## UGME Research and Evidence Based Medicine (EBM) Vertical Theme Outline

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<tr>
<th>Term</th>
<th>Year One</th>
<th>Year Two</th>
<th>Year Three</th>
<th>Year Four</th>
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<td><strong>Term One</strong></td>
<td>Scientific Method &amp; Overview of core research methodologies&lt;br&gt;<strong>Medicine &amp; Society I (1 hour)</strong>&lt;br&gt;Information Literacy&lt;br&gt;Clinical Integration I (3.5 hours)&lt;br&gt;Ethics (large &amp; small group sessions)&lt;br&gt;Clinical Integration I (4 hours)</td>
<td>Qualitative Research (implementation: 2018-19)&lt;br&gt;<strong>Medicine &amp; Society III (Term One)</strong>&lt;br&gt;Information Literacy&lt;br&gt;Clinical Integration III (3 hours)&lt;br&gt;<strong>Qualitative Research Project Data Collection&lt;br&gt;Small Group Sessions (implementation:2018-19)</strong>&lt;br&gt;<strong>Medicine &amp; Society (Term One)</strong></td>
<td>Selected Topics in Medicine: Mixed Methods Research (implementation: 2019-20)</td>
<td>Research Elective Block&lt;br&gt;Critical Appraisal&lt;br&gt;Core Rotations: IM, Psych.&lt;br&gt;Quality Improvement/Quality Assurance online modules (IHI)</td>
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<td><strong>Term Two</strong></td>
<td>Quantitative Research&lt;br&gt;<strong>Medicine &amp; Society I (2 hours)</strong>&lt;br&gt;Quantitative Research Project Data: Hands on Quantitative Research and Critical Appraisal Session&lt;br&gt;<strong>Medicine &amp; Society I (2 hours)</strong>&lt;br&gt;Information Literacy</td>
<td>Applied epidemiology&lt;br&gt;<strong>Foundations of Clinical Medicine II (MSK)</strong>&lt;br&gt;Critical Appraisal&lt;br&gt;<strong>Foundations of Clinical Medicine II (KUT)</strong></td>
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<td>Epidemiology</td>
<td>Medicine &amp; Society II (2 hours)&lt;br&gt;Public Health Ethics&lt;br&gt;<strong>Medicine &amp; Society II (2 hours)</strong>&lt;br&gt;Biostatistics&lt;br&gt;<strong>Medicine &amp; Society II (1 hour)</strong>&lt;br&gt;**Quantitative Research Project Data Analysis Small Group Sessions&lt;br&gt;<strong>Medicine &amp; Society II (2 hours)</strong>&lt;br&gt;Information Literacy&lt;br&gt;Clinical Integration II (4 hours)&lt;br&gt;Applied epidemiology&lt;br&gt;<strong>Foundations of Clinical Medicine I (1 hour) (NNT in CV)</strong></td>
<td>Information Literacy&lt;br&gt;Clinical Integration IV (2 hours)&lt;br&gt;Knowledge Translation and Patient&lt;br&gt;Education Medicine &amp; Society (Term Two)&lt;br&gt;<strong>Patient Safety online modules (IHI)</strong>&lt;br&gt;<strong>Medicine &amp; Society III &amp; IV (Terms One and Two)</strong>&lt;br&gt;Qualitative Research Project Data Analysis Small Group Sessions&lt;br&gt;<strong>Medicine &amp; Society IV (Term 4)</strong>&lt;br&gt;Critical Appraisal&lt;br&gt;Foundations of Clinical Medicine III (Mental Health)</td>
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The vertical research theme aims to: Build capacity for students to demonstrate an understanding of the scientific principles of research and scholarly inquiry and the role of research evidence in health care.

Through:
1. Exposing students to different fields of research and research methodologies
2. Supporting students in the development of rudimentary research knowledge and skills
3. Encouraging students to gain confidence with participating in research during their UGME program
4. Involving students in knowledge translation relevant to patient care


During the first year of the vertical theme, the focus is on fundamental scientific methods with development of research questions, understanding basic research study designs/analysis strategies and participation in a quantitative research exercise with data collection, analysis and interpretation. During the second year the focus shifts towards learning about and participating in a qualitative research exercise. The summers following Years One and Two, students are eligible to apply for Dean's Summer Studentship Research Awards. Learning around research methodologies encourages participation in experiential research activities, but also supports acquisition of skills in critical appraisal of medical literature and promotes development of evidence based medicine approaches for clinical practice.

Within the Clerkship Years, the application of a mixed methods approach to research is the topic of a seminar in Year Three, and all students are eligible to undertake a supervised research elective in Year Four. Students are introduced to Quality Assurance/Quality Improvement/Patient Safety concepts and research applications in Year Two with additional exposure in Year 4 as part of a spiraled curriculum.

Assessment:
For each of the first two years, Student teams will prepare a research question/hypothesis, collect and analyze data and prepare a report on the same. The report will be due at the end of Term 2.