Designing and teaching multidisciplinary project-based courses to satisfy the ABET 2000 Engineering Criteria

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ABSTRACT: One important educational outcome required of any engineering programme, as per ABET 2000 Criteria 3, is the ability of engineering graduates to function in multidisciplinary teams. In order to address this requirement, the curriculum committees of the engineering programmes at Indiana University-Purdue University Fort Wayne (IPFW), Fort Wayne, USA, have designed several multidisciplinary project-based courses. These courses involve computer, electrical and mechanical engineering students. Five multidisciplinary project-based courses, which are distributed over the freshman, sophomore and senior years, have been developed and implemented. In these courses, real world multidisciplinary design experiences are used to prepare IPFW graduates to enter today's workforce. In this article, the authors present a brief description of these courses along with the authors' experiences in the development and teaching of the five multidisciplinary project-based courses.