



Faculty of Commerce and Administration
School of Information Management

INFO 325 TELECOMMUNICATIONS IN BUSINESS

Trimester 1 2005

COURSE OUTLINE

| Contact Details | |
|----------------------------|--|
| Course Coordinator: | Tony Thistoll Room EA 105 Tel. 463 5233 x 8902 or 021 446 270 Email: tony.thistoll@vuw.ac.nz |
| Office Hours | Monday 1.00pm – 1.50pm Thursday 1.00pm – 1.50pm |

| Class Times and Room Numbers | |
|-------------------------------------|--|
| Dates: | Day: Monday & Thursday From: 21-Feb- 2005 To: 27-May-2005 |
| Times: | 12.00pm – 12.50pm |
| Venue: | Hugh Mackenzie LT104 |
| Prerequisites: | 22 200-level INFO, ELCM or COMP pts (not INFO 221) |
| Restrictions: | INFO 314 |
| Points Value: | 24 |

Course Description

A Study of current Telecommunications technologies from a business and management point of view, covering the pertinent developments in communications protocols, telecommunications service options, networks operations, bandwidth, Internet and data transfer applications.

“Advanced telecommunications technologies have dramatically changed the way businesses operate, spawning new services and creating an interconnected worldwide community”

Dodd, Annabel. 2002.

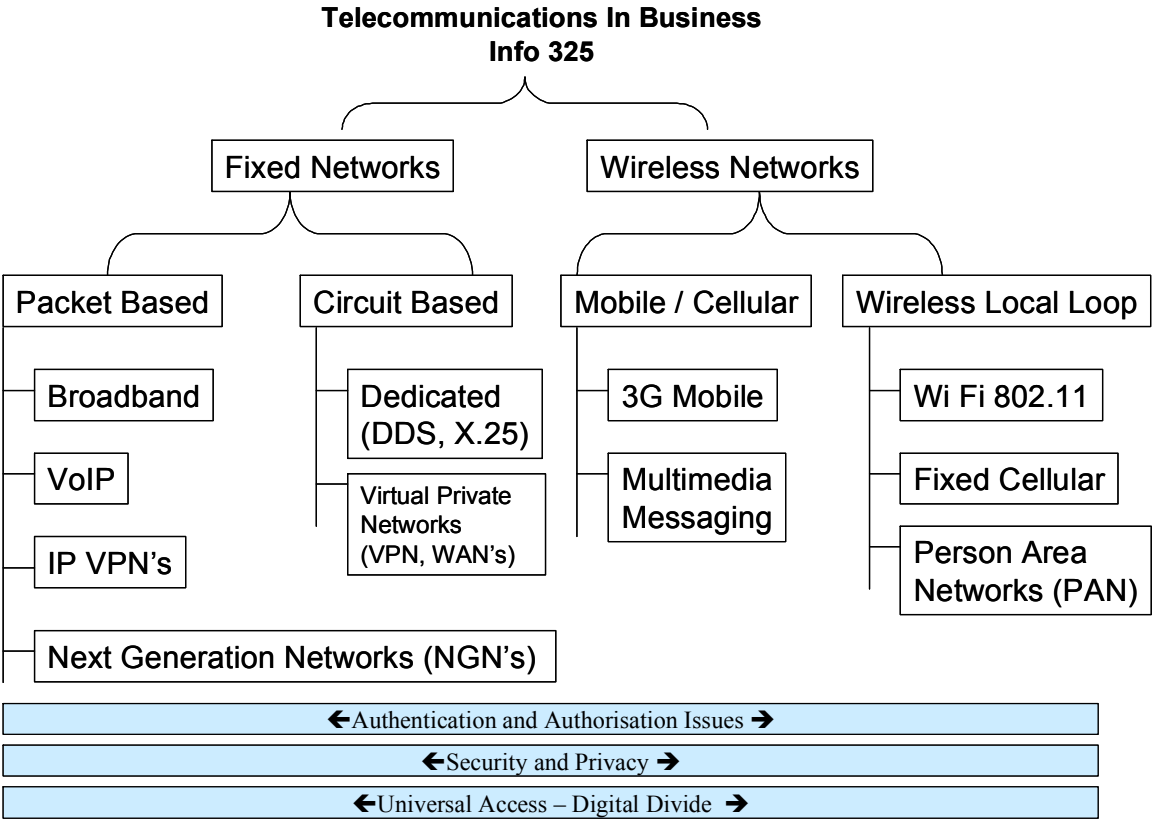
Technology and telecommunications have so permeated our lives that we tend to not even notice it is there. But the technology provides an organization with the tools and capabilities for creating a competitive advantage in their particular part of the market. With the global nature of telecommunications, the ability of an organization to move and share information, collaborate over distances, and manage all aspects of their business have combined to make the technology of telecommunications a business essential commodity. This means that a viable company will view the use, implementation, and support of technology a process that must be handled as a business decision. Carr & Snyder. 2003.

Course Objectives

On completion of the course students will be able to:

1. Describe the major telecommunications technologies used within businesses today.
2. Analyse from a commercial perspective an extensive range of telecommunication technologies and solutions identifying advantages and limitations.
3. Analyse from a commercial perspective emerging telecommunication technologies, and proposed standards that could influence the way businesses conduct business.
4. Identify emerging technologies that allows us to go online anytime anywhere.
5. Describe and discuss key factors impacting on adoption and take-up of telecommunication technologies and solutions.
6. Competently discuss key managerial and organisational issues surrounding telecommunications in business.

Course Content



| Class | Date | Topic | Preparation | Comments |
|-------------------------|-----------------------|--|---|--|
| Week 1 Classes 1 & 2 | 21 Feb 24 Feb | Introduction Course Overview Assessment What is Telecommunications | Chapters 1 | |
| Week 2 | 28 Feb 3 March | The Basics What technologies we use, fixed networks | Chapters 2&3 | |
| Week 3 | 7 March 10 March | Data Communications (Circuit Based) | Chapters 4&5 | |
| Week 4 | 14 March 17 March | Network Topology & Architecture | Chapters 6& 7 | |
| Week 5 | 21 March 24 March | Enterprise Networks Voice Over IP (VoIP) IP VPN's | Chapter 8 Plus posted readings | |
| Mid term break | 28 & 31 March | | | |
| Mid term break | 4 & 7 April | | | |
| Week 6 | 11 April 14 April | Next Generation Networks NGN's Business Applications | Chapters 10 Plus posted readings | |
| Week 7 | 18 April 21 April | Business Applications - Teleworking - Collaboration Management of Voice and Data systems | Chapter 13 Plus Posted readings | |
| Week 8 | *25 April 28 April | 3G Mobile | Posted readings | * No class on the 25 th as it is Anzac day |
| Week 9 | 2 May 5 May | Multimedia Messaging TXT, PXT, IM Wireless Local Loop | Posted readings | |
| Week 10 | 9 May 12 May | Authentication & Authorisation | Posted readings | |
| Week 11 | 16 May 19 May | Security Emerging Technologies PAN's | Chapters 15 &16 Plus posted readings | |
| Week 12 | 23 May 26 May | Preparing for Assessment In class Assessment | | |

Tutorials

There will be tutorials for this paper, which begin in week 4. The format for tutorials and tutorial streams will be discussed in the first lecture. Below is an indicative guide to tutorial sessions and content:

| Class | Date | Topic |
|--------|----------|-----------------|
| Week 1 | 21 Feb | No Tutorials |
| Week 2 | 28 Feb | No Tutorials |
| Week 3 | 7 March | No Tutorials |
| Week 4 | 14 March | Tutorial Format |

| | | |
|----------------|----------|--|
| | | Presentation requirements Assignments |
| Week 5 | 21 March | General discussion on topics / issues in the media |
| Mid term break | 28 March | |
| Mid term break | 04 April | |
| Week 6 | 11 April | Presentations – Presentation Reports |
| Week 7 | 18 April | Presentations – Presentation Reports |
| Week 8 | 25 May | Presentations – Presentation Reports |
| Week 9 | 2 May | Preparation for in class assessment |
| Week 10 | 9 May | Preparation for in class assessment |
| Week 11 | 16 May | No Tutorials |
| Week 12 | 23 May | No Tutorials |

Readings - Required Course textbook:

Carr, Houston H. & Synder, Charles A. *The Management of Telecommunications: Business Solutions to Business Problems enabled by Voice and Data Communications*. McGraw–Hill Irwin, New York, 2003.

International ISBN 0-07-119928-4

Book site address & Online Student Centre:

http://highered.mcgraw-hill.com/sites/0072489316/student_view0/

Additional suggested Texts

Goleniewski, Lillian. *Telecommunications Essentials: the complete global source for communications fundamentals, data networking and the Internet, and next generation networks*. Person Education Inc, Addison- Wesley, Boston, 2003. ISBN 0-201-76032-0

Websites of Interest – Resource Material

There are numerous technology and telecommunications related websites on the Internet. Some suggestions are:

www.stuff.co.nz/infotech.html

(General IT, eCommerce news articles in New Zealand)

www.brint.com

news, articles, white papers

www.whatis.com

A glossary of terms

www.howstuffworks.com

Brief descriptions of technical items

[Telecom Paper](#)

Telecommunications Industry Papers

[BBC Technology News](#)

BBC technology news sites

[Information resources for IT professionals - ZDNet](#)

<http://cyberatlas.internet.com/>

Cyber Atlas

[International Telecommunications Union](#)

ITU coordinate global telecom networks services.

[CNET News](#)

[Worldbank](#)

Has country specific Telecommunication reports

[TUANZ](#)

Telecommunication Users Association of New Zealand

[Ministerial Enquiry into Telecommunications](#)

[Ministry of Economic Development - Telecommunications Sector](#)

Course site

This course will make extensive use of blackboard with new readings regularly posted on the site along with the weekly lecture presentation slides. Students are required to regularly check blackboard.

Assessment Requirements

| <u>Assessment</u> | <u>%</u> | <u>Date</u> |
|----------------------------------|----------|------------------|
| Research Project | | |
| – Unbundling the Local Loop | 30% | 24 March |
| Group Presentation Report | | |
| - Topical Issues | 20% | In Tutorials TBA |
| Business Proposal | | |
| – Telecommunication Solution(s) | 30% | 2 May |
| In class - Supervised Assessment | 20% | 26 May |

Overview – Research Project – Unbundling the Local Loop: 30 % of final mark

There is on going debate within the Telecommunication's industry as to the best way forward in regards to regulatory intervention into unbundling the local loop. The current situation of partial unbundling or commonly known as Unbundled Bit Stream Service has its many critics as well as proponents.

The Telecommunications Commissioner, Mr Douglas Webb, put this compromise solution in place last year. Full details of the Commission's findings and industry submissions to the investigation can be found at the following location:

[local loop unbundling documentation](#)

<http://www.comcom.govt.nz/telecommunications/localloop.cfm>

You are required to research and review selected documentation submitted to the investigation, the commissioner's determination and international literature, reports and studies as applicable and arrive at your own conclusion as to what is the best way forward for New Zealand as a whole.

To arrive at your determination you need to research and review the case for the alternative solutions, experiences to date in New Zealand with current solutions and then assess the relevant merits of the different arguments and write up your conclusions and recommendations.

Overview – Presentation Report: 20 % of final mark

These are group presentations to your tutorial class, on key leading edge technologies, and business practices that have occurred in recent years that impact on telecommunications. Your assessment for this task will focus on your presentation content and the quality of the research your group does for the presentation, as well as the quality of the presentation itself.

Group size will be 3 people per group, and each group will be given a specific technology topic, which will be allocated in the first tutorial. Groups will also be allocated their presentation date at the first tutorial. You and your group will then be asked to investigate the topic and prepare a succinct management briefing for the class. Presentations should be planned to be 15 minutes long, allowing 5 minutes for questions (total 15 – 20 minutes maximum).

As part of the assignment you are required to prepare a 2-3 page hand out for your fellow students on the topic. But as this is a paper focused on the business benefits of Telecommunications, there is a twist you are required to prepare and publish your paper online using a Wiki! There will be marks attached to this part as well as the in class presentation.

Overview – Business Proposal: 30% of final mark

An international franchise operation is about to enter New Zealand with facilities and staff throughout New Zealand. You have been hired by the organisation to develop a Telecommunication business proposal, which will meet their business requirements in New Zealand.

This proposal would need to identify relevant telecommunications solutions and make recommendations as to actual products and service provider solutions which will meet the needs of the different parts of the franchises business.

In class - Supervised Assessment: 20 % of final mark

The final exam for this paper will be in the form of an in-class supervised assessment which will be 50 minutes in length and will require you to answer short answer discussion questions.

Penalties

In keeping with standards of professionalism appropriate to this degree, it is expected that deadlines will be honoured. In fairness to students who complete work on time, work submitted after the due date/ time will incur penalties for lateness. The penalty is up to 5% of the report's grade per day (or part thereof) late. Unusual or unforeseeable circumstances (e.g.

serious illness, family bereavement) may lead to a waiver of this penalty but need to be discussed with the course coordinator as soon as possible.

Word limits should be adhered to, especially so when they provide a guide to limiting the student's coverage of a topic.

Student Commitment - Workloads and Terms Requirements:

You are required to attend all course sessions, read assigned materials, and contribute to discussions. For each week of the course, plan to spend two hours in class, plus three to four hours preparing for class. Additional time will be required for completion of course assignments.

Class participation

Students are expected to attend every class. Where absenteeism is unavoidable, the lecturer should be informed in advance as far as possible.

As an important component of the course is the interaction and sharing of ideas and perspectives during the class sessions, participation in the class discussions will be monitored carefully. The emphasis will lie on the quality of contributions rather than on the frequency. Particularly valued will be:

- Effective starting of a discussion
- Injection of a unique perspective into a discussion
- Inter-relating of various perspectives
- Drawing together things learnt during the discussion
- Relating discussions on new topics to those already covered

Researching and presenting information beyond the confines of the prescribed readings

Format of assignments

Assignments must be submitted in hard copy to the course Coordinator. They should be computer-formatted, 12pt font, 1.5 line spacing, single sided papers, to allow for written comments on the paper. Appendix material does not count toward the required assignment length.

Grading Standards

| Letter Grade | Number grade | Approx Dist'n * | Simple Description | More Complete Description** |
|---------------------|---------------------|------------------------|---------------------------|--|
| A+ | Over 84 | 4% | Outstanding | Far exceeds requirements, flawless, creative |
| A | 80-84 | 10% | Excellent | Polished, original, demonstrating mastery |
| A- | 75-79 | 14% | Very Good | Some originality, exceeds all requirements |
| B+ | 70-74 | 22% | Good | Exceeds requirements in some respects |
| B | 65-69 | 26% | Satisfactory | Fulfills requirements in general |
| B- | 60-64 | 18% | Acceptable | Only minor flaws. Unoriginal |
| C+ | 55-59 | 4% | Pass | Mistakes, recapitulation of course material |
| C | 50-54 | 2% | Minimum pass | Serious mistakes or deficiencies |
| D | 40-49 | 1% | Unacceptable | Little understanding, poor performance |
| E | 00-39 | 1% | Fail | Below the minimum required |

Pass Criteria: To pass the course, you must gain a weighted total of 50% across all assignments.

Communication of Additional Information

This course will make extensive use of blackboard with new readings regularly posted on the site along with the weekly lecture presentation slides. Students are required to regularly check blackboard.

General University Policies and Statutes

Students should familiarise themselves with the University's policies and statutes, particularly those regarding assessment and course of study requirements, and formal academic grievance procedures.

Student Conduct and Staff Conduct

The Statute on Student Conduct together with the Policy on Staff Conduct ensure that members of the University community are able to work, learn, study and participate in the academic and social aspects of the University's life in an atmosphere of safety and respect. The Statute on Student Conduct contains information on what conduct is prohibited and what steps can be taken if there is a complaint. For queries about complaint procedures under the Statute on Student Conduct, contact the Facilitator and Disputes Advisor. This Statute is available in the Faculty Student Administration Office or on the website at:

www.vuw.ac.nz/policy/StudentConduct.

The policy on Staff Conduct can be found on the VUW website at:

www.vuw.ac.nz/policy/StaffConduct.

Academic Grievances

If you have any academic problems with your course you should talk to the tutor or lecturer concerned or, if you are not satisfied with the result of that meeting, see the Head of School or the Associate Dean (Students) of your Faculty. Class representatives are available to assist you with this process. If, after trying the above channels, you are still unsatisfied, formal grievance procedures can be invoked. These are set out in the Academic Grievances Policy which is published on the VUW website:

www.vuw.ac.nz/policy/AcademicGrievances.

Plagiarism

Victoria University defines plagiarism as the copying of ideas, organisation, wording or anything else from another source without appropriate reference or acknowledgement so that it appears to be one's own work. This includes published and unpublished work, the Internet and the work of other students and staff. Plagiarism is an example of misconduct in the Statute of Student Conduct. Students who have plagiarised are subject to a range of penalties under the Statute. See the website: www.vuw.ac.nz/policy/StudentConduct.

Students with Disabilities

The University has a policy of reasonable accommodation of the needs of students with disabilities. The policy aims to give students with disabilities an equal opportunity with all other students to demonstrate their abilities. If you have a disability, impairment or chronic medical condition (temporary, permanent or recurring) that may impact on your ability to participate, learn and/or achieve in lectures and tutorials or in meeting the course requirements, then please contact the Course Coordinator as early in the course as possible. Alternatively you may wish to approach a Student Adviser from Disability Support Services to confidentially discuss your individual needs and the options and support that are available.

Disability Support Services are located on Level 1, Robert Stout Building, or phoning 463-6070, email: disability@vuw.ac.nz. The name of your School's Disability Liaison Person can be obtained from the Administrative Assistant or the School Prospectus.

Student Support

Staff at Victoria want students' learning experiences at the University to be positive. If your academic progress is causing you concern, please contact the relevant Course Co-ordinator, or Associate Dean who will either help you directly or put you in contact with someone who can.

The Student Services Group is also available to provide a variety of support and services. Find out more at www.vuw.ac.nz/st_services/ or email student-services@vuw.ac.nz.

VUWSA employs two Education Coordinators who deal with academic problems and provide support, advice and advocacy services, as well as organising class representatives and faculty delegates. The Education Office is located on the ground floor, Student Union Building, phone 463 6983 or 463 6984, email education@vuwsa.org.nz.