

This document provides detailed information on the module named below. It will be updated as necessary when modifications to the module are approved. Modules are allocated to a Subject Network not a programme, and may be accessed by students studying on different programmes.

1	SUMMARY MODULE INFORMATION	
a	Module title	Research Methods and Techniques
b	SITS module code	UX 211932
c	UHI Subject Network	SSHaD
d	Exam board	With relevant programme
e	SCQF level	11
f	SCOTCAT credit points	15
g	Module leader(s) and contact details	Jin Park Centre for Mountain Studies, Perth College-UHI Email: Jin.park@perth.uhi.ac.uk Phone: 01738 877267
h	Brief description of module	The module is designed to develop students' awareness, knowledge and skills in how to formulate research questions, develop effective research design, select and implement appropriate research methods. It covers both quantitative and qualitative approaches relevant to science and social research areas. Emphasis is placed on developing students' ability to apply the most appropriate method to address research questions and understand how to analyse, interpret and present results. Research case studies are used throughout the module as methodology demonstration tools.
i	Pre-requisites or co-requisites	Achieved qualification or equivalent at Level 10.
j	Primary mode(s) of delivery and support	Tick all that apply <input type="checkbox"/> Face-to-face <input type="checkbox"/> Situated study (ie student must be physically attending at AP or Learning Centre) <input checked="" type="checkbox"/> Wholly online
k	Assessment	Two written reports. One on research design and methodology and one on data analysis.
l	Key learning resources	Computer access with Broadband
m	Suitable for access via Learning Centres?	Yes, but primarily designed for home / work based study on-line.

2	MODULE DESCRIPTOR																																																	
a	Aims																																																	
	To develop students' awareness, knowledge and skills in how to formulate research questions, develop effective research design, select and implement appropriate research methods and effectively analyse and discuss results. The module will benefit students preparing to undertake a research dissertation or a specific programme of research.																																																	
b	Intended learning outcomes																																																	
	<ol style="list-style-type: none"> 1. Critically examine and understand the development of research strategy, research design and formulation of research questions. 2. Be able to critically choose and apply a range of research methods (qualitative, quantitative and mixed methods). 3. Effectively analyse, interpret and present research results. 																																																	
c	Indicative content																																																	
	<table border="1"> <thead> <tr> <th>WEEK</th> <th>CONTENT</th> <th>ASSESSMENT</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>The Philosophy of Science and Research Strategies: Module Introduction; Terminology; Deductive and Inductive reasoning; Different types of knowledge claims; strategies of inquiry – quantitative, qualitative and mixed methods</td> <td>Details of assessments 1 and 2 provided at this stage.</td> </tr> <tr> <td>2</td> <td>Research design: Research structure; Validity; Formulation of research questions; Conceptualisation; Developing hypotheses; Statement of purpose; Different types of research designs</td> <td></td> </tr> <tr> <td>3</td> <td>Literature review, referencing and plagiarism, research ethics and research proposals</td> <td></td> </tr> <tr> <td>4</td> <td>Quantitative research methods 1: Measurements and Secondary Analysis: Measurements and variables; measurement validity; secondary analysis</td> <td></td> </tr> <tr> <td>5</td> <td>Quantitative research methods 2: Survey Method and Sampling Questionnaire design; Data collection; Sampling</td> <td></td> </tr> <tr> <td>6</td> <td>Quantitative research methods 3: Data Analysis I Descriptive analysis; Inferential analysis</td> <td></td> </tr> <tr> <td>7</td> <td>Quantitative research methods 4: Data Analysis II t-Tests; ANOVA; Chi-square test; Correlations; Bivariate Regression</td> <td></td> </tr> <tr> <td>8</td> <td>Qualitative research methods 1: Data gathering: What is qualitative research ?; collecting data (participant observation; interviews; focus groups; documents)</td> <td></td> </tr> <tr> <td>9</td> <td>Qualitative research methods 2: Data analysis and interpretation: General analysis strategies; Analytic induction; grounded theory and data coding; narrative analysis; writing up qualitative data.</td> <td></td> </tr> <tr> <td>10</td> <td>Qualitative research methods 3: Using software programs in qualitative analysis.</td> <td></td> </tr> <tr> <td>11</td> <td>Mixed methods approaches</td> <td></td> </tr> <tr> <td>12</td> <td>Writing a research report</td> <td></td> </tr> <tr> <td>13</td> <td>Research Presentation Skills</td> <td></td> </tr> <tr> <td>14</td> <td>Assignment work</td> <td></td> </tr> <tr> <td>15</td> <td>Assignment work</td> <td></td> </tr> </tbody> </table>		WEEK	CONTENT	ASSESSMENT	1	The Philosophy of Science and Research Strategies: Module Introduction; Terminology; Deductive and Inductive reasoning; Different types of knowledge claims; strategies of inquiry – quantitative, qualitative and mixed methods	Details of assessments 1 and 2 provided at this stage.	2	Research design: Research structure; Validity; Formulation of research questions; Conceptualisation; Developing hypotheses; Statement of purpose; Different types of research designs		3	Literature review, referencing and plagiarism, research ethics and research proposals		4	Quantitative research methods 1: Measurements and Secondary Analysis: Measurements and variables; measurement validity; secondary analysis		5	Quantitative research methods 2: Survey Method and Sampling Questionnaire design; Data collection; Sampling		6	Quantitative research methods 3: Data Analysis I Descriptive analysis; Inferential analysis		7	Quantitative research methods 4: Data Analysis II t-Tests; ANOVA; Chi-square test; Correlations; Bivariate Regression		8	Qualitative research methods 1: Data gathering: What is qualitative research ?; collecting data (participant observation; interviews; focus groups; documents)		9	Qualitative research methods 2: Data analysis and interpretation: General analysis strategies; Analytic induction; grounded theory and data coding; narrative analysis; writing up qualitative data.		10	Qualitative research methods 3: Using software programs in qualitative analysis.		11	Mixed methods approaches		12	Writing a research report		13	Research Presentation Skills		14	Assignment work		15	Assignment work	
WEEK	CONTENT	ASSESSMENT																																																
1	The Philosophy of Science and Research Strategies: Module Introduction; Terminology; Deductive and Inductive reasoning; Different types of knowledge claims; strategies of inquiry – quantitative, qualitative and mixed methods	Details of assessments 1 and 2 provided at this stage.																																																
2	Research design: Research structure; Validity; Formulation of research questions; Conceptualisation; Developing hypotheses; Statement of purpose; Different types of research designs																																																	
3	Literature review, referencing and plagiarism, research ethics and research proposals																																																	
4	Quantitative research methods 1: Measurements and Secondary Analysis: Measurements and variables; measurement validity; secondary analysis																																																	
5	Quantitative research methods 2: Survey Method and Sampling Questionnaire design; Data collection; Sampling																																																	
6	Quantitative research methods 3: Data Analysis I Descriptive analysis; Inferential analysis																																																	
7	Quantitative research methods 4: Data Analysis II t-Tests; ANOVA; Chi-square test; Correlations; Bivariate Regression																																																	
8	Qualitative research methods 1: Data gathering: What is qualitative research ?; collecting data (participant observation; interviews; focus groups; documents)																																																	
9	Qualitative research methods 2: Data analysis and interpretation: General analysis strategies; Analytic induction; grounded theory and data coding; narrative analysis; writing up qualitative data.																																																	
10	Qualitative research methods 3: Using software programs in qualitative analysis.																																																	
11	Mixed methods approaches																																																	
12	Writing a research report																																																	
13	Research Presentation Skills																																																	
14	Assignment work																																																	
15	Assignment work																																																	

d	Mode(s) of delivery and support for teaching and learning
----------	--

Face-to-face	... hours or	... %
Video-conference	... hours or	... %
Supported online learning	hours or	100 %
Self-directed learning	hours or	... %
On-line seminar		
Total activity	150	100%

e	<p>Assessment</p> <p>Assessment 1 (40%) A 1500 word report outlining the overall research design and methodological approach which could be taken to address a specific research problem.</p> <p>Assessment 2 (50%) A 1500 (quantitative) or 2000 (qualitative) word report presenting your findings from data analysis of a provided dataset (students will be given a choice of a qualitative or quantitative dataset).</p> <p>Ongoing assessment: Marks will also be awarded for the quality and frequency of response to discussion board tasks (10% of the total module mark).</p>
f	<p>Key learning resources</p> <p>Core Texts:</p> <p>Bell, J. (2005) Doing your research project a guide for first-time researchers in education, health and social science. Maidenhead, England: Open University Press. EBook (Available free of charge as an EBook through the UHI Library)</p> <p>Bryman, A. (2004) Social Research Methods. 2nd ed. Oxford University Press, Oxford.</p> <p>Recommended Texts / journals:</p> <p>Cresswell, J.W. (2003) Research Design: qualitative, quantitative, and mixed methods approaches. 2nd ed. Sage Publications Inc.</p> <p>Dawson, C. (2007) A practical guide to research methods: a user-friendly manual for mastering research techniques and projects. 3rd ed. How to Books Ltd.</p> <p>Kinney, P.R. & Gray, C.D. (2000) SPSS for Windows Made Simple Release 10. Hove, UK: Psychology Press.</p> <p>Murray, R. (2006) How to write a thesis. 2nd ed. Maidenhead, England: Open University Press. EBook (Available free of charge as an EBook through the UHI Library)</p> <p>Oppenheim, A.N. (2001) Questionnaire Design, Interviewing and Attitude Measurement. New ed. London: Continuum.</p> <p>Ritchie, J. and Lewis, J. (2003) Qualitative Research Practice. A Guide for Social Science Students and Researchers</p> <p>Robson, C. (2002) Real World Research. 2nd ed. Oxford: Blackwell Publishers.</p> <p>Rugg, G. & Petre, M. (2007) A gentle guide to research methods. Open University Press, Maidenhead.</p> <p>Silverman, D. (2000) Doing Qualitative Research. A Practical handbook. Sage Publications.</p> <p>Thomas, R.M. (2003) Blending qualitative and quantitative research methods in theses and dissertations. Corwin Press.</p> <p>Townend, J. (2002) Practical statistics for environmental and biological scientists. John Wiley & Sons, Oxford.</p> <p>Key websites: http://www.socialresearchmethods.net/kb/index.php http://www.york.ac.uk/library/subjects/researchmethods.htm#gen</p>
g	<p>Specialist resource requirements</p> <p>Statistical analysis software – SPSS (available through the UHI website at My UHI) Computer with Broadband access (or networked through learning centre) – access essential throughout the module which is delivered entirely on-line – requirement to be able to run video streamed material; on-line interactive questionnaires etc.</p>