

# MACQUARIE UNIVERSITY

## DEPARTMENT OF ACCOUNTING AND FINANCE

### ACCG 355: INFORMATION SYSTEMS FOR MANAGEMENT

#### UNIT OUTLINE: SECOND SEMESTER 2004

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#### UNIT OBJECTIVE

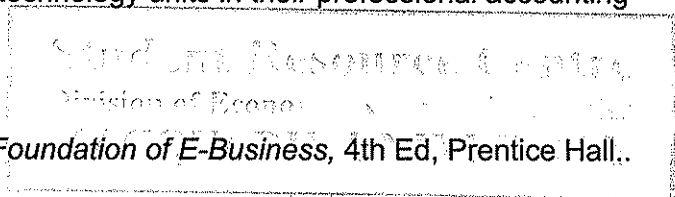
Information systems are the foundation of e-business because e-business is really about making extensive use of computer and communications technologies in critical business processes. Some of these uses are directed within the firm, such as designing products, coordinating value added work, and integrating across an enterprise. Others are associated with e-commerce such as selling and providing service through electronic links. Yet others, such as supply chain management and customer relationship management, span the firm and its business partners. Most of today's important work systems in large organisations rely on information systems so completely that they cannot operate efficiently without the information systems. And, from the other direction, it is increasingly obvious that the purpose and effectiveness of most information systems can be understood mainly in terms of their direct role in work systems. Anyone who intends to play an important role in today's business needs to understand information systems in order to understand the work systems through which organizations operate. (Alter 2002, v-vi)

The primary objective of this unit is to increase your ability to recognise, describe, evaluate, analyse, design and develop information systems from a business professional's viewpoint. The focus is on the creation of business value by enabling business processes through the use of IS/T. Extensive use is made of case studies. A secondary objective of this unit is to provide an environment in which you may develop your generic skills. Please see the item on generic skills later in the unit outline.

Achievement of the unit's objectives will make you more able to play an effective part in information system development, management, and use, and more able to communicate effectively with IS/T professionals. The unit should be relevant to students taking or intending to take information systems or information technology units in their professional accounting studies.

#### TEXT

Alter, S. 2002. *Information Systems: The Foundation of E-Business*, 4th Ed, Prentice Hall.



#### PREREQUISITES

The prerequisites for this unit are 39 credit points; and ACCG250 Accounting System Design.

#### LIBRARY RESERVE COLLECTION WEBSITE

Relevant material will be placed on the Macquarie University Library's Reserve Collection website ([www.lib.mq.edu.au](http://www.lib.mq.edu.au)). Check this website regularly. More details will be provided at class meetings.

## **STAFF**

**Sam Jebeile** (Lecturer in Charge): C5C430; email sjebeile@efs.mq.edu.au; phone 98508572 (vmail); fax 98508497

**Gordon Boyce** (Lecturer): C5C436; email gboyce@efs.mq.edu.au; phone 98508530 (vmail); fax 98508497

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All administrative matters should be directed to the Lecturer in Charge. Academic questions should, in the first instance, be directed to your Tutor, either during your weekly tutorial or during advertised consultation hours.

## **LECTURES**

These will be held in E7B Mason on Wednesdays from 4.05 to 5.55 pm.

Typically one chapter of the Alter text will be reviewed at each class meeting (see Class Schedule) and the material in the chapter related to contemporary academic and professional developments.

## **TUTORIALS**

Weekly tutorials will be held commencing in Week 2, and will typically involve discussion of the assigned case study (see Class Schedule). Students must prepare written answers to the assigned case study and bring them, and the Alter text, to tutorials. These answers will facilitate participation by students in the tutorial, and will be collected for assessment on a random sample basis.

## **ASSESSMENT**

### **Tutorial Presentation - 10%**

In week 2 tutorials, students will be placed in groups of 2 or 3 depending on tutorial numbers and allocated a tutorial question which they must research and present in a given week. Marks will be awarded based on the quality of research, and presentation both oral and written. It is expected that students will provide their tutor with a copy of their presentation material including slides and notes etc. Students will also provide a one-page summary to each student in the tutorial group. Tutorial classes are normally 50 minutes in length. As a guide, the oral component of the tutorial presentation should take approximately 25 minutes, allowing the tutor and the presenting student/s a further 25 minutes to facilitate a whole class discussion and reflection on the most important aspects they encountered in the given tutorial topic. The first presentation will take place in week 3.

### **Tutorial attendance and participation - 10%**

This assessment is based on you attending the (full) tutorial and demonstrating satisfactory preparation of the assigned tutorial work by participating actively and constructively in the tutorial.

Class participation is important for several reasons. First, participation provides us with information for judging how much each student knows about the topics being taught. Second, it encourages a smoothing of your workload. If you don't prepare you won't be able to follow much of the class discussion, and you won't be able to recoup the lost participation opportunity. You will also avoid an end-of-semester studying blitz. Third, participation encourages you to be active, rather than passive, learners. Active learning causes the lessons to sink in deeper and minimises the risk of boredom in class. Fourth, a participative class environment gives you a

chance to practice your oral communication and persuasion skills. Furthermore, class participation increases our chances of being able to take advantage of the experiences and talents of everyone in the class. Finally, your participation will contribute towards your grade in this unit. Grading class participation is a somewhat subjective process, but we try to be as fair as possible.

### **Mid-semester Examination - 15%**

The mid-semester examination will be conducted during lecture times in Week 7 (September 15<sup>th</sup>). The examination will consist entirely of multiple-choice questions. Further information will be provided in future lectures and on the Web.

### **Final Examination - 65%**

The examination will be of three hours duration and take place in the end of semester examination period. It will be a closed book examination and will include multiple-choice questions and case studies covering the whole of the Alter text. More details of the examination will be provided after the recess. A satisfactory performance in the examination is required to obtain a Pass grade or better. Dictionaries will not be permitted in the examination.

### **Macquarie University Rules and Regulations**

All assessment is subject to the University's rules and information to students set out in the 2004 Handbook of Undergraduate Studies. You are particularly referred to Bachelor Degree Rules 7, 8 and 9 dealing with Examinations, Special Examinations, and Grades; and with the Student Information regarding Assessment.

### **Grading System**

Macquarie University has adopted a new grading system from 2001. The following are the current descriptions which apply to the assessment grades as set out below:

HD (85-100) High Distinction: denotes performance which meets all unit objectives in such an exceptional way and with such marked excellence that it deserves the highest level of recognition.

D (75-84) Distinction: denotes performance which clearly deserves a very high level of recognition as an excellent achievement in the unit.

Cr (65-74) Credit: denotes performance which is substantially better than would normally be expected of competent students in the unit.

P (50-64) Pass: denotes performance which satisfies unit objectives.

PC (45-49) Conceded Pass: denotes performance which meets unit objectives only marginally.

F (0-44) Fail: denotes that a candidate has failed to complete a unit satisfactorily.

### **The dangers of cheating and plagiarism and how to avoid them**

To cheat in the context of university assignments, tests and examinations is to attempt to gain an unfair advantage by violating the principles of intellectual and scholarly integrity. Cheating also encompasses plagiarism, which is the appropriation or imitation of another person's ideas and manner of expressing them. Both cheating and plagiarism carry heavy penalties and must be avoided (see: Macquarie University policies).

## CLASS SCHEDULE

WEEK NUMBER DATE LECTURER	LECTURE TOPIC	TUTORIAL ASSIGNMENT
1 AUG 4 <sup>TH</sup> SJ	<b>Chapter 1</b> Moving toward e-business as usual	<b>No tutorials</b>
2 AUG 11 <sup>TH</sup> SJ	<b>Chapter 2</b> Understanding systems from a business viewpoint	<b>Chapter 1</b> <b>Case: Levi Strauss [p38]</b>
3 AUG 18 <sup>TH</sup> SJ	<b>Chapter 3</b> Business processes	<b>Chapter 2</b> <b>Case: Aramark Uniform Services [p82]</b>
4 AUG 25 <sup>TH</sup> SJ	<b>Chapter 5</b> Types of information systems	<b>Chapter 3</b> <b>Case: AUCNET (attached)</b>
5 SEP 1 <sup>ST</sup> GB	<b>Chapter 4</b> Information and databases	<b>Chapter 5</b> <b>Case: Ford Case (attached)</b>
6 SEP 8 <sup>TH</sup> GB	<b>Chapter 7</b> Human and ethical issues	<b>Chapter 7 (to replace Ch 4 cases)</b> <b>Case: US Congress [p302]</b>
7 SEP 15 <sup>TH</sup> SJ	<b>MID-SEMESTER EXAM IN LECTURE</b>	<b>Chapter 7</b> <b>Case: Visionics [p303]</b>
Sep 20 <sup>th</sup> Until Oct 3 <sup>rd</sup>	<b>MID-SEMESTER BREAK NO CLASSES</b>  <b>TWO WEEK RECESS</b>	

8 OCT 6 <sup>TH</sup> CS	<b>Chapters 8, 10</b> Telecommunications and Computers in a networked world (summary)	<b>Chapter 10</b> <b>Case:</b> Exodus Communications [p427]
9 OCT 13 <sup>TH</sup> CS	<b>Chapter 9</b> Software, programming and artificial intelligence	<b>Chapter 8</b> <b>Case:</b> Transmeta Corporation [p343-4]
10 OCT 20 <sup>TH</sup> GB	<b>Chapter 11</b> Information systems planning	<b>Chapter 9</b> <b>Case:</b> Cycorp [382-3]
11 OCT 27 <sup>TH</sup> GB	<b>Chapter 12</b> Building and maintaining information systems	<b>Chapter 11</b> <b>Case:</b> Cemex [p468-9]
12 NOV 3 <sup>RD</sup> SJ	<b>Chapter 6</b> Customer, product, and e-commerce	<b>Chapter 12</b> <b>Case:</b> Nibco [p507-8] <b>plus</b> extract by Chris Gane
13 NOV 10 <sup>TH</sup> SJ	<b>Chapter 13</b> E-Business security and control	<b>Chapter 6</b> <b>Case:</b> Webvan [p264-5]

## GENERIC SKILLS

Macquarie seeks to provide an environment where students may develop and build on their generic skills, including: foundation skills of literacy, numeracy and information technology; self-awareness and interpersonal skills, such as the capacity for self-management, collaboration and leadership; communication skills for effective presentation and cultural understanding; critical analysis skills to evaluate, synthesise and judge; problem-solving skills to apply and adapt knowledge to the real world; and creative thinking skills to imagine, invent and discover.

In this unit, the interactive tutorials, use of frameworks and models, extensive use of case studies, and group assignments should be particularly useful in this regard.

## **ADDITIONAL REFERENCE MATERIALS**

Students should refer to other reference material where appropriate. The latest editions of information systems texts by the following authors are recommended: Laudon, K.C. and Laudon, J.P.; O'Brien, J.A.; Oz, E.; and Zwass, V.

Students are encouraged to keep up to date with the rapid developments in IS/T. The Sydney Morning Herald (Tuesday) and The Australian (Tuesday) have relevant sections. Microcomputer magazines such as Byte, PC World, etc are also a good source. Accounting journals and business journals also include many articles on IS/T.

The Internet has become a major source of information relevant to IS/T. All major suppliers of information systems and technology, and most large organisations utilising IS/T, have internet sites which can readily be found. Search engines should be used where necessary.

The academic IS community has a collection of websites known as:  
ISWorld Net: <http://www.isworld.org/>

An indicative list of relevant journals, most of which are held in the Macquarie University Library, follows:

- Australian Journal of Information Systems
- Communications of the ACM
- Datamation
- EDPACS
- Fortune
- Harvard Business Review
- Information and Management
- IS Analyzer (formerly EDP Analyzer)
- Journal of Systems Management
- MIS Quarterly
- Sloan Management Review

**ACCG35504UNITOUTLINE.doc**

## **REPLACEMENT CASE FOR CHAPTER 3**

### **AUCNET: Auctioning Used Cars Electronically in Japan**

Although AUCNET.COM is an online website for used car auctions in the United States, a version of AUCNET was created by a used car dealer in Japan in 1985 long before the Web existed. Due to complications in inspection and licensing, car owners wanting to sell used cars in Japan typically sell them to car dealers rather than to individuals. New car dealers typically do not sell used cars to customers, and therefore sell them to used car dealers. Auctions provide an efficient way to perform these sales.

Traditional used car auctions required the seller to transport the car to the auction site. The buyers went to the auction site, inspected the cars, and then bid for them. A buyer who wanted to buy only a small number of cars might still have to spend the whole day at the auction. Sellers whose cars did not sell because no bid was as high as the minimum reserve price they declared would then have to transport the unsold cars back to their lot or to another auction location. AUCNET was designed to broaden the market and make it more convenient for both buyers and sellers. Sellers must have their cars inspected by AUCNET mechanics, who summarise their quality on a scale from 1 to 10. The cars are presented to sellers in an electronic catalog that includes a list of features and interior and exterior photos plus a specific day and time when the item will be sold. The auction is carried out electronically, meaning that buyers can participate without travelling and can log in only when the car they actually interested in is due to be auctioned. Cars that are sold are transported from the seller's car lot to the buyer's car lot. AUCNET carved out a niche at the top end of the wholesale used car market and sold more than one million cars in its first ten years. By 1995 it was the largest of 144 used car auctions in Japan and had 4,150 dealer members.

It is commonly believed that sales prices at electronic auctions should be lower than sales at traditional auctions because the buyer's costs of searching for better alternatives will be lower. Contrary to this belief, prices for cars sold through AUCNET were substantially higher than prices for comparable cars sold in traditional physical used car auctions in Japan. Several reasons explain the higher prices. First, the sellers feel confident to hold out for higher prices because a larger number of potential bidders might bid for their cars. Furthermore, they do not have to absorb the cost of moving the unsold car to the auction lot and back to their car lot or to another auction. Instead, it can simply stay at their lot until the next auction. On the buyers' side, a slightly higher price might be acceptable because the buyers do not have to absorb the opportunity cost of travelling to the auction site and spending a day there instead of selling cars at their own lots. Also, the AUCNET quality rating system was well regarded. AUCNET has since converted its electronic auction to use Web technology. In 1998 U.S. dealers and wholesalers used AUCNET.COM to buy and sell 6,000 cars per month. For the same reasons as in the Japanese case, the sellers usually obtained higher prices than they would probably obtain at a traditional physical auction.

#### **REQUIRED**

1. Use the work system framework to summarise the situation (Figure 1.1).
2. Prepare a context diagram for the AUCNET system (Figure 3.2).
3. Compare the traditional auctions with the electronic auctions in terms of whichever business process characteristics and performance variables seem most relevant (Table 3.1, 3.4, 3.5).
4. Identify products that would be most appropriate to sale by electronic / Internet auction.

## CASE STUDY – CHAPTER 5

### FORD'S INTRANET SUCCESS\*

\*Adapted from Cronin, M.J., *Fortune*, March 30, 1998

Most of the stories about successful intranets come from information technology companies. But when a big time manufacturer gets Web technology right, the results can be truly dramatic. Ford Motor's intranet may save the company billions of dollars in the next few years. It will even help Ford change its way of doing business: CIO Bud Matheisel says the Web is behind Ford's move from a "make and sell" strategy to a more flexible "make on demand" approach.

Ford's intranet connects some 120,000 workstations at offices and factories around the world to thousands of Ford websites with proprietary information like market research, analyses of competitor's components, and rankings of the most efficient suppliers of parts. The carmaker's product development system, which documents thousands of steps in manufacturing, assembling, and testing vehicles, is updated hourly on the intranet. That lets engineers, designers, and suppliers work from the same data. Every vehicle team has a website, where team members can post questions and progress reports, note bottlenecks, and resolve quality issues that arise in production. According to Paul Blumberg, director of product development, sharing such information widely has helped Ford reduce the time it takes to get new models into full production from about 36 months to 24 months.

The next step was to move closer to manufacturing on demand, a process that requires coordinating the delivery and assembly of thousands of components. For starters, Ford has opened its intranet to major suppliers. The level of detail is so precise that a supplier of, say, car seats can see in what sequence of colors its next shipment should be packed, allowing the blue seats to be uncrated at the plant just as the blue cars reach the seat installation station on the assembly line.

Matheisel says this is all part of a sweeping manufacturing reengineering process that Ford has undergone in the past couple of years. The results are clear: In 1996, he says, it took more than 50 days to get the Mustang of your choice delivered from the plant to the dealer; today you'll get that Mustang in 15 days. Ford's goal is to manufacture the majority of its vehicles on a demand basis by the end of 1999, with delivery in less than two weeks after the order. This would save billions of dollars in inventory costs.

**PTO**



To achieve that goal, Ford needs to link more of its 15,000 dealers around the world into its intranet. North American dealers can already use a satellite network to order vehicles from the assembly plant, check on production status, and change orders up to seven days before a car is finished. Since satellite costs in Europe and Asia are prohibitive, Ford is hooking dealers on those continents via the Net.

Dealers will also be able to offer custom ordering and delivery on every car or truck. Already, salespeople in certain North American dealerships can sit with a customer in front of a PC, specify the exact combination of accessories the customer wants, view the car on the monitor in high-resolution graphics, order the car, and get a confirmed delivery date.

## **REQUIRED**

- 1. Use the Work System Framework (architecture components) to describe the four main intranet-based information systems at Ford outlined above (ie Product Development Information System, Supplier Coordination Information System, Dealer Ordering Information System, Vehicle Customising Information System).**
- 2. List and describe as many of the different types of information systems as you can identify within the information systems at Ford outlined above.**