33:010:458
Accounting Information Systems

Dr. Peter R. Gillett
Associate Professor
Department of Accounting, Business Ethics and Information Systems
Rutgers Business School–Newark and New Brunswick
A.I.S. Class 2: Outline

- Review Timetable and Syllabus
- Discuss technical problems with Initial Computer Assignment
- Review use of Blackboard and e-mail
- Learning Objectives for Chapter 1
- Chapter 1: Introduction to A.I.S.
- Enterprises and Information
<table>
<thead>
<tr>
<th>Topics</th>
<th>Readings</th>
<th>Assignments Due</th>
<th>Examinations</th>
<th>Schedule Conflicts ?</th>
<th>Group Work Instruction: September 10</th>
</tr>
</thead>
</table>
Course Objectives
Course Objectives

At the conclusion of this course, students should have gained:

* an enhanced understanding of business enterprises and business processes
* an awareness of the role of information and accounting systems in business management
* an understanding of traditional accounting information systems and criticisms of them
* an understanding of semantic modeling and event driven accounting information systems
* an understanding of internal control over financial reporting and information systems
* familiarity with the development, documentation, control and audit of accounting information systems
* familiarity with the use of database management software in developing modern accounting information systems
* experience of working in groups
* an introduction to financial reporting using XBRL
* an introduction to accounting software packages and Enterprise Resource Planning systems.
Questions ?
Initial Computer Assignment

Problems?
Blackboard and e-mail

- Remember you can use “threads”
- Use the Discussion Board for postings:
  * that will reach those who read the Board
  * that remain all semester
  * that you want to be public messages
  * where the reply needs to be seen by everyone
- Send email
  * for less permanent information
  * where you want to be sure everyone receives it
  * where you want a private reply
A Warning . . .

- Use the Reload/Refresh features of your browser to avoid using old versions of Web Pages
Learning Objectives for Chapter 1

- After studying this chapter you should be able to:
  - discuss the impact of the information revolution on the accounting function
  - explain the purpose of accounting and the role of the accounting professional in organizations
  - describe the information customers served by accounting
  - describe the traditional accounting model and the manual accounting process and the drawbacks of this traditional view
Learning Objectives for Chapter 1

After studying this chapter you should be able to:

* indicate the process of computerized bookkeeping and its advantages and limitations
* explain in general terms the database approach to satisfying accounting information and the advantages of the database approach
* discuss concepts of events orientation and the enterprise repository
* describe the roles that the future accounting professional can play
Introduction to A.I.S.

What are business enterprises, what do they do, and how do they use information?
Introduction to A.I.S.

- Discuss and propose definitions for:
  - Manufacture
  - Produce
  - Industry
  - Trade
  - Commerce
  - Profession
  - Practice
  - Business
  - Organization
  - Enterprise
Introduction to A.I.S.

- **Manufacture**
  * making of goods by manual labor or machinery  
  * fabrication from materials

- **Produce**
  * create, make or manufacture  
  * bring forth, make or cause

- **Industry**
  * systematic work or labor especially in productive arts or manufacturing

- **Trade**
  * practice of some occupation, business or profession (often skilled handicraft as opposed to ‘learned profession’) as a means of livelihood
Introduction to A.I.S.

- **Commerce**
  - exchange of products of nature or art

- **Profession**
  - vocation requiring knowledge of learning, science or skills

- **Practice**
  - exercise or pursuit of a profession

- **Business**
  - trade, commercial transactions or engagements
  - activity of providing goods and services involving financial, commercial and industrial aspects
Introduction to A.I.S.

- Organization?
In “Images of Organization” Gareth Morgan suggests a number of metaphors for organizations:

- machines
- organisms
- brains
- psychic prisons
- cultures
- political systems
- flux and transformation
- instruments of domination
Introduction to A.I.S.

- A working definition:

  Organizations are transmutative social entities forming goal-directed structured activity systems

- Can you give some different examples of organizations?
Transmutative

Having the quality of altering or changing in nature, properties, appearance or form
Some organizations:
* Johnson & Johnson
* Ernst & Young
* AICPA
* Institute of Management Accountants
* American Accounting Association
* Rutgers: the State University of New Jersey
* Roman Catholic Church
So what do organizations do?

* According to Michael Porter:
  - everything an organization does should contribute to the creation of value for its customers
  - “margin” can be defined as the difference between value and costs; however, this includes ALL value and ALL costs

* For-profit organizations seek to maximize margin: others seek to maximize value within the constraints of their resources
Introduction to A.I.S.

- Enterprise
  * An organization established to achieve a particular undertaking
  * May be, but need not be, commercial
  * Often is used as a term for a large (commercial) organization
Introduction to A.I.S.

- Value Chain Analysis (Michael Porter)

**Primary Activities**

- Inbound Logistics
- Operations
- Outbound Logistics
- Marketing & Sales
- Services

**The Value Chain**

- Procurement
- Human Resource Management
- Technological Development
- Infrastructure

**Secondary Activities**
Introduction to A.I.S.

- Organizations create value through managing their business and information processes
- At the heart of managing is the decision-making involved in planning, executing, controlling and evaluating the organization’s business and information processes
Management Activities

Plan → Information System → Execute

Evaluate → Control → Plan

Hollander Denna & Cherrington, 2000
Introduction to A.I.S.

- Organizations typically have three main types of business processes (sometimes called business cycles):
  - acquisition/expense/payment process
  - conversion process
  - sales/collection process

- Information processes include:
  - recording
  - maintaining
  - reporting
Value Chain and Supply Chain

Value Systems include external partners
Supply chain is network of retailers, distributors, transporters, storage facilities and suppliers

Hollander Denna & Cherrington, 2000
Information Processes

- Capture Business Data
- Maintain Business Data
- Report Useful Information

Primary Information Processes

Business Processes

Management

Hollander Denna & Cherrington, 2000
Business Management

Manage Business Processes

Business Processes
- Acq./Pmt Process
- Conversion Process
- Sell/Collect Process

Information System
- Capture Data
- Maintain Data

Provide Reports
- Plan
- Execute
- Control
- Evaluate

Management Activities

Hollander Denna & Cherrington, 2000
Digression: what is a process?

* A process is a time-dependent sequence of steps governed by a rule called a process law. All processes have five common ingredients:
  - the entities participating in the process
  - the elements describing the steps in a process (called events in business processes)
  - the relationships between these elements
  - the links to other processes
  - the resource characteristics of the elements