Background Challenge: Integration of basic science in the undergraduate medical education curriculum poses a significant challenge when it comes to maintaining threaded content.

Purpose: This project seeks to develop methods to monitor threaded basic science content to prevent curriculum drift and loss of thread components.

Approach: Genetics was chosen as a thread that needed monitoring in our UME curriculum. We identified National Trends and objectives. We held a focus group of course directors and conducted a pilot project.

Outcomes: Course directors identified the problem as not enough reinforcement of genetic objectives throughout the curriculum and identified active learning components as a place to reinforce critical objectives.
ABSTRACT: 2014 ELAM Institutional Action Project Poster Symposium

Project Title: Integrating Genetics Throughout the Medical School Curriculum

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Background, Challenge or Opportunity: The regional campus of the University of Minnesota School of Medicine provides the first two years of a comprehensive undergraduate medical education, which is equivalent to that provided by the main campus. Needs assessment to maintain equivalent curriculum between the two campuses is based on outcome from the STEP1 Board and is continually monitored. The outcome on the STEP1 board has consistently shown a decrease in scores by our regional campus students in genetics. We hypothesized that this was due to the loss of the genetics thread following the integration of the curriculum.

Purpose/Objectives: The overall purpose of this project is to examine the threading and integration of basic science content throughout the first two years of the medical school curriculum. The analysis of the genetics content is meant to model basic science content curricular evaluation in general and it is expected to be an ongoing process necessary to maintain integration of all threaded content critical to undergraduate medical education.

Methods/Approach: Analysis of the integration of human genetics in the curriculum was chosen for study because it is a content area where our students have not performed as well as expected. We conducted a targeted assessment by examining the genetics content currently offered in our curriculum and compared that to content recommended by the Association of Professors of Human and Medical Genetics and the AAMC. Our approach was to first compile the recommended objectives into a spreadsheet and then ask all course directors to indicate which objectives were covered in their courses. Once the data was compiled we organized a focus group of the course directors to discuss their understanding of how the genetics thread and content was currently presented to the students and to ask for suggestions of places that content could be implemented and improved.

Outcomes and Evaluation Strategy: Specific outcomes from our study confirm that we cover most of the recommended objectives, however, the course directors felt we were not effectively reinforcing critical objectives throughout the curriculum. Course directors recommended that we reinforce genetics content by adding it to our active learning components. We were able to pilot this approach during our PBL activities and are planning to add genetics content to our case based learning sessions as well. In addition, the National Board of Medical Examiners Faculty Review on Genetics is now being scheduled for all faculty who contribute genetics content. Our longer term evaluation includes a required yearly content review test for students and in the following years we will monitor their success on the genetics components of the STEP1 Board. Our study confirmed that curricular review needs to be scheduled, monitored and funded on an ongoing basis to stay abreast of the national trends in medical education and to diligently reinforce threaded content in an integrated curriculum.