



MACQUARIE UNIVERSITY - SYDNEY

DEPARTMENT OF ACCOUNTING AND FINANCE

ACCG 355: INFORMATION SYSTEMS FOR MANAGEMENT

UNIT OUTLINE: SECOND SEMESTER 2005

M | UNIT OBJECTIVE

Information systems are the foundation of e-business because e-business is really about making effective 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. In large organisations today's most of significant work processes rely on information systems so greatly that they cannot operate effectively without them. Additionally it is increasingly obvious that the purposes and effectiveness of most information systems can be best understood in terms of their direct roles in work systems. Anyone intending to play a significant role in business today must understand information systems in order to comprehend the work systems through which organisations operate. (after 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 enhancing and 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 improve your generic skills. (See the material concerning generic skills later in the unit outline.)

Achievement of the unit's objectives will make you better able to play an effective part in development, management, and use of information systems, and to equip you 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.

Unit weighting

Accg355 is a three (3) credit point unit

Classes

- A weekly two hour lecture.
- Weekly one hour tutorials

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). Check this website regularly. More details will be provided at class meetings.

STAFF

Chris Searchfield (Lecturer in Charge): C5C414;

Email; csearchf@efs.mq.edu.au; phone 98508462 (vmail); fax 98508497

Gordon Boyce (Lecturer): C5C436;

Email; gboyce@efs.mq.edu.au; phone 98508530 (vmail); fax 98508497

Barbara Nevicky (Lecturer and Tutor) C5C416

Email; bnevicky@efs.mq.edu.au; phone 98509192 (vmail); fax 98508497

Allan Drummond (Unit Administrator and Tutor) C5C322. Email; adrummon@efs.mq.edu.au

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.

TEACHING MODES

Lectures

Will be held in E7B Mason on Wednesdays from 4.00 to 5.55 pm.

Typically one chapter of the Alter text will be reviewed at each class meeting (see Class Schedule) lecturers will also draw on a range of additional contemporary professional and academic material so attendance at lectures is important. Lecturers are entitled to assume that students have read the relevant chapter(s) of the text before attending the lecture.

Tutorials

Weekly tutorials will be held commencing in Week 2, and will typically involve a presentation by selected students and class discussion of the assigned case study (see Class Schedule). As with Lecturers Tutors will assume that students have read and prepared the allocated materials prior to tutorials. All students must prepare written answers to the assigned case (even if only in point form) and bring them, and the Alter text, to tutorials. The prepared answers will facilitate student participation in the tutorial, and will be collected for assessment on a random sample basis.

Presenting Students must prepare fully detailed answers – see Tutorial Presentations below.



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. Students must provide their tutor with a typed copy of their presentation material including slides and notes etc. Students must also provide a one-page summary for each student in their tutorial group. Tutorial classes are normally of about 50 minutes duration. As a guide, an oral tutorial presentation should take approximately 20 to 25 minutes, the remaining time allows the tutor and the presenting student/s to facilitate a whole class discussion reflecting on the most important aspects they encountered in the given tutorial topic. One measure of the success of students presentations is the quality of debate stimulated by the presentations. The first presentations 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, participation 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. Full participation also minimises the end-of-semester study blitz.
- Third, participation encourages you to be active, rather than passive, learners. Active learning causes the lessons to be more deeply absorbed and minimises the risk of boredom in class.
- Fourth, a participative class environment gives you a chance to practice oral communication 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 the lecture in Week 7 (Week commencing Monday 13/9/2005). The examination will be closed book and will consist entirely of multiple-choice questions. Further information will be provided during 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 or better grade. Dictionaries will not be permitted in the examination.

The University Examination period for the second semester 2005 is from 16/11/05 to 30/11/05. Students are advised to check the actual time and place of the examination at <http://www.tmetables.mq.edu.au/exam> well before that period.

| **Teaching and Assessment Issues**

Students who for reasons of sickness or misadventure are experiencing difficulties in attending lectures and tutorials or completing assessment tasks are advised to bring the matter to the attention of the Unit Administrator when it occurs to minimise disruption at final exam time. The only acceptable reasons for failure to attend examinations at the designated time and place are documented illness or unavoidable disruption. In such circumstances you may wish to apply for special consideration. Information concerning such applications is available at <http://www.reg.mq.edu.au/Forms/APSCon.pdf>. If a supplementary exam is granted it will be held after the normal examination period. It is against the University's policy to set early exams, you are required to attend the whole of the semester.

Cheating and plagiarism

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 includes plagiarism, which is the appropriation or imitation of another person's ideas and manner of expressing them and presenting them as if they were ones own.

Details of the Universities procedures regarding plagiarism may be reviewed from the *Handbook of undergraduate studies* or at <http://www.student.mq.edu.au/plagiarism/>

Both cheating and plagiarism carry heavy penalties and must be avoided (see: Macquarie University policies). Any such matters noted may involve a deduction of marks, failure in the unit, and/or referral to the University Disciplinary Committee.

Macquarie University Rules and Regulations

All assessment is subject to the University's rules and information to students set out in the 2005 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**

The Academic senate has issued guidelines as to the distribution of grades from High Distinction (HD) to Fail (F). Results will include one of these grades together with a Standardised Numerical Grade (SNG)

On occasion your raw score for a subject (the total marks for all assessment tasks) may differ from your allocated SNG. The senate's guidelines require marks to be assessed and permit them to be scaled to ensure a degree of comparability across the University. Scaling does not affect the rank order of marks allocated to students. It is important to be aware that the policy does not entail some arbitrary percentage of students receiving Fail grades. On the contrary the guidelines require examiners to justify their decisions if more than 20% of students fail any

subject. For an explanation of the policy see

<http://www.mq.edu.au/senate/MQUonly/Issues/detailedguidelines.doc>

The following are the current descriptions which apply to the assessment grades :

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 only marginally meets unit objectives.

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

| **Support Services**

The University provides a range of Academic Student Support Services details of which may be viewed at <http://www.student.mq.edu.au>

Student Support Service

The Student support service is available to all Macquarie students and offers:

- Considerable web based information concerning writing and referencing etc
- Free one hour learning skills seminars offered throughout the semester
- Interactive online tutorials on 'Time management' and 'Effective academic reading'

For more information visit the websites at:

- Web –based information: <http://www.sss.mq.edu.au/learning/undergrad/>
- Workshops : <http://www.sss.mq.edu.au/counselling/workshops/learning.htm>
- Online tutorials: <http://online.mq.edu.au/pub/UCHSTIME/>

Students should be aware that success in Accg 355 (as with all other subjects) relies on a good command of English, particularly written English. The following support services are available:

Writing Gateway

The Writing Gateway is an interactive online guide to academic literacy which covers such topics as referencing, plagiarism etc. a Macquarie ID is required to access it.

The Website is: <http://online.mq.edu.au/pub/EDUCGATEWAY/>

Writing Skills program.

This program is a free service available to all Macquarie students. It offers:

- Short courses on essay writing during weeks 6 to 10 each semester
- Individual consultation on Academic writing (by appointment)

Details are available at http://www.ling.mq.edu.au/support/writing_skills/index.htm

English for Academic Purposes (EAP)

The EAP Program is available to students whose language background is other than English. It offers:

- Free workshops on pronunciation and grammar
- Free half hour personal consultations on academic writing (arranged by appointment)
- Units for credit on academic writing and research skills (EAP100 and EAP101)

For additional information view the EAP Noticeboard (opposite W3A 407) at the beginning of the semester or contact

- Lorraine Sorrell 9850 9936 lorraine.sorrel@ling.mq.edu.au
- Margaret Gillam 9850 6781 margaret.gillam@ling.mq.edu.au

International Study Skills Adviser – Justin Dutch

The adviser offers the following free services:

- Individual or small group consultation on academic writing (by appointment)
- Workshops on topics such as:-
 - Understanding and preparing assignments
 - Proofreading techniques
 - Improving academic writing
 - Essay writing, Report writing and Referencing

For further information see:

<http://www.international.mq.edu.au/StudentServices/StudySupport/index.html>



CLASS SCHEDULE

WEEK # Week Starts Day d/m/y	LECTURE TOPIC	TUTORIAL ASSIGNMENT
1 Mon 1/8/05	Chapter 1 Moving toward e-business as usual	No tutorials
2 Mon 8/8/05	Chapter 2 Understanding systems from a business viewpoint	Chapter 1 Case: Levi Strauss [p38]
3 Mon 15/8/05	Chapter 3 Business processes	Chapter 2 Case: Aramark Uniform Services [p82]
4 Mon 22/8/05	Chapter 5 Types of information systems	Chapter 3 Case: AUCNET (attached)
5 Mon 29/8/05	Chapter 4 Information and databases	Chapter 5 Case: Ford Case (attached)
6 Mon 5/9/05	Chapter 7 Human and ethical issues	Chapter 7 (to replace Ch 4 cases) Case: US Congress... [p302]
7 Mon 12/9/05	MID-SEMESTER EXAM IN LECTURE Wednesday 14/9/05	Chapter 7 Case: Visionics [p303]

16/9/05 Until 4/10/05	MID-SEMESTER BREAK NO CLASSES TWO WEEK RECESS	
--------------------------	--	--

8 Tues 4/10/05	Chapters 8, 10 Telecommunications and Computers in a networked world (summary)	Chapter 10 Case: Exodus Communications [p427]
9 Mon 10/10/05	Chapter 9 Software, programming and artificial intelligence	Chapter 8 Case: Transmeta Corporation [p343-4]
10 Mon 17/10/05	Chapter 11 Information systems planning	Chapter 9 Case: Chrysler "Extreme programming" [381-2]
11 Mon 24/10/05	Chapter 12 Building and	Chapter 11 Case: Cemex [p468-9]

	maintaining information systems	
12 Mon 31/10/05	Chapter 6 Customer, product, and e-commerce	Chapter 12 Case: Nibco [p507-8] plus extract by Chris Gane
13 Mon 7/11/05	Chapter 13 E-Business security and control	Chapter 6 Case: Webvan [p264-5]

GENERIC SKILLS

Macquarie seeks to provide an environment in which students develop and build on their generic skills, including:

- o foundation skills of literacy, numeracy and information technology; self-awareness and self-management,
- o interpersonal skills, such as the capacity for, collaboration and leadership;
- o communication skills for effective presentation and cultural understanding;
- o critical analysis skills to evaluate, synthesise and judge;
- o problem-solving skills to apply and adapt knowledge to the real world; and
- o creative thinking skills to imagine, invent and discover.

In this unit, interactive tutorials, the use of frameworks and models, extensive use of case studies, and group presentations promote these generic skills.

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 good sources of information. Accounting journals and business journals also include articles on IS/T.

The Internet has become a major source of information relevant to IS/T. Major suppliers of information systems and technology, and most large organisations utilising IS/T, have internet sites which can be readily found through the use of search engines.

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:

- o Australian Journal of Information Systems
- o Communications of the ACM
- o Datamation

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



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.**