<table>
<thead>
<tr>
<th>Competency</th>
<th>Knowledge</th>
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<tbody>
<tr>
<td><strong>Subdomain</strong></td>
<td><strong>Principles of Scientific Discovery</strong></td>
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| **Learning Objective** | 1. Recognizes the central importance of discovery and understands how current medical knowledge is scientifically justified and evolves  
2. Critically appraises and incorporates new information in the practice of evidence-based medicine |
| Year I | **Mid** | - Describes scientific reasoning and its application to medicine and basic biological principles (1)  
- Describes hypothesis development (1)  
- Identifies examples of on or off campus expertise in leading edge research *(1, 2)  
- Explains the value of scholarship as a critical professional responsibility (1)  
**End** | - Describes the basic components of medical manuscripts in a peer reviewed journal (1, 2)  
- Identifies resources to find critically accepted medical information (2)  
- Explains how current medical knowledge is scientifically justified and how that knowledge evolves (1) |
| Year II | **Mid** | - Compiles the appropriate primary literature to address a scientific question (1, 2)  
- Describes hypothesis testing (1)  
**End** | - Describes skills required for communication in the fields of medicine and scientific inquiry)** (1, 2) |
| Year III | **Mid** | - Applies scientific reasoning skills and technology to promote evidence based medical practice (1, 2)  
- Describes the ethical principles of clinical and translational research in patient care (2)  
**End** | - Discuss strategies and limitations of applying new scientific information into clinical practice (1, 2)  
- Critically appraises a peer reviewed article and adequately presents it in a journal club setting (1, 2) |
| Year IV | **Mid** | - Explains how to engage in medical research at this medical school and beyond (1)  
- Develops a testable hypothesis and/or clinical question for research (1, 2)  
- Demonstrates skills required for communication in the fields of medicine and scientific inquiry)** (1, 2) |
| **End** | - Critically appraises and presents a peer reviewed article and applies findings to patient care in a journal club setting (1, 2)  
- Writes and presents a scholarly (research or clinically based) abstract (1, 2) |