“Development of Learning Taxonomy for an Undergraduate Course in Architectural Engineering Program”

Abstract

Curriculum for an undergraduate course is re-designed and educational methodology based-on active learning is formalized in Missouri S&T Architectural Engineering Program. Based-on course improvement plan, course goals, student learning objectives and assessment tools need to be classified to have better documentation of mentioned improvements. This paper outlines development of a learning taxonomy for this purpose. Reasoning of the study and preferred methodology presented herein by the help of literature review. Using a template for course blueprint enables to create targeted taxonomy. Selected course blueprint is exemplified for another Architectural Engineering course and helps outlining learning taxonomy for "architectural materials and methods of building construction" course. Higher and lower cognitive domains of learning objectives is specified by using necessary action verbs classified in Bloom's Taxonomy. Assessment methods are linked to learning objectives to meet course goals. Consequently, learning outcomes for mentioned course can be created by this methodology.