

THE UNIVERSITY OF
NEW SOUTH WALES



Faculty of Commerce and Economics
School of Information Systems, Technology and
Management

**INFS 4886 AND INFS 5986
RESEARCH TOPICS IN INFORMATION SYSTEMS 1**

**COURSE OUTLINE
SESSION 1, 2006**

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1. COURSE STAFF

Lecturers:

Dubravka Cecez-Kecmanovic, LIC, QUAD 2096
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Geoff Dick, QUAD 2092 A
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Consultation times, Dubravka, Mon, 4-5pm, Geoff Mon 8-9pm.

1.1 Communication with Staff

Outside the class sessions and consultations the preferred mode of communication between students and lecturers is via WebCT Vista message system. If a student has a question of wide interest, the answer will be provided so that all students can see it. All messages and announcements for students will be posted on WebCT Vista as well. In case of a personal matter a student may send an email to lecturers or call by phone.

2. INFORMATION ABOUT THE COURSE

1.0 Teaching times and Locations

Lectures and seminars

Room: **Square House 206**

Time: **Monday 5-8pm**

1.0 Units of Credit

UOC value for the course is 6

2.3 Relationship of this course to other course offerings

This is a foundation course that introduces students to research problems and the way research is conducted in the Information Systems (IS) discipline. As the first of the two research methods courses, Research Topics in IS 1 provides an overview of research approaches and methodologies, together with examples of high quality research in IS, which is essential for students' understanding of the nature and purpose of research as well as students' ability to conduct research. Therefore this is a mandatory course for all students doing research in the discipline of Information Systems offered by the School of Information Systems, Technology and Management.

Most importantly this course will provide you with a foundation that will be used and built upon in your thesis work. You will be able to discuss the purpose of research, research questions, alternative approaches and methods to answer the research questions, and how we construct knowledge and make a contribution to theory and practice of IS.

This foundation course also provides the student with concepts and skills that will be useful in a more general way in careers such as business systems consultants, systems analysts, IS designers and developers, IS project managers, etc.

2.4 Approach to learning and teaching

This course is based on the assumptions of the experiential learning approach and the social construction of knowledge. Students and lecturers will engage in collaborative learning activities by drawing from their experiences in researching, developing or using IS. Therefore, the course will evolve around a real life problem – examination of an IS in a context – that will involve literature review, formulation of research questions, selection and justification of a research approach and methodology, conduct of empirical research and presentation of research results. While such a research will be a small scale, group project, it will enable students to gain personal, first-hand experience and share their knowledge while selecting, designing and conducting research.

Learning and teaching activities will involve a mixture of lectures, seminars, discussions and workshops, appropriate for the topic studied.

An important feature of this course is an enjoyable learning experience. The course will show how IS research can be exciting and interesting and also how it is relevant for IS practice and for your future professional and research career.

3. COURSE AIMS AND OUTCOMES

3.1 Course Aims

The aims of the course include:

- ❑ Improve understanding of the nature of research, research process and creation of knowledge in the IS discipline;
- ❑ Assist students in identifying interesting research topics and articulating the reasons for undertaking a research project
- ❑ Develop and apply fundamental research skills, including conducting literature reviews, designing a research project, conducting data collection, analysing data and presenting research results
- ❑ Assist students in developing research writing skills.

3.2 Student Learning Outcomes

At the conclusion of the course you should be able to:

- o. Understand the nature, types and characteristics of research in the IS discipline.
- o. Conduct a literature review and formulate research problems and questions.
- o. Understand and apply various research approaches and methodologies.
- o. Demonstrate an ability to apply different data collection and data analysis techniques.
- o. Write up your research.

3.3 Teaching Strategies

A class will typically involve a lecture or seminar – discussing a new topic and related readings – followed by groupwork, discussions, workshops, and student presentations. The course is designed to engage students from the very beginning by starting with a discussion about a research problem of interest to students. As teaching topics progress from week 1 so will students' research project. Each group

of students (no more than 5) will choose a particular research problem and start exploring it as of week 1 until week 13, when students will present their results. Based on the discussion and feedback students will be able to improve their outcomes and write up their research project. Lectures, seminars and workshops will be synchronized with student project progress as much as possible.

Discussions and knowledge sharing is a very important feature of the adopted approach to teaching and learning. In general, the discussions provide an opportunity for you to clarify and run through the key concepts and models from lectures/seminars and the literature. They enable you to develop your own and shared understanding of both practical problems and theoretical knowledge in IS and apply such knowledge in your assignment work. The academic staff will be available to provide guidance with your assignments so that they continue to progress. In this way, the assignments are considered as both a learning and assessment opportunity.

The main ways for students to achieve the learning outcomes listed above and to optimize their learning experience are through preparation and active participation in all class activities, presentations and discussion groups as well as individual and group research activities. Your preparation will be assessed by a “Preparation for class” sheet that you are requested to submit a day before each class. You are of course encouraged to seek clarification by asking questions during classes as well.

4. STUDENT RESPONSIBILITIES AND CONDUCT

4.1 Workload

It is expected that you will spend at least **ten hours** per week studying this course, including approximately following activities:

Students are expected to invest minimum 10 hours per week in:

- | | |
|---|-----------------------|
| ☐ Attend class | 3 hrs per week |
| ☐ Preparation & reading | 3 hrs per week |
| ☐ Group meetings in addition to class | 2 hrs per week |
| ☐ Research and contribution to assignments | 2 hrs per week |

Over-commitment has been a cause of failure for many students. You should take the required workload into account when planning how to balance study with industrial training and other activities.

4.2 Attendance

Your regular and punctual attendance at lectures and seminars is expected in this course. University regulations indicate that if students attend less than eighty per cent of scheduled classes they may be refused final assessment.

4.3 General Conduct and Behaviour

You are expected to conduct yourself with consideration and respect for the needs of your fellow students and teaching staff. Conduct which unduly disrupts or interferes with a class, such as ringing or talking on mobile phones, is not acceptable and students may be asked to leave the class. More information on student conduct is available at: www.my.unsw.edu.au

4.4 Keeping informed

You should take note of all announcements made in lectures, tutorials or on the course web site. From time to time, the University will send important announcements to your university e-mail address without providing you with a paper copy. You will be deemed to have received this information.

5. LEARNING ASSESSMENT

5.1 Formal Requirements

To receive a pass grade in this course, you must meet ALL of the following criteria:

- ☐ Attain an overall mark of at least 50%.
- ☐ Attend at least 80% of all scheduled classes.
- ☐ Attain a satisfactory performance in each component of the course (see below). A mark of 45 percent or higher is normally regarded as satisfactory.

5.2 Assessment Details

Course Component	Assessment element	% of total mark	Learning outcomes assessed	Criteria for assigning marks
Individual preparation for discussion on class topics	"Preparation for class" sheet submitted before each class	20%	1, 2	Evidence of preparation: reading of provided material; comprehension of new concepts; critical thinking
Research paper review (submission week 7)	Assignment #1 (individual assignment)	30%	1, 2, 3	Ability to understand research questions, approaches, methods, outcomes and contributions; critical thinking
Research project (submission week 14)	Assignment #2 (group assignment)	50%	3, 4, 5	Demonstrated capacity to design and execute a research project; ability to justify and apply research methods and techniques; quality of the research project presentation; a component of this mark may be peer-assessed.

See the Course Website for details of "Preparation for class" sheet and the assignments as well as their due dates.

The "Preparation for class" sheet and active participation in class will be assessed in 10 weeks out of 14.

Assignment #1 will involve selection and review of a research paper from a high quality IS journal. A student needs to nominate one or more papers for review and discuss the appropriate selection with lecturers in class. The paper for review needs to be approved by a lecturer.

Assignment #2 will involve a group research project that will be discussed in the first class.

The following considerations apply:

- ❑ For assignment #2, students work in groups of 5 (exceptionally less than 5).
- ❑ Submission procedures are covered in section 3.2 of this outline. Failure to comply will generally attract a penalty.
- ❑ Students that commit to a group and then do not honour their commitments will lose marks. Group members are expected to work in a harmonious and professional fashion. This includes adequate management of non-performing members and conflict management. A group leader can be selected to help organise group activities.
- ❑ You are to report any problems to the lecturer-in-charge as early as possible. Confidential peer assessments may be used for group assignments if individual contributions vary. The Lecturer-in-Charge will have the final discretionary authority to alter individual marks, based on information provided in the peer assessments and/or direct consultation with involved parties.

5.3 Assignment Submission Procedure

Information about how assignments are to be submitted will be provided on the web site.

5.4 Late Submission

Late submission of assignments will incur a penalty of 10 percent of the maximum assessment mark per day. An extension in the time of submission will only be granted under exceptional circumstances by the lecturer-in-charge. In all cases, documented evidence must be provided. In determining unsatisfactory performance the penalty will be ignored.

5.5 Special Consideration

UNSW Policy and information on special consideration can be found at:

<https://my.unsw.edu.au/student/atoz/SpecialConsideration.html>

UNSW policy and process for Special Consideration applies (see <https://my.unsw.edu.au/student/atoz/SpecialConsideration.html>). Specifically:

- Applications for special consideration must go through UNSW Central administration (within 3 working days of the assessment to which it refers) – applications will **not** be accepted by teaching staff;
- Applying for special consideration does not automatically mean that you will be granted additional assessment or that you will be awarded an amended result;
- If you are making an application for special consideration (through UNSW Central Administration) please notify your Lecturer in Charge;

- Please note: a register of applications for Special Consideration is maintained. History of previous applications for Special Consideration is taken into account when considering each case.

5.6 Assignment Format

Will be provided on the course web site.

6. ACADEMIC HONESTY AND PLAGIARISM

The University regards plagiarism as a form of academic misconduct, and has very strict rules regarding plagiarism. For full information regarding policies, penalties and information to help you avoid plagiarism see:

<http://www.lc.unsw.edu.au/plagiarism/index.html>

Plagiarism is the presentation of the thoughts or work of another as one's own.* Examples include:

- direct duplication of the thoughts or work of another, including by copying work, or knowingly permitting it to be copied. This includes copying material, ideas or concepts from a book, article, report or other written document (whether published or unpublished), composition, artwork, design, drawing, circuitry, computer program or software, web site, Internet, other electronic resource, or another person's assignment without appropriate acknowledgement;
- paraphrasing another person's work with very minor changes keeping the meaning, form and/or progression of ideas of the original;
- piecing together sections of the work of others into a new whole;
- presenting an assessment item as independent work when it has been produced in whole or part in collusion with other people, for example, another student or a tutor; and,
- claiming credit for a proportion a work contributed to a group assessment item that is greater than that actually contributed.†

Submitting an assessment item that has already been submitted for academic credit elsewhere may also be considered plagiarism.

The inclusion of the thoughts or work of another with attribution appropriate to the academic discipline does *not* amount to plagiarism.

Students are reminded of their Rights and Responsibilities in respect of plagiarism, as set out in the University Undergraduate and Postgraduate Handbooks, and are encouraged to seek advice from academic staff whenever necessary to ensure they avoid plagiarism in all its forms.

The Learning Centre website is the central University online resource for staff and student information on plagiarism and academic honesty. It can be located at:

www.lc.unsw.edu.au/plagiarism

The Learning Centre also provides substantial educational written materials, workshops, and tutorials to aid students, for example, in:

- correct referencing practices;
- paraphrasing, summarising, essay writing, and time management;

- appropriate use of, and attribution for, a range of materials including text, images, formulae and concepts.

Individual assistance is available on request from The Learning Centre.

Students are also reminded that careful time management is an important part of study and one of the identified causes of plagiarism is poor time management. Students should allow sufficient time for research, drafting, and the proper referencing of sources in preparing all assessment items.

* Based on that proposed to the University of Newcastle by the St James Ethics Centre. Used with kind permission from the University of Newcastle

† Adapted with kind permission from the University of Melbourne.

7. STUDENT RESOURCES

Texts

The prescribed textbook for this course is:

Norman Blaikie, (2000), *Designing Social Research*, Polity Press,.

Recommended texts:

Benbasat, I., Goldstein, D. and Mead, M. (1987) The Case Research Strategy in Studies of Information Systems, *MISQ*, Vol. 11, No. 3, pp. 369-386.

Burns R.B. (2000) *Introduction to Research Methods*, 4th ed., Longman.

Cavana, R.Y., Delahaye, B.L. and Sekaran, U. (2001) *Applied Business Research: Qualitative and Quantitative Methods*, John Wiley & Sons Australia.

Cecez-Kecmanovic, D., Moodie, D., Busuttil, A. and Plesman, F., (1999) "Organisational Change Mediated by E-mail and Intranet – An Ethnographic Study", *Information Technology and People*, 12, 1, pp. 9-26.

Cavaye, A. (1996) Case Study Research: A multi-faceted Research Approach for IS, *Information Systems Journal*, Vol. 6, No.3, pp. 227-242.

Chevalier, A. and Ivory, M.Y. (2003) Web Site Designs: Influences of Designer's Expertise and Design Constraints, *International Journal of Human-Computer Studies*, Vol 58, pp. 57-87.

Crotty, M. (1998) *The Foundations of Social Research: Meaning and Perspective in the Research Process*, Allen & Unwin.

D'Ambra, J. and Rice, R.E. (2001) Emerging Factors in User Evaluation of the World Wide Web, *Information & Management*, Vol. 38, pp. 373-384.

Galliers, R.D. and Baets, W.R.J. (1998) *Information Technology and Organizational Transformation: Innovation for the 21st Century Organization*, John Wiley and Sons, Chicester.

Gefen, D., Straub, D. and Boudreau, M. (2000) Structural Equation Modelling and Regression: Guidelines for Research Practice, *Communications of the AIS*, Vol. 4, article 7, pp. 1-77.

- Goodhue, D. and Thompson, R. (1995) Task-Technology Fit and Individual Performance, *MIS Quarterly*, 19, 2, pp. 213-236.
- Klein, H.K. and Myers, M.D. (1999) A Set of Principles for Conducting and Evaluating Interpretive Field Studies in Information Systems, *MISQ*, Vol. 23, No. 1, pp. 67-93.
- Lee, A.S. (1991) Integrating Positivist and Interpretive Approaches to Organizational Research, *Organization Science*, Vol. 2, No. 4, pp. 342-365.
- Lee, B., Barua, A. and Whinston, A. (1997) Discovery and Representation of Causal Relationships in MIS Research: A Methodological Framework, *MISQ*, Vol. 21, No. 1, pp. 109-136.
- Lyytinen, K. (1999) Empirical Research in Information Systems: On the Relevance of Practice in Thinking of IS Research, *MISQ*, Vol. 23, No. 1, pp. 25-28.
- McKay, J. and Marshall, P. (2001) The Dual Imperatives of Action Research, *Information Technology & People*, Vol. 14, No. 1, pp. 46-59.
- McKay, J. and Marshall, P. (2005) A Review of Design Science in Information Systems, *Australasian Conference on Information Systems, ACIS*, Sydney.
- Miles, M.B. and Huberman, A.M. (1984) *Qualitative Data Analysis: A Sourcebook of New Methods*, Sage Publications, Newbury Park, CA.
- Myers, M.D. *Qualitative Research in Information Systems*,
<http://www.qual.auckland.ac.nz/>
- Ngwenyama, O., Introna, L., Myers, M.D. and DeGross, J.I. (1999) *New Information Technologies in Organizational Processes: Field Studies and Theoretical Reflections on the Future of Work*, Kluwer Academic Publishers, Boston.
- Nunamaker, J.F. Chen, M. and Purdin, T. (1990) Systems Development in Information Systems Research, *Journal of Management Information Systems*, Vol. 7, No. 3, pp.89-106.
- Orlikowski, W. and Baroudi, J. (1991) Studying Information Technology in Organizations: Research Approaches and Assumptions, *ISR*, Vol. 2, No. 1, pp. 1-28.
- Trauth, E. (Ed.) (2001) *Qualitative Research in Information Systems: Issues and Trends*, Idea Group Publishing, Hershey
- Trauth, E. and Jessup, L. (2000) Understanding Computer-mediated discussions: Positivist and Interpretive Analysis of Group Support System Use, *MISQ*, Vol. 24, No. 2, pp. 43-79.
- Walsham, G. (1993) *Interpreting Information Systems in Organisations*, John Wiley & Sons, Chichester.
- Walsham, G. (1995) The Emergence of Interpretivism in IS Research, *ISR*, Vol. 6, No. 4, pp. 376-394.

Other Resources, Support and Information

<http://www.isworld.org>

http://owl.english.purdue.edu/handouts/research/r_apa.html

Library training and support services - <http://info.library.unsw.edu.au>

- **Learning and study support**
 - o FCE Education Development Unit (<http://education.fce.unsw.edu.au>)
 - o UNSW Learning Centre (<http://www.lc.unsw.edu.au>)
 - o EdTec – WebCT information (<http://www.edtec.unsw.edu.au>)
- **Counselling support** - <http://www.counselling.unsw.edu.au>
- **Library training and support services** - <http://info.library.unsw.edu.au>
- **Disability Support Services** – Those students who have a disability that requires some adjustment in their teaching or learning environment are encouraged to discuss their study needs with the Course Coordinator or the Equity Officer (<http://www.equity.unsw.edu.au/disabil.html>). Early notification is essential to enable any necessary adjustments to be made.

In addition, it is important that all students are familiar with University policies and procedures in relation to such issues as:

- **Examination procedures** and advice concerning illness or misadventure <https://my.unsw.edu.au/student/academiclife/assessment/examinations/examinationrules.html>
- **Occupational Health and Safety** policies and student responsibilities; <http://www.riskman.unsw.edu.au/ohs/Policies%20&%20Procedures/UNSW%20OHS%20Accountability.pdf>

8. CONTINUAL COURSE IMPROVEMENT

Each year feedback is sought from students and other stakeholders about the courses offered in the School and continual improvements are made based on this feedback. UNSW's Course and Teaching Evaluation and Improvement (CATEI) Process (http://www.ltu.unsw.edu.au/ref4-5-1_catei_process.cfm) is one of the ways in which student evaluative feedback is gathered. Significant changes to courses and programs within the School are communicated to subsequent cohorts of students.

9. COURSE SCHEDULE

The following course schedule is subject to change in response to your progress as well as in case we need to accommodate guest speakers. Therefore regularly check the schedule posted on WebCT Vista which will be up-to-date. Additional readings (papers) will be prescribed for each week in advance as well.

Wk	Presentation	Presenter	Discussion	Blaikie book
1	Introduction to IS research The nature of research in IS, social sciences and IT How to explore a research problem Research process, research designs	Dubravka and Geoff	Introduction to a research problem – consider FCE website or myUNSW Discussion: a common sense approach vs the scientific approach	Intro Ch 1
2	Research approaches and methodologies – an overview Designing IS research Reviewing a paper	Dubravka and Geoff	Discussion on how to approach the selected research problem Defining your research questions Selection of a paper for review (assignment #1)	Ch 2 Ch 3
3	Searching for Information The Literature Review	Guest lecture Connie Wilson	Information search and presentation Information search and literature review related to the selected research problem Discussion: How to review a paper	
4	Quantitative research methods in IS - surveys - experiments	Geoff Guest presenter Melissa Raptis	An example of a quantitative honours research project Honours thesis presentation: Melissa Raptis	Ch 4
5	Qualitative research methods in IS - case and field studies - ethnographies	Dubravka Guest presenter Rebecca Abrahall	An example of a qualitative honours research project Honours thesis presentation: Rebecca Abrahall Research project - groupwork Introduction to Zenobia Pereira's case study	Ch 5

6	Collecting and analysing qualitative data • observations, interviews, documents, electronic data • analysis techniques	Dubravka Guest lecture Karl Heinz Kautz	Workshop on grounded theory and thematic coding Case study: Zenobia Pereira	Interviews
7	Quantitative data collection and analysis, part 1	Guest lecture tba	<u>Submission of assignment #1</u> Research project - groupwork	Ch 6, 7
8	Quantitative data collection and analysis, part 2	Guest lecture tba	Research project - groupwork	Ch 6, 7
9	Design Science	Guest lecture tba	Design science – group discussion/workshop Research project - groupwork	tba
10	Combining research strategies and methods	Dubravka and Geoff	Research project - groupwork	tba
11	Writing the research report	Dubravka and Geoff	Research project - groupwork	
12	Your future research: New approaches/techniques in qualitative IS research	Dubravka and Geoff	Research project - groupwork	tba
13	Presentations of research projects by groups	Dubravka and Geoff	Discussion of analysis techniques	tba
14	Review of the Course Your future research: New techniques in quantitative IS research	Dubravka and Geoff Guest lecture Wynne Chin	<u>Submissions of assignment #2</u> Administrative Issues Course Wrap-Up	