ISM 101: Key lessons learned (mostly from your term papers)

• The rapid exponential growth of computer and information technology has led to multimedia technologies (e.g., tele-presence, the opti-puter) and smart (i.e., sensor based) systems (Professors Mantey and Singh). The emergence of smart systems has also facilitated the shift from products to services at companies like John Deere and General Electric (Doug Morse, Services Transformation and Innovation Group.) The opti-puter on the fifth floor of E2 has thirty-two 30-inch screens (163 million pixel resolution) and Intel Xeon Quad core processing capability.

• There is an increasing trend in high-tech companies (IBM, Cisco, Microsoft) to provide integrated solutions and services rather than “bits of technology”. This trend leads to the concept of the “Services Oriented Enterprise” (Doug Morse, Services Transformation and Innovation Group).

• There are two dominant project management methodologies: (1) Traditional or Sequential or Waterfall; and (2) Agile or Iterative (Jose Solorio, Ben Rus, Alireza Ataei, Cisco)

• The development of a world-class software product such as Microsoft Office requires three types of human resources: software development engineers, software test engineers, and program managers. A total of 2400 hundred individuals take part in the development of Microsoft Office, the resource distribution being coding 31%; testing 52%, and planning 17%. The future of Office is in the “Cloud” (Jeffrey Murray, Microsoft).

• Information Technology and/or Globalization play a major role in integrating all enterprise functions (e.g., product development, manufacturing, sales) in technology companies. There is an increasing trend toward Unified Communication (UC), which is the convergence of video, voice, text, and presence (Tom Gill, Plantronics).

• The best way to manage risk is to eliminate risk by a combination of proper marketing, financial, and technological research and planning. (Professor Brad Smith).