

**UCDSOM GRADUATION COMPETENCIES AND EDUCATIONAL PROGRAM
OBJECTIVES LINKED TO COURSE OBJECTIVES FOR
BCM 410A MOLECULAR CELL BIOLOGY**

GRADUATION COMPETENCY I. UCDSOM graduates will provide **patient care** that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

EDUCATIONAL OBJECTIVES RELEVANT TO COURSE OBJECTIVES	COURSE OBJECTIVES	ASSESSMENT OF STUDENT ACHIEVEMENT OF COURSE OBJECTIVES
<p>I. 6 Employ a systematic approach to clinical reasoning and problem-solving that begins with problem recognition, ends with case resolution, and explicitly acknowledge the degree of uncertainty at each step.</p> <p>I. 8. Incorporate a broad knowledge of the biomedical sciences and an understanding pathophysiology into the clinical reasoning process.</p>	<p>1. Using clinical correlates, provide examples of how the principles of molecular medicine are applied to problem solving and differential diagnosis.</p> <p>2. Fluency in the vocabulary and methods of molecular medicine. This includes understanding the basis and mechanisms of clinical lab tests and providing a foundation that will facilitate comprehension of molecular-based treatments as they emerge in future years.</p>	<p>Bi-weekly quizzes track student performance and provide instructors timely feedback on which concepts and material students are not being learned.</p> <p>Review sessions provide for dialog with the group, and identify areas that need more (or less) emphasis.</p> <p>Performance on final exam.</p> <p>Assess on quizzes and exams the performance of students on clinical correlate material.</p> <p>Review sessions will also provide feedback on student learning.</p>

GRADUATION COMPETENCY II. UCDSOM graduates will demonstrate **knowledge** about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care.

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<p>II. 1. Understand the normal human structure and function relevant to the understanding of human disease.</p> <p>II. 4. Utilize a vocabulary of disease for communication to colleagues, patients and families.</p>	<p>3. The principal objective of the course is to provide a foundation for understanding concepts in the rapidly evolving realm of molecular medicine. To this end, there are three core objectives that form the basis of the evaluation of overall competency in this course:</p> <p>a. Ability to acquire, retain, and synthesize basic factual information relating to basic concepts in molecular biology and medicine;</p> <p>b. Ability to access source material outside of the</p>	<p>Under objective (a): Acquisition of factual information and its synthesis will be assessed through a series of weekly quizzes that are designed to test for acquisition of new factual information as well as the utilization of previously garnered information; that is, although the quizzes will generally be non-cumulative, prior concepts and facts will be reassessed to gauge retention. In some instances, key facts will be presented in more than one context to determine whether a particular lecture context improves overall retention.</p> <p>Under objective (b): Students will</p>

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	<p>formal lecture format and acquire necessary facts and concepts relating to a particular biochemical topic relevant to the disease process.</p> <p>c. Ability to synthesize disparate concepts to arrive at conclusions regarding basic pathogenic mechanisms in disease formation.</p>	<p>be required to read specific scientific/review articles for the purpose of glean specific factual information and concepts from the reading. Competency in this area will also be assessed through quizzes.</p> <p>Under objective (c): Students will be presented with seemingly paradoxical information and/or puzzles that will require the synthesis of two or more disparate concepts or facts – both from the lectures and text reading and from reading of the scientific literature.</p>
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GRADUATION COMPETENCY III. UCDSOM graduates will exhibit **interpersonal and communication** skills that result in effective information exchange and teaming with patients, their patients' families, and professional associates.

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<p>III. 2. Establish and maintain effective, collaborative professional relationships with peers, colleagues, and allied health care professionals.</p> <p>III. 6. Communicate with learners (students, colleagues or other professionals) as a teacher and mentor.</p>	<p>4. Instill an appreciation for accurate usage of molecular vocabulary in communicating with patients and other healthcare professionals.</p>	<p>Understanding of vocabulary central to the field is assessed on exams. TBL/CBL sessions provide opportunities to guide students in interpersonal and communication skill development.</p>

GRADUATION COMPETENCY IV. UCDSOM graduates will demonstrate a commitment to **professionalism** in carrying out their responsibilities with adherence to ethical principles, and sensitivity to a diverse patient population.

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<p>IV.1. Pursue excellence through commitments to professional competence.</p> <p>IV. 4. Recognize personal limits in knowledge, experience, ability, and resources.</p>	<p>5. By serving as role models, faculty are expected to maintain excellence in their course presentations and exam questions.</p> <p>6. In communication with students, instructors will</p>	<p>Student and peer evaluation of instructor performance.</p> <p>If unprofessional behavior is noted, students are reminded of the importance of professionalism. In more severe cases, college directors and dean's office are consulted.</p>

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	demonstrate professional practices and inform students when inappropriate behavior or lack of respect occurs.	
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GRADUATION COMPETENCY V. UCDSOM graduates will demonstrate knowledge of **system-based practice**, i.e., responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.

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Not applicable to the course	None	Not assessed in the course

GRADUATION COMPETENCY VI. UCDSOM graduates will acquire **life-long learning skills**.

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VI.1. Demonstrate an inquisitive nature, information management skills, and critical evaluation framework necessary to sustain life-long learning.	7. Encourage students to explore independently new developments in the molecular life sciences 8. Highlight online resources available for obtaining current information in molecular medicine (e.g. databases & repositories, bioinformatics servers, on line tools for molecular analysis).	Provide assignments in TBL sessions. Lecture credit will be dependent on participation.

GRADUATION COMPETENCY VII. UCDSOM graduates will learn how to approach **practice-based learning**.

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How assessment is used to revise/improve the Course (please fill in): As specified above, the principal modes of formal evaluation will be non-cumulative weekly quizzes and a cumulative final exam. The students will be required to read additional scientific articles and will be asked to retain certain facts from those articles and to synthesize concepts from those articles.

In addition, as a test of the effectiveness of the didactic and outside reading sessions, we will place key factual elements or concepts in more than one quiz, where such concepts may be presented in different lecture or reading contexts, to assess the extent to which retention is dependent on the context of the presentation.