

15.564 Spring 2007: CourseFest Intro to the Course

- **IT Essentials II: Advanced Technologies for Digital Business in the Knowledge Economy**
 - Spring, 9 units, MW 1-2:30

- **Instructor: Prof. Benjamin Grosf**
 - <http://ebusiness.mit.edu/bgrosf>
 - **SEE THAT WEBPAGE FOR MORE INFO**
 - bgrosf@mit.edu, E53-317, (617) 253-8694
- **Course Assistant: Yubettys Baez**
 - ybaez@mit.edu, E53-310, (617) 253-2656

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IT Essentials II: Advanced Technologies for Digital Business in the Knowledge Economy

- **The most advanced Technology-centric course in IT taught at MIT Sloan.**
 - **MIT Sloan IT #1-rated by US News, Business Week B-school**

- **The Web is entering an entire new generation!**
 - **Fundamental Technologies for Knowledge Management are Progressing Explosively**
 - **XML, Semantic Web, Web Services**
 - **What are the Implications for E-Business Applications?**

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IT Essentials II: Advanced Technologies for Digital Business in the Knowledge Economy

- **Class format: Roughly half lecture, half discussion.**
 - Major portion of grade is participation in class discussion
 - Discussion includes micro-cases, application examples, etc.
- **Class Philosophy: learn from each other, students have expertise in various areas**
- **Innovators Perspective as major portion**
- **Teaches how to innovate – skills in exploration and analysis, IT project management.**

Topics in this class

- **Core Technologies for the Knowledge Economy**
 - **Advanced Information Technologies**
 - Automated Knowledge Management, incl. Web
 - **Including Underlying Concepts**
 - **Project Management when developing systems**

- **Implications for Digital Business**
 - **Functional Applications ; Concepts and Techniques**
 - Services; Business Processes
 - **Strategy; Industry Standards**
 - **Prospective Market Evolution; Entrepreneurial Opportunities**

- **How To Think about all this.**
 - **Prepare for lifelong learning**
 - **What's important enduringly**

Topics: Core Technologies

- **Knowledge Bases**
 - Databases
 - Rules and Ontologies
 - Data Mining, Probabilistic Decision Support, ...

- **Web**
 - XML
 - Web Services
 - Semantic Web

- **Mobile**

- **Project Management when developing systems**

Topics: Applications

- **E-Commerce, Collaborative Business**
 - Esp. B2B
 - .. But also: B2C, C2C, government
 - E.g., Mobile, P2P
- **Enterprise Information Systems, Enterprise Application Integration**
 - ERP, client-server
- **Emphasis on: Business Processes, Services**
- **Multiple Functional Areas:**
 - Supply chain
 - Financial reporting
 - Trust Management, Security, and Privacy
 - Healthcare and Biomed
 - Marketing
 - Customer/partner relationships

Sequence of Topics

- **More on Core early on in course**
- **More on Business Implications late in course**
- **Two sessions near end of course on team project presentations.**

Special Guests

- **We will have some special guests**
- **E.g., in past, one was Tim Berners-Lee**
 - **He's Inventor of the Web, head of World Wide Web Consortium**
 - **Discussion on semantic web, web services, their business implications**

Teaching Materials

■ Lecture Slides

- on Sloanspace sloanspace.mit.edu

■ Readings

- Course Pack (articles) – get at Graphic Arts, E52 basement
- Web-available documents and useful source sites
 - (e.g., about standards, applications, technologies, consortia)
- Handouts (occasional, in hard copy)
- Textbook (portions required)
 - E. Turban et al., *Electronic Commerce: A Managerial Perspective*

■ Class Web Page

- on Sloanspace sloanspace.mit.edu
- Includes student-contributed links, notes from class discussions, assignments, recommendations on additional optional readings, and more.

Assignments and Grading

■ Grading

- **Assignments (incl. team project): 45%**
 - A major team term project due end of April:
 - 10-page paper (end April), 15-min presentation in class (early May), plus progress milestones earlier
 - ~4 Short assignments: ~ biweekly in Feb. and March, e.g. “think pieces”
- **Class Participation (incl. attendance): 25%**
 - Be willing to think out loud
 - Bring interesting articles you’ve read
- **Midterm exam: 15%**
- **Final exam: 15%**
 - In-class on last day of classes *before* exam period

IT is not only about computers

- **Successful IT solutions are a combination of**
 - **strategy**
 - **technology**
 - **organization**
 - **people**
- **This course emphasizes the **technology** piece.**

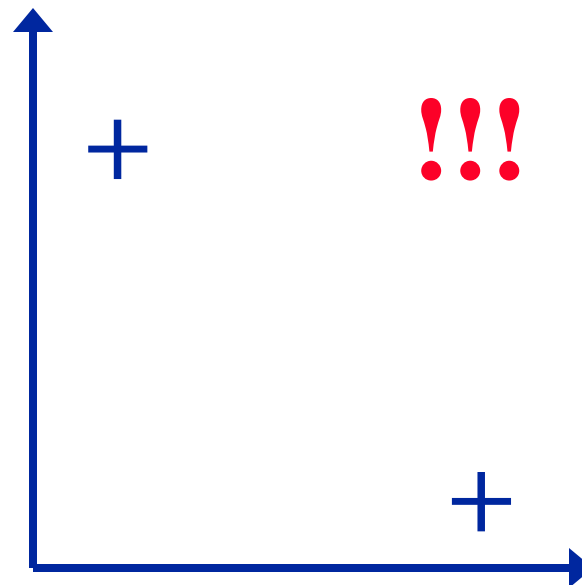
Why learn the tech end of IT?

- I want to make myself *extraordinarily* valuable.

Understanding of
technology side:
possibilities, costs,
benefits, risks, skills,
evolution, ...

+ = ordinary good

!!! = extraordinary



Understanding of
business side:

strategy, model, evolution, ...

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The anti-hype.
Identify
opportunities &
dangers.

Motivation II

- **Prepare for my future management challenges: Sift...**
 - **reality** **from** **hype / fantasy / exaggeration**
 - **opportunity** **from** **mess**
 - **dangers** **from** **excitement**

The **BIG** Picture

- **the 2nd Industrial Revolution.**
 - It's just begun.
 - IT is the basis and cutting edge.
- **understand technology → choose/innovate biz strategy/model.**
 - IT knowledge = keys to the kingdom.