Tulane University School of Medicine

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Medical Education Program Highlights

Tulane University School of Medicine matriculates students from all 50 states, with graduates entering residency programs across the United States in almost every field of medicine. Tulane's curriculum provides students with opportunities that ensure they are well prepared both as applicants and as first-year house officers, regardless of specialty area. The school focuses on community engagement, offering both required and elective programs that emphasize this core value. Unique features of the educational program include:

• 4-year dual-degree programs: For decades, Tulane has graduated 30–40 students per year with MD–MPH degrees and now provides a similar 4-year MD–MBA program.

• Community engagement: All Tulane students participate in community activities through the service-learning requirement (20 hours each in years 1 and 2), the fourth-year community health clerkship focused on cultural competence and social determinants of health, and extensive community clinic opportunities. Under faculty oversight, students at Tulane School of Medicine are also engaged in 27 different volunteer opportunities at 13 locations across greater New Orleans, operating out of homeless shelters, substance abuse rehabilitation centers, and community centers to provide medical care to community members who are particularly vulnerable and have the least access to care.

• Early elective experiences: To provide opportunities for students to consider all aspects of their education and/or participate in a dual-degree program, Tulane offers elective time in the preclinical curriculum 2 afternoons per week beginning in the second semester of year 1. Students use this time to participate in clinical, research, and other health-related activities.

• Student engagement in the medical education program is extensive. As a result, there is an atmosphere of cohesiveness and cooperation with both faculty and peers that permeates the student experience and is an essential element of why students choose Tulane.

Curriculum changes since 2010

The preclinical curriculum has been significantly reorganized through an evolutionary process whereby independent courses have moved to clearly defined systems-based modules that coordinate and integrate content across basic science disciplines. The overall curriculum is now organized into 2 phases.

• Phase 1, which is primarily normal structure and function, now begins with the Gross, Developmental, and Radiologic Anatomy course and Foundations in Medicine course. These are followed by systems-based modules, which contain physiology, biochemistry, genetics, and histology.

• Phase 2 now begins in the spring of year 1 and is a series of systems-based modules focused on pathophysiology and disease states, finishing with the recently implemented Brain, Mind, Behavior course that integrates basic and clinical neurological and behavioral science. Students begin clinical rotations in May of year 2.

While the traditional core clerkships in year 3 have not changed, clinical opportunities have dramatically expanded with the recent openings of both large public and Veterans Administration (VA) hospital systems in the medical center. In addition, almost all clerkships now offer community-based sites both locally and regionally that are highly requested by students. Tulane created a community health clerkship focused on social determinants of health and health care disparities required of all students, except those obtaining a dual MD–MPH degree. A transition to residency program will be implemented, initially as an elective, in 2020. Tulane is also planning to completely review its current curriculum in 2020 and anticipates that significant changes to enhance integration, lifelong learning, and clinical training will be forthcoming.

While class size is currently the same as it was in 2010 (190 students), several trial programs, including a new regional campus, were implemented during this time period resulting in a class size that grew to 210. These programs have been discontinued but significant lessons were learned as a result. While Tulane no longer has a regional campus, the development of the clinical faculty and sites was very successful and continues to provide vital opportunities for students in third-year clerkships.

Assessment

Tulane’s educational program objectives are based on the Physician Competency Reference Set, which includes 8 competency domains and associated outcome-based competency lists. A ninth competency domain, community engagement and service, was added to reflect Tulane’s commitment to health equity and public service.
Significant efforts have been made to enhance student assessment and feedback since 2010. These include:

- Incorporation of an extensive faculty development program, most of which focuses on improved written and verbal feedback to both preclinical and clerkship students.
- Newly implemented policies that require written feedback in areas that had not traditionally been done so, including narrative assessments by anatomy lab directors and feedback from community preceptors.
- Peer evaluation for team-based activities.
- Inclusion of formal, self-directed learning (SDL) activities to assess identification, analysis, and synthesis of relevant information, as well as appraisal of the credibility of information resources.
- Addition of new full history/physical clinical skills assessments at the end of years 1 and 3.
- Administration of all internal and NBME examinations electronically.
- Administration of one final exam after each systems-based module in years 1 and 2 that incorporates all disciplines teaching in that module.
- Administration of cumulative, customized NBME shelf exams at the end of years 1 and 2.


Pedagogy

As with the curriculum, the pedagogical approaches to achieve educational objectives over the past 10 years have evolved. Lectures are still common, but Tulane has newer educational facilities that are designed for team-based activities including case-based learning (CBL), team-based learning (TBL), SDL, and peer teaching. Clinical experiences begin early in year 1 with preceptorships and are supported by extensive standardized patient and simulation programs, both of which are also heavily used in the clinical years.

Since 2010, the most important change has been an increase in pedagogy that advances active learning. While lectures still constitute just under 50% of the preclinical curriculum, there have been significant modifications to make them more interactive, including the use of large-group discussion, “clickers,” and “just-in-time teaching.” Many team-based pedagogical approaches, including CBL, TBL, and SDL, all with peer evaluation, have replaced traditional didactic lectures.

Clinical experiences

Tulane uses a wide range of public and private inpatient and outpatient clinical sites for educational experiences. These sites include traditional academic settings, community-based hospitals and physician offices, and a network of rural placement sites throughout the Gulf South.

Clinical experience first encounter

Students encounter clinical experiences within the first month of medical school. This exposure begins with learning medical interviewing with standardized patients in the Foundations in Medicine course. Students are also assigned to community preceptors and can participate in service-learning activities at this time.

Required and elective community-based rotations

All core clerkships except internal medicine assign limited numbers of students to a variety of required inpatient and outpatient community-based sites. Many of these sites include community hospitals and clinics located in the greater New Orleans area, where students work directly with a community-based physician. However, there are inpatient sites located across the state of Louisiana and at the Biloxi, Mississippi, VA Hospital, all of which provide housing. In family medicine, the majority of students are assigned to individual rural ambulatory practice locations across the Gulf South. The required community health clerkship also assigns students to local health care agencies; however, there is no direct patient care.

Challenges in designing and implementing clinical experiences for medical students

The major challenge is ensuring enough meaningful clinical volume and experience for all students, especially in pediatrics, obstetrics, and psychiatry, although this has improved with the opening of new public and VA hospitals. To address this concern, Tulane uses 20 inpatient clinical sites, requiring significant logistical support, including housing for students at distant sites. This requires significant effort to ensure consistency of achieving objectives, comparability of required clinical experiences, effective student feedback, and necessary professional development for all distant faculty. This process is complicated by the realistic demands on both full-time and volunteer faculty for clinical productivity, particularly in the outpatient setting.

Curricular Governance

Decentralized curricular governance

While the overall curriculum, including individual courses and the systems-based modules, is overseen by the Curriculum Committee, individual course and clerkship grades remain. Course and clerkship directors are chosen, typically in consultation with academic affairs personnel, by the individual departments. Most funds for educational support are provided directly to each basic and clinical science department from the dean’s office, and individual assignments of faculty and support for their efforts are provided at the department level.

See Figure 1—Curricular governance committees.

Education Staff

The Office of Academic Affairs and the Office of Medical Education (OME) are the organizational loci of administrative and academic support for the planning, implementation, evaluation, and oversight of the curriculum and for the development and maintenance of the tools to support curriculum delivery, monitoring, and management. The OME
has a PhD director, assistant director, and learning specialist as well as 7 full-time support staff.

See Figure 2—Organizational chart.

The OME supports undergraduate medical education by providing resources to faculty, students, and administration in the areas of curriculum development, assessment and evaluation, faculty development, educational technology, and educational research. The OME is not responsible for areas outside of educational programming.

faculty Development and Support in Education

Professional development for faculty as educators

The OME is responsible for creating and organizing faculty development programming in education. Faculty development opportunities are generally provided 1–3 times per month and include webinars, educational roundtables, innovation seminars, journal club, and half-day workshops. In addition, the OME maintains an extensive faculty development website with teaching resources.

Role of teaching in promotion and tenure

All faculty are required to participate in teaching and/or education activities; therefore, this is taken into consideration in all tenure and promotion decisions. Teaching and educational activities play a particularly important role in promotion decisions on nontenure tracks. Tulane provides a defined education track for promotion of faculty who spend more than 50% of their time on educational activities and who view education as their primary academic focus. While quality and quantity of teaching are important, scholarship and service are expected and candidates should have a strong regional reputation as a leader in medical education. Criteria include the development of innovative teaching methods, curricula, educational policy, or educational assessment tools. Candidates are expected to publish influential first or senior author publications related to education or have developed educational materials adopted for use regionally or nationally.

Tulane’s Society of Teaching Scholars comprises full-time faculty members who have demonstrated a significant record of educational scholarship and an ongoing commitment to enhancing the quality of teaching and learning at the School of Medicine. Only one award is bestowed each year.