136-544 Beyond the Spin:Technoscientific Failure

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2009, This subject commences in the following study period/s: Semester 2, - Taught on campus.
Time Commitment:	Contact Hours: A 2-hour seminar per week Total Time Commitment: 2 contact hours/week, 8 additional hours/week. Total of 10 hours per week.
Prerequisites:	Usually admission to the postgraduate diploma or fourth year honours, or a postgraduate masters program.
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry. It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: http://services.unimelb.edu.au/disability
Coordinator:	Dr Michael Arnold
Contact:	Dr Michael Arnold mvarnold@unimelb.edu.au
Subject Overview:	There is much to be learned from failure, and the application of science and technology has in recent years provided no shortage of examples - the Ford Pinto, Bhopal, Challenger, thalidomide, Cane Toads, Chernobyl, the M16 rifle, Three-Mile Island, the Zeebrugge Ferry. Through a series of case studies, from the perspective of various stakeholders and publics, and from a variety of theoretical perspectives, students will appreciate the educative value of failure; will critically examine the dimensions of failure; the contested accounts of causes and explanations of failure; and will assess the political, institutional, and public-sphere responses to failure. Students who successfully complete this subject will be able to convincingly interpret and respond to cases of technoscientific failure through an understanding of: the contexts in which judgments of failure are made; the range of empirical factors and causes that may be implicated in failure; the theoretical grounds upon which causal claims are made and are contested; and critically assess common responses to technoscientific failure. Students will also conduct a case study of their own.
Objectives:	Students who successfully complete this subject will # develop an appreciation of the educative value of failure for our understanding of technoscience, and for our understanding of our current social, cultural and economic condition; # demonstrate the ability to convincingly critique responses to failure, in terms of the ontology of failure, and in terms of claims of causality; # comprehend the dimensions of failure and the terms in which failure is said to occur; # develop a sound knowledge and understanding of key examples of technoscientific failure; # develop an understanding of the methods and analytical skills required to conduct a small scale case study.

Assessment:	An essay of 1000 words 20% (due 1/3 through the semester), a case study report of 2000 words 40% (due at the end of semester), an essay of 2000 words 40% (due at the end of semester). Students will have the opportunity to participate in group work.
Prescribed Texts:	A subject reader will be available from the Bookshop at the start of semester.
Recommended Texts:	Feenberg, Andrew, **Questioning Technology**, London: Routledge, 1999 Green, Lelia & Roger Guinery, eds, **Framing Technology: Society, Choice and Change**, St. Leonards, Allen & Unwin, 1994. Herndon, Sandra L. Gary L. Kreps (Eds.) **Qualitative research : applications in organizational life**, Creskill, N.J. : Hampton Press, 2001. Horton Forest W. and Dennis Lewis (Eds.) **Great information disasters: twelve prime examples of how information mismanagement led to human misery, political misfortune and business failure**. London, England, 1991. Kelly, Kevin. **Out of Control, the new biology of machines, Fourth Estate,** 1994. Landauer, Thomas. **The Trouble with Computers,** London, MIT Press,1997 Law, John (Ed.) **A Sociology of monsters : essays on power, technology, and domination** London ; New York : Routledge, 1991. Law, John and John Hassard (Eds.) **Actor network theory and after**, Oxford : Blackwell Publishers, 1999. MacKenzie, Donald and Judy Wajcman (Eds.), T**he Social Shaping of Technology**, Second Edition, Open University Press, 1999. Marx, Leo and Smith, Merritt, (Eds.), D**oes Technology Drive History?**, The MIT Press, London, 1998. May, Tim (Ed.) **Qualitative research in action London** : Sage, 2002. Scott, James C. **Seeing like a state: how certain schemes to improve the human condition have failed** / James C. Scott. New Haven: Yale University Press, 1998. Tenner, E. **Why things bite back : technology and the revenge of unintended consequences**, New York : Knopf, 1996. Winner, Langdon. **The Whale and the Reactor**, Chicago : University of Chicago Press, 1986. Lyytinen, K. and R. Hirschheim 1987. **Information Systems Failures: A Survey and Classification of the Empirical Literature**. Oxford Surveys in Information Technology (4): 257-309. Hall 1980. **Great Planning Disasters**. London: Weidenfeld and Nicolson. Perrow, C. 1984. **Normal Accidents: Living with High-Risk Technologies**. New York: Basic Books. Vaughan, D. 1996. **The Challenger Launch Decision : Risky Technology, Culture, and Deviance at NASA.** Chicago: University of Chicago Press.
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	# have developed research skills; # have developed critical thinking and analysis; # be able to think in theoretical terms; # be able to understand social, ethical and cultural contexts; # be able to communicate knowledge intelligibly and economically; # have developed written communication skills; # have developed public speaking skills; # have developed good time management and planning; # be able to work as a team.
Related Course(s):	M.A.History & Philosophy of Science (Advanced Seminars & Shorter Thesis) Master of Arts (Science, Communication and Society)
Related Majors/Minors/ Specialisations:	History and Philosophy of Science History & Philosophy of Science History and Philosophy of Science