

## Medical and Scientific Knowledge

Students must demonstrate knowledge of established and evolving biomedical and clinical sciences, and understand how/when to apply this knowledge to their practice of medicine. This requires an understanding of the scientific process, evidence-based approach to medicine, and research study “strengths” and “weaknesses”. The students must demonstrate their ability to appraise and assimilate scientific evidence into their own ongoing learning, research, and patient care as part of a life-long medical education process.

Learning Categories	End of Phase A	End of Phase B	End of Phase C
<p><b>Knowledge of Medical Practice (MSK1)</b></p>	<ul style="list-style-type: none"> <li>• Demonstrates expanded knowledge of the major organ systems and how they contribute to both health and disease</li> <li>• Can explain how the organ system pathophysiology is reflected in the CP schemes (see course-outcomes for Phase A.)</li> <li>• Can begin to design CP schemes for new Phase A systems following course pathophysiology lectures</li> <li>• Can recognize how treatment medications alters/assists the human body in response to clinical conditions</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates expanded and more detailed understanding of the major organ systems and how they contribute to both health and disease across all organ systems</li> <li>• Can explain how the organ system pathophysiology is reflected in the CP schemes</li> <li>• Can construct CP schemes</li> <li>• Can explain the anticipated clinical response to correctly selected medications for routine medical clinical conditions</li> </ul>	<ul style="list-style-type: none"> <li>• Can evaluate how the major organ systems contribute to both health and disease <b>(1.2, 1.3, 1.4)</b></li> <li>• Can explain how the organ system pathophysiology is reflected in the CP schemes and can relate this information to a clinical team <b>(1.2, 1.3, 1.4)</b></li> <li>• Can construct CP schemes <b>(1.2, 1.3, 1.4)</b></li> <li>• Can explain the anticipated clinical response to correctly selected medications for an- expanded number of medical conditions to patients, family members and team members <b>1.2, 1.3, 1.4, 1.7)</b></li> <li>• Recognizes the most common drug interactions and their likely signs of presentation in the elderly and can explain them to patient and family <b>(1.2, 1.3, 1.4)</b></li> <li>• Recognizes what types of medical knowledge are specific to individual members of the PCT (patient care team) <b>(6.1, 6.2)</b></li> </ul>

<p><b>Problem Solving and Diagnosis</b> <b>(MSK2)</b></p>	<ul style="list-style-type: none"> <li>• Can correlate the findings of a patient at clinical presentation with specific organ systems and CP schemes (Phase A level)</li> <li>• Can construct extensive problem lists</li> <li>• Can begin to construct lists of additional information needed for patient treatment and prioritize using considerations of both cost and time to receive results</li> </ul>	<ul style="list-style-type: none"> <li>• Can correlate the findings of a patient at clinical presentation with specific organ systems and CP schemes-(Phase B level)</li> <li>• Recognizes both typical as well as atypical presentations for common medical conditions specific to the Phase B clerkships</li> <li>• Can construct more extensive problem lists and hypotheses</li> <li>• Can develop a reasonable list of additional diagnostic tests needed to facilitate both diagnosis and evaluate response to therapy</li> <li>• Recognizes the cost and sensitivity/specificity of the major diagnostic tests utilized in the Phase B clerkship rotations</li> </ul>	<ul style="list-style-type: none"> <li>• Can correlate the findings of a patient at clinical presentation with specific CP schemes and prioritize the conditions in the order of most to least likely <b>(1.1, 2.1)</b></li> <li>• Recognizes and is able to explain both typical as well as atypical presentations for commonly seen clinical conditions in Phase C clerkships <b>(1.1, 2.1)</b></li> <li>• Can construct comprehensive problem lists categorized as both acute versus chronic conditions and prioritize therapeutic interventions <b>(1.6, 1.5)</b></li> <li>• Can order appropriate diagnostic tests needed to facilitate both diagnosis and evaluate response to therapy in a cost and time effective manner <b>(1.5)</b></li> <li>• Can analyze the interpretation of diagnostic tests in regards to sensitivity/specificity <b>(1.1, 2.1, 2.3)</b></li> </ul>
<p><b>Medical Treatment</b> <b>(MSK3)</b></p>	<ul style="list-style-type: none"> <li>• Recognizes the difference between preventive, curative, and palliative therapeutic strategies for the management of common clinical conditions relevant to the major organ systems covered in Phase A</li> <li>• Has extensive capabilities to detect how cost and social/cultural issues affect the selection of therapeutic interventions*</li> <li>• Can select and defend basic choices for preventive,</li> </ul>	<ul style="list-style-type: none"> <li>• Recognizes and is able to explain the difference between preventive, curative, and palliative therapeutic strategies for the management of common clinical conditions seen on Phase B clerkships</li> <li>• Is able to identify and judge, from first-hand experience, how cost and social/cultural issues affect the selection of therapeutic interventions</li> <li>• Can select and defend basic therapeutic recommendations for preventive, curative and palliative therapies seen in the Phase B clerkships</li> </ul>	<ul style="list-style-type: none"> <li>• Is able to identify preventive, curative, and palliative therapeutic strategies</li> <li>• Is able to identify and judge, from first-hand experience, how cost and social/cultural issues affect the selection of therapeutic interventions <b>(6.3)</b></li> <li>• Can select and defend basic therapeutic recommendations for preventive, curative and palliative therapies seen in the Phase C clerkships</li> <li>• Effectively-utilizes ongoing diagnostic tests to modify recommended therapeutic strategies</li> </ul>

	curative and palliative therapies for CP conditions discussed		
<b>Life-Long Learning</b> <b>(MSK4)</b>	<ul style="list-style-type: none"> <li>Utilizes study design and data analysis to evaluate the scientific rigor of original scientific publications and appraises how/when findings are translated from bench to bedside.</li> <li>Is able to discuss why therapeutic efficacy for new therapies seems to change from what was published in original double-blinded studies to early clinical use</li> </ul>	<ul style="list-style-type: none"> <li>Can discuss on a Phase B clerkship rounds the study design, data analysis and scientific findings of a journal article relevant to their patient's medical condition</li> <li>Routinely reads at least one medical journal-relevant to their long-term medical interests</li> </ul>	<ul style="list-style-type: none"> <li>Can discuss on a clinical rounds the study design, data analysis and scientific findings of a journal article relevant to their patient's medical condition <b>(2.1, 2.2, 2.3, 3.6)</b></li> <li>Routinely reads medical journals <b>(2.1)</b></li> <li>Organizes a self-educating approach for life-long learning* <b>(3.1, 3.2, 2.1)</b></li> </ul>
<b>Research or Knowledge Expansion</b> <b>(MSK5)</b>	<ul style="list-style-type: none"> <li>Through research and/or community service, in the context of the "Scholarly Project", the student will develop, apply, translate and/or communicate medical knowledge to their peers and/or community <b>(A and C2.6)</b></li> </ul>		