

COMPULSORY RESEARCH METHODOLOGY COURSE

EDUC 7001NA - Educational Inquiry – (3 Units)

This course provides an introduction to educational inquiry and research, and to issues involved in interpreting the findings of inquiry to enable students to become critical consumers of educational research for enhancing professional practice. It also introduces traditions and conceptions of educational research with an emphasis on careful reading and critique of research as well as the significance of the role of educators as researchers. The role of literature in research is examined, and techniques and strategies for critiquing literature are developed. Discussion of the research design process, including ethical issues and differing approaches to inquiry leads into an overview of the frequently used methods of data collection and analysis. The modules in the course provide a grounding in key concepts, to develop understanding and skills in particular methods of data collection and analysis. The modules of study include epistemology in the social sciences, the philosophical foundations of modern research strategies, the general classes of research investigations in education, and will help students to develop their skills to better support them in reading and understanding research projects. This course is an initial preparation for writing project work, thesis and dissertation in education.

COURSES (5 X 3 UNITS)

EDUC 7018NA – Neuroscience & Education – (3 Units)

Learning is central to education. Research in neuroscience is having an increasing impact on our understanding of learning. By looking at the brain, scientists are studying the very complex processes that underpin our speech and language, thinking and reasoning, reading and mathematics. This course explores the meaningful links such research offers between the complex brain processes and the actions of our mind. We are particularly concerned with how these links may improve the daily practices of educators.

EDUC 7016NA – Multicultural Society & Education Policy – (3 Units)

The theoretical framework of this course is provided by humanistic sociology. This is extended to social systems and developed in relation to ethnically plural societies. The key concepts are those of core values of different cultures, and personal cultural systems that individuals construct from the group values that are provided for them in society. Alternative orientations to cultural and structural pluralism are examined with special reference to curriculum and school organisations. Future cultural outcomes are then related to educational policy.

EDUC 7010NA – Innovations in Teaching, Learning & Assessment – (3 Units)

The aim of the topic is to familiarise students with emerging technologies, and the theoretical, pedagogical and research-based evidence for decision making on optimising learning and enhancing

teaching. The topic seeks to highlight the pertinent nexus between teaching, learning, assessment and research. This topic consists of a negotiated, inter-/trans-disciplinary and school-based project that results in creation of a Reflections Portfolio and the design of a School of the Future project. Interoperability, portability and standards issues will be examined and discussed.

EDUC 7004NA – Curriculum Design & Evaluation – (3 Units)

The topic is concerned with the development of curricula and the design of instruction and the provision of learning experiences, particularly in the fields of science, mathematics and technology. It first examines the historical perspectives and evolution of science, mathematics and technology curricula. Recent development in the fields of cognitive neuroscience, neuropsychology and the specification of learning objectives are examined and their implications for multimedia approaches to learning, teaching and assessment are discussed. Consideration is also given to the teaching of values, as well as the integration of science, mathematics, technology and philosophy in the school curriculum as well as design, development and evaluation of curricula and the implementation of innovatory curricula. Curricula innovations are also discussed.

EDUC 7011NA – Introduction to Statistics in Educational Research - (3 Units)

This course will provide students with an introduction to the use of statistics in educational research. Emphasis will be placed on students achieving an understanding of the statistical procedures considered so that they can think critically about suitable procedures for the collection and analysis of data, and about the educational usefulness of calculated statistics. Students will gain experience with using the SPSS package on computers.

EDUC 7009NA - Examination of Information and the Analysis of Frequency and Count Data – (3 Units)

This course is designed to develop skills in the use of computer-based procedures for the storage and systematic examination of information obtained from published sources, extended interviews on the use of detailed observation schedules, particularly of learning and teaching in classroom situations. In some studies this leads to the interpretation of the information, while in other studies this leads to the development of explanatory models that can be tested with frequency and count data. The first stage of the topic involves an introduction to storage and extraction procedures, and the sorting and shifting of the extracted information, while the second stage involves the analyses of contingency tables, configural frequency analyses, correspondence analyses, and log-linear modelling. The emphasis in this course is on the unity of educational research across different disciplines and different methods of inquiry.

EDUCATION RESEARCH PROJECT – 6 UNITS

EDUC 7043NA – Education Research Project – (6 Units)

This course will allow candidates to pursue an independent project or area of investigation developed in collaboration with a supervisor.