Medical Education Program Highlights

- Rural medicine programs: The Tuscaloosa and Huntsville regional medical campuses oversee special programs designed to promote rural medicine in Alabama.
  - Each rural program is a 5-year program including a prematriculation year spent on the undergraduate campus of each program.
- Scholarly Activity: The Scholarly Activity program builds on the research strengths of the university’s academic medical center.
  - The Scholarly Activity program is a 4-year longitudinal program where students conduct a research project under the supervision of a faculty mentor.
  - Upon completion of their projects, students are required to prepare a manuscript.
  - Scholarly projects can be undertaken in the following areas of investigations: laboratory-based research; patient-based research; medical humanities; rural and community health; global health and health policy; medical education; and outcome-based research, quality improvement, and medical informatics.
- Service learning: In 2014, the Office of Service Learning was founded to provide students with learning experiences addressing the needs of the community.
  - The goal of service learning is to train students about the impact of social factors on health and model the delivery of culturally competent health care.
  - The Health Equity Scholars Program is a 4-year program that promotes training in health equity for medically underserved communities.
- University of Alabama School of Medicine (UASOM) is a founding member of the Albert Schweitzer Fellowship training program. Selected students undergo leadership training and conduct a service project in the community.
- Interprofessional education: Interprofessional simulation is a well-established teaching modality. These experiences are coordinated through the University of Alabama at Birmingham (UAB) Office of Interprofessional Simulation for Innovative Clinical Practice.
  - Medical and nursing students participate in interprofessional simulations facilitated by faculty members from both schools. These simulations are a required component during the organ-based modules in the preclinical curriculum and included in some core clerkships.

Curriculum

Curriculum description


Curriculum changes since 2010

- Learning communities—ethics: In 2014, the School of Medicine established learning communities for our student population.
  - The primary aim of learning communities is to promote personal well-being and professional development. A longitudinal ethics curriculum is also embedded in this program.
- Clinical Skills Scholars program: This program was established in /2013 to serve as preceptors for the Introduction to Clinical Medicine (ICM) course.
  - The ICM course is a longitudinal course spanning the first 2 years of medical school.
  - Clinical Skills Scholars are selected through a competitive application process. Each scholar is responsible for a group of first- and second-year medical students and is paired with 2 clinical skills teaching associates who are fourth-year medical students.
- Entrustable Professional Activities (EPAs): In 2018, we piloted a program incorporating the EPAs into the clinical curriculum.
  - Students are required to be directly observed by faculty and signed off as competent to perform the skill independently (at or above the level of an intern/PGY-1) on at least 2 consecutive occasions by 2 independent observers.
  - The Clinical Skills Scholars are responsible for assuring that the students they taught during the first- and second-year ICM course have successfully completed the required EPAs.
- Evidence-Based Medicine: In 2018, the 1-week-long required Evidence-Based Medicine course was added to the preclinical curriculum.
- Preparation for Residency: Beginning in 2018, a 2-week Preparation for Residency course is now a graduation requirement.
  - Components of the course include didactics applicable across all medical specialties, procedural training, simulated case studies, and ACLS certification.
  - The course has 2 tracks that students select based on their chosen residency discipline (surgical/procedural or nonprocedural).

Assessment

The UASOM education program objectives are based on the core competencies outlined by the ACGME.

The UASOM uses the Customized Assessment Services test item question bank from the NBME during the preclinical curriculum organ-based modules.

- Course directors compile exams for each course using this question bank, which provides faculty with high-quality test items with known statistical performance.
- Students have the opportunity to become familiar with NBME style test questions before taking the USMLE Step 1 examination.
- The school of medicine also uses the item analyses to assist with curricular mapping of the preclinical courses.
- Since 2018, 10%–15% of all final exams in each of the organ modules are made up of questions related to prior courses including the foundational sciences course and prior organ modules.
- The Comprehensive Basic Science Examination is offered to all medical students at the end of the preclinical curriculum, before taking USMLE Step 1. This examination is meant to be formative to allow students to focus their Step 1 preparation and assist the Academic Support Team with developing study plans.

Parallel curriculum or track

Primary care track: In 2018, UASOM established a 4-year MD program for students interested in careers in primary care fields and community-based practice

- The primary care track is based at the Tuscaloosa Regional Campus.
- Students spend their first 2 years of preclinical education in Birmingham before transitioning to their clinical experiences in Tuscaloosa.
- Primary care track students spend their third year in a longitudinal integrated clerkship curriculum based on the Tuscaloosa campus or at an approved community site.
- In addition, students participate in the Leadership in Community and Population Medicine longitudinal course during their third year of medical training.
- During their fourth year, students must fulfill the acting internship requirements (inpatient, acute care, community medicine). Students must also complete 18 weeks of elective credits, which are largely based in community medicine.

UASOM does not offer a 3-year MD degree program.

Pedagogy

Both the traditional MD program and the primary care track use the following pedagogical approaches to achieve the medical education program objectives.

- Case-based learning
- Clinical experience: ambulatory
- Clinical experience: inpatient
- Discussion: large group (≥12)
- Discussion: small group (≤12)
- Laboratory
- Lecture
- Peer teaching
- Self-directed learning/tutorial
- Simulation
- Standardized/simulated patients
- Team-based learning
- Video/podcast
- Workshop

Clinical experiences

Traditional MD track: Medical students are active in a variety of clinical settings, including both inpatient and outpatient settings, and are exposed to a wide spectrum of medical diseases.

- In Birmingham, students perform clinical rotations at University Hospital (a 1,100+-bed tertiary care facility), the Birmingham VA Hospital, Children’s of Alabama Hospital, and ambulatory clinics.
- In Huntsville, students perform clinical rotations at Huntsville Hospital (a 941-bed tertiary care facility) and its associated ambulatory clinics, including rural medicine clinics in north Alabama.
- In Montgomery, students rotate through the Baptist Medical Center South (a 454-bed, acute care regional referral center), Baptist Medical Center East, Vaughan Regional Medical Center, and ambulatory clinics across the surrounding region.

Required longitudinal clinical experiences

- There are currently no required longitudinal clinical experiences required of all students in the traditional MD track. However, in 2017, the Huntsville regional campus started the Family Medicine Integrated Residency Program, which was primarily developed to foster interest in rural medical practice in Alabama. As part of the program, these students have a longitudinal family medicine ambulatory clinic experience throughout their clinical years.
- Primary care track on the Tuscaloosa regional campus: Students in this track spend their third-year core clerkships in a longitudinal integrated curriculum.
- All medical students first encounter clinical experiences beginning in the first week of medical school in their longitudinal Introduction to Clinical Medicine course.

All students are required to complete an ambulatory medicine acting internship in their third or fourth year of medical school. Those students in the rural programs fulfill this requirement in a rural community.

Challenges in designing and implementing clinical experiences for medical students

- A major challenge of our clinical program is to recruit and onboard community-based physicians as preceptors for our students. UASOM is currently participating in a pilot project through the Society for Teachers of Family Medicine, Building Better Clinical Training Experiences. The goal of this project is to improve student ambulatory experiences and provide
resources for our community preceptors to enhance their teaching performance.

Curricular Governance
The Medical Education Committee (MEC) comprises dean-appointed faculty, students, residents, and administrative ex officio members. The MEC governs the UME program. The primary responsibilities of the MEC include:

• Overall curriculum design
• Course and clerkship oversight
• Monitoring program implementation
• Assessment of students and faculty
• Evaluation of programs

There are 3 working subcommittees of the MEC:

• Preclinical Subcommittee (responsible for years 1 and 2)
• Clinical Subcommittee (responsible for years 3 and 4)
• Special Programs Committee (responsible for the dual-degree and rural programs)

In addition to the MEC, the Module Directors Committee and the Clerkship Directors Committee meet at least monthly to implement programs approved by the MEC.

Education Staff
• The senior associate dean for medical education oversees UME and graduate medical education, medical student services, admissions and enrollment management, the Office of Diversity and Inclusion, and continuing medical education.
• The Office of Undergraduate Medical Education is led by the associate dean for UME. The assistant dean for clinical education assists with the oversight of the third and fourth years of medical education. Furthermore, the Office of UME comprises 12 additional individuals, including 2 with doctoral degrees in education.
• The Office of UME is responsible for the cohesiveness and continuity of educational programs on all 4 campuses. In addition, the office assists with curriculum development, faculty development, and evaluation and assessment of all courses and educational programs.

Faculty Development and Support in Education
• The UAB Center for Teaching and Learning offers several teaching certificate programs, including a certificate in medical education. In addition, the Office of Interprofessional Simulation for Innovative Clinical Practice offers several faculty development courses in simulation.
• UASOM hosts an annual weeklong faculty development event focusing on medical education, Research and Innovation in Medical Education. This is an annual conference for medical educators to participate in teaching seminars, network with other health care educators, and present their scholarly work in medical education.
• The UAB Healthcare Educators Academy was established in 2019 to provide mentorship, peer support, and faculty development opportunities for current and future health care educators to assist with career advancement in health care education. The Healthcare Academy is a collaborative effort among 5 health professions schools at UAB: the School of Medicine, School of Nursing, School of Public Health, School of Health Professions, and School of Dentistry.

Regional Medical Campuses
• Consistent medical experiences are maintained across all of our regional campuses. Students are required to keep patient logs, which are reviewed by the clerkship directors. Online educational clinical case presentations are provided to supplement student training if he/she has not participated in the care of a patient with a specific disease during their clerkship rotation. The Office of UME monitors the clinical experiences of students on each of the 4 campuses to ensure comparability across training sites.
• The clerkship directors meet monthly with the Office of UME to review campus-specific data, share innovative teaching modalities, and collaborate to develop new initiatives that can be incorporated across all campuses.
• The clerkship directors from all 4 regional campuses are currently working together to develop a standardized, online repository of didactics, vodcasts, and supplemental resource material that will be used by students in each clerkship discipline.

See Table 1—Regional Medical Campuses.

Initiatives in Progress
• Expansion of objective structured clinical examinations into the required third-year core clinical clerkships, allowing for longitudinal standardized assessment of students’ skills throughout the clinical years.
• Expansion of additional EPAs into the third and fourth years of medical school.

Table 1
Regional Medical Campuses

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<tr>
<th>Regional campus name</th>
<th>Type</th>
<th>Student enrollment</th>
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<tbody>
<tr>
<td>Birmingham</td>
<td>Entire MD program</td>
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<tr>
<td>Huntsville</td>
<td>Clinical</td>
<td>30–35</td>
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<tr>
<td>Montgomery</td>
<td>Clinical</td>
<td>20</td>
</tr>
<tr>
<td>Tuscalcoosa</td>
<td>Clinical</td>
<td>30–35</td>
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