Medical Education Program Highlights

- Focus on self-directed learning: First-year students participate in an “immersion” project as a part of the Foundations of Clinical Medicine course, designed to expose students to the clinical and social sides of medicine and focusing on self-directed learning. Students assess their personal learning needs, select educational activities to meet those needs, and practice skills for continued learning. The medical education elective for fourth-year students also focuses on self-directed learning. It is to involve students in a variety of educational activities to advance their teaching skills. Students create a scholarly project incorporating skills learned in the medical education elective to improve education at LSU Health–Shreveport.

- Early patient contact: First-year students experience their first patient interviews (standardized patient) at the end of orientation week and interact weekly with physicians and patients illustrating the clinical importance of basic sciences throughout Module I, the first semester of preclinical classes. During the remainder of the preclinical curriculum, the Foundations of Clinical Medicine course provides numerous opportunities to interview standardized patients and clinical patients.

- Fourth-year online electives: A variety of online electives meet diverse educational needs of these students. The electives allow flexibility in scheduling, particularly during residency interview season, while students further develop medical knowledge and skills. Topics include health system science, nutrition, and a series of reviews on EKGs, genetics, dermatology, and radiology.

- Distinction tracks: In 2014, the Medical Student Research Program (MSRP) was expanded to include the Research Distinction Track (RDT), which offers students an in-depth research experience and recognition for their efforts. Expectations for students include participating in dedicated research outside of the regular curriculum, presenting their work on at least 2 occasions, developing and submitting a manuscript for publication, preparing a written grant proposal, and participating in ethical research training. In conjunction with RDT, a student-run peer-reviewed journal (American Medical Student Research Journal) was created as a platform for student publications. LSU Health–Shreveport maintains the MSRP.

- In 2018, a humanity and service learning distinction track was added to develop collaborative leadership skills through meaningful long-term service learning projects. Expectations include the completion of 150 hours of service learning; a community needs assessment; self-reflection essays; and a capstone project, presentation, and manuscript submission. Students who complete all aspects of the Research Distinction or Humanism and Service Learning Distinction tracks receive recognition in medical student performance evaluations and on diplomas.

Curriculum

Curriculum description


Curriculum changes since 2010

- Pass/fail grading: In 2016, pass/fail grading was instituted for the preclinical curriculum. The Medical Curriculum Council (MCC) approved this change to improve student well-being and academic outcomes. The pass/fail system was incorporated into all clinical clerkships during the 2019–2020 academic year.

- Use of technology for assessment and formative feedback: Since 2010, technology has been increasingly used and incorporated. In addition to increasing simulation technology to teach and assess clinical skills, ExamSoft permits faculty to provide students with formative feedback on their understanding of course material, including rationale for questions presented and breakdown of assessment performance by topic or learning outcome.

- Enhanced emphasis on critical thinking skills: In 2014–2015, LSU Health–Shreveport’s quality improvement committee identified the need for greater emphasis on critical thinking skills. A variety of educational activities were developed to improve students’ understanding and use of biostatistics, critical appraisal of research literature, and understanding of research design. In the preclinical years, direct instruction of biostatistics increased, including a problem-solving exercise focused on epidemiology. Journal club discussions were added to each of the required third-year clinical clerkships. In addition, an evidence-based medicine capstone project was incorporated into a required fourth-year course. Initiatives focused on improving students’ abilities to incorporate evidence-based medicine into their practice of medicine.

Class size changes

Class size has increased by approximately 50 students since 2010. No major changes aside from facility renovation have taken place. A new medical education building is being planned to accommodate future class size increases. Currently, the school
is recruiting faculty to increase preceptors and lecturers to accommodate class size increases.

**Assessment**


LSU Health–Shreveport’s program objectives are based on ACGME domains of competence:

- Interpersonal and communication skills
- Professionalism
- Patient care
- Medical knowledge
- Practice-based learning and improvement
- System-based practice

**Assessment changes since 2010**

- Pass/fail grading implemented in 2017; among the goals was to decrease student anxiety and improve well-being
- Weekly online quizzes as formative assessment in Module I, with a cumulative quiz preceding Exam I to demonstrate the need for learning instead of memorization
- ExamSoft used for exams and quizzes in all preclinical courses, with postexam reviews of missed questions (formative component)
- A rubric based on ACGME competencies was developed for Module I small-group student assessment. Students complete self-evaluation forms halfway through the semester and meet individually with small-group mentors to discuss self-evaluations.
- An evaluation rubric based on ACGME competencies was developed for all student assessments in third-year clerkships.

**Parallel curriculum or tracks**

LSU Health–Shreveport offers an MD–PhD dual-degree program. The medical school curriculum is identical for the dual-degree track, and the PhD program varies by research area; coursework is limited to advanced courses. Upon completion of preclinical requirements, students matriculate into the PhD program and complete 5 credit hours of advanced courses in the desired area of study while conducting a research project. Upon successful completion of PhD research and thesis defense, students review medical knowledge and reenter the MD program, starting third-year clerkships.

LSU Health–Shreveport maintains an RDT for medical students to provide in-depth experience and recognition for carrying out significant research during medical school. The curriculum and duration of coursework/clinical work are identical for these students and all medical students.

LSU Health–Shreveport does not offer a 3-year MD degree program, nor are there plans to develop this for future students.

**Pedagogy**

Pedagogical approaches in the preclinical years include lectures (all courses), laboratory sessions (primarily anatomy, also pathology), weekly problem-based learning small-group sessions, case-based learning sessions, self-directed learning, clinical experiences, and standardized patient encounters. Module I also includes weekly patient presentations illustrating the clinical importance of basic sciences throughout the preclinical curriculum. All lectures not involving patients are podcast for real-time use and/or later study.

Pedagogical approaches in the clinical years include both ambulatory and inpatient clinical experiences, lectures, and online learning modules. All required clerkships use combined didactics, small-group learning, and direct patient care (inpatient and outpatient) to enhance student learning. In addition, several clerkships include a standardized patient encounter. Fourth-year courses employ clinical experiences, preceptorships, and self-directed learning.

The only curricular change peculiar to a parallel track has been to decrease coursework in the PhD program for MD–PhD students. The requirement changed to consider the MD preclinical curriculum comparable to introductory and core graduate school courses, so students matriculating into the PhD portion of the dual-degree program complete only advanced courses in their chosen department.

**Clinical experiences**

Third- and fourth-year clinical experiences are available within the university setting, the Overton Brooks VA Medical Center, Ochsner LSU Health–Monroe, and as community-based medicine outpatient experiences with practicing physicians (designated and approved by the university) in Shreveport and surrounding communities or with affiliated hospitals.

**Required longitudinal experiences**

The third-year family medicine clerkship provides a longitudinal patient care experience for students. The clerkship is organized into three 2-week blocks scheduled at specific intervals. During the clerkship, students see and follow patients through the Family Medicine Comprehensive Care Clinic. Every student participates in a minimum of 20 patient encounters. Students demonstrate ownership of their patients by following up with patients on lab results and medical recommendations. Students are responsible for scheduling patients for return clinic visits to ensure continuity of care.

**Clinical experience first encounter**

First-year students experience their first patient interviews (standardized patient) at the end of orientation week and interact weekly with physicians and patients illustrating the clinical importance of basic sciences throughout Module I. During the remainder of the preclinical curriculum, Foundations of Clinical Medicine provides numerous opportunities to interview both standardized patients and clinic/hospital patients.

**Required and elective community-based rotations**

Some clinical experiences in the third and fourth years are available at Overton Brooks VA Medical Center, Ochsner LSU
Health–Monroe, community-based physicians in medical practice in Shreveport and surrounding communities, or an LSU Health–Shreveport affiliated hospital outpatient service that is staffed by LSU Health–Shreveport faculty. All third-year students rotate at LSU Health–Monroe, and with community preceptors during clerkships. Fourth-year students participate in a required ambulatory care experience at Overton Brooks VA Medical Center, Ochsner LSU Health–Monroe, Family Practice in Alexandria, or an LSUHSC-S affiliated hospital. Availability of these elective sites varies by medical specialty.

**Challenges in designing and implementing clinical experiences for medical students**

The primary challenge in implementing clinical experiences has been in identifying and training faculty preceptors to meet the needs of our increasing student population. Currently, the medical school, in conjunction with our hospital partner, is recruiting faculty to increase numbers of preceptors and lecturers.

**Curricular Governance**

The MCC has responsibility and authority to oversee the curriculum for the undergraduate medical students. The MCC is responsible for evaluating programs and course objectives, approving and coordinating course schedules, recommending changes to course scheduling and objectives, and designing experiments in medical education to improve methods of teaching and evaluation of student performance, as necessary.

The MCC represents the faculty and reports directly to the dean of the medical school. The MCC consists of the associate dean for academic affairs, who serves as chair; 2 elected faculty council nominees (1 MD, 1 PhD); 2 administrative council members (1 MD, 1 PhD); 4 at-large members selected by the dean; a representative of the Office of Academic Affairs; and the chairs of the major curriculum subcommittees.

See Figure 1—Organizational chart.

**Education Staff**

**Medical education leadership**

The Office of Academic Affairs is the central source for support and leadership. Led by the senior associate dean for academic affairs, the office is responsible for all curriculum-related areas: program outcomes assessment, curriculum mapping, course evaluations, education and assessment resources for students and faculty, educational facilities oversight, academic computer services, faculty development, and support for the MCC. Currently, office personnel include an associate dean for academic affairs, 2 full-time PhD/EdD educators, 2 technical support analysts, and 2 administrative assistants.

The primary role of the Office of Academic Affairs is developing and implementing the undergraduate medical curriculum. Personnel work closely with representatives from administrative offices, including student affairs and graduate medical education, but are not responsible for services beyond the undergraduate program.

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*Figure 1* Organizational chart.
Department of Medical Education
LSU Health–Shreveport does not have an academic department of medical education. However, planning is underway to create a Department of Medical Education to serve as the academic home of key teaching faculty and offer joint faculty appointments for other medical educators.

Faculty Development and Support in Education

• Grand rounds sessions cover individual topics in education and curriculum development throughout each year. The Health Sciences Library provides training and resources for faculty in computer programs to assist with lecture presentations.
• Administrative and technical personnel of the Clinical Skills Center are familiar with adult learning theories and apply those principles when demonstrating/teaching faculty how to use simulation equipment. They are involved in designing new scenarios and the ongoing evaluation of existing simulation.
• LSU Health–Shreveport funds faculty with greater-than-average involvement in education to attend educational conferences of their choice, such as the annual Association of American Medical Colleges meeting, so that attendees can bring information on current teaching and evaluation techniques back to the institution.
• Some LSU Health–Shreveport departments maintain mentoring programs to instruct new faculty on teaching basics, especially for didactic lectures.

Role of teaching in promotion and tenure decisions
Promotion and tenure require participation in education. The educator’s portfolio documents types of teaching, student evaluation of teaching quality, and time commitment to teaching over the years of service. LSU Health–Shreveport also recently developed an education track for faculty, having excellence in education as the primary determinant. For this track, excellence in teaching and educational scholarship, demonstrated by leadership in professional education organizations and publication of education-focused manuscripts, are documented in the educator’s portfolio.