ISM 101: Instructions for the Final Version of your term paper (due 12/5/06)

1. Complete Part A: refine and expand your first draft (Topic A) based on my feedback and suggestions. Structure it along the guidelines recommended (see class handout, on instructions for Part B of the Term Paper), i.e., divide the paper into numbered sections with section titles, etc. Call this part of your term paper: “Part A: (with title)”.

2. Your second draft will be returned to you in class today. Complete Part B: refine and expand your second draft (Topic B) based on my feedback and suggestions. Call this part of your term paper: “Part B: (with title)”.

3. Conclude the term paper with a short creative section (at least 300 words long) showing the connections and relationships between the two parts within the context of the development, management, and commercialization of technology. Give this paragraph the title: “Part C: Integration”.

4. Attach all outlines at the end. It is also recommended that you have a table of contents.

5. Hand in the final version of your term paper as well as the two drafts to the instructor on Tuesday, December 5 between 3PM-5PM, at E2, Room 561.

Key lessons learned (mostly from your term papers)

- **Information Technology** and/or **Globalization** play a major role in integrating all enterprise functions (e.g., product development, manufacturing) at Plantronics (Gill, Plantronics).
- Microsoft uses the SMART goal system to motivate and incentivize the entire organization from functional units to Account Team Units (ATUs) to individuals (Janes, Microsoft).
- There is an increasing trend in high-tech companies (Microsoft, iPass) to provide integrated solutions rather than “bits of technology”. For example, Microsoft has integrated Account Team Units which are focused on providing solutions to customer’s needs (Janes, Microsoft).
- Cisco, the worldwide leader in Networking, continues to be successful because customer input guides nearly every strategic decision the company makes. Cisco focuses on customer satisfaction in three areas: innovation, continuous improvement, and quality (Pinsky, Cisco).
- Product innovation plays a major role in the success of both small companies like iPass as well as large companies like Cisco and Microsoft (Pinsky, Cisco; Kia, iPass).
- For start-ups, Venture Capital funding, while having obvious drawbacks (e.g., loss of control), has the positive effect of introducing the management discipline necessary for innovation to result in success (Brad Smith, High Tech Start-up).
- If a technology is new and innovative, determine whether it is sustaining or disruptive. Manage disruptive technologies with the proper incentive structures (internal) and market structures (external). One method for an established company to manage a disruptive technology may be to spin-off a new organization to manage, develop, and commercialize the new technology (Singh, Innovator’s Dilemma).
- **Simulation Tools** such as “Crystal Ball” allow the analyst to examine various scenarios and predict possible outcomes. For example, Monte Carlo simulations can be used as an aid to risk management and resource allocation (e.g., labor) in product development and manufacturing (Ross, Forecasting in the Pharmaceutical Industry).
- Product development and manufacturing require the computer modeling of complex shapes, motions, and animations. Also, rapid prototyping is an important part of product development (Davis, Modeling Shape and Motion).