

Integrating IS2020 Elective Competencies in Data and Information Courses

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Abstract

IS2020 details required and elective program competencies within the Data and Information realm. Information Systems programs may incorporate two elective areas in this realm - *Data and Business Analytics* and *Data and Information Visualization*. These two elective areas are guided by 14 program competencies associated with Bloom's cognitive level objectives. Efforts are needed to coordinate the integration of program competencies into individual course design. This work presents an organized set of semi-structured and unstructured datasets that are paired with laboratory exercises to fulfill the competencies of both elective areas. These laboratory exercises have been refined to evaluate coverage of the knowledge elements and skills related to the 14 program competencies. The exercises contain both procedural step-by-step tutorials introducing students to software and higher level open challenges to solve. These resources provide IS programs with a framework for adopting (or developing alternative) materials needed to meet IS2020 guidelines.

Keywords: learning objectives, teaching cases, data analytics, data visualization

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