**ACCREDITATION ISSUES RELATED TO SPATIAL AND**

**TEMPORAL DISTANCE LEARNING**

***(Approved by the LCME June, 2015)***

Technology has increased the options for how instruction is delivered in medical schools. In the past, students and teachers typically were located in the same place and interacted about content at the same time, as in a lecture or small group discussion. Now, with the many options provided by technology, it is far easier for students to be separated from instructors and from each other in space and/or time and still be part of the same educational program.

We define distance learning as a structured educational process in which there is a spatial and/or temporal distance between teacher(s) and learner(s).

The two dimensions included in the definition are:

1) The physical location of the teacher and the learner (spatial distance).

2) The timing of when the student interacts with the educational materials/content developed/presented by the teacher (temporal distance).

The following commonly used modes of distance learning illustrate spatial and temporal distance learning:

* *Spatial Distance Learning:* There is videoconferencing of lectures or discussions linking students and faculty across dispersed instructional sites. In this case, there is separation but the interaction between teacher and student is synchronous.
* *Temporal Distance Learning:* Online instructional materials (e.g., independent study modules, pre-recorded lectures) are used by students to learn content independently within a given course. In this case, learning is asynchronous, in that the learning materials were developed prior to their use by students and there is no simultaneous teacher-student or student-student interaction.

Distance learning need not occur as an independent learning modality. For example, in the approach termed the “flipped classroom,” students study content independently (through asynchronous distance learning methods) and then apply what they learned in a classroom setting through interacting with their peers and an instructor.

Additional factors related to distance learning:

* The breadth of distance learning activities that are included in the curriculum. For example, students might use online instructional modules to replace lectures in a single basic science course, in multiple basic science courses, or throughout the whole pre-clerkship curriculum.
* The source of instructional materials used for distance learning materials. Educational materials could be created by the school’s faculty or by academic or commercial entities outside of the medical school. For example, there is interest in MOOCs (massive open online courses) where online instructional materials developed by a medical school or another entity could be used at a number of medical schools.

The purpose of this informational report is to describe accreditation issues related to medical schools’ utilization of spatial and/or temporal distance learning.

Core Principles

The LCME has created the following core principles as a way to conceptually categorize accreditation issues relevant to distance learning. However, the core principles are a set of general expectations related to the structure and conduct of a medical education program, and would apply to any mode of curriculum organization and delivery.

1. Medical school faculty and administrators are collectively responsible for planning, implementing, and evaluating the medical education program.

2. The medical education program is organized around defined objectives and competencies that are related to and emerge from the medical school’s mission and goals.

3. Medical schools organize the curriculum and utilize instructional methods that support students’ achievement of the specified competencies and learning outcomes.

4. Students have sufficient time to engage in required learning activities that occur outside of scheduled class hours.

5. Faculty members receive appropriate faculty development to support the planning and delivery of the curriculum.

6. Medical education occurs in an environment of collaborative learning. There are opportunities for interaction between students and faculty and among students to support students’ acquisition of specified cognitive and procedural skills and professional attributes.

7. There is evaluation of educational program quality and assessment of students’ achievement of the educational program competencies and objectives. The results of evaluations contribute, through a centralized process, to educational program improvement.

8. There are appropriate resources to support the planning, delivery, and evaluation of the curriculum.

Implications of Core Principles for Distance Learning in the Medical Curriculum

The following analysis provides examples of how the LCME’s might interpret the linkage between the core principles and accreditation standards/elements when medical education programs use distance learning. Medical schools should consider this analysis in planning distance learning activities. Please note that the list of relevant standards/elements is meant to be illustrative, not exhaustive, and is not meant to be prescriptive. The LCME will continue to review each medical education program using the standards/elements as a guide.

**Irrespective of the method by which the medical school delivers educational content, the expectation of the LCME is that the school will be in compliance with all standards and demonstrate satisfactory performance with all elements.**

The full citations for the LCME standards and related elements are contained in *Functions and Structure of a Medical School*, located on the LCME web site (http://www.lcme.org).

**1. Administration/Faculty Responsibility for the Educational Program**

The medical school administration and faculty are responsible for the conduct and quality of the entire medical education program, regardless of the sites where students and faculty are located or the sources of instructional materials that are used. The LCME expects close collaboration, mechanisms for communication, and functional integration among faculty in planning, implementing, and evaluating the curriculum. Faculty, therefore, must have opportunities to participate in medical school decision-making about the educational program.

 *Relevant Elements: 1.3 (Mechanisms for Faculty Participation)*

*8.1 (Curricular Management)*

*8.3 (Curricular Design, Review, Revision/Content Monitoring)*

**2. Defined Objectives and Competencies**

The medical curriculum is based on a comprehensive set of educational program objectives that lead to students’ acquisition of defined learning outcomes (competencies) related to knowledge, skills, and professional attributes. The curricular competencies and objectives are derived from a faculty-driven process.

 *Relevant Standard: 6 (Competencies, Curricular Objectives, and Curricular Design)*

*Relevant Element: 6.1 (Program and Learning Objectives)*

**3. Coherent Curriculum Linked to Objectives/Competencies**

The curriculum is organized to support students’ acquisition of the knowledge, skills, and attitudes/values derived from the medical school’s competencies and objectives. A coherent curriculum ensures that all the subject areas required for accreditation are included and presented in a coordinated manner that supports student learning. There is an explicit, faculty-driven process to select educational program content, regardless of whether the educational materials are produced internally or externally. Educational materials, wherever produced, address the school’s own educational program objectives and are available to all students, regardless of their location.

 *Relevant Standard: 7 (Curricular Content)*

*Relevant Elements: 8.2 (Use of Medical Educational Program Objectives)*

*8.3 (Curricular Design, Review, Revision/Content Monitoring)*

**4. Sufficient Unscheduled Time for Students to Prepare for Class Activities**

Temporal distance learning requires that students have sufficient unscheduled time to engage in required learning activities that occur outside of the “classroom.” This includes, for example, time to review materials (such as online modules) that serve as the basis for in-class activities, such as in “flipped classroom” formats. The amount of time required for this student preparation

is considered in policy decisions about the hours that students spend in the classroom and the total educational time that students spend in educational activities.

 *Relevant Elements 6.3 (Self-Directed and Life-Long Learning)*

*8.8 (Monitoring Student Time)*

**5. Appropriate Faculty Development**

Faculty are prepared to deliver the curriculum, including developing and appropriately utilizing distance learning strategies and materials.

*Relevant Element:* *4.5 (Faculty Professional Development)*

**6. Environment that Fosters Collaborative Learning and Teamwork Skills**

Medical schools provide opportunities for students to interact in person with members of the medical school faculty and, under faculty supervision, with patients. The teaching and assessment of skills and attitudes/values requires in-person contact with faculty over time. For example, the acquisition of professionalism and ethical principles are facilitated by having students interact with and receive feedback from appropriate faculty role models on an ongoing basis. Students also need an opportunity to learn collaborative team skills by interacting with their peers and with students and faculty from other health professions programs.

 *Relevant Elements: 3.5 (Learning Environment/Professionalism)*

*6.7 (Academic Environments)*

*7.9 (Interprofessional Collaborative Skills)*

*9.2 (Faculty Appointments)*

*9.3 (Clinical Supervision of Medical Students)*

*9.4 (Assessment System)*

*9.7 (Formative Assessment and Feedback)*

**7. Program Evaluation and Student Assessment Linked to Objectives**

There is evaluation of educational quality and assessment of whether students are attaining the desired educational program outcomes. The methods of student assessment are selected by faculty to appropriately evaluate students’ attainment of the knowledge, skills, and attitudes/values specified in the educational program objectives. The results of evaluations should contribute, through a centralized process, to educational program improvement. Regardless of the source(s) of educational program materials, they are reviewed and improved as needed by or through the faculty.

*Relevant Elements 8.4 (Evaluation of Educational Program Objectives)*

 *8.5 (Medical Student Feedback)*

*9.4 (Assessment System)*

*9.6 (Setting Standards of Achievement)*

*9.8 (Fair and Timely Summative Assessment)*

**8. Appropriate Resources to Support the Educational Program**

Appropriate technology and infrastructure are available to support the design and delivery of the curriculum. Distance learning is not an alternative to compensate for unplanned scarcity of faculty, facilities, or other resources. Limitations on resources, either of personnel or facilities, should not result in a suboptimal educational program with gaps in coverage of any area deemed important for students to develop the desired competencies. All students, regardless of their location, should be able to acquire the desired knowledge, skills, attitudes/values as a result of the educational program that is available to them.

 *Relevant Elements: 4.1 (Sufficiency of Faculty)*

*5.1 (Adequacy of Financial Resources)*

*5.2 (Dean’s Authority/Resources)*

*5.4 (Sufficiency of Buildings and Equipment)*

*5.5 (Resources for Clinical Instruction)*

*5.8 (Library Resources/Staff)*

*5.9 (Information Technology Resources/Staff)*