Course-Level Contributions Toward EPA Implementation

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Institutional Goals
- Develop longitudinal EPA-based learning threads
- Support student knowledge/skill retention
- Improve value of feedback
- Balance formative vs. summative feedback

Project Overview
Background/context
- At DMU-COM, parallel use of a “top down” and “bottom up” approach to EPA development and assessment
  - Institution level - foundational work initiated to develop key processes, structures and inventories
  - Course level - assessment piloted to explore measurement of EPA building blocks (knowledge, skills, attitudes, behaviors)

Project focus
- To explore the potential use of course-level knowledge assessments for tracking student progress toward EPA knowledge acquisition
  - Targeted measurement of functional EPA components
  - Feedback to students on specific EPA learning components

Core components
1. Course objectives written to support performance-based outcomes
2. Bloom’s taxonomy used to guide review of knowledge acquisition across several domains – factual, conceptual, procedural and metacognitive
3. Assessment items linked to course objectives
4. Competency mapping leveraged to link competencies with core EPA functions

Concept example
- EPA 3 states - incoming residents can “recommend and interpret basic diagnostic and screening tools.”
- Related function - Ability to “interpret the results of basic and diagnostic studies (both lab and imaging); know common lab values.”
- Related competencies - Patient Care, Knowledge for Practice.

Key Resources

Mapping Methods
The mapping process involved redefining course level objectives around physician tasks, targeting assessment items with course level objectives, and mapping course objectives to AACOM sub-competencies and competencies. A final (key) step established the competency and EPA linkages and the alignment between assessment data and the EPAs.

<table>
<thead>
<tr>
<th>Step</th>
<th>Process</th>
<th>Example</th>
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<tbody>
<tr>
<td>1.</td>
<td>Course objectives written and assigned a 2-letter code.</td>
<td>Course Obj: Interpret and evaluate the relevance of abnormal clinical findings and diagnostic studies for a given patient presentation. = CF</td>
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<td>2.</td>
<td>Knowledge-based test items linked to course objectives using an assessment tool in the learning management system.</td>
<td>Student-level performance data collected for each objective.</td>
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<td>3.</td>
<td>Each course objective then aligned with AACOM competencies and sub-competencies.</td>
<td>Osteopathic Core Competencies for Medical Students.</td>
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<tr>
<td>4.</td>
<td>Connections from the EPA functions to student performance achieved by aligning competencies with EPA functions and EPA descriptions.</td>
<td>Osteopathic Considerations for Core Entrustable Professional Activities (EPAs) for Entering Residency.</td>
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Learning Outcomes

I. Course objectives written to support performance-based outcomes
II. Bloom’s taxonomy used to guide review of knowledge acquisition across several domains – factual, conceptual, procedural and metacognitive
III. Assessment items linked to course objectives
IV. Competency mapping leveraged to link competencies with core EPA functions

Key Learning Outcomes
- A knowledge-based assessment format is used to track student progress toward EPA readiness.
- The learning management system is used to collect data on student performance.
- Data collection will become more comprehensive as the pilot project expands to additional courses.

Future Directions
- An opportunity exists for traditional didactic courses to support broader college-wide monitoring of student progress toward EPA readiness.
- A knowledge-based assessment format is used to track student progress toward EPA readiness.

Acknowledgments
The authors would like to recognize Becky Cody, Academic Assistant, Department of Physiology & Pharmacology, DMU-COM for her support and guidance throughout the project. This project (IRB-2017-5) has been reviewed and categorized as Exempt by the DMU Institutional Review Board (IRB).