum of three outstanding SHP students annually, this award recognizes leadership to the School, UAB, and the community. Nominations are made by program directors or faculty.
- Phi Kappa Phi – This is the oldest, and most selective, all-discipline honor society in the nation. Membership is by invitation to the top 7.5% of junior students and the top 10% of seniors and graduate students. Nominations are made by program directors.

Please refer to the program section of this handbook for awards and honors available to students in individual programs.

BACKGROUND CHECK

SHP students are required by policy, to undergo a background check using the school’s approved vendor, CastleBranch <https://discover.castlebranch.com/>, at the time of program admission, and again, prior to placement in a clinical rotation. Instructions for requesting the background check and appropriate consent forms are provided to students by their programs. Please refer to the policy section of this handbook for the policy statement.

BLAZERID / BLAZERNET / EMAIL

BLAZERID: All students receive a unique identifier, the BlazerID, established at: www.uab.edu/blazerid. Your BlazerID is required for accessing BlazerNET and other campus resources. To activate one’s BlazerID, select “Activate Accounts.”

BlazerNET is the official portal of the UAB information network and is accessible from any Internet-accessible computer, on- or off-campus. Access BlazerNET from UAB home page www.uab.edu then choose UAB Quicklinks.

Email: uab.edu Monitor your email regularly. Your UAB email is the official communication medium for courses, news, information and announcements. UAB student email is provided through Microsoft Office 365, a cloud based system. Students have 50 GB of email space and 25 GB of free file 1 TB storage.

BLAZER EXPRESS

The UAB Blazer Express Transit System provides transportation throughout the UAB campus. With a valid UAB ID badge, students can enjoy fare-free bus transportation. All buses are ADA-accessible and can seat approximately 35 riders. For an updated schedule, route maps, and hours of operation please go to www.uab.edu/blazerexpress/.

BOOKSTORE

There is one bookstore located on the UAB campus, offering a wide variety of products and services to students, including online purchasing and shipping. The bookstore stock UAB memorabilia and college wear in addition to all required textbooks and course material.

UAB BARNES AND NOBLE BOOKSTORE

Location: 1400 University Blvd, 35233

Hours: M – F 8:00 a.m. – 5:00 pm.; Sat Closed; Sun Closed

Telephone: (205) 996-2665 Website: <http://uab.bncollege.com>

CAMPUS ONECARD

The UAB OneCard is the official university identification card. It is used for personal identification, for entry to campus events and the recreation center, for library checkout, and other UAB services. It also serves as a declining balance card for the UAB meal plans and for Blazer Bucks accounts. Additional information is available at www.uab.edu/onecard.

CAMPUS MAP

UAB's campus map can be found at the following: www.uab.edu/map/

CANVAS LEARNING MANAGEMENT SYSTEM

The Canvas Learning Management System is the platform used for managing instructional materials online. Canvas course sites are accessed through BlazerNET or at www.uab.edu/elearning/canvas. Students should monitor their course sites routinely for communication from faculty and manage course assignments.

COUNSELING SERVICES

The Counseling and Wellness Center offers no cost, confidential counseling for UAB students related to physical, emotional, social, intellectual, or spiritual concerns. The Center is located in Student Health and Wellness Center at 1714 9th Ave. South. For more information, call 205-934-5816 or <https://www.uab.edu/students/counseling/>

STUDENT ADVOCACY, RIGHTS AND CONDUCT (SARC)

Student Advocacy, Rights and Conduct (SARC) is responsible for upholding the integrity and purpose of the university through the fair and consistent application of policies and procedures to students' behavior to ensure a community that respects the dignity and right of all persons to reach their highest potential. SARC delivers programs and services in order to promote student safety and success, the pursuit of knowledge, respect for self and others, global citizenship, personal accountability and integrity, and ethical development. The UAB student conduct code may be accessed online:

<http://www.uab.edu/students/sarc/services/student-conduct-code>

DISABILITY SUPPORT SERVICES (DSS)

"DSS provides an accessible university experience through collaboration with UAB partners. These partnerships create a campus where individuals with disabilities have equal access to programs, activities, and opportunities by identifying and removing barriers, providing individualized services, and facilitating accommodations."

"DSS serves as the university-appointed office charged with providing institution-wide advisement, consultation, and training on disability-related topics which include legal and regulatory compliance, universal design, and disability scholarship."

To apply for accommodations contact DSS. **Note:** *You must have your Blazer ID and password.*

Telephone: (205) 934-4205 or (205) 934-4248 (TDD) Fax: (205) 934-8170

Email: dss@uab.edu Website: www.uab.edu/students/disability/

DRUG SCREENING

By policy, SHP students are required to undergo a routine drug screen using the school's approved vendor, CastleBranch <https://discover.castlebranch.com/>, at the time of program admission and again prior to placement in a clinical rotation. Instructions for requesting the drug screen and appropriate consent forms will be provided to students by their programs. Please refer to the policy section of this handbook for the school and university policy statements. The Office for Student Recruitment, Engagement and Success (OSRES) manages the procedures and compliance for the school. If you have questions, contact them at (205) 934-4194 or shp@uab.edu or visit room 230 in the School of Health Professions Building.

For more information visit: <http://www.uab.edu/shp/home/about-shp/student-services>

EMERGENCIES

Report suspicious or threatening activity to the UAB Police Department immediately. Law officers are available 24 hours, seven days a week. Also, more than 300 emergency blue light telephones connected directly to the police dispatch are located throughout campus.

UAB Police: Dial 911 *from a campus phone* or call: 934-3535; 934-HELP (4357); or 934-4434

Emergencies affecting campus are communicated via the following:

Weather & Emergency Hotline: (205) 934-2165 • University home web page: www.uab.edu

• Webpage: www.uab.edu/emergency

• Announcements on BlazerNET

- Twitter@UABALERT: www.twitter.com/uabalert • facebook.com/UABALERT
- Cell phone messages and SMS text – register for B-ALERT notices via <https://idm.uab.edu/ens/b-alert>

DIVERSITY, EQUITY AND INCLUSION (DEI)

The mission of DEI is to “... champion equity and inclusion and, in particular, to advocate for inclusive excellence and equity so that UAB students, faculty, staff, community partners and friends can flourish and excel.” Inspired by “... what we value, what we learn from research and what we teach and share with the world.” DEI’s goal is “... to inspire our people to take a courageous step to inspire equity and inclusive excellence throughout our state, nation and world, every day.” Dr. Paulette Patterson Dilworth is the Vice President responsible for the activities of this office. Information: <http://www.uab.edu/dei/>

FERPA

The Family Educational Rights and Privacy Act (FERPA) of 1974 provides protection for all educational records related to students enrolled in an educational program. Information about your rights and protection of your records is available at the following sites:

<https://sa.uab.edu/enrollmentservices/ferpa/>; If you have questions or concerns about FERPA issues, you may email FERPA@uab.edu, or contact the SHP Office for Student Recruitment, Engagement and Success.

FINANCIAL AID

Located at 1700 University Blvd., Lister Hill Library, Room G20. Hours of Operation are from 8:00 am to 5:00 pm Monday thru Friday. Phone: (205) 934-8223; Fax: (205) 975-6168. Additional information can be located on the website www.uab.edu/students/paying-for-UAB.

FOOD SERVICES

Dining facilities available on campus, closest to the SHP buildings include:

- Commons on the Green – located on the Campus Green, south of 9th Avenue and the Campus Recreation Center
- Einstein’s Bagels – located at the plaza entrance to the Learning Resource Center. Hours vary per semester.

Vending machines are located in the basement of the Learning Resource Center and on the 6th floor of the Webb Building. Additional information about meal plans and campus dining facilities is available at www.uab.edu/dining.

GRADUATE SCHOOL

The UAB Graduate School offers doctoral programs, post-master’s specialist programs, and master’s level programs. Graduate programs in SHP are coordinated through the Graduate School and students must adhere to the Graduate School policies and procedures. Graduate School information for current students is available at www.uab.edu/graduate/.

GRADUATION

All students must complete an application for degree six months prior to graduating. For more information and important deadlines please go to www.uab.edu/commencement/degree-applications. SHP holds a special commencement ceremony for graduates in the professional masters programs in the spring and fall semesters. The SHP ceremonies are scheduled on the Friday afternoon prior to the university commencement ceremonies being held the next morning on Saturday. The University holds commencement every semester. Check the commencement website for the most current information: <http://www.uab.edu/commencement/>

STUDENT HEALTH AND WELLNESS

The University provides prevention, counseling, and treatment services to students through the UAB Student Health and Wellness located at 1714 9th Avenue South. The clinic is open from 8:00 a.m. – 5:00 p.m. Monday – Thursday; 9:00 a.m. – 5:00 p.m. Friday, but is closed between noon and 1:00 p.m. daily. Detailed information about services and operating practices is located on the SHS website at www.uab.edu/studenthealth. Appointments may be scheduled by calling 205-934-3580.

MEDICAL CLEARANCE

SHP students are required to receive medical clearance at the time of program admission. UAB Student Health and Wellness utilizes a secure web-based process for the storage of required documents accessed through BlazerNET. More information is available at the Student Health and Wellness website: www.uab.edu/students/health/medical-clearance/immunizations.

HIPAA TRAINING

The Health Insurance Portability and Accountability Act includes significant requirements for protecting individual privacy of health information. All students in the School of Health Professions must complete an online tutorial and be tested on HIPAA regulations at the time of program admission. A BlazerID is required to access the training site, located at www.uab.edu/learningsystem. Compliance with the training requirement is monitored monthly. Students who have not completed the training are reported to the Office for Student Recruitment, Engagement, and Success for follow-up with the appropriate program director.

INSTITUTIONAL REVIEW BOARD FOR HUMAN USE (IRB)

Student researchers must comply with all requirements for protection of human subjects. Detailed information is available on the IRB website www.uab.edu/irb

INTELLECTUAL PROPERTY

Intellectual property refers to an asset that originated conceptually, such as literary and artistic works, inventions, or other creative works. These assets should be protected and used only as the creator intends. Training materials defining inventor status, patent criteria, and other intellectual property issues is available at www.uab.edu/research/administration/offices/OSP/Pages/Training.aspx.

LACTATION CENTERS

Through the work of the UAB Commission on the Status of Women, the University has provided several lactation centers for students, faculty, and staff across the campus. Locations of the centers are available at www.uabmedicine.org/-/lactation-consultants-help-moms-navigate-breastfeeding-journey.

LIBRARIES AND LEARNING RESOURCE CENTER

UAB's libraries house excellent collections of books, periodicals, microforms, and other media. have online remote access to catalogs and online collections. Computers are available for student use during regular hours of operation.

Learning Resource Center (LRC)

The School of Health Professions Learning Resource Center (LRC) provides a unique set of enterprise solutions that promote an exciting, intriguing and innovative learning environment. It provides a state-of-the-art media studio; audio/visual support; and information technology management of public, classroom and testing labs. Web: <http://www.uab.edu/lrc/>

Located: 1714 9th Avenue S. Phone: (205) 934-5146 Email: shplrc@uab.edu

Hours: Monday – Thursday 7:00 am – 8:00 pm; Friday 7 am – 5:30 pm;

Saturday - closed; Sunday - closed

Lister Hill Library of the Health Sciences

This is the largest biomedical library in Alabama, and one of the largest in the south. Located across the crosswalk from the School, the LHL has extension libraries in University Hospital and The Kirklin Clinic. Dedicated librarians hold “office hours” in the Learning Resource Center weekly.

Location: 1700 University Boulevard Phone: (205) 934-2230

Website: www.uab.edu/lister/

Mervyn H. Sterne Library

A collection of more than one million items supporting teaching and research in the arts and humanities, business, education, engineering, natural sciences and mathematics, and social and behavioral sciences.

Location: 913 13th Street South Website: www.mhsl.uab.edu
Phone: (205) 934-6364 (Reference) (205) 934-4338 (User Services)

ONESTOP STUDENT SERVICES

If you have questions or need assistance with an academic or administrative process, the UAB OneStop is where to go! Advisers will help you solve your problem or do the legwork for you if another UAB resource is needed. OneStop is located in the Hill Student Center 1400 University Blvd. You may contact the OneStop office by phone or email at (205) 934-4300; 855-UAB-1STP; (855) 822-1787. onestop@uab.edu. Additional information is available at www.uab.edu/onestop.

PARKING

Student vehicles must be registered with UAB Parking and Transportation Services, located at 608 8th Street South. The office is open Monday – Friday from 7:30 a.m. – 5:00 p.m. Parking is allocated on a first-come, first-served basis. Parking fees are established by location, payable by semester or year, and are billed to the student’s account. Additional information is available at www.uab.edu/parking.

PATIENT CARE PARTNERSHIP

Students in health professions programs learn general information about the health care industry as well as knowledge and skills specific to their chosen profession. The American Hospital Association (AHA) (www.aha.org) is an excellent resource for industry information. One role fulfilled by the AHA is that of patient advocate. The Patient Care Partnership brochure (link below) outlines rights and responsibilities of patients during hospital stays.

www.aha.org/aha/issues/Communicating-With-Patients/pt-care-partnership.html.

PLAGIARISM AND TURNITIN

Plagiarism is academic misconduct that will result in a grade of zero and may result in dismissal from the School of Health Professions and UAB (see Grievance Procedures for Violations of Academic Standards). All papers submitted for grading in any SHP program may be reviewed using the online plagiarism monitoring software. Please note that all documents submitted to *Turnitin.com* are added to their database of papers that is used to screen future assignments for plagiarism.

RECREATION CENTER

The campus Recreation Center, located at 1501 University Blvd, Birmingham, AL 35294, is open to faculty, staff, students, and their families. A valid student identification card or membership card is required for access. Facilities include basketball courts, racquetball courts, weight rooms, swimming pools, exercise rooms, and indoor track. Check the website for information about hours and services at www.uab.edu/campusrecreation.

SCHOLARSHIPS: BLAZER SCHOLARSHIP MANAGEMENT AND RESOURCE TOOL (B-SMART)

The OSRES manages the School of Health Professions' scholarship offerings and will send reminders to students when applications are open. Visit B Smart and start an application to automatically be considered for scholarship opportunities in SHP.

OSRES manages the following:

National Alumni Society Dean's Scholarship – Funding from the UAB National Alumni Society for two scholarships per year, one to a graduate student and one to an undergraduate student.

Ethel M. and Jessie D. Smith Endowed Nursing and Allied Health Scholarship – Funding for students enrolled in SHP programs with GPA 3.0 or above and unmet financial need. Student must be a resident of the state of Alabama at the time of enrollment.

Carol E. Medders Endowed Scholarship – Funding for students enrolled in a graduate program in the School of Health Professions. Awards are based on academic achievement and unmet financial need.

Lettie Pate Whitehead Foundation Scholarship – Funding for female students from selected states (AL, FL, GA, LA, MS, NC, SC, TN) enrolled in SHP programs. Award amounts are variable and are based on unmet financial need.

Matthew F. McNulty Jr. Health Services Emergency Loan – Students enrolled in any SHP program may apply for this low interest loan to address emergencies. Loan amounts are variable based on need.

SHP Dean's Scholarship – Funding to recruit or retain outstanding students. Awards are based on academic achievement, and unmet financial need.

Sandra Dunning Huechtker Endowed Memorial Award – Funding for students enrolled in SHP program with GPA 3.0 or above and unmet financial need.

You must visit B-SMART <http://www.uab.edu/students/paying-for-college/> to apply.

Many programs in SHP also have scholarships available to currently enrolled students. Please see the program section of this handbook for that information.

SOCIAL MEDIA

Social media can serve as useful communication tools. However, health professions students should use the forums judiciously. The School's official sites are the following:

- Twitter: https://twitter.com/uab_shp • Vimeo: <http://vimeo.com/uabshp>
- Facebook: www.facebook.com/UABSHP • LinkedIn: www.linkedin.com/groups?gid=3596638
- YouTube: www.youtube.com/uabshp • Website: www.uab.edu/shp

The School's Academic Affairs Committee published the following guidelines:

The Academic Affairs Committee proposes the following for social networking vehicles. Online communities like provide opportunities to share and explore interests that enrich the higher education learning experience. However, use them with discretion. UAB social media users are expected to act with honesty, integrity, and respect for others.

Professional Use - Only UAB employees authorized by their departments may use social networking Web sites to conduct University business. The authorized employee/position will serve as the point of contact for the web site. In keeping with University policy¹, the authorized employee may post on a social network profile: the University's name, school, department, and/or unit information, a University email address or University telephone number for contact purposes, or post official department information, resources, calendars, and events. The employee should use care that any personal opinions or opposition to the University either by direct statement or perception not be published.

General Use - The following guidelines are strongly suggested:

1. Use networking sites legally and appropriately. Consider your personal obligation as a citizen of the university. Use proper conduct in your posts regarding the university and your colleagues/fellow students.
2. Consider the use of a student, staff or faculty member to monitor any departmental social pages. All parties need to understand the guidelines presented.
3. Remember, you cannot ensure who does and does not have access to your information. Any text or photo placed online is available to anyone in the world – even if you limit access to your site.
4. Information that you post online may continue to stay on the World Wide Web even after you erase or delete that information from your profiles or blog. Do not post anything that could reflect negatively on you, your family, your friends, and the university.
5. Do not post any confidential or sensitive information online.
6. By agreeing to the terms of use, online communities have your permission to republish your content worldwide and share information with advertisers, third parties, law enforcement, and others.
7. You are legally responsible for your posts on the social networking sites. Be discreet, respectful, and as accurate/factual as you can be in any comments or content you posted online.
8. Potential employers, admissions officers, and scholarship committees often search social networking sites to screen candidates. Your profile will be a part of how others know you.

TUITION AND FEES

Tuition and fees for the University are published annually under the “Current Students” tab of the UAB website. They may be paid through BlazerNET. There are two tuition rates: Alabama resident (in-state) and Non-resident (out-of-state). Currently, non-resident students who register for online course sections pay resident tuition. Non-resident tuition is charged for on-site courses such as: clinical practicums, independent study courses, and project courses.

SHP programs have specific fees attached to programs, courses or laboratories. These fees are addressed in the program section of this handbook. Current standard tuition and fees for the School are posted at www.uab.edu/shp/home/admissions-tuition/tuition.

Payment deadlines for each semester are published on the official academic calendar and on the UAB website at www.uab.edu/whentopay/. Please note that failure to meet payment deadlines can result in being administratively withdrawn from courses.

WEATHER

Severe weather situations that may affect the safety of students, faculty, and staff are communicated through the same channels as other emergencies. Severe weather precautions are published at www.uab.edu/emergency/preparedness. Other information sources include:

<ul style="list-style-type: none">• Webpage: www.uab.edu/emergency	<ul style="list-style-type: none">• B-ALERT system: www.uab.edu/balert
<ul style="list-style-type: none">• Hotline: (205)- 934-2165	<ul style="list-style-type: none">• WBHM Radio (90.3 FM)

WITHDRAWAL FROM COURSE / PROGRAM

Withdrawal from a course or from your program is an official process and should be discussed with your academic advisor and / or program director. Most programs in the School are full-time and the curricula specifically sequenced. Withdrawal from a course may risk your wait time to register for the class again. You might have to wait for a full year before resuming enrollment in the program. Withdrawals are made through the UAB registration system via the Student Resources tab in BlazerNET. Notice of program withdrawal should be given in writing to the program director. Please refer to the following link for additional information on withdrawal guidelines: <https://www.uab.edu/students/one-stop/classes/add-drop-and-withdrawal-policy>

SECTION 2 – SHP AND UAB POLICIES

SCHOOL OF HEALTH PROFESSIONS POLICIES

SHPB EMERGENCY PLAN

https://www.uab.edu/shp/home/images/PDF/SHPB_BUILDING_EMERGENCY_PLAN_2019.pdf

WEBB BUILDING EMERGENCY PLAN

https://www.uab.edu/shp/home/images/PDF/WEBB_BUILDING_EMERGENCY_PLAN_2019.pdf

ACADEMIC AND PROFESSIONAL CONDUCT AND PROCEDURES FOR MANAGING DISCIPLINARY ACTIONS

https://www.uab.edu/shp/home/images/PDF/grievance_procedures.pdf

BACKGROUND CHECK AND DRUG SCREEN

www.uab.edu/shp/home/images/PDF/SHP_Background_and_Drug_Screen_Policy05_2012.pdf

FINAL COURSE GRADE APPEAL PROCESS

https://www.uab.edu/shp/home/images/PDF/grievance_procedures.pdf

GRIEVANCE PROCEDURES FOR VIOLATIONS OF ACADEMIC STANDARDS

https://www.uab.edu/shp/home/images/PDF/grievance_procedures.pdf

PLAGIARISM

www.uab.edu/shp/home/images/PDF/Plagiarism_Policy.pdf

Please note that all papers submitted for grading in any SHP program may be reviewed using the online plagiarism monitoring software, Turnitin.com. All documents submitted to Turnitin.com are added to their database of papers used to screen future assignments for plagiarism.

STUDENT HEALTH POLICY

<https://www.uab.edu/policies/content/Pages/UAB-AD-POL-0000086.aspx>

UAB POLICIES

CLASSROOM BEHAVIORS

ATTENDANCE / ABSENCE (UNDERGRADUATE)

<http://catalog.uab.edu/undergraduate/progresstowarddegree/#enrollmenttext>

HEALTH

AIDS AND HIV INFECTION

www.uab.edu/policies/content/Pages/UAB-HS-POL-0000252.aspx

BODY FLUID EXPOSURE

www.uab.edu/humanresources/home/employeehealth/reportingexposures

IMMUNIZATIONS

www.uab.edu/policies/content/Pages/UAB-AD-POL-0000086.aspx

SUBSTANCE USE/ABUSE

ALCOHOLIC BEVERAGES, USE AND CONSUMPTION

www.uab.edu/policies/content/Pages/UAB-AD-POL-0000071.aspx

DRUG FREE CAMPUS (GENERAL POLICY)

<https://www.uab.edu/policies/content/Pages/UAB-UC-POL-0000804.aspx>

Drug-free Campus Policy for Students (Attachments)

Attachment A - www.uab.edu/policies/content/Pages/UAB--GDL-0000632.aspx

Attachment B - www.uab.edu/policies/content/Pages/UAB--GDL-0000626.aspx

Attachment B.1 - www.uab.edu/policies/content/Pages/UAB-AD-GDL-0000627.aspx

Attachment C - www.uab.edu/policies/content/Pages/UAB--GDL-0000628.aspx

NONSMOKING

www.uab.edu/policies/content/Pages/UAB-HS-POL-0000110.aspx

TECHNOLOGY GUIDELINES

COMPUTER AND NETWORK RESOURCES (ACCEPTABLE USE)

www.uab.edu/policies/content/Pages/UAB-IT-POL-0000004.aspx

COMPUTER SOFTWARE COPYING AND USE

www.uab.edu/policies/content/Pages/UAB-IT-POL-0000028.aspx

INCLUSIVENESS

EQUAL OPPORTUNITY AND DISCRIMINATORY HARASSMENT

www.uab.edu/policies/content/Pages/UAB-BT-POL-0000052.aspx

RESEARCH AND SCHOLARLY ACTIVITIES

ETHICAL STANDARDS IN RESEARCH AND OTHER SCHOLARLY ACTIVITIES

www.uab.edu/policies/content/Pages/UAB-RA-POL-0000263.aspx

PATENT (INTELLECTUAL PROPERTY)

www.uab.edu/policies/content/Pages/UAB-RA-POL-0000115.aspx

FIREARMS, AMMUNITION, AND OTHER DANGEROUS WEAPONS

www.uab.edu/policies/content/Pages/UAB-HR-POL-0000257.aspx

Note: Additional university policies may be located by searching the UAB Policies and Procedures Library available online at www.uab.edu/policies/Pages/default.aspx.

SECTION 3 – PROGRAM POLICES

WELCOME

Welcome to the Clinical Laboratory Sciences program. This handbook has been compiled to provide you with information to help you as you progress through your program. Where appropriate, the contact for more detailed information on various subjects has been included. If, however, you desire or need further explanation of any matter, or other types of information, please contact your faculty advisor or program director. The UAB web pages, or links, are included for some of the sections of this handbook, and you are encouraged to review the links for information you may need. The UAB and School of Health Professions (SHP) pages have search engines to allow you to input keywords and find information. In addition, the campus directory and calendars are located on the main UAB page: www.uab.edu. Students should regularly refer to the web site for their specific program for updates.

M.S. in Clinical Laboratory Sciences (CLS)

<http://www.uab.edu/shp/cds/clinical-laboratory-sciences>

PROGRAM MISSION STATEMENT

The Faculty of the Clinical Laboratory Sciences program is committed to providing service to the community, as well as providing high quality education to prepare students with a solid educational background and a set of skills translatable to a variety of laboratory settings, including hospital laboratories, industry, research laboratories, and many more. The Faculty, in its concern for the health and safety of the general public, is committed to ensuring that each student develops knowledge, skills and values essential to the appropriate role providing the basis for continuing intellectual and professional growth.

PROGRAM HISTORY

CLS

Prior to 1992, the medical technology master's degree program was with the Department of Pathology as an advanced post-professional program. The students were certified medical technologists who completed courses and projects that specialized in one of the disciplines such as clinical microbiology, chemistry, hematology, immunohematology and immunology. The program courses were offered through Pathology and taught by the Pathology/Laboratory Medicine faculty. In 1992, the program was administratively transferred to the School of Health Related Professions and affiliated with the existing undergraduate Medical Technology Program. The Medical Technology faculty offered advanced courses to certified medical technologists. The program was a joint program with the Department of Pathology collaborating for graduate student projects. By 1995, the Graduate Program expanded to offer categorical tracks in management, microbiology, immunology, hematology and immunohematology in addition to the ongoing advanced post-professional offerings. These graduates were eligible for

certification categorical exams but not for the generalist medical technologist certification exam. By 2000, the program discontinued the offering of the categorical tracks due to market decisions by employers and implemented the current CLS track for students who had baccalaureate degrees in biology and chemistry who preferred to have a master's degree rather than a second baccalaureate degree. This CLS program was developed to have students complete all requirements for a certificate in medical technology and to complete course related projects at the graduate level as well as to complete either a thesis or a non-thesis project. The curriculum included the specialty disciplines in medical technology at an advanced level, as well as graduate level information management and emerging diagnostic technology courses. By 2003, the degree program was administratively managed as a graduate program in the School of Health Related Professions and no longer identified as a joint program offering with the Department of Pathology. This decision was based on identified goals and objectives of each of the academic units as to the role of faculty and future directions for working with graduate students.

The advanced post professional track courses offered during 1995 through 2007 were primarily laboratory operations management courses. With changes of direction by the CLS program it was determined that the post professional track would be discontinued by 2008. The future focus was placed on expanding the CLS track as to numbers of students and to support the tracks of medical technology and medical technology articulation for MLT students seeking a baccalaureate degree. Since 2008, the CLS program's medical technology and CLS tracks have offered concurrent courses at the 500 level for graduate students, with graduate students completing graduate level requirements in each of the medical technology courses. Additionally, the CLS students have completed 600 level courses in biostatistics, scientific publication analyses, advanced technology assessment, and a four-credit non-thesis project. In 2012, the CLS students' study plan was modified related to the non-thesis project to include activities across the curriculum time period that would culminate in a student presentation on a defined topic and the development of a portfolio for evaluation by the faculty including selected products from identified courses that meet defined objectives. The CLS faculty continue to revise and strengthen the curriculum to prepare graduates for the current and emerging workforce.

FACULTY AND STAFF

The faculty and staff of the Clinical Laboratory Sciences program are prepared to deliver high quality education to all laboratory science students, and are committed to the growth of future professionals. The Clinical Laboratory Sciences program faculty and staff include:



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Teacher

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Teacher

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teralw@uab.edu

The Department of Clinical & Diagnostic Sciences has a centralized support staff team that supports all CDS programs. For student questions, please contact the CDS front desk at: (205) 975-4CDS (4237) or

ASKCDS@uab.edu

CURRICULUM

Clinical Laboratory Sciences Curriculum Courses

FALL: 16 Semester Hours		
CDS 500	Phlebotomy and BF Collection	1
CDS 501	Professional Skills I	0
CLS 501	Introduction to Clinical Lab	3
CLS 503	Body Fluids	1
CLS 504	Body Fluids Laboratory	1
CLS 518	Immunology	3
CLS 528	Hematology I	3
CLS 529	Hematology I Lab	1
CLS 610	Research Design and Statistics	3
SPRING: 14 Semester Hours		
CDS 502	Professional Skills II	0
CLS 523	Clinical Microbiology	3
CLS 524	Clinical Microbiology Laboratory	1
CLS 526	Instrumentation & Automation	2
CLS 527	Instrumentation & Automation Laboratory	1
CLS 532	Hematology II	3
CLS 533	Hematology II Lab	1
CLS 625	Scientific Publications	3
SUMMER: 13 Semester Hours		
CLS 530	Immunoematology	4

CLS 531	Immunohematology Laboratory	1
CLS 538	Infectious Diseases	3
CLS 539	Infectious Diseases Laboratory	1
CLS 542	Molecular Diagnostics	3
CLS 543	Molecular Diagnostics Lab	1
FALL: 12 Semester Hours		
CDS 503	Professional Skills III	1
CLS 505	Laboratory Management	3
CLS 551	Clinical Chemistry	4
CLS 552	Clinical Chemistry Laboratory	1
CLS 560	Clinical Correlations	3
SPRING: 13 Semester Hours		
CLS 570	Professional Development	1
CLS 595	Clinical Practice	12
RESEARCH: 4 Semester Hours*		
*Distributed as needed throughout the curriculum		
CLS 698	Non-Thesis Research	4
	TOTAL	72

ACCREDITATION

The University of Alabama at Birmingham is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (SACS). The Masters of Science in Clinical Laboratory Sciences is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). The contact information for both agencies is found below.

SACS

1866 Southern Lane

Decatur, GA 30033-4097

TEL: 404.679.4500

FAX: 404.679.4556

<http://www.sacs.org/>

NAACLS

5600 N. River Road, Suite 720

Rosemont, IL 60018

TEL: 773.714.8880

FAX: 773.714.8886

info@naacls.org

<http://www.naacls.org/>

CERTIFICATION

Graduates of the CLS program are eligible to take an examination for certification. Certification examinations are administered by the Board of Certification (BOC) of the American Society for Clinical Pathology (ASCP), which offers certification in the category designated Medical Laboratory Scientist (MLS) for CLS students.

ASCP

Board of Certification

33 Monroe Street, Suite 1600

Chicago, Illinois 60603

TEL: 312.541.4999

<http://www.ascp.org/default.aspx>

CODE OF ETHICS

The American Society for Clinical Laboratory Sciences

The Code of Ethics of the American Society for Clinical Laboratory Science (ASCLS) sets forth the principles and standards by which clinical laboratory professionals practice their profession.

1. Duty to the Patient
 - a. Clinical laboratory professionals *are accountable* for the quality and integrity of the laboratory services they provide. This obligation includes maintaining individual competence in judgment and performance, and striving to safeguard the patient from incompetent or illegal practice by others.
 - b. Clinical laboratory professionals *maintain high standards* of practice. They exercise sound judgment in establishing, performing, and evaluating laboratory tests.
 - c. Clinical laboratory professionals *maintain strict confidentiality* of patient information and test results. They safeguard the dignity and privacy of patients and provide accurate information to other health care professionals about the services they provide.
2. Duty to Colleagues and the Profession
 - a. Clinical laboratory professionals *uphold and maintain the dignity and respect* of our profession, and strive to maintain a reputation of honesty, integrity and reliability. They contribute to the advancement of the profession by improving the body of knowledge, adopting scientific advances that benefit the patient, maintaining high standards of practice and education, and seeking fair socioeconomic working conditions for members of the profession.

- b. Clinical laboratory professionals *actively strive to establish* cooperative and respectful working relationships with other health professionals with the primary objective of ensuring a high standard of care for the patients they serve.
3. Duty to Society
 - a. As practitioners of an autonomous profession, clinical laboratory professionals have the responsibility to *contribute from their sphere of professional competence* to the general well-being of the community.
 - b. Clinical laboratory professionals *comply with relevant laws and regulations* pertaining to the practice of clinical laboratory science and actively seek, within the dictates of their consciences, to change those that do not meet the high standards of care and practice to which the profession is committed.

Pledge to the Profession

As a clinical laboratory professional, I strive to:

- Maintain and promote standards of excellence in performing and advancing the art and science of my profession;
- Preserve the dignity and privacy of others;
- Uphold and maintain the dignity and respect of our profession;
- Seek to establish cooperative and respectful working relationships with other health professionals;
- Contribute to the general well-being of the community.

I will actively demonstrate my commitment to these responsibilities throughout my professional life.

GOALS AND OBJECTIVES

CLS (Adopted 1993; Revised 2012)

The goals of the program are to prepare a student to assume the role of a health care professional in the field of clinical laboratory sciences, to accept responsibilities as a health care team member and to continue professional development as a clinical laboratory scientist. Graduates of this program are expected to:

1. Demonstrate attributes desirable of clinical laboratory scientists.
 - a. **Dependability**
 - i. Demonstrate integrity, honesty and conscientiousness in work
 - ii. Accept responsibility for own actions
 - iii. Organize and complete work on schedule without sacrificing accuracy and reliability
 - iv. Follows established policies and procedures
 - v. Be punctual and in classroom or clinical workstation when required or assigned
 - b. **Stability**
 - i. Work effectively under conditions of stress and/or change
 - ii. Maintain professional demeanor under adverse conditions

c. Ability to interact effectively with others

- i. Influence and contribute to a pleasant work environment
- ii. Accept leadership of supervisory personnel and provide appropriate feedback
- iii. Offer assistance and support to co-workers
- iv. Communicate with other health workers in a professional and courteous manner
- v. Interrelate with patients in an empathetic manner, appropriate to a health care team member
- vi. Contribute willingly to the accomplishment of group endeavor

d. Professionalism

- i. Maintain a neat, clean, personal appearance complying with existing dress codes
- ii. Participate in professional societies, continuing education, and self-study programs
- iii. Show initiative and interest to improve technical skills and expand knowledge.
- iv. Investigate appropriate sources (literature and personnel) for technical and professional information
- v. Maintain confidentiality of patient and laboratory data
- vi. Demonstrate ethical conduct in professional endeavors

Note: Students are evaluated based on the criteria listed above during the didactic courses and during the clinical practice courses using the following Affective Evaluation Form. This form is completed twice (Spring and Fall semesters) prior to clinical practice, and students are advised of the observations of the faculty so that changes in student behavior can occur prior to clinical practice courses. The marked criteria are identified as essential behaviors that are expected of all students in the classroom and in clinical practice settings.

<p>C. Able to interact effectively with others, which may demonstrated by</p> <ol style="list-style-type: none"> 1. Influencing and contributing to a pleasant work environment. 2. Accepting leadership of supervisory personnel and providing appropriate feedback. 3. Offering assistance and support to co-workers. 4. Communicating with other healthcare workers in a professional and courteous manner. 5. Interrelating with patients in an empathetic manner, appropriate to a healthcare team member. 6. Contributing willingly to the accomplishment of group endeavors. 			
<p>D. Demonstrates Professionalism which may be demonstrated by:</p> <p>Maintaining a neat, clean, personal appearance complying with existing dress codes (i.e., follows program dress code).</p> <p>Showing initiative and interest to improve technical skills and expand knowledge (i.e., asks to learn more than minimally required, offers to start an activity without being told, reads information prior to laboratory sessions, participates in professional societies, continuing education, and self-study programs. Attends district and state ASSCLS meetings, attends hospital in- service education programs).</p> <p>Investigating appropriate sources (literature and personnel) for technical and professional information.(i.e., looks up information in writing before inquiring from others, utilizes faculty, teachers, rather than other students for information, uses student laboratory and clinical procedure manual)</p> <p>Maintaining confidentiality of patient and laboratory data. (i.e., does not talk about laboratory work outside of the laboratory)</p> <p>Demonstrating ethical conduct in professional endeavors. (i.e., does not release inappropriate information to patient, fellow student or other individual, does not offer advice to health care workers beyond scope of practice, repeats any work in which problems are suspected).</p>			X

Note: The following program objectives are integrated into the curriculum courses, and students are expected to achieve competencies at the entry-level for each of the following objectives before the end of the program curriculum.

2. Analyze, quantitatively and/or qualitatively, body fluids and materials to aid in the diagnosis monitoring, treatment and/or prevention of disease.
 - a. Obtain and process specimens using appropriate techniques and established safety measures.
 - b. Evaluate the suitability of specimens for the analysis requested.

- c. Determine the priority of laboratory requests to arrange the workload to provide for optimal patient care and efficiency.
 - d. Apply principles of assays and use the appropriate equipment and techniques to perform high volume, less difficult analytical tests in chemistry, hematology, immunology, immunohematology and microbiology.
 - e. Apply physical, chemical, instrumental, and physiological theories pertinent to tests to recognize and solve problems.
3. Interpret and correlate laboratory test data.
 - a. Accurately determine the results of tests using the appropriate controls, standards and/or references.
 - b. Calculate results of tests performed if necessary.
 - c. Evaluate the validity of test results in terms of reference intervals, quality control data, and analytical system performance.
 - d. Correlate results of tests with other test data and pertinent patient information to identify potential errors/sources of variation.
 - e. Report all abnormal testing results to the instructor/supervisor and repeat abnormal tests or perform confirmatory or additional procedures as indicated.
 - f. Follow institutional procedures for reporting critical values.
 - g. Record and report results in writing, orally or by computer conforming to established procedures and institutional policies.
 - h. Follow institutional procedures for use of referral services.
 4. Monitor statistical quality control (SQC) protocols to optimize precision and accuracy of testing results and contribute to patient safety.
 5. Perform quality control procedures on analytical tests, equipment, reagents, media, and products according to protocol.
 - a. Acknowledge unacceptable control results and take corrective action if indicated.
 - b. Perform instrument maintenance procedures and instrument checks on basic equipment and instruments according to laboratory protocol.
 - c. Recognize instrument malfunction and communicate with instructor or supervisors.
 - d. Following standard laboratory procedures, document all information such as quality control, maintenance and corrective actions.
 - e. Use the appropriate safety precautions and barriers in the performance of various tasks in order to prevent the transmission of infectious agents or other laboratory accidents and document any incidents.
 6. Apply principles of management and leadership applicable to clinical laboratory operations.
 - a. Practice effective written and verbal communication skills.
 - b. Practice interpersonal skills and conflict resolution skills related to individual team and group processes.
 - c. Practice awareness of principles of fiscal management and regulations to assure compliance with need to work in environment with limited resources to assure cost effectiveness operations and to deliver efficiency and effectiveness with IOM aims of quality.

- d. Apply principles of quality management to the processes and outcomes of clinical laboratory operations.
 - e. Recognize managerial/supervisory roles/demands for cost effective clinical laboratory operations in the daily operations of service delivery.
 - f. Apply principles of individual involvement-oriented management to enhance learning, teamwork, and the quality of products produced by clinical laboratory personnel.
 - g. Apply personal managerial skills to improving the quality of individual, group and organization outcomes.
7. Develop life-long learning competencies.
- a. Participate in activities needed to support maintenance of certification and professional development such as reading, seminars, committee activities, professional organizations, formal courses and other continuing education programs.
 - b. Learn from and share knowledge with coworkers, supervisors, employees and peers.
 - c. Gain information about workplace expectations to improve affective behaviors for contribution to expected service behaviors in the work setting.
8. Apply principles of learning and methods of instruction to assist in the education of self and others.
- a. Deliver oral presentations using logically developed outlines.
 - b. Identify components of behavioral objectives to write measurable objectives.
 - c. Recognize the need for use of multiple learning styles to master different principles and practices across multiple types of courses, content and work environments.
 - d. Utilize appropriate delivery tools to assure appropriate message given to audience.
 - e. Utilize appropriate resources in development of presentation materials.
9. Participate in the development of skills and knowledge needed for technology assessment (statistics, scientific literature analysis, study design, presentations, and evaluation skills).
- a. Evaluate data for sensitivity, specificity, predictive value, and cost effectiveness.
 - b. Evaluate tests, methods, instruments and new technology as to medical usefulness and t on patient health status.
 - c. Evaluate systems processing for total testing for inpatient, outpatient, and point of care and referral specimens.
 - d. Apply principles of Quality Management Systems (QMS), which includes quality control (QC), quality assessment (QA), and quality improvement (QI) for operations management in customer-oriented production of information for patient management.
 - e. Monitor the healthcare industry to be aware of resources needed for technology assessment and internal policy compliance/external regulatory compliance (voluntary/mandated).
 - f. Monitor current health care issues and recognize the implications for clinical laboratory services.
10. Practice use and applications of information management technologies including laboratory medicine informatics.
- a. Use databases, word processing and spreadsheet programs for processing of data to generate appropriate statistical analyses.
 - b. Input data correctly and retrieve data accurately and efficiently.

- c. Recognize issues of compatibility, privacy and limitations with information systems.
- d. Utilize laboratory informatics principles and connectivity standards applicable to data management for point of care testing.
- e. Apply principles of utilization management of all testing services to achieve efficient and cost-effective operations of clinical laboratories.
- f. Apply principles and practices of evidence-based laboratory medicine including outcomes management by application of laboratory information systems to improve services and assure patient safety.
- g. Recognize the necessity of laboratory information systems with unidirectional and bidirectional communication capabilities for auto verification and expediting of release of accurate and timely laboratory reports.

ESSENTIAL FUNCTIONS

In order to successfully complete the degree requirements for the Master of Science in Clinical Laboratory Sciences, students must complete the academic and clinical laboratory practice requirements. Students must meet the essential functions in addition to the academic requirements. “Essential functions” are those physical abilities, mental abilities, skills, attitudes, and behaviors the students must evidence or perform at each stage of their education.” The absence of an essential requirement would fundamentally alter the program’s goals. The essential functions include categories of observation, movement, communication, intellect, and behavior:

Observation

The student must be able to:

1. Observe laboratory demonstrations in which biological (i.e., body fluids, culture materials, tissue sections, and cellular specimens) are tested for their biochemical, hematological, immunological, microbiological, and histochemical components.
2. Characterize the color, odor, clarity, and viscosity of biologicals, reagents, or chemical reaction products.
3. Employ a clinical grade binocular microscope to discriminate among fine structural and color (hue, shading, and intensity) differences of microscopic specimens.
4. Read and comprehend text, numbers, illustrations, and graphs displayed in print, on a projection screen, and on a video monitor.

Movement

The student must be able to:

1. Move freely and safely about a laboratory.
2. Reach laboratory bench tops and shelves, patients lying in hospital beds or patients seated in specimen collection furniture.
3. Travel to numerous clinical laboratory sites for practical experience.

4. Perform moderately taxing continuous physical work, often requiring prolonged sitting, in confined spaces - over several hours.
5. Maneuver phlebotomy and culture acquisition equipment to safely collect valid laboratory specimens from patients.
6. Control laboratory equipment (i.e., pipettes, inoculating loops, test tubes) and adjust instruments to perform laboratory procedures.
7. Use an electronic keyboard (i.e., 101-key IBM computer keyboard) to operate laboratory instruments and to calculate, record, evaluate, and transmit laboratory information.

Communication

The student must be able to:

1. Read and comprehend technical and professional materials (e.g. textbooks, magazine and journal articles, handbooks, and instruction manuals).
2. Follow verbal and written instructions in order to correctly perform laboratory test procedures.
3. Clearly instruct patients prior to specimen collection (if applicable).
4. Effectively, confidentially, and sensitively converse with patients regarding laboratory tests (if applicable).
5. Communicate with faculty members, fellow students, staff, and other health care professionals verbally and in a recorded format (writing, typing, graphics, or telecommunication).
6. Prepare papers, prepare laboratory reports, and take examinations within specified times.

Intellect

The student must:

1. Possess these intellectual skills: comprehension, measurement, mathematical calculation, reasoning, integration, analysis, comparison, self-expression, and criticism.
2. Be able to exercise sufficient judgment to recognize and correct performance deviations.

Behavior

The student must:

1. Be able to manage the use of time and be able to systematize actions in order to complete professional and technical tasks within faculty-defined time limits.
2. Possess the emotional health necessary to effectively employ intellect and exercise appropriate judgment.
3. Be able to provide professional and technical services while experiencing the stresses of task-related uncertainty (i.e., ambiguous test ordering, ambivalent test interpretation), emergent demands (i.e., "stat" test orders), and a distracting environment (i.e., high noise levels, crowding, complex visual stimuli).
4. Be flexible and creative and adapt to professional and technical change.

5. Recognize potentially hazardous materials, equipment, and situations and proceed safely in order to minimize risk of injury to patients, self, and nearby individuals.
6. Adapt to working with unpleasant biologicals.
7. Support and promote the activities of fellow students and of health care professionals. Promotion of peers helps furnish a team approach to learning, task completion, problem solving, and patient care.
8. Be honest, compassionate, ethical, and responsible. The student must be forthright about errors or uncertainty. The student must be able to critically evaluate her or his own performance, accept constructive criticism, and look for ways to improve (i.e. participate in enriched educational activities). The student must be able to evaluate the performance of fellow students and tactfully offer constructive comments.

CLASSROOM AND LABORATORY SUPPLIES

Students are expected to supply their own notepaper, pens, pencils, and calculators. All students are required to purchase a laboratory coat (program approved). Which is fluid resistant, long sleeved, cuffed, and long long-length.

The Program will supply gloves and face shields as needed. Students are expected to have access to a computer (either personal, or in the LRC or Lister Library.) Computer applications are essential for completion of course requirements and the projects in courses and the end of program project.

CLASS SCHEDULE

At the beginning of each term, class schedules will be posted on course websites on Canvas indicating dates, times, location, lecture topics, laboratory sessions, examinations, assignments, etc. The class schedules are subject to change, as circumstances require. The students will be informed of any necessary schedule changes as soon as possible.

- The program requires 5 terms of full-time enrollment to complete.
- Students will typically have class Monday through Friday each week; however, the exact days and times of class sessions will vary from day to day and term to term.
- During spring term, of the second year, students will be assigned to clinical practice and will be expected to be in the laboratories 35 hours/week. The exact times in which they will be present at each site will vary depending on the site.
- Work schedules and other personal commitments must be planned around class/clinical practice schedules. Students may not leave early or arrive at class, lab sessions, or clinical practice late because of work.
- Attendance is mandatory at all assigned classes (lectures, labs, clinical practicum, etc., refer to Attendance Policy).

DOCUMENTATION OF COURSE COMPLETION

CLS Course Completion Checklist

COURSE	TITLE	CR HRS	GRADE	COMMENT
CDS 500	Phlebotomy BF Collection	1		
CDS 501	Professional Skills I	0		
CDS 502	Professional Skills II	0		
CDS 503	Professional Skills III	1		
CLS 501	Introduction to Clinical Lab	3		
CLS 503	Body Fluids	1		
CLS 504	Body Fluids Laboratory	1		
CLS 505	Laboratory Management	3		
CLS 518	Immunology	3		
CDS 610	Research Design and Statistics	3		
CLS 523	Clinical Microbiology	3		
CLS 524	Clinical Microbiology Laboratory	1		
CLS 526	Instrumentation and Automation	2		
CLS 527	Instrumentation and Automation Lab	1		
CLS 542	Molecular Diagnostics	3		
CLS 543	Molecular Diagnostics Laboratory	1		
CDS 625	Scientific Publications	3		
CLS 528	Hematology I	3		
CLS 529	Hematology I Lab	1		
CLS 530	Immunochemistry	4		

CLS 531	Immunohematology Laboratory	1		
CLS 538	Infectious Diseases	3		
CLS 539	Infectious Diseases Laboratory	1		
CLS 532	Hematology II	3		
CLS 533	Hematology II Lab	1		
CLS 551	Clinical Chemistry	4		
CLS 552	Clinical Chemistry Laboratory	1		
CLS 560	Clinical Correlations	3		
CLS 570	Professional Development	1		
CLS 595	Clinical Practice	12		
CLS 698	Non-Thesis Research	4		

APPLICATION FOR DEGREE AND CERTIFICATE

Application for Degree

Upon successful completion of all program requirements students will be awarded an M.S. degree. All students must apply for their degree at least 6 months prior to their anticipated graduation date. The application for degree forms are in the online format and may be accessed from the following websites:

Application for an M.S. degree:

<https://www.uab.edu/graduate/students/current-students/completing-your-degree/application-deadlines>

NOTE: The issuing of an MS degree is not contingent upon the student passing any type of external certification or licensure examination. Students having successfully completed the program are eligible to sit for certifying and licensing examinations.

Application for Certificate

In addition to the awarding of an M.S. degree, each student is eligible to apply for a certificate in Clinical Laboratory Science awarded from the School of Health Professions. Program Directors will supply a list

of eligible names to the office of student success and certificates will be completed and returned to the program for distribution.

<http://www.uab.edu/graduate/images/acrobat/forms/certificate-app.pdf>

CLINICAL AFFILIATES

The CLS program has approved clinical affiliate sites where CLS students are placed for their clinical practice experience. The approved facilities are found below.

FACILITY	CITY/STATE
Brookwood Medical Center	Birmingham, AL
Children’s of Alabama	Birmingham, AL
Coosa Valley	Sylacauga, AL
DCH Regional Medical Center	Tuscaloosa, AL
Gadsden Regional Medical Center	Gadsden, AL
Huntsville Hospital	Huntsville, AL
Jackson Hospital	Montgomery, AL
Kirklin Clinic	Birmingham, AL
Lab Corp of America (Brookwood, Coosa Valley)	Birmingham, AL
Madison Hospital	Madison, AL
Medical West	Bessemer, AL
Memorial Hospital	Chattanooga, TN
Pickens County Medical Center	Carrolton, AL
Piedmont	Atlanta, GA
Princeton Baptist Medical Center	Birmingham, AL
St Vincent’s Medical Center	Birmingham, AL
St Vincent’s East	Birmingham, AL

Shelby Baptist Medical Center	Alabaster, AL
Trinity Medical Center	Birmingham, AL
UAB Hospital	Birmingham, AL
UAB Highlands	Birmingham, AL
Veteran's Administration Medical Center	Birmingham, AL
Walker Baptist Medical Center	Jasper, AL

The above institutions work with the Clinical Laboratory Sciences program as major clinical affiliates. The number and location of sites may vary depending on clinical training needs of the Program.

The CLS program clinical coordinator, in conjunction with the program director, assigns students to a clinical site. Students are not permitted to select the site for their clinical rotation experience nor are they allowed to alter an already approved schedule. Requests for adjustments to a clinical practice schedule must be made to the program clinical coordinator. Adjustments made to clinical practice schedule not approved and organized by the program clinical coordinator may lead to grade of "F" for that rotation. CLS students with dependent children under the age of 16 years will be given priority placement in a clinical site within 20 miles of UAB. It is the student's responsibility to make appropriate accommodations when a clinical site is located off of the UAB campus. The clinical practice schedule for each student is prepared on an individual basis and will be given to the student the first spring of the semester where students will be notified as to whether or not they will rotate within or outside 60 miles of Birmingham. Please note the schedule is usually not complete and ready for distribution until near the end of the semester. Courses and clinical practice schedules are subject to change, as circumstances require. The student will be informed of schedule changes as soon as possible.

Students are expected to spend a minimum of 35 hours per week (Monday through Friday) in clinical practice courses. The time to report will vary according to location of the assignment (hospital or section of hospital laboratory), but students are expected to spend 7 hours each day at the clinical site. If students work, their work hours must not conflict with the clinical courses.

CLINICAL LABORATORY SAFETY RULES AND PROCEDURES

The administrators and faculty of the School of Health Professions are committed to the health and welfare of students enrolled in health care professions. Various immunizations and medical requirements must be satisfied prior to enrollment in SHP. In addition, the UAB Medical Center Student Health Service provides specific medical care to enrolled students. Every attempt is made to provide

appropriate instruction in the utilization of universal precautions and exposure control procedures. Specific requirements vary according to the curricula of each academic program. Students are expected to comply with the standards set by the U.S. Department of Labor Occupational Safety and Health Administration (OSHA) (29.CFR Part 1910.1030) and the CLS program policies and procedures. The policies and procedures apply to all students, faculty, and staff.

The rules and procedures described below have been developed for the protection and health of students, faculty, and staff. Noncompliance will be considered as misconduct and handled as such. These rules and procedures comply with the OSHA Standards for Occupational Exposure to Bloodborne Pathogens, CDC Recommendations for Prevention of HIV Transmission in Health-Care Settings, CDC Recommendations for Airborne Pathogens, UAB Biosafety Manual, and UAB Chemical Safety and Waste Management Manual.

General Regulations for Student Laboratory Courses

1. Eating, drinking, smoking, chewing gum or tobacco, applying cosmetics or lip balm, or handling contact lens is PROHIBITED in the labs (even if the lab space is being used for class or an examination, and not a lab session). No items should be placed in the mouth or near the face.
2. Use of cell phones, personal computers, personal digital assistants, text pagers or other forms of technology for personal use in the student laboratory is prohibited without the approval of the instructor (refer to the policy for Technology Use in the Classroom). Cell phones and other devices should be stored with other personal items.
3. Students have access to lockers on a first-come, first-served basis. These lockers are located on the 4th floor of the School of Health Professions Building. Students interested in a locker should contact a department support staff, via email (askCDS@uab.edu) or may visit any staff member located on the 4th floor of the School of Health Professions Building. Personal items MUST be stored in day lockers or in the designated space in the laboratory, not around or on the laboratory workspace. Students must have a lock for use with the day lockers.
4. Dress must be professional at all times and in compliance with the department dress code.
5. Standard precautions (which combine universal precautions and body substance isolation) must be observed in the laboratory to prevent contact with blood, body fluids, and all secretions and excretions.
6. All procedures involving blood or other potentially infectious materials are performed to minimize splashing, spraying, spattering, and generating droplets.

7. Personal Protective Equipment

- a. Long-sleeved fluid resistant (fluid barrier) lab coats (not jackets) and shoes, which completely cover the feet (not open toe, not open heel, not cloth), must be worn during all lab sessions. Lab coats must be buttoned or secured completely for protection. Students will not be admitted to lab sessions without lab coats or the appropriate clothes and shoes. Disposable laboratory coats will not be available for student use and shoe covers will not be available;
 - b. Gloves must be worn in ALL lab sessions. Non-latex gloves are used in the student laboratory sessions. Students must not use oil-based lotions, which decrease the integrity of gloves.
 - c. An eye and face protection unit must be worn when performing procedures that may generate droplets of blood, body fluids, secretions or excretions, or other infectious/harmful materials.
 - d. Protective goggles or safety glasses must be worn in any labs when performing procedures that may result in possible splashing of harmful chemicals or aerosols.
 - e. Additional requirements for personal protective equipment and/or environmental controls required for certain procedures will be designated in individual course lab manuals.
8. Gloves are removed inside out aseptically (without producing aerosols) and are discarded in the biohazard container with red bag at the end of each laboratory session, or when necessary, due to gross contamination, tearing or puncturing.
9. “Finger bowls” may be made by pouring disinfectant on gauze sponges in a petri dish. “Finger bowls” may be used to clean gloves when contaminated slightly (i.g., finger stuck in plate of bacteria) before touching microscopes or other equipment. Soaked gauze can also be used to cover minor spills. In the case of excessive contamination, change gloves.
10. The plastic face shield should be cleaned with disinfectant spray at the end of each lab in which it is used (or when gross contamination occurs). Goggles or safety glasses should be cleaned in the same manner. If a woven nose and mouth facemask is worn, it should be discarded (in biohazard container with red bag) at the end of each lab session in which it is used (or if gross contamination occurs).
11. Lab coats should be hung on the designated coat rack after each lab session. The CLS program washes laboratory coats on a regular basis for the students. Soiled lab coats must be removed immediately.
12. Lab coats and other protective equipment must be removed before leaving lab for any reason.

13. Hands must be washed (upon removing gloves) with an antimicrobial solution before leaving a lab session for any reason or when gross contamination occurs. After washing and drying hands, turn off faucet using a paper towel.
14. Skin (other than hands) which has come in contact with blood or other potentially infectious material, must be washed immediately with antimicrobial solution and water. If eye contamination occurs, the eyewash must be used immediately.
15. All operations with flammable, combustible, or toxic chemicals must be carried out under a fume hood. Material safety data sheets are located in the laboratory.
16. A pipetting aid or semi-automatic pipette must be used to pipette all fluids. Mouth pipetting is prohibited.
17. Food and drink must not be stored in lab refrigerators or anywhere in lab area.
18. The workstation must be cleaned with disinfectant before and after each lab period and after spills of potentially contaminated material. Lamps and all objects left on the desktop must be wiped with disinfectant-soaked towels.
19. The workspace should be covered with a large, white, plastic-coated absorbent towel at the beginning of each lab session. All contaminated materials should be kept on the towel. Books and papers needed for lab should be kept off the towel. The towel should be discarded (in the biohazard container with red bag) at the end of each lab session (or when grossly contaminated).
20. Small spills of contaminated material may be wiped up with a disinfectant soaked gauze or towel. Wash the surface a second time with another disinfectant soaked towel. Discard towels in a biohazard (red bag) container. Never pick up broken glass with hands but use a mechanical device such as tongs, forceps, or a brush and dustpan. Broken glass must be discarded in the designated container. Large spills must be reported to the instructor or lab staff. Staff (faculty or teacher) must oversee cleanup of any spills.
21. Used needles and other sharps are not bent, broken, recapped, or re-sheathed by hand. Used needles are not removed from disposable syringes. Needles and sharps are disposed of in impervious disposable containers.

22. Do not remove pencils, pens, or other materials used during lab sessions because they may be contaminated. Use the materials supplied or leave your personal pencils, etc., as donations for the lab.
23. Unauthorized visitors are not permitted to enter the lab. If an emergency situation requires that someone speak with a student during a laboratory session, the visitor must obtain permission from the teacher or course master to speak with student; student must remove lab coat, wash hands and leave the laboratory. If a student is expecting someone at a designated time, the student must obtain permission from teacher or course master before leaving the laboratory area.
24. A student may not leave the laboratory area during an exam, unless he/she obtains permission from the teacher or instructor. Multiple students are not permitted to exit the area at the same time during an exam.
25. Incidents and Injury Reporting
 - a. Cuts or other skin abrasions must be covered by Band-Aid(s) (available in First Aid Box) prior to putting on gloves.
 - b. All incidents/injuries occurring in lab regardless of severity must be reported promptly to the instructor or lab staff who will take appropriate action (i.g., send student to Student Health or Emergency Department).
 - c. An incident report will be completed by the student, signed by the instructor, and kept on file in the Program Office. Forms are available from CLS faculty and teachers.
 - d. Refer to UAB Body Fluid Exposure Policy.

General Regulations for Clinical Practice Courses

Students are expected to follow the General Regulations for Student Laboratory Courses while in clinical practice sites. The clinical practice sites will have established protocols for safety to which all students must adhere.

Protocol for Disposal of Contaminated Materials

1. Materials to be discarded in biohazard containers with red bags at students' work stations (**not exclusive**).
 - a. Cotton alcohol prep pads/Band-Aids
 - b. Gauze
 - c. Kimwipes
 - d. Gloves and face masks
 - e. Bibulous paper
 - f. Sedimentation rate tubes
 - g. Uni-Flex safety caps

- h. Wooden applicator sticks, cotton tipped swabs, disposable glass slides, Pasteur pipettes (glass or plastic) and stained smears
 - i. Disposable serologic pipettes -- tip down to avoid aerosol
 - j. Plastic pipette tips for pipettors
 - k. Contaminated or used-up pencils, pens, and china or permanent ink markers
 - l. Disposable slides used for serological testing
 - m. Empty urine cups (urinalysis) (urine is discarded as indicated)
 - n. Disposable glass or plastic tubes (empty or containing small amounts, 5 mL or less, of liquid). If tubes contain more than 5 mL of liquid, the liquid should be discarded in designated containers prior to disposal.
2. Materials to be placed in rigid plastic sharp keeps located on side counters during lab sessions.
 - a. Needles/Syringes used in venipuncture and lancets used in capillary/skin puncture.
 - b. Microhematocrit capillary tubes containing blood.
 - c. Broken glass products contaminated with blood or body fluid.
 3. Place all glass reusable pipettes in the 7 x 18" pipette jars.
 4. Materials to be placed in metal containers lined with autoclave bags.

Blood and/or serum samples if greater than 1mL or in an evacuated tube:

 - a. Contaminated media (tubes and plates)
 - b. Tubes or ampules containing suspensions of bacteria
 - c. Multi-unit I.D. Systems for bacteria (e.g., API)
 - d. Blood culture bottles (vented with subculture unit)
 5. Materials to be placed in trash cans labeled "Broken Glass" box located in each of the labs.
 - a. Clean broken glassware
 - b. Clean broken tubes
 - c. Clean broken pipettes

Glassware contaminated by patient specimens must be placed in biohazard broken glass box or sharpkeeps. When the biohazard box or sharpkeep is full, it is placed in a biohazard red can.
 6. Miscellaneous Material
 - a. Guidelines for materials, which must have special handling prior to disposal, will be designated in specific course lab manuals. Always check with instructor or lab staff if unsure about how to dispose of contaminated items.

Protocol for Disposal of Non-Contaminated Trash

Place all non-contaminated trash paper, packing materials, and small packing boxes in waste baskets lined with clear bags that are located at the front and back of the lab area. These are discarded by housekeeping. No contaminated materials are permitted.

Chemical Hazards

1. Material Data Safety Sheets with information about the chemical, safety precautions, hazard, and treatment for exposure are located on the door of the reagent room in the prep area.
2. Eyewash and shower are available in the lab.

3. The hood in the lab must be used for flammables and reagents with noxious and toxic fumes.
4. For emergencies, call: 4-3797 or check the web site <http://www.uab.edu/ohs/>

FACULTY ADVISING

Each student will be assigned and notified of their assigned advisor at the mandatory Program Orientation session. Students are expected to interact with their advisor on a regular basis, via email or in person.

If a student desires a new advisor for any reason, the student should contact the program director and request a new advisor be assigned. All requests for a change of advisor must have program director approval before the change is made.

GRADES

Final grades and credits for each student are recorded and preserved as a permanent record at UAB. The final grades for academic courses are compiled and proportioned to develop a final course grade. The course instructor will inform the students at the beginning of each term in each course syllabus of the system of proportioning of scores used to develop the course grade. Minimum performance criteria designated by the course instructor must be achieved by the student. These criteria indicate the level of competency of the individual student.

Grades are awarded according to the level of the student's achievement in each course. The grades for academic courses are indicated by letters:

A = Excellent

B = Above Average

C = Average

F = Failure

P = Pass

W = Withdrawal, a notation (Not a Grade) assigned by the Registrar and reflects an administrative action initiated by the student in accordance with UAB regulations.

I* = Incomplete, a temporary notation assigned a student who has not completed course requirements.

N = No Grade Submitted, a temporary notation made by the Registrar if the course instructor does not assign a grade prior to issuing of grade reports or when the course is designated to extend beyond a single term.

X = Absent from Final Exam

* An “I” will be given only when an emergency or unexpected event prohibits the student from meeting course objectives in a timely manner and if there is reasonable expectation that the course requirements can be satisfactorily completed by the end of the following term. The notation of “I” will convert to an “F” unless an extension is requested; specifying the date the student will complete the course requirements. Refer to the department policy for awarding a grade of Incomplete.

The student’s grade point average is calculated by dividing the total quality points earned by the semester hours attempted. Semester hours attempted is defined as the total semester hours for any course in which the student was registered on a regular basis and receives an A, B, C, or F. Quality points are awarded as following:

<u>Quality Points</u>	<u>Letter Grade</u>
4	A
3	B
2	C
None	P, NP, or F

Graduate School Requirements – Good Academic Standing

A student must maintain a grade point average of at least 3.0 (B average) and earn at least as many hours of P grades as the total of NP grades combined to be in good academic standing as defined by the Graduate School.

GRADUATE STUDENT REQUIREMENTS

Introduction

All UAB graduate students in the CLS program are required to complete Plan II (Non-thesis) project prior to completion of the CLS program. During orientation to the program in August, and during fall term, the students will meet with the faculty to discuss the requirements for the CLS 698 Non-Thesis Research course [4 credits.]

In addition to meeting the CLS discipline specific goals and objectives as listed in the CLS Handbook, graduates of the CLS program track are expected to gain insight into techniques of problem posing and problem solving and to use these insights to prepare written and oral reports. In graduate courses, students are expected to write technical papers based on scientific literature research and to develop

effective presentation competencies as specified in the UAB Graduate School Catalog and Student Handbook.

<http://catalog.uab.edu/graduate/>

The attainment of objectives addressing these competencies will be demonstrated by the preparation of a portfolio containing materials developed during affiliated courses in the CLS curriculum and an end of program oral presentation focusing on a topic relevant to clinical laboratory sciences, which has been researched throughout the curriculum and documented in the portfolio.

Plan II Non-Thesis Research Project Process

All CLS students are required to work in groups (no more than 5) to complete a Plan II project prior to completing the CLS program. Plan II projects may or may not require research and may or may not require a formal thesis, but students are expected to gain insight into the techniques of problem posing and problem solving and to use these insights to prepare a final plan II project.

Selecting A Plan II Non-Thesis Project Topic

Students will be randomly assigned to groups of no more than 5 students and each group will be assigned an advisor no later than the end of the first fall semester. The student groups and assigned advisor discuss possible topics and activities that are appropriate for non-thesis research. In most cases, the CLS program faculty already has a topic that will be shared in the group. Plan II projects are flexible in nature and are designed on an individual basis between students and their assigned advisors. Plan II projects, although flexible in nature, are still rigorous with regard to structure, formatting, and depth of analysis. Possible projects may include:

- State of the art/narrative review of the literature on a current topic.
- Development of a publication ready article for a CLS-related journal.
- Development of a publication ready case history.
- Literature review and comparison study proposal for error assessment of a new diagnostic assay.
- Operations management project to include performance improvement interventions/analyses.
- Instructional design and assessment of a technology based product for training laboratory practitioners.
- Literature review to include chronology of diagnostic methods including performance. Characteristics and application characteristics with evaluation of current usage in diagnostic testing service centers.
- Preparation of a narrative review paper that analyzes the implications of major public and reimbursement policies on the delivery of diagnostic services for the past decade.

All non-thesis projects that require data collection must be approved by the IRB. Any project proposal that requires funding requires that the student prepare a budget and submit the budget to their chair and the program director. Any funding required, must be approved prior to proceeding beyond the topic selection process for a non-thesis project.

Plan II Project Completion

The students and their assigned advisor will determine the format of the project and requirements for successful completion of the project.

Submission of Final Project to CLS

The student submits a completed version of the project to his/her advisor. One copy of the project is entered into the CLS graduate student papers database and maintained in the CLS library. The project is not submitted to the Graduate School. If original data was collected, the student will be encouraged to prepare a manuscript for submission to a journal. If the student decides not to do so, then the student will be asked to complete a data release form so that the chair may use the paper for preparing a manuscript/presentations. A second copy of the paper is given to the Program Director and the Chair of the Study Committee should retain an electronic copy of the paper

PERFORMING SERVICE WORK POLICY

Students in the program are not required to perform service work as part of the curriculum, nor do they receive any academic credit for work outside of assigned classes. The students are not permitted to work in place of professional or staff personnel at the clinical site during scheduled clinical practice times. Student activities are to be exclusively directed to learning and they must not be diverted to assisting in completing the laboratory workload at any time. Students may never work completely unsupervised, and therefore, are never to be placed in a position of independence in carrying out laboratory responsibilities.

PREGNANCY POLICY

The University of Alabama at Birmingham seeks to treat all students equally, regardless of their actual or potential parental, family or marital status. Title IX of the Education Amendments of 1972 prohibits discrimination on the basis of sex — including pregnancy, parenting and all related conditions — in education and in programs and activities that receive federal funding.

The University must treat pregnant students in the same way it treats similarly situated students. Thus, any accommodation provided to students who have temporary medical conditions will also be provided to pregnant students. Students seeking an accommodation due to pregnancy or a condition related to pregnancy must register with the Title IX Office.

The Title IX Office offers accommodations, options and resources to students who are pregnant, recovering from pregnancy, and/or a condition related to pregnancy. Additionally, the Title IX Office

works with students, University administration, departments, faculty, staff, campus police, and other support services to ensure that University policies and programs foster a campus community free of sex discrimination.

To seek accommodations, please contact the Title IX Office by calling 205-996-1340 or emailing titleixoffice@uab.edu. See the <https://www.uab.edu/titleix/> for more information.

PROCEDURES WHEN APPLIED EXPERIENCES CANNOT BE GUARANTEED

If, due to some unforeseen event, we cannot place all students in a clinical practice site for a given discipline during a given term, we will assign students to the available clinical sites for that discipline based on program GPA (from highest placed first on down). If a student is not placed in a clinical practice environment for a specific discipline, they will receive priority for placement in that discipline the next time clinical placements are scheduled.

SCHOLASTIC REQUIREMENTS

The CLS Program requires that students maintain an overall “B” average (GPA ≥ 3.0) to continue in the program. CLS students who do not maintain an overall “B” average will be placed on probation by the Graduate School. Thereafter, the student will have two (2) semesters in which to restore the GPA to 3.0 or higher; otherwise, they will be dismissed by the Graduate School.

A student who receives a grade of “F” in one program-specific course will be required to repeat that course the next time it is officially offered and will not be able to take any courses for which that course is a prerequisite (including clinical practice) until the course is successfully completed. Only one course in the student’s curriculum may be repeated in this manner and only one repeat of the course will be allowed. If the student receives a grade of “F” when the course is repeated, they will be dismissed from the program.

A student who receives more than one “F” at any time in the curriculum will be dismissed* from the program, regardless of the student’s overall GPA. An official letter notifying the student of their dismissal will be sent to the student from the program director. Students dismissed from the program will not have the opportunity to re-apply to the program.

*Exceptions may be granted to students who do not successfully complete the certification review/professional development course.

STUDENT ORGANIZATIONS AND ACTIVITIES

CLS Student Association (CLSSA)

Purpose and Goals

1. Promoting **HIGH ACADEMIC ACHIEVEMENT** among its members and peers.
2. **PROVIDING STUDENT INPUT** and **REPRESENTING STUDENT INTERESTS** to faculty and administration regarding student needs or concerns related to the CLS program and/or the field of Clinical Laboratory Sciences.
3. Supporting a network for **SHARING INFORMATION** regarding professional organizations such as the American Society for Clinical Laboratory Sciences (ASCLS), American Society of Clinical Pathologists (ASCP), Certification class offerings, conferences and other seminars on topics of interest.
4. Establishing a **FORUM FOR DISCUSSION** among students about current issues in the field of Clinical Laboratory Sciences and the UAB CLS Program of study.
5. **RECRUITING** future students into the field of Clinical Laboratory Sciences.
6. Promoting a supportive environment for **FRATERNIZATION** and **SOCIALIZATION** among its members.

Membership and Dues

1. The University of Alabama at Birmingham and the CLSSA administers its educational programs and activities, including admission, without regard to race, color, religion, sex, national origin, disability unrelated to the performance of essential job function or an essential eligibility requirement, veteran status, or Vietnam era veteran status. Membership is open to all students who satisfy membership criteria listed herein and join ASCLS. The UAB CLS Student Association will ensure that all meetings, programs, services, or other activities are accessible to individuals with disabilities and that reasonable accommodations are made as necessary.
2. Interested students should contact any association officer or the faculty sponsor to obtain an application for membership.
 - a. Requirements for membership, include submitting an application and joining ASCLS, are due no later than the second meeting of each semester (or at the time of application). Applications can be submitted to an officer or faculty advisor.
 - b. New members shall be inducted into the organization during the second meeting of the academic year or the semester in which he/she applies for membership.
 - c. Membership of the Association shall consist of active, associate, and emeritus members.

Active Member: Any student who is classified as a CLS major, or any interested student attending The University of Alabama at Birmingham, shall be eligible for Active Membership in this Association.

 - i. Emeritus Associate Member: Any faculty member in the CLS program may become an Emeritus Associate member. Emeritus Associate members may not vote, hold office, or chair a committee, but are encouraged to advise and assist with activities of the Association as requested.

- d. A new Active member may not vote until the application and dues have been received, and his/her name has been placed on the active membership roster.
3. Students are required to join ASCLS to be considered as active members on a yearly basis.
4. Membership confirmation should be submitted when the application is submitted or by the second meeting of the semester in which the person applies. Membership is applicable for one academic year and must be renewed to partake in organizational activities.

CLSSA Class Officers

1. President

Each program should elect a president (other officers if deemed appropriate) to help coordinate class projects and other activities. The duties of the President should include:

- Presiding at program student meetings. Meetings may be held as often as needed, however, it is suggested that at least one per term be held.
- Conducting elections for program representatives to CLSSA and other groups/organizations as necessary.
- Serving as program a representative for social events and other activities as appropriate.
- Coordinating or appointing individual(s) to assist with SHP or program projects.
- Serving on CLS Advisory Committee.
- Keeping program director/faculty posted on activities.

2. Other Officer(s)

Other officers (vice-president, secretary, etc.) may be elected if desired. Small committees or task groups may be appointed or elected for specific projects.

ASCLS - ASCLS-Alabama

The American Society for Clinical Laboratory Science (ASCLS) is a national professional society dedicated to:

- Establishing, developing and maintaining the highest standards in clinical laboratory methods and research.
- Creating mutual understanding and co-operation between those in the laboratory and all health professionals working in the interest of individual and public health.
- Promoting programs of primary and continuing education, research, and development.
- Representing the profession of clinical laboratory science through improvement of the status of its members.
- Advancing the ideals and principles of the profession of clinical laboratory science.

Student membership in ASCLS includes:

- Subscriptions to the Journal of Clinical Laboratory Sciences and the newsletter "ASCLS Today".
- Opportunities to attend the Annual Meeting and participate in workshops and seminars at reduced prices.

- Voluntary participation in group insurance programs at reduced rates and special graduate degree programs.
- Opportunities for leadership development.

Student membership in the American Society for Clinical Laboratory Science-Alabama is automatically included in the ASCLS student membership fee. The state society holds scientific sessions and business meetings periodically, which include sessions of interest to students. Students are welcomed and encouraged to attend these meetings.

For more information or to join ASCLS, please refer to the website at: <http://www.ascls.org/>

The mission of the American Society for Clinical Pathology is to provide excellence in education, certification, and advocacy on behalf of patients, pathologists, and laboratory professionals. ASCP's primary objectives are:

- To promote the practice of scientific medicine by a wider application of clinical laboratory methods to the diagnosis of disease.
- To stimulate original research in all branches of clinical laboratory work.
- To establish from time to time uniform standards for the performance of various laboratory examinations.
- To elevate the scientific and professional status of those specializing in this branch of medicine.
- To encourage a closer cooperation between the practitioner and the clinical pathologist.

ASCP

ASCP Membership is complimentary for students who intend to meet the ASCP Board of Certification eligibility requirements for certification and have been accepted or are currently enrolled in a regionally accredited college/university science program or a laboratory science program approved by an appropriate accrediting agency. ASCP membership benefits include;

- Online subscription to Critical Values quarterly news magazine;
- Online access to LabMedicine and American Journal for Clinical Pathology (AJCP);
- ASCP email newsletters, Daily Diagnosis, eNewsBriefs, and ePolicyNews; and,
- Member-only discounts on books, online CE and educational products, and free domestic shipping on all online orders.

More information and an application form is available at: <http://www.ascp.org/Students>

TECHNOLOGY USE IN THE CLASSROOM

UAB's Policy

The use of any personal computational or communications devices in the classroom, not otherwise governed by UAB or course policies, is subject to the approval of the instructor. This includes (but is not limited to) the use of calculators, computers, personal digital assistants, text pagers, and cell phones. Any use of such devices without instructor approval is not permitted. The use of such devices without permission of the instructor may be considered a violation of UAB's non-academic conduct policies. The

use of such devices to facilitate an act of academic misconduct (such as cheating or plagiarism) will be considered a violation of the UAB Academic Honor Code and will be sanctioned as outlined in the Code.

<https://www.uab.edu/students/one-stop/policies/academic-honor-code>

The CLS programs prohibits the use of electronic devices during didactic, laboratory, and clinical practice without the approval of the instructor. Students are expected to use technology in the classroom according to and in compliance with directions included in each course syllabus. Cell phones must be turned off during all class related activities including class sessions, laboratory sessions, clinical practice, and any other program related activities. Text messaging (retrieving, responding) is prohibited. During graded activities, instructors will request students to leave the electronic devices in the front of the classroom. Students will be allowed to retrieve his/her electronic device once all students in the classroom have completed the graded activity or when the individual student has completed the test, etc. and is dismissed from the classroom.

A student must notify and get the approval of the instructor if there are circumstances that may require him/her to have access to a cell phone while in the classroom. In such cases, if permission is granted, the student must have the phone in silent mode (vibrate) and will need to exit the classroom to answer the call or respond to the text.

WITHDRAWING FROM THE PROGRAM

A student who wishes to voluntarily withdraw from the Clinical Laboratory Sciences Program must have approval by the Program Director before the withdrawal is officially made. The student must submit a written statement, in the form of an official business letter, of their intent to withdraw from the program including the effective date of the withdrawal and must schedule a face-to-face, or phone meeting, with the Program Director to discuss the withdrawal. Once approved by the Program Director the official UAB withdrawal is made by the student through the UAB One Stop Student services, <https://www.uab.edu/students/one-stop>.

Students should refer to the Institutional Refund Policy for refunds on tuition and fees. The institutional refund policy may be found at the following website: <http://www.uab.edu/policies/content/Pages/UAB-FA-POL-0000091.aspx>

Those who withdraw for medical reasons may appeal to the Provost to grant an exception to the refund policy. More details regarding the exceptions may be found at the following website: <https://www.uab.edu/students/one-stop/policies/exceptions-to-academic-policy/academic-policy-appeal>

NOTE: The failure to attend a class does not constitute a formal withdrawal.