

# Jordan University of Science and Technology

## A Model Curriculum for Undergraduate Program in IT SSME

**Authors:** Amer F. Al-Badarneh, Jim Spohrer, and Basheer Al-Duwairi

**Abstract:** The service sector is the uppermost growth segment of the developed economies, and becoming more knowledge intensive as automation and outsourcing reduce demand for labor in agriculture and manufacturing. The reliance of this sector on information technology (IT) deserves revision of IT curricula. As the field of computing continues to grow and diversify, and new computing-related disciplines emerge, existing curriculum programs must be updated regularly and new computing disciplines will be drafted to prepare students with the knowledge and skill sets applicable to current and projected future service sector. Service Science, Management, and Engineering (SSME) is a new market-relevant multidisciplinary academic program designed in response to the service sector's growing dominance. The main aims of this paper are firstly, to identify and develop the body of knowledge areas and skills needed by IT professionals. Secondly, to develop SSME undergraduate curriculum and courses that embody the topics in the SSME body of knowledge. The study was based on surveying and analyzing the current and projected future demand for IT Professionals with enhanced IT SSME skills. With the support of IBM, Jordan University of Science and Technology will begin offering an undergraduate program in SSME in fall 2013.