École de gestion
TELFER
School of Management

# ADM1370

## Applications of Information Technology for Business

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# Agenda

- **Course Administration**
- **About Me:**
  - Quick Biographical Profile
- **About the Course:**
  - Course Overview & Syllabus Synopsis
- **High-Level Overview of Information Systems:**
  - Definitions & Terminology
- **Why study Information Systems:**
  - Course Value Proposition

# Course Administration

## Class Convention:

- Section M: Wednesday: 1:00 pm to 2:30 pm, and Friday: 11:30 am to 1:00 pm
- Section N: Tuesday: 11:30 am to 1:00 pm, and Friday: 1:00 pm to 2:30 pm
- Section Q: Monday: 1:00 pm to 2:30 pm, and Wednesday: 11:30 am to 1:00 pm

## Please note that some Class sessions will be administered from the DMS Labs (DMS 2130/2140).

- **See your course outline for specific dates.**
- **You are encouraged to come to the labs for these sessions and use the lab computers.**
- **If you come to the regular classroom, a TA will be here to run a live screencast of the lab session. You should bring your laptops.**

## Contact:


- **Office Hours: Wednesdays 3:00 pm to 5:00 pm OR By Appointment**
- **Office: DMS 6148**
- **Email: umar.ruhi@telfer.uottawa.ca**
- **Telephone: 613-562-5800 X. 1990**

# About the Course: Subject Matter Overview

## ADM1370: Applications of Information Technology for Business

### From the Course Calendar:

- Introduction to ***information technology tools to support operational, tactical and strategic level processes and decision making in an organization***. Business applications and problem solving using spreadsheets, databases and collaborative tools. Introduction to specific IT tools used to support operations and decision making within the various functional areas of an organization, including marketing, sales and customer service, human resources, finance and accounting. Introduction to business intelligence and performance management concepts and tools.

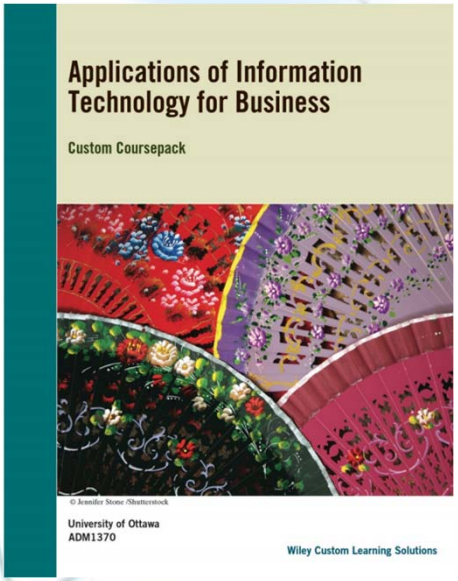
### From the Course Outline:

- This course will introduce ***contemporary applications*** of ICTs in the modern enterprise by deliberating a viewpoint on their ***utilization and administration***. Particular attention will be paid to discussing ***various ICTs that enable efficient data and information management, and consequently facilitate better problem solving and decision making capabilities in the organization***.

# Syllabus Synopsis: Course Materials

## Custom E-Text Coursepack:

- Electronic Format Coursepack published by Wiley.
- Includes content from various textbooks.
- Available through University Bookstore (website or store).
- See Instructions on Brightspace.




## Video Tutorials:

- Links to Video Tutorials will be posted for software topics.

## Lecture Slides & Supplementary Material:

- Lecture slides and supplementary material will be posted online a day before each class meeting.

# Course Content

- **Module I: Introduction to Information Systems and Social Computing**
  - Coursepack includes all course readings
- **Module II: Problem-Solving & Decision-Making using Microsoft Excel**
  - Coursepack includes course readings
  - Reference material for using Excel will be provided through video tutorials
- **Module III: Database Management Systems & Microsoft Access**
  - Coursepack includes course readings
  - Reference material for using Access will be provided through video tutorials
- **Reference material for software usage will be covered in the lectures in the form of in-class demonstrations or lab exercises.**

# Syllabus Synopsis: Grading Scheme

- **Please consult the course outline for your specific section (M, N, or Q) for the dates of various in-class quizzes and assignment deliverables.**

| Components | Responsibility | | Deliverables & Due Dates | Weight |
|---|---|---|---|---|
| | Individual | Team Work | | |
| Web 2.0 Wiki Assignment | | ● | Web 2.0 Wiki Assignment | 10% |
| MS Excel Assignment | | ● | Excel Assignment Problems | 13% |
| MS Access Assignment | | ● | Access Assignments | 12% |
| Quiz #1 | ● | | In-Class | 7% |
| Quiz #2 | ● | | In-Class | 7% |
| Quiz #3 | ● | | In-Class | 7% |
| Final Exam | ● | | Final Exam (As scheduled by the University) | 44% |
| | | | | Total = 100% |

# Syllabus Synopsis: Teamwork & Course Assignments

## Small Workgroup (2 Students):

- **Web 2.0 Wiki Assignment**
- **MS Excel Assignment**
- **MS Access Assignment**

  - All assignments will be graded on a group basis.
  - Each assignment will be completed by a group of two students and the same grade will be assigned to both group members.
  - It is your responsibility to coordinate your assignment tasks and ensure the completeness and quality of assignment submission.
  - Please form your groups this week, and exchange contact information with your partners.
  - Failure to form a team is not a valid excuse for submitting individual or late assignments.

# Syllabus Synopsis: Quizzes & Final Exams

## Quizzes:

- Three quizzes – one at the end of each course module.
- MCQs to be answered within 45 – 50 Minutes
- Inclusive of all content covered in the module.

## Final Exam:

- To be scheduled by the University
- 2 Hours Long
- Comprehensive across all course content from the beginning of the course

# Other Course Details: Lab Sessions as Flip-Class Sessions

- **Flip-Class Sessions:**
  - **Require students to prepare for the class in advance through materials listed:**
    - May Include:
      - Coursepack Readings
      - Tutorial Background Information
      - Pertinent YouTube Videos
      - Screencast Tutorials
      - Lecture Notes
  - **During the class meeting, the professor and students will engage in interactive activities:**
    - For Example:
      - Discussing Cases,
      - Practicing the use of software,
      - Solving Lab Exercises
- **The class is considered "flipped" since "lectures" will be viewed at home, and "homework" will be handled in class.**

# Other Course Details: Lab Sessions

## Attendance in Course Labs is Highly Encouraged:

- **Most Lab Sessions will take place in DMS 2130 / 2140:**
  - Please consult the course outline and course website to make sure you go the right location.
- **Some Assignment questions will be discussed in these labs.**
- **You may be able to complete lab exercises on your own:**
  - Support Resources (e.g. YouTube Videos) or screencast tutorials may be posted where and when possible.

# About Class Lectures

- Class lectures will be a combination of discussion material and in-class activities.
- In-Class activities may include topic discussion, short case discussions or software demo sessions.
- Please feel free to ask questions as we discuss the material.
- We will also use the Brightspace Discussion Forum as a back-channel for any questions that you might have pertaining to the material being covered in class.

## Communicating with Me:

- I encourage you to bring forth and discuss issues and topics related to this course.
- Discussion Forum on Brightspace for any questions that you might have pertaining to the material being covered in class, or course assignments.
- Send me an email: umar.ruhi@telfer.uottawa.ca
  - Please say "ADM1370" in the subject line of your emails.
- Twitter:
  @Informatician
- Index your course-related tweets using Hashtag:
  #ADM1370

# Class Polls

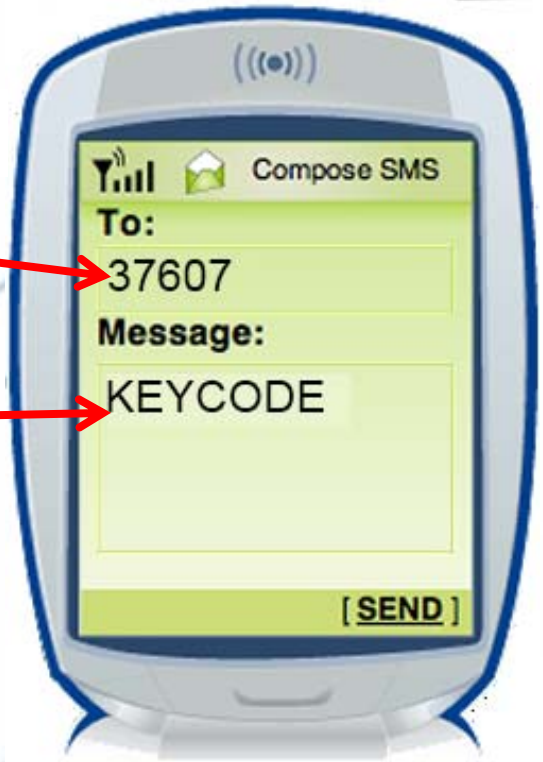
- **Class Polls may be used to gauge opinion or ask questions:**
  - **Respond Using Your Cell Phones:**
  - **Send Text Message (SMS) to: 37607 with your choice indicated by its keycode in the message**

**What do you think this course is going to be like?**

Text a **CODE** to **37607**

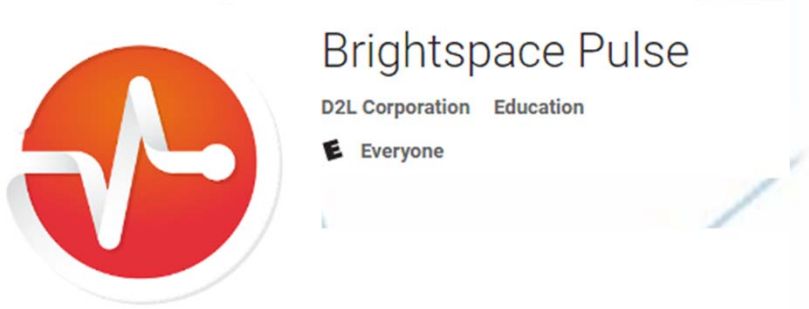
**Great!** **107141**

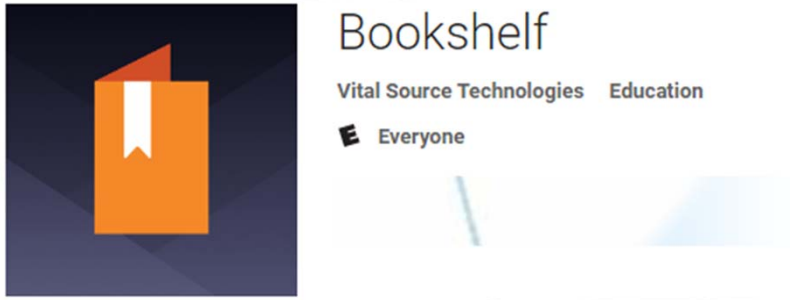
**Not So Good!** **107142**



# Useful Mobile Apps for the Course

- You can use these apps to keep up-to-date with course announcements and to review course content on your mobile devices (phones, tablets etc.)



# High-Level Overview of Information Systems

## Preliminary Discussion:

- What is an Information System?
- How are Information Systems different from Information Technologies?

# High-Level Overview of Information Systems

## What is an Information System?

- **Purpose: To provide accurate, timely and useful information**
  - Each element must be present and all of the elements must work together

- **An Information System consists of FIVE PARTS, including:**
  - People,
  - Procedures,
  - Software,
  - Hardware, and
  - Data

- **Information system (IS) = IT plus procedures, and people that produce & utilize information.**

  - IT = hardware + software + data
    - Products
    - Methods
    - Inventions
    - Standards

# High-Level Overview of Information Systems

- **Avoid a common mistake:**
  - **Do not try to buy an IS; you cannot do it.**
- **You can buy IT:**
  - **Buy or lease hardware, license programs and databases, even obtain predesigned procedures. Ultimately, people execute those procedures to employ that new IT.**
- **Any new *system* requires training tasks, overcoming employees' resistance to change, and managing employees as they utilize new system.**

# High-Level Overview of Information Systems

- **Information Systems aid the Decision-Making Process:**
  - Improve productivity
  - Monitor organizational performance
  - Planning and decision-making
  - Enhance Competitive Advantage

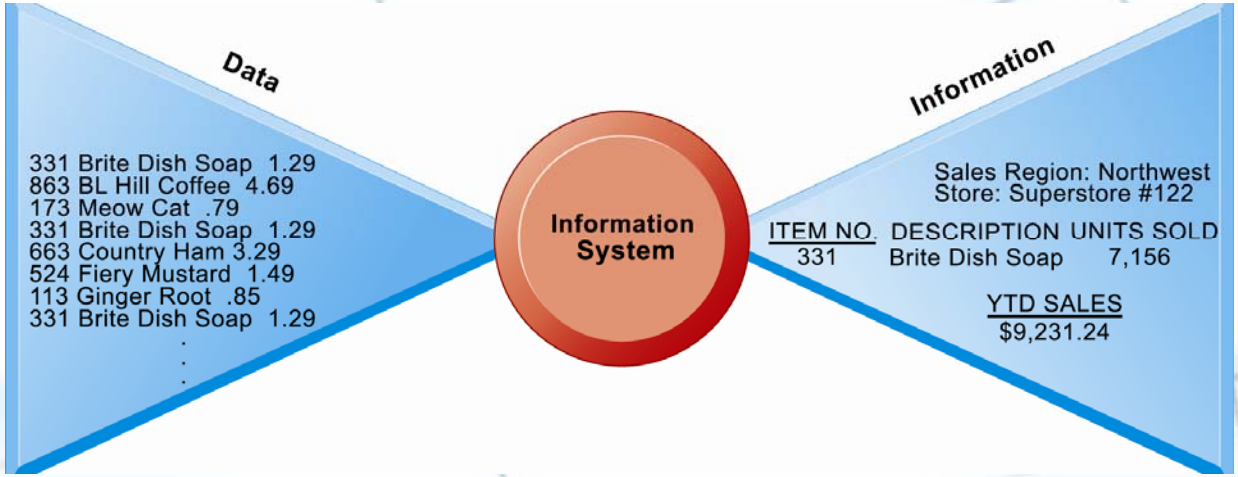
# Information Systems Elements: Data & Information

## Information system:

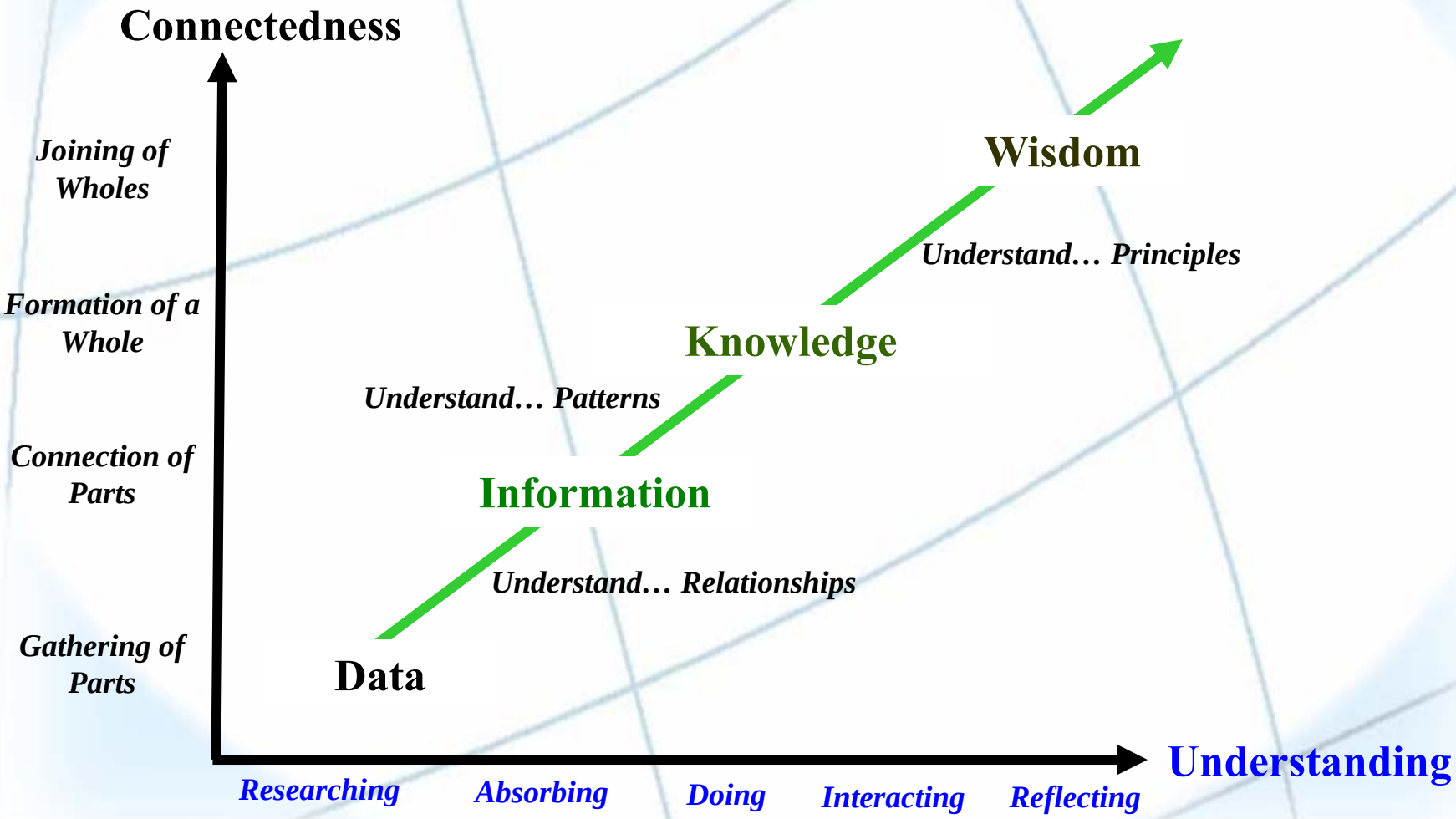
- Set of interrelated components
- Collect, process, store, and distribute information
- Support decision-making, coordination, and control

## Data versus Information:

- Data are streams of raw facts
- Information is data shaped into meaningful form
  - Example: Raw data from a supermarket checkout counter can be processed and organized to produce meaningful information, such as the total unit sales of dish detergent or the total sales revenue from dish detergent for a specific store or sales territory.



# Information Systems Elements: Data & Information



# A "Systems" Perspective of IS

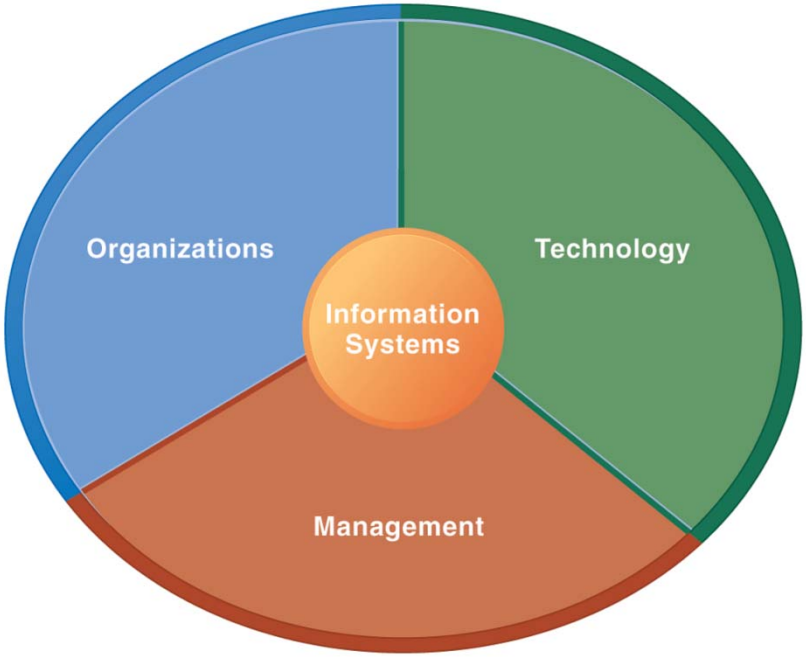
- **Three core activities of information systems:**
  - **Input: Captures raw data from organization or external environment**
  - **Processing: Converts raw data into meaningful form**
  - **Output: Transfers processed information to people or activities that use it**

- **Advanced information systems also incorporate one additional functionality:**
  - **Feedback:**
    - Output returned to appropriate members of organization to help evaluate or correct input stage

- **It is important to remember that these functionalities are not limited to technologies:**
  - **Can you think of these activities in a management context?**

# Once More…

- **Information Systems > Technology**
- **Technology ⊂ Information Systems**
  - Using information systems effectively requires an understanding of the organization, management, and information technology shaping the systems. An information system creates value for the firm as an organizational and management solution to challenges posed by the environment.



# Why Study Information Systems?

## Management Information Systems & Analytics:

- MIS: Study of People, Technology & Organizations
- Analytics: Tools & Techniques for Data-Driven Decision Making

# Why Study Information Systems?

## Benefits of an MIS education for a management student:

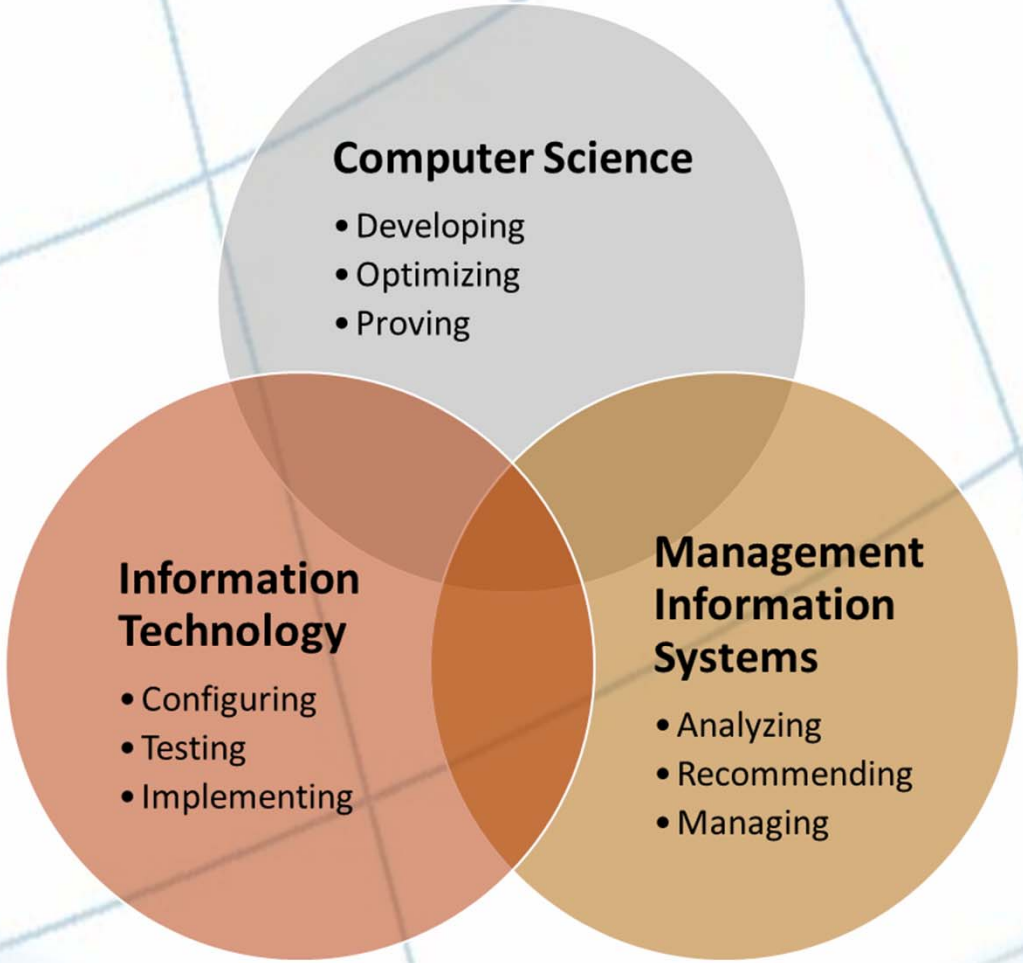
- **In today's workplace, it is imperative that IS work effectively and reliably.**
- **IS managers DO NOT only work with the IT dept.:**
  - IS will be part of your job in other business functions such as Marketing, Operations, HR, Finance, Accounting etc.
- **As an IS manager for your business function, you will play a vital role in the implementation and administration of technology within your divisions and for the benefit of your organization.**
  - You will plan, coordinate, and direct research on the computer-related activities of firms.
  - You will consult with other managers, help determine the goals of an organization and then implement technology to meet those goals.
  - You will coordinate with pertinent people about the technical aspects such as software development, network security, and Internet operations.

# Why Study Information Systems?

- **But…**
  - How is a Management Information Systems education different from Computer Science? or Information Technology?
  - I'm in Business School!

# Why Study Information Systems?

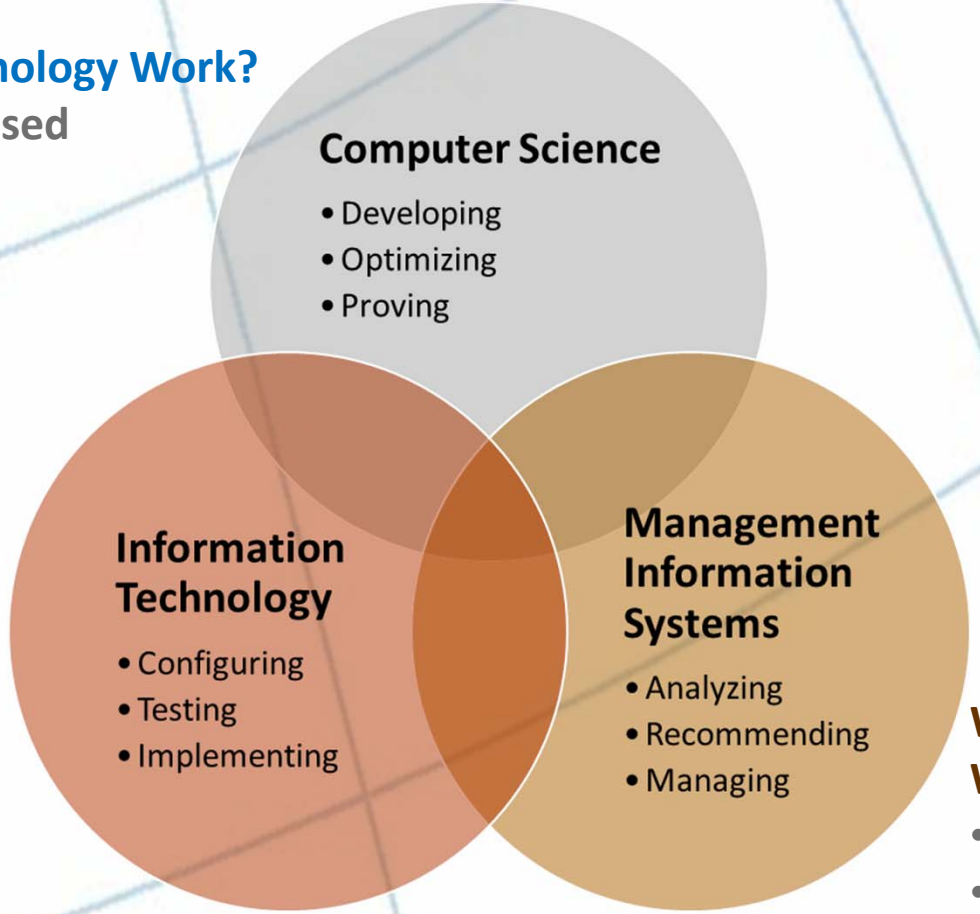
## MIS as a Business Computing Discipline



# Why Study Information Systems?

## MIS as a Business Computing Discipline

**Why does the Technology Work?**
- Technology-Focused
- Theory Oriented




**How Does the Technology Work?**
- Deployment-Focused
- Use Oriented

**What Technology Would Work Best?**
- Business-Focused
- Application Oriented
- Cross-Functional

# Why Study Information Systems?

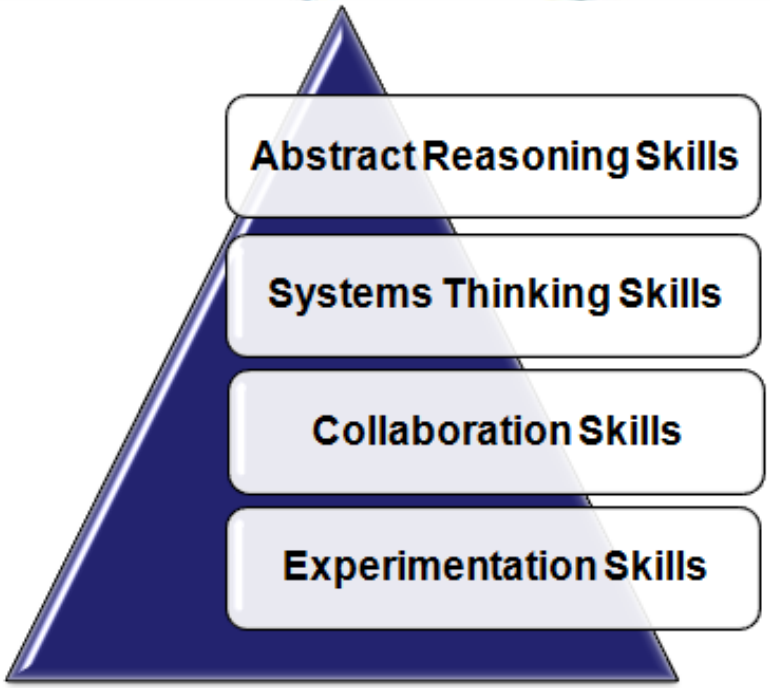
"Information technology and business are becoming inextricably interwoven. I don't think anybody can talk meaningfully about one without the talking about the other."

- *Bill Gates*

- **MIS & Analytics degrees considered to be among the most valuable University Majors today.**

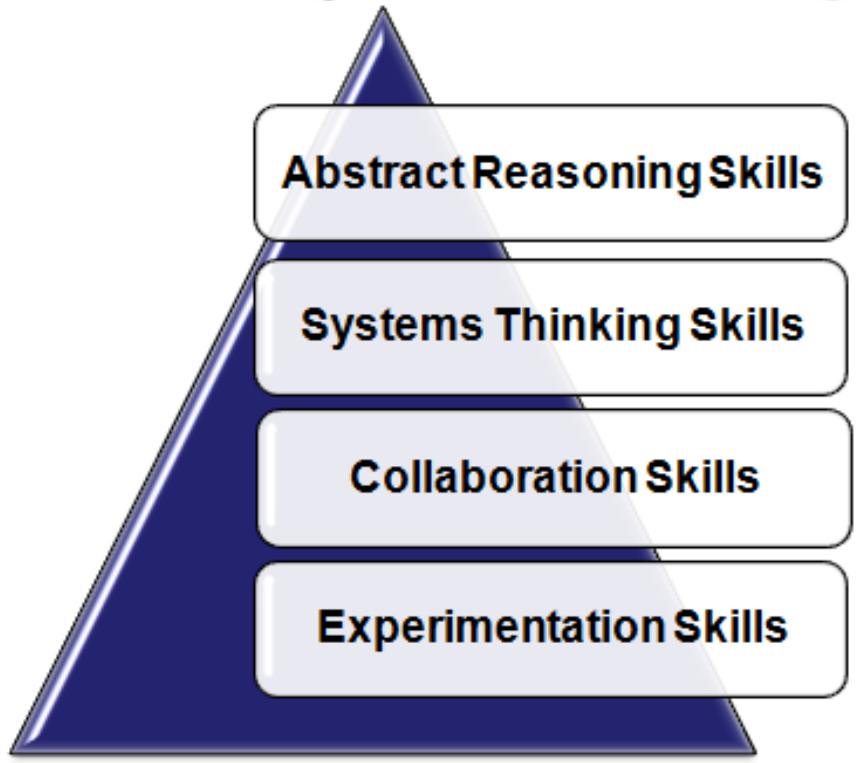
# Why Study Information Systems?

- **IS Courses Map Well to Various Learning Goals in a Business Education:**
  - **LG2:**
    - Demonstrate Critical Thinking and Decision Making Skills
  - **LG7:**
    - Provide Value to the Business Community in a chosen Area of Specialization
- **Based on Robert Reich (former US Secretary of Labour):**
  - **Four Skills required for most future job roles:**
  - **A good IS education is comprehensive across these skills.**



# Why Study Information Systems?

- **Try to Map Your ADM1370 Course Experience to these skills:**
  - **Reflect upon your day-to-day learning through lectures, discussions, and assignments.**



# To-Do List

## To Do List:

- Review the Course Outline
- Purchase & Access your E-Text Coursepack
- Check Brightspace Access
- Form Teams


## Start Reading:

- Module I / Ch. 3.