

Integrated Studies II

HCCS MSc Course Outline

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Objectives

The aim of this course is to introduce theoretical and practical concerns involving group process, communication and interdisciplinarity. It will aim to integrate topics covered in the other courses of the HCCS MSc.

Specific aims are to:

- Understand and reflect on theories and practices of group processes, especially team working, communication and collaboration
- To carry out a range of group projects, so as to put theory into practice

Week	Topic
1	Interdisciplinarity 1
2	Interdisciplinarity 2
3	Group Project Introduction
4	Group Process and Management 1
5	Group Process and Management 2
6	Group Project Reflection and Evaluation
7	Communication and Reflection 1
8	Communication and Reflection 2
9	Project Update
10	Project Presentations

Course Organisation

There will be ten two-hour seminars starting in week 1. The seminars will generally be divided between weekly topic discussion and time dedicated to group project management and evaluation.

Assignments

The course assignment is a portfolio consisting of three pieces of coursework and a tutor assessment based on class interaction and participation.

The three pieces of coursework are:

1. A **1000 word written report** due week 7 (30% assessed marks):
 - “What is Interdisciplinarity?”

Due: Thursday Week 7
2. A **group presentation in class** in week 10 (30% assessed marks)
 - Based on the development of an alternative website for the HCCS course. The project involves all students taking part in designing Web Pages for the site, including mini-student profiles for each person. Each student will need to present an overview of their contribution to the project and state how they collaborated with the others. The presentations should include a demonstration of the website in action, and last about 5 minutes per student.

Due: Thursday Week 10
3. A **2500 word critical personal document** (30% assessed marks):
 - Detailing the experience and lessons learned in working in collaboration with others on the alternative HCCS website project. It should be referenced in relation to course readings and address such issues as working with others in a group, leadership and group decision making processes, significant influences on group processes, sub-groups formed for sub-tasks, time-management, how the web and different resources were utilised for research, how the different team-member skills helped to produce the finished project, and the various modes of in-group communication that were employed. You should draw on information recorded in your personal project diaries and from other sources. Each student will draw on their own experiences in order to write an overview of their contribution to the project and how they collaborated with others.

Due: First Week of Summer Term

Course Participation:

Tutor assessment of engagement in class and group activities (10% assessed marks)

Seminar Organisation

Seminar 1 and 2 – Interdisciplinarity

What is interdisciplinarity? Why is it desirable and why is it difficult to achieve? In particular the focus will be on the problem of working together in interdisciplinary software design teams where there are differences of (i) preferred method, (ii) terminology and (iii) expertise in doing design work. The focus will be on these problems in practice and how they can be overcome. The first seminar will address theoretical issues together with a case study from the video game industry.

The second week will involve a role-playing session, where students will act out various roles in a hypothetical team project. This seminar will also incorporate summary presentations of the course reading.

Reading Material:

1. Kim, S. (1990). 'Interdisciplinary Cooperation.' In B. Laurel (ed.), *The art of human-computer interface design*, p31-45.
2. Rogers, Y. Scaife, M. and Rizzo, A. (2005) 'Interdisciplinarity: an Emergent or Engineered Process?' In S. Derry, C.D. Schunn and M.A. Gernsbacher (Eds.) *Interdisciplinary Collaboration: An Emerging Cognitive Science*. LEA, 265-286. (Available at <http://www.slis.indiana.edu/faculty/yrogers/papers/csrp556.pdf>).
3. Janet Low, Jim Johnson, Pat Hall, Fiona Hovenden, Janet Rachel, Hugh Robinson, Steve Woolgar. 'Read this and change the way you feel about software engineering.' *Information and Software Technology Journal* 38, Feb 1996, 77-87.
4. Bryant, Anthony (2000). 'Metaphor, Myth and Mimicry: The Bases of Software Engineering.' *Annals of Software Engineering* 10 (2000), 273-292.

Further Reading:

5. Mariano, Carla (1989). 'The Case for Interdisciplinary Collaboration,' *Nursing Outlook*, November/December 1989.
6. Van den Besselaar, Peter, & Heimeriks, Gaston (2001). 'Disciplinary, Multidisciplinary, Interdisciplinary – Concepts and Indicators.' Paper for the 8th conference on Scientometrics and Informetrics (ISSI2001), Sydney, Australia, 16-20 July 2001.

Seminar 3 - Group Project Introduction

In this seminar the students will be introduced to their group assignment to develop an alternative website for new students to find out more about the HCCS course. The students need to decide how to distribute the workload, as well as coordinate and collate the material.

Seminar 4 and 5 – Group Process and Management

In these seminars students will be introduced to issues concerned with group processes, team working, human-relationships, group dynamics and people management. The focus will be on the processes involved, e.g. brainstorming, problem-solving, and communication. This seminar will also incorporate summary presentations of the course reading.

Students will also be introduced to methods of managing projects and time. The use of GANTT charts, flow charts, etc. will be covered. Other topics include: how to run a meeting and take notes, how to carry out different phases of a projects and how to cope

with projects over-running. This seminar will also incorporate summary presentations of the course reading.

The sessions will also include time for students to collaborate and coordinate their work on the group project.

Reading Material:

7. Suchman, Lucy (1995). 'Making Work Visible,' *Communications of the ACM*, September 1995/Vol38. No 9.
8. Rosen, C.C.H. (2005). 'The Influence of Intra-Team Relationships on the Systems Development Process: A Theoretical Framework of Intra-Group Dynamics,' *Proceedings of the Psychology of Programming Interest Group Workshop 2005*.
9. Jay, A. (1976). 'How to run a meeting.' *Harvard Business Review*, 54(2), 43-57.

Further Reading:

10. Gabarro, J.J. (1987). 'The development of working relationships.' In Lorsch (ed), *Handbook of Organisational Behaviour*, p172-189.
11. Ancona, D. & Caldwell, D.F. (1990). 'Information technology and work groups: the case of new product teams.' In J. Galeger, R.E. Kraut, & C. Egido (eds.), *Intellectual Teamwork*, p173-190.
12. Trauth, Eileen, M. & Howcraft, Debra (2006). 'Critical Empirical Research in IS: An Example of Gender and the IT Workforce,' *Information Technology and People*, Vol 19, No 3, 2006.

Seminar 6 – Group Project Reflection and Evaluation

13. Schön, Donald A. (1991). 'Reflective Practice in the Science-Based Professions' in Donald A. Schön, *The Reflective Practitioner: How Professionals Think in Action*, Aldershot: Ashgate Publishing, pp 168-203.
14. Robinson, Hugh (2001). 'Reflecting on Research and Practice', *IEEE Software*, January/February 2001.
15. Woodcock, Andree & Bartlett, Richard (2005). 'Software Authoring as Design Conversation.' *Proceedings of the Psychology of Programming Interest Group Workshop 2005*.

Further Reading:

16. Fallows, J. (2000). Inside the Leviathan: A short and stimulating brush with Microsoft's corporate culture. *The Atlantic Monthly*, February 2000, p34-38.
17. Langewiesche, W. (2003). Columbia's Last Flight. *The Atlantic Monthly*, November 2003, p58-87.

Seminar 7 and 8 – Communication and Reflection

In these seminars students will be introduced to the issues concerning communication within a design team in which the members are from different disciplines such as software engineering, sound design, graphic design and marketing. How do new professionals become enculturated into their profession and learn to 'talk the talk' like their more experienced colleagues? To what extent do disciplines and professions exclude others through the use of slang, jargon, techspeak and other forms of discipline specific linguistic register? How can communication within teams and organisations break down?

The sessions will also include time for students to collaborate and coordinate their work on the group project.

Reading Material:

18. Sharp, Helen, Robinson, Hugh, & Woodman, Mark (2000). 'Software Engineering: Community and Culture,' *IEEE Software*, January/February 2000.
19. Baskerville, Richard, L., & Land, Frank (2004). 'Socially Self-Destructing Systems.' In Avgerou, C., Ciborra, C. & F. Land (eds.), *The Social Study of Information and Communication Technology: Innovation, Actors and Contexts*, New York: Oxford University Press, pp.263-286.
20. Kim, Soonhee, & Lee, Hyangsoo (2006). 'The Impact of Organizational Context and Information Technology on Employee Knowledge-Sharing Capabilities.' *Public Administration Review*, May/June 2006.

Further Reading:

21. Wittenbaum, Gwen M. (2003). 'Putting Communication into the Study of Group Memory.' *Human Communication Research* 29 (4), October 2003, 616-623.
22. Kraut, R.E., Fish, R., Root, R.W., & Chalfonte, B. (1990). 'Informal Communication in Organisations: Form, Function and Technology.' In Oskamp, S. and Spacaman, S. (eds.), *People's reactions to technologies in factories, offices and aerospace*, Sage Publications, p145-199.
23. Marshall, Lindsay & Webber, James (2000). 'Gotos Considered Harmful and Other Programmers' Taboos.' Proceedings of the Psychology of Programming Interest Group Workshop 2000.
24. Linde, Charlotte (2001). 'Narrative and Social Tacit Knowledge,' *Journal of Knowledge Management* 5 (2), 2001.

Seminar 9 – Project Work Update

In this session the students will discuss how to present their group work and how they plan to 'write up' their third assignment together (the reflexive document).

Seminar 10 – Project Presentations

Each group will be expected to give a presentation of their final website, with each group member contributing at least five minutes of discussion on their contribution to the group project. This presentation will be formally assessed.