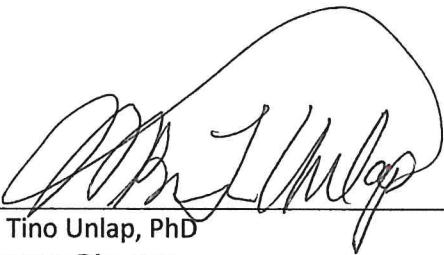


Clinical & Diagnostic Sciences Biotechnology Program 2019-2020

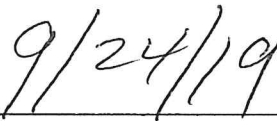


STUDENT HANDBOOK

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



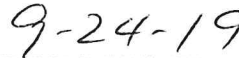
M. Tino Unlap, PhD
Program Director



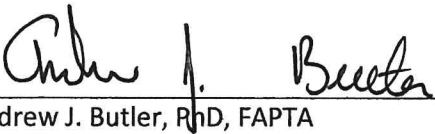
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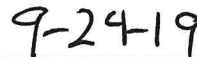
Donna Slovensky, PhD, RHIA, FAHIMA
Acting Department Chair



Date



Andrew J. Butler, PhD, FAPTA
Dean, School of Health Professions



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 (SPAH). 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:

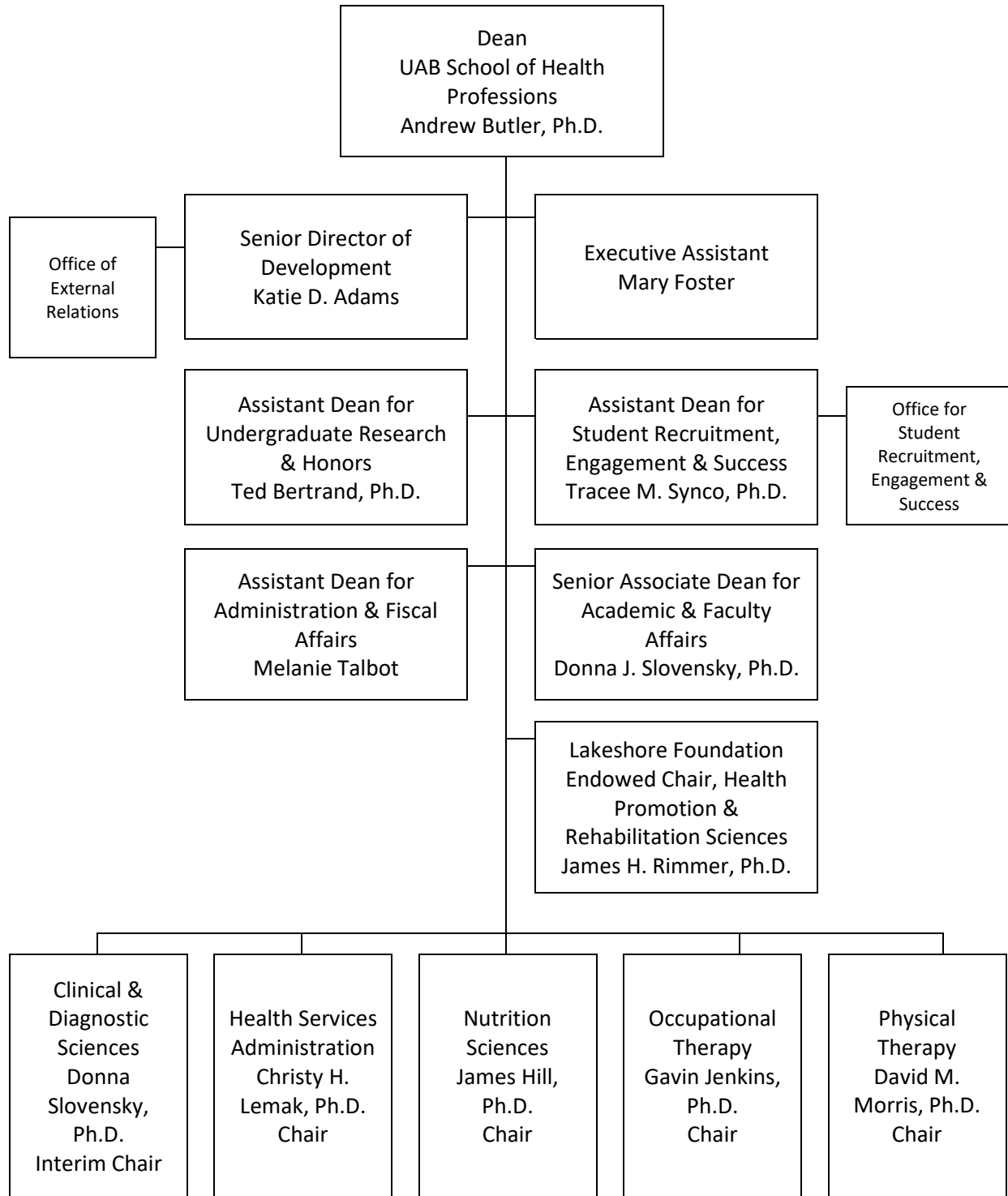
- Homecoming
- Orientation
- Student Activities
- Non Academic Misconduct/ Breaches in Professional Behaviors

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 Biotechnology 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. Also, 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.

PROGRAM MISSION STATEMENT

The mission of the Biotechnology program is to provide quality education to prepare a diverse student body for careers in various fields involving biotechnology and its related disciplines. The program is designed to provide students with broad training and education in:

- Scientific principles and knowledge underlying biotechnology, drug discovery and design.
- Scientific principles and knowledge underlying emerging diagnostic technologies associated with biotechnology.
- Basic laboratory techniques in biotechnology.
- Business principles and knowledge underlying the commercialization of science.
- Processes and procedures required to launch a biotechnology company.
- Legal, regulatory and marketing issues in biotechnology.

ABOUT THE PROGRAM

Biotechnology is an industry based on biology that harnesses cellular and molecular processes to create novel technologies and products that will positively impact the quality of our lives and the health of our planet. The Biotechnology program at UAB provides students with the training necessary to be a part of the industry's specialized workforce with a strong knowledge base in science, technology and research and industry-specific entrepreneurial skills that can translate scientific discovery into commercial products—products that will ultimately improve the odds for millions of patients around the world who are suffering from diseases for which there are no adequate treatments.

Upon completion of the program, graduates are well prepared for leadership roles in the biotechnology industry that includes management, research and development, regulatory affairs as well as the

marketing and commercialization of biotechnology products and technologies. Graduates will be qualified for high quality jobs with an average wage significantly higher than the national wage for all other knowledge based industries. In the 21st century, the biotechnology industry will be a key economic engine for the United States greatly outpacing other industries with strong job growth. At UAB, we are proud to offer students the specialized training needed for the continued support and growth of the biotechnology industry in the United States.

FACULTY AND STAFF



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The Department of Clinical & Diagnostic Sciences has a centralized staff team that supports all CDS programs. For student questions, please contact the CDS Receptionist:

SHPB 430

(205)975-4CDS (4237)

ASKCDS@uab.edu

CURRICULUM

Prerequisite Courses for Biotechnology:

Curriculum Track	Course	Semester Hours
Biotechnology	Math 105 (or higher)	3
	General Chemistry I (CH 115/116L)	4
	General Chemistry II (CH 117/118L)	4
	Biology (BY 123)	4
	Genetics (BY 210 or equivalence)	3

Curriculum Courses for Biotechnology:

FALL: 11 Semester Hours		
BT 500	Principles of Biotechnology I - Nucleic Acid Technology	3
BT 650	Applications of Biotechnology I	1
BT 670	Bench to Commercialization I	3
BT 676	Innovative Technologies in Biotechnology	1
CDS 501	Professional Skills I	0
CDS 610	Research Design and Statistics	3
SPRING: 13 Semester Hours		
BT 550	Principles of Biotechnology II - Amino Acid Technology	3
BT 651	Applications in Biotechnology II	1
BT 671	Bench to Commercialization II	3
BT 676	Innovative Technologies in Biotechnology	1
BT 695	Biotechnology Internship	2
CDS 502	Professional Skills II	0
CDS 625	Scientific Publications	3
SUMMER: 13 Semester Hours		
BT 600	Principles of Biotechnology III - Systems Biology and Pharmacology	3
BT 652	Applications in Biotechnology III	1
BT 672	Bench to Commercialization III	3
BT 676	Innovative Technologies in Biotechnology	1
BT 698	Non-Thesis Project	4
CDS 503	Professional Skills III	1
	TOTAL	37

EXPECTED STUDENT BEHAVIOR

Students are expected to demonstrate interest and ability for professional education, as well as mature professional behavior. Acceptable behavior includes, but is not limited to, the following:

1. Integrity in all program assignments.
 - refrain from giving or receiving unauthorized aid in examinations or other assigned work
 - treat knowledge concerning patients and official documents as confidential (comply with HIPAA)
 - refrain from plagiarism and falsification of student laboratory results, patient reports, official documents, classroom assignments and attendance records
2. Dependability in program assignments.
 - arrive for class (didactic and internship) on time
 - attend all scheduled classes
 - remain in the area of assignment until dismissed (by the instructor or supervisor)
 - inform appropriate individuals as soon as possible when absence/tardiness is unavoidable (see Attendance policies)
 - carry out assignments as scheduled and complete them on time
 - record and/or report data in an accurate and orderly fashion
 - make up course work and assignments missed during excused absence
3. Responsibility for own actions in didactic and clinical courses.
 - accept constructive criticism and use it to improve performance
 - refrain from personal habits that distract or disrupt the classroom and/or clinical environment (e.g., excessive talking, profanity, chewing gum or tobacco, eating and drinking)
 - maintain neat, clean personal appearance complying with existing dress codes
 - comply with established safety standards
 - refrain from any behavior or action that jeopardizes the welfare of the patient, fellow students and faculty
 - keep the work area clean and orderly
 - refrain from activities which potentially damage equipment, supplies, and/or private and public property
4. Stability
 - refrain from the use of alcoholic beverages or illegal drugs at required school activities and during all courses
 - adjust to changes such as work-flow and procedures without sacrificing accuracy and reliability in clinical assignments

Students are also expected to report violations of “Expected Student Behaviors”, or any other instances of unethical conduct in any case to the faculty or other appropriate authorities.

GOALS AND OBJECTIVES

The Graduate Program in Biotechnology is designed to prepare a diverse student body for careers in various fields involving biotechnology and its related sciences. The program is divided into three major content areas of emphasis to provide students with broad training and education in scientific knowledge, research principles and business practices and entrepreneurship. Specifically, the curriculum includes broad training and education in:

- Scientific principles and knowledge underlying biotechnology
- Scientific principles and knowledge underlying emerging diagnostic technologies associated with biotechnology
- Basic laboratory techniques in biotechnology
- Instrumentation and automation principles used in the biotechnology industry
- Legal and regulatory issues in biotechnology
- Biotech business operations, management and entrepreneurship

More specifically, graduates of this program are expected to:

1. Demonstrate attributes desirable of Biotechnology Professionals
 - 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. Follow established policies and procedures
 - v. Be punctual when required or assignment
 - 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. Communicate with others in a professional and courteous manner
 - iii. Contribute willingly to the accomplishment of group endeavors
 - d. Professionalism
 - i. Maintain a neat, clean, personal appearance complying with existing dress codes
 - ii. Show initiative and interest to improve technical skills and expand knowledge
 - iii. Investigate appropriate sources (literature and personnel) for technical and professional information
 - iv. Maintain confidentiality of patient and laboratory data

Note: Students are evaluated based on the criteria listed above during the didactic courses using an Affective Evaluation Form. This form is completed twice (at the end of fall and at the end of spring semesters). Students are advised of the observations of the faculty so that changes in student behavior

can occur to assure successful transition to internships. The starred criteria are identified as essential behaviors that are expected of all students in the classroom and in internship settings.

The objectives below will be addressed within the Biotechnology courses.

1. Interpret and correlate test data.
 - a. Accurately determine the results of experiments using the appropriate controls, standards and/or references.
 - b. Calculate results of experiments performed if necessary.
 - c. Evaluate the validity of experimental results in terms of reference intervals, quality control data, and analytical system performance.
 - d. Correlate results of experiments with other experimental data and pertinent information to identify potential errors.
 - e. Repeat experiments or perform confirmatory or additional procedures as indicated.
 - f. Record and report results in writing, orally or by computer conforming to established procedures.
2. Institute and monitor quality control and quality assurance measures in order to optimize precision and accuracy of laboratory tests.
 - a. Perform quality control procedures on analytical tests, equipment, reagents, media, and products according to protocol.
 - b. Acknowledge unacceptable control results and take corrective action if indicated.
 - c. Recognize and correct basic instrument malfunction.
 - d. Following standard laboratory procedures, document all information such as quality control, maintenance and remedial actions taken.
 - e. Set up policies and record forms for a simple quality control program.
 - f. 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.
3. 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 and predictive value.
 - b. Evaluate tests, methods, instruments and new technology in biotechnology.
 - c. Evaluate systems processing for total testing for inpatient, outpatient, and point of care and referral specimens.
4. Develop a general understanding of regulatory requirements and health & safety management topics governing biotechnology.
 - a. Describe the purpose of UAB and external agencies concerning safety and biosafety guidelines, standards, laws and regulations that recommend and/or mandate compliance with established standards of practice.
 - b. Describe implications for non-compliance with health and safety management practices.

<p>C. Demonstrates Professionalism which may be demonstrated by:</p> <ol style="list-style-type: none"> 1. Maintaining a neat, clean, personal appearance complying with existing dress codes. (e.g., follows program dress code) 2. Showing initiative and interest to improve technical skills and expand knowledge.(e.g., 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 meetings, attends hospital in-service education programs) 3. Investigating appropriate sources (literature and personnel) for technical and professional information. (e.g., 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) 4. Maintaining confidentiality of patient and laboratory data. (e.g., does not talk about laboratory work outside of the laboratory) 5. Demonstrating ethical conduct in professional endeavors.(e.g., 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</p> <p>X</p>
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ESSENTIAL REQUIREMENTS

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

Observation

The student must be able to:

Observe laboratory demonstrations in which biologicals (i.e., body fluids, culture materials, tissue sections, and cellular specimens) are tested for their biochemical, hematological, immunological, microbiological, and histochemical components.

1. Observe business or laboratory personnel in internship settings in order to perform assigned projects.

2. Characterize the color, odor, clarity, and viscosity of biologicals, reagents, or chemical reaction products.
3. Employ a clinical grade binocular microscope to perform tissue culture related objectives.
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 benchtops and shelves.
3. Travel to research core facilities and businesses for practical experience.
4. Perform moderately taxing continuous physical work, often requiring prolonged sitting, in confined spaces, over several hours.
5. Maneuver equipment safely around the laboratory in order to facilitate data collection.
6. Control laboratory equipment (i.e. pipettes, inoculating loops, test tubes) and adjust instruments to perform laboratory procedures.
7. Use an electronic 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 (i.e. textbooks, magazine and journal articles, handbooks, and instruction manuals).
2. Follow verbal and written instructions in order to correctly perform test procedures.
3. Communicate with faculty members, fellow students, staff, other health care professionals and business executives verbally and in a recorded format (writing, typing, graphics, or telecommunication).
4. Prepare scientific manuscripts, scientific posters, grant and business proposals, 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 (experimental failures, lack of enthusiasm about a current discovery, disagreements over data interpretations), emergent demands, and a distracting environment.
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.

Essex-Sorlie D. The Americans with Disabilities Act: I. History, Summary, and Key Components. *Acad Med* 69; 1994: 519-524.

CLASSROOM AND LABORATORY SUPPLIES

Students are expected to supply their own notepaper, pens and pencils, and calculators. All students are required to purchase the following supplies:

- Laboratory Coat (Program approved)
- Laboratory Notebook: Rediform National Lab Computation Notebook; 75 sheet

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

DOCUMENTATION OF COURSE COMPLETION

Biotechnology Course Completion Checklist

COURSE	TITLE	CR HRS	GRADE	COMMENT
BT 500	Principles of Biotechnology I	3		
BT 650	Applications in Biotechnology I	1		
BT 670	Bench to Commercialization I	3		
BT 550	Principles of Biotechnology II	3		
BT 671	Bench to Commercialization II	3		
BT 651	Applications in Biotechnology II	1		
BT 695	Biotechnology Internship	2		
BT 698	Non-Thesis Project	4		
BT 600	Principles of Biotechnology III	3		
BT 652	Applications in Biotechnology III	1		
BT 672	Bench to Commercialization III	3		
BT 676	Innovative Technologies in Biotechnology	3		
CDS 501	Professional Skills I	0		
CDS 502	Professional Skills II	0		
CDS 503	Professional Skills III	1		
CDS 610	Research Design and Statistics	3		
CDS 625	Scientific Publications	3		

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 degrees at least 3 months prior to their anticipated graduation date. The application for degree forms are in the online format and may be accessed from the following website:

Application for an M.S. degree

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

BIOTECHNOLOGY INTERNSHIPS

Each student in the Biotechnology Program is required to complete one internship. The internship will consist of 80 hours (5 hours per week). The internship will be carried out at research core facilities which are located at UAB in order to allow each student to learn techniques in areas of interest and to enhance his/her abilities in the application of scientific principles to developing novel techniques. Students will also have the potential to complete internships at local biotechnology companies. A list of internships will be provided to students at the end of the fall semester.

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	=	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

* Such a notation is the prerogative of the instructor and is normally assigned only if the student's circumstances are extenuating 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.

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, D, F, or WF. Quality points are awarded as follows:

Quality Points	Letter Grade
4	A
3	B
2	C
None	D, F, P, NP, F or W

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 and WF grades combined to be in good academic standing as defined by the Graduate School.

GRADUATE STUDENT REQUIREMENTS

Information on Graduate School Policies and Procedures may be found online at:

<http://www.uab.edu/graduate/graduate-catalog/72-policies-and-procedures>

Graduate School policies and procedures are developed to ensure that high standards for graduate study are maintained at UAB. These policies and procedures are the joint responsibility of the Graduate Council and the Graduate School Dean. The Graduate Council, through consultation with the dean, is responsible for developing academic requirements and describing these requirements through appropriate policies. The dean, through consultation with the Graduate Council or the Advisory Committee of the Graduate Council, is responsible for developing procedures that effectively enforce academic requirements and implement policies.

The Graduate Council, through its Advisory Committee, will review academic requirements, policies, procedures, and Graduate School activities annually and recommend appropriate changes. Changes in academic requirements and related policies will require a majority vote of the Graduate Council. A change in composition or responsibility of the Graduate Council will require a two-thirds majority vote of the Graduate Council.

Introduction

All UAB graduate students are required to complete a Plan II (Non-thesis) project prior to completion of the Biotechnology Program.

Students are encouraged to meet with their advisors early in the curriculum (first semester) to aid in identification of the type of final project and for determination of a topic of interest. The biotechnology program curriculum is designed to allow students time early in the curriculum (First semester) to investigate areas of interest. Once a topic has been identified, students will be matched with an appropriate content-specific advisor for the remainder of the program. In conjunction with the assigned advisor, students will further develop/refine the project, identify committee members and develops a timeline for completion of the graduate project.

Graduate Committee

Plan II Project (Non-Thesis)

While not a specific UAB graduate school requirement, the program requires that a committee of at least 2 faculty serve on the graduate committee for those completing a plan II project. Each member should be able to bring some relevant insight and expertise to guide the student. The graduate study

committee advises the student during the project process and advises the student on conduct and completion of the thesis or non-thesis project.

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.

STUDENT ORGANIZATIONS AND ACTIVITIES

Biotechnology Association of Alabama (BAA)

BAA is a statewide organization representing Alabama’s bio related industries, research scientists, clinicians and business professionals who are working together to foster, develop and support the life sciences in Alabama.

BAA events, programs and member benefits are designed to enhance the progress of the Biotechnology industry and its members. The BAA is the state affiliate in Alabama of the Biotechnology Industry Organization (BIO), the preeminent national association for biotechnology companies.

For more information on the BAA refer to the following link: <https://bioalabama.com/About-BioAlabama>

The Biotechnology Program encourages students to join the BAA. The BAA membership application may be found at the link below: <http://www.bioalabama.com/membership/>

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 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 are in compliance 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. No items should be placed in the mouth or near the face. Use of cell phones in the student laboratory is prohibited. Cell phones must be turned off during laboratory sessions. Keep cell phones in a location of your possessions so as not to contaminate the phone. If the laboratory space is being used for an examination, there is to be NO food or drink in the student laboratory area for any reason. If during a laboratory exam the student must leave the laboratory area they must obtain permission before leaving. Multiple students are not permitted to exit the area at the same time during an examination.
2. Dress must be professional at all times and in compliance with the program dress code. Please refer to the program dress code for more details.
3. Standard precautions (which combine universal precautions and body substance isolation) must be observed in the laboratory to prevent contact with blood, all body fluids, and all secretions and excretions.
4. All procedures involving blood or other potentially infectious materials are performed to minimize splashing, spraying, spattering, and generating droplets.
5. 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; student must wear appropriate shoes and have required laboratory coat to be able to conduct student laboratory sessions. Student who does not comply will not be permitted to stay in the laboratory session. Dress appropriately for all laboratory sessions.

- 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. Plastic aprons must be worn over lab coats when performing procedures with blood, body fluids, secretions or excretions, or microbial broth cultures/simulated specimens. Contaminated aprons must be disinfected immediately using precautions as for a small spill.
 - e. Protective goggles or safety glasses must be worn in chemistry labs when performing procedures that may result in possible splashing of harmful chemicals. Additional requirements for personal protective equipment and/or environmental controls required for certain procedures will be designated in individual course lab manuals.
6. 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.
 7. 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).
 8. Lab coats should be hung on the designated coat rack after each lab session. The program washes laboratory coats on a regular basis for the student. Soiled lab coats must be removed immediately.
 9. Lab coats and other protective equipment must be removed before leaving lab for any reason.
 10. Open operations with flammable, combustible, or toxic chemicals must be carried out under a fume hood. Material safety data sheets are located in the laboratory.
 11. 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. This towel is potentially contaminated and must be placed in a special container located by the sinks.
 12. 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.
 13. A pipetting aid or semi-automatic pipette must be used to pipette all fluids. Mouth pipetting is prohibited.

14. Food and drink must not be stored in lab refrigerators or anywhere in lab area.
15. 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.
16. 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. Personal items MUST be stored in day lockers and not left on the floor in the prep area or in the student laboratory. Students must have a lock for use with the day lockers. The towel should be discarded (in the biohazard container with red bag) at the end of each lab session (or when grossly contaminated).
17. 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. Large spills must be reported to the instructor or lab staff. Staff (faculty or teacher) must oversee cleanup of any spills.
18. 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.
19. 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.
20. 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 first approach the teacher or course master to obtain permission to speak with student; student must remove lab coat, wash hands and leave the laboratory. If a student is expecting someone the student must obtain permission from teacher or course master before leaving the laboratory.
21. Wounds/Accidents
 - a. Cuts or other skin abrasions must be covered by Band-Aid(s) prior to putting on gloves
22. All accidents occurring in lab, regardless of severity, must be reported promptly to the instructor or lab staff who will take appropriate action (e.g., send student to Student Health or Emergency Department). An incident report will be completed by the student, signed by the instructor and kept on file in the MT Program Office. 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 first approach the teacher or course master to obtain permission to speak with student; student must remove lab coat, wash hands and leave the laboratory. If a student is expecting someone the student must obtain permission from teacher or course master before leaving the laboratory
24. Wounds/Accidents
 - b. Cuts or other skin abrasions must be covered by Band-Aid(s) prior to putting on gloves

- c. All accidents occurring in lab regardless of severity, must be reported promptly to the instructor or lab staff who will take appropriate action (e.g., send student to Student Health or Emergency Department). An incident report will be completed by the student, signed by the instructor and kept on file in the MT Program Office.