Assessment of Information Systems Program Components: Discrete Math and Statistics, Business and Organizations, Specific Courses and Advanced Study Preparedness

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The Center for Computing Education Research (CCER), a division of the Institute for Certification of Computing Professionals (ICCP) Education Foundation has developed an examination that qualifies those who pass for the Information System Analyst (ISA) certification (McKell et al, 2004a,b). Also, the exam provides academic institutions detailed assessment analysis according to IS2002 level 3 and 4 learning units (Gorgone et al, 2002), to the sub-skills associated with the curriculum model (Landry et al 2000), and to the ABET accreditation areas (Landry et al 2004). Institutions can compare the behavior of their students with the national sample. They can also use the exam to assess course performance for courses mapped to the IS2002 model curriculum.

According to IS2002 the information systems curriculum should derive significant support in both Quantitative Studies, and in Business and Organization Issues. Discrete mathematics (Longenecker et al, 2004) and statistics are important components of the quantitative studies requirements. The panel will present discuss specific recommendations (Harvey et al, 2005) describing desired content for this area. Commentary will be solicited and incorporated into a final set of objectives for use by the CCER teams. Volunteers will be solicited from the meeting participants to develop items for the examination.

Business and organizational issues have always been an underpinning for the IS discipline. The panel will discuss on-going work initiated by Denise McGinnes and Craig Tyran. They overviewed the business discipline and considered material relevant to the IS degree program. Their work was condensed in to a set of materials that will be discussed by the panel. Suggestions and commentary from those in attendance will be used to update the material. Likewise, additional volunteers will be solicited to develop test items for the CCER. Item writers and beta-testers for the developed materials will earn significant discounts for their institutions in using CCER products, and will be involved in publication of the results.

During the past year, the CCER has received requests for exams that would test specific course content. For example: Database, Systems Analysis and Development, or Project Management. In addition, there have been requests for an exam that could be used as a qualification exam for students going to a Masters programs that could be used to assess specific competencies. Some of the preliminary results of this work will be presented, and input for new directions will be solicited.

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Harvey, Valerie J., Peter Y. Wu, and John C. Turchek (2005). "Coordinated Topic Presentations in Information Systems Core Curriculum and Discrete Mathematics Courses" ISECON 2005.

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June 14-18.

McKell, Lynn J., Reynolds, John H., Longenecker, Herbert E. Jr., Landry, Jeffrey P., and Pardue, J. Harold (2004). "Integrating Program Evaluation and a New Certification for Information Technology Professionals," ACM Special Interest Group for Information Technology Education (SIGITE 2004), Salt Lake City, Utah, October 2004.