Medical Education Program Highlights

Southern Illinois University School of Medicine (SIUSOM) was founded in 1970 and is a small, public, and community-based institution. Campuses are located in Springfield, Illinois, and in Carbondale, Illinois, 180 miles to the south. Since its inception, the school has been known for its educational innovation and medical education research. It holds the record in the United States and Canada for the most International Association of Medical Education ASPIRE awards, with 5 in the areas of social accountability, student engagement, simulation, curriculum design/innovation, and assessment.

Highlights include:

• The use of nurse-educators (master's level in education-trained) to work with medical students years 1–3.
• An innovative third-year clerkship consisting of 8-month-long clerkships with immersion in clinical settings and longitudinal faculty supervisors. There are no lectures or USMLE shelf exams. After the core rotations, students go on to do 15 weeks of a personalized education plan (PEP). They and their advisors choose from a variety of clinical rotations to round out the third year. Critical Clinical Competencies (CCC), an online, video-based, and interactive program, explicitly teaches students clinical reasoning from years 1 through 3.1,2
• In 2019, SIUSOM adopted the use of programmatic assessment in the first year of medical school. This assessment system will be spread throughout the rest of the medical school, year-by-year.3
• The Center for Human and Organization Potential (cHOP) was launched in 2018. This center has 3 arms: wellness (including culinary and integrative medicine), professional development, and leadership and excellence. cHOP serves all members of SIUSOM, including community members, staff, students, residents, and faculty, in conjunction with other areas of medical education, including the Academy for Scholarship in Education.

Curriculum

Assessment

The SIUSOM’s campus is split, with the first year occurring in Carbondale, Illinois (at the southern tip of the state), and years 2–4 in Springfield, Illinois (centrally located).


There have been several major changes in the curriculum. Several upcoming changes include:

• Expansion of programmatic assessment to include year 2 of the medical school.
• In the fall of 2020, SIUSOM will begin the Lincoln Scholars program. The purpose of this program is to train future physicians who will practice in rural counties of southern Illinois. Students will spend all 4 years in Carbondale. Eight students will be admitted and will train for 3–4 years in a new and innovative curriculum. They will take the first year of medical school with physician assistant (PA) students; rotate through clinical clerkships in year 2; and, if staying in a primary care residency in southern Illinois, may be able to graduate at the end of year 3.
• Class size will increase in the fall of 2020, from the current 72 to 80, with the addition of the Lincoln Scholars students.

Medical education program objectives

See Supplemental Digital Appendix 2—Medical Education Program Objectives and Assessment—at http://links.lww.com/ACADMED/A830.

The school used a combination of published national and international recommendations to create its goals and objectives. SIUSOM regularly reviews the NBME’s content list and LCME standards to assist in a quality improvement process to keep the curriculum up to date.

There have been several student assessment tools and processes that have changed in the last 10 years.

• The school has moved to a programmatic assessment model in year 1 of medical school, and this will be expanded to year 2 the following year.
• SIUSOM has had a senior clinical competency examination (SCCX) (a 14-station, uncued standardized patient examination that senior students must pass to graduate) for over 25 years. Once the new curriculum in year 3 was implemented (2015), the SCCX (now called the summative CCX) has been moved from the early months of year 4 to 8 months into year 3, right after the core clerkship rotations are completed.
• A new clinical reasoning examination, the diagnostic justification examination was implemented to assess clinical reasoning in years 1–3. This exam asks students to justify their final diagnosis, by narrowing from a listing of their differential diagnosis and arguing through the use of positive and negative signs and symptoms the student collected during a standardized patient examination.4
• A clinical reasoning progress test, the longitudinal performance examination, using a diagnostic pattern matching and clinical
data interpretation multiple choice test, was implemented throughout all 4 years of medical school in 2005.3

Parallel curriculum or tracks
SIUSOM does not currently have parallel tracks, although the new Lincoln Scholars program is in development, which will train 8 medical students with their PA counterparts for a parallel 3- to 4-year curriculum, all conducted in Carbondale, Illinois.

We plan on offering the Lincoln Scholars program as well as our traditional medical school program in a 3+ format in coming years. This means that students ending their third year would be assessed as ready (or not) for internship. Those deemed ready would graduate. Other students would continue on into their fourth year, but at the time they are deemed ready, they would move on to internship, even if that means at some time before the end of the academic year.

Pedagogy
SIUSOM uses a wide variety of pedagogy to educate its medical students. The first 2 years of the curriculum are hybrid, with a combination of small-group discussion, large-group discussion, problem-based learning (PBL), an ambulatory clinical experience, laboratory (histology and anatomy), lecture, peer teaching, preceptorships, role play, and self-directed learning video tutorials including virtual patients, simulation and standardized patients. All of these pedagogies continue into the third and fourth years of the curriculum (except for lectures and PBL) with the addition of inpatient and consult/liaison clinical experiences.

CCC online videos were added to the curriculum in 2015. These are interactive, case-based, clinical reasoning educational videos. For an example of the CCCs, please see: http://siucccdemo.org. SIUSOM also requires students to complete the Institute for Healthcare Improvement online curriculum. Please see: http://www.ihi.org/education/Pages/default.aspx.

Clinical experiences
We use inpatient settings, ambulatory/outpatient settings (academic and community based), and consult/liaison settings. Most inpatient settings are located in our 2 community-based hospitals, Memorial Medical Center and St. John’s Hospital, both located in downtown Springfield, Illinois.

In each of the first 2 years of medical school at SIUSOM, students are assigned one-to-one with a community-based outpatient physician, whom they will meet monthly for 12 months. In the third-year clerkships, students spend 4 weeks each in the following disciplines: emergency medicine, psychiatry, internal medicine, surgery, family and community medicine, obstetrics–gynecology, pediatrics, and neurology. During each of these rotations, a student is assigned a faculty preceptor, who will work with him/her for all 4 weeks. The clerkships are immersion based, so students spend 7.5 hours per day on their service, with no lectures or shelf exams to interfere. During the last 15 weeks of the third year, students design their PEP in conjunction with their clerkship advisors; several options are available for 15-week clinical experiences.

Our students encounter their first patients (both real and standardized) in their first week of year 1 of the medical school curriculum.

Students are assigned community-based preceptors (including those working at the Marion, Illinois, Veterans Administration medical center) during years 1 and 2 (see above). In addition, during the third-year family and community medicine core clerkship, students are assigned to rotate in community-based family and community medicine clinics for 4 weeks. These communities are located across central and southern Illinois.

It is a long-standing challenge to find enough mentoring physicians for students in years 1 and 2. Even though year 1 is in Carbondale, Illinois, and year 2 is in Springfield, Illinois, it is nevertheless a challenge to find 72–80 preceptors at each site yearly. It is likewise a challenge to find a preceptor for each student in individual core clerkship rotations (neurology, psychiatry, pediatrics, etc.) since faculty numbers at SIUSOM are small and clinicians rotate frequently. Finally, during the PEP selective at the latter part of third year, it is difficult sometimes to find enough specialists to satisfy the requests by students for those rotations in the PEP period.

Curricular Governance
All parts of SIUSOM’s curricular governance are centralized. Individual departments do not receive separate budgets for teaching, although an educational component (educational scholarship/teaching) is included in most faculty’s job descriptions. The Department of Medical Education (DME) is specifically funded to provide faculty development in education across all disciplines.

Education Staff
The Office of Education and Curriculum (OEC) is responsible for the support of all undergraduate medical student education. As such, it works with faculty and faculty committees, as they create new curricula, to implement and manage them. Some examples of functions the OEC provides are as follows:

- Recruit, hire, train, and maintain a pool of standardized patients for use throughout the curriculum as a whole.
- Maintenance of information technology and software used for educational purposes.
- Support of all curriculum committees.
- Classroom scheduling and logistical management of the curriculum.

The OEC provides a significant stipend for the years 1–4 directors as well as the Doctoring course directors. The OEC is the home of the nurse–educators, mentioned previously. The OEC is directed by the senior associate dean for education and curriculum, who also serves as the chair of the DME, providing a useful linkage between the two.

Those involved in UME, faculty development, and learner support include:
• Dean and provost of the college of medicine
• Senior associate dean for education and curriculum
• DME
• Associate deans for equity and diversity, student affairs, and chOP

The OEC is responsible for the undergraduate medical education area of the educational curriculum only.

The SIUSOM has the DME, which provides ongoing educational development for faculty. Members of the DME sit on every curriculum committee. They work with a wide variety of faculty and staff to assist in curriculum development, student and program evaluation, and medical education research.

See Figure 1—Organizational chart.

Faculty Development and Support in Education

There are numerous avenues by which faculty can receive professional development in education and educational scholarship. DME faculty meet with those interested in educational research as requested. They provide a wide array of workshops to improve teaching skills. The new chOP works with DME faculty to provide faculty, staff, community, and learner development in the areas of wellness/resilience, culinary medicine, integrative medicine, educational professional development, and leadership and excellence.

In matters of promotion and tenure, any faculty member cannot be promoted if he/she does not have a ranking of at least “sufficient” in the teaching/educational scholarship arena. Educational scholarship criteria are posted on the school’s promotion and tenure webpage. See http://www.siumed.edu/hop/policies/promotion-tenure-guidelines-2018.html.

SIUSOM is home to the Academy for Teaching and Learning, which is open to faculty and other health care providers. The academy has 2 tiers: the first for those who state their wish to join the academy, and the second for those who have demonstrated excellence in educational scholarship in any one or more of the following categories: development of enduring educational materials, educational leadership, assessment, curriculum development, or teaching.

Figure 1—Organizational chart.
Table 1

Regional Medical Campuses

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<th>Regional campus name</th>
<th>Type</th>
<th>Student enrollment</th>
<th>Comments</th>
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<tr>
<td>Carbondale, Illinois</td>
<td>Traditional year 1</td>
<td>72</td>
<td>All first-year students</td>
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<td>Lincoln Scholars</td>
<td>8+</td>
<td>To begin fall 2020</td>
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<tr>
<td>Springfield, Illinois</td>
<td>Traditional years 2–4</td>
<td>~226</td>
<td>All second-, third-, and fourth-year students</td>
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Regional Medical Campuses

See Table 1—Regional Medical Campuses.

References