MODULE DESCRIPTOR (AD3)

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**		Module Leader: Rob Mc Morran Centre for Mountain Studies, Perth College-UHI E. Robert.mcmorran@perth.uhi.ac.uk T. +44 (0)1738 877757 Calum Macleod Centre for Mountain Studies, Perth College-UHI E. calum.macleod@perth.uhi.ac.uk T. +44 (0)1738 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**		Indicate which mode(s) will be used and approximate proportions
			___ % Face-to-face (this must be ticked if there is any FTF delivery)
			___ % Situated study (ie student must be physically attending at AP or Learning Centre)
			100 % Online This module uses pre-recorded lectures, teaching and learning materials, online resources and a scheduled online residential week using the VLE. Alongside the above, each lecture/section of lecture will comprise weekly objectives which will form the focus of discussions on the VLE. This will promote and facilitate discussion and debate amongst the students supporting learning and assessment.
k	**Assessment**		Report (research design and methodology), 2000 words, 40%

			Report (data analysis), 1500 words (quantitative)/2000-3000 words (qualitative), 50% Ongoing assessment, 10%
l	**Library resources – core texts**		See 2f. below
m	**Suitable for access via Learning Centres?**		Yes, but primarily designed for home / work based study on-line.
n	**Keywords**		Research skills, statistics, interpretation

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**

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**

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 **Assessment**

Assessment	LO1	LO2	LO3
Report (research design and methodology)	X	X	
Report (data analysis)		X	X

f **Key learning resources**

Core Texts:

Bell, J. (2005) *Doing your research project a guide for first-time researchers in education, health and social science* [online]. Maidenhead, England: Open University Press
Available from <http://www.uhi.ac.uk/home/libraries/e-book-collections> [10 May 2010]

Bryman, A. (2004) 2nd ed. *Social Research Methods*. Oxford: Oxford University Press

Recommended Texts / journals:

Cresswell, J.W. (2003) 2nd ed. *Research Design: qualitative, quantitative, and mixed methods approaches*. London: Sage Publications

Dawson, C. (2007) 3rd ed. *A practical guide to research methods: a user-friendly manual for mastering research techniques and projects*. Oxford: How to Books

Kinnear, P.R. & Gray, C.D. (2000) *SPSS for Windows Made Simple Release 10*. Hove, UK: Psychology Press

Murray, R. (2006) 2nd ed. *How to write a thesis* [online]. Maidenhead, England: Open University Press
Available from <http://www.uhi.ac.uk/home/libraries/e-book-collections> [10 May 2010]

Oppenheim, A.N. (2001) *Questionnaire Design, Interviewing and Attitude Measurement*. London: Continuum

Ritchie, J. and Lewis, J. (2003) *Qualitative Research Practice. A Guide for Social Science Students and Researchers*. London: Sage Publications

Robson, C. (2002) 2nd ed. *Real World Research*. Oxford: Blackwell Publishers

Rugg, G. & Petre, M. (2007) *A gentle guide to research methods*. Maidenhead: Open University Press

Silverman, D. (2000) *Doing Qualitative Research. A Practical handbook*. England: Sage Publications

Thomas, R.M. (2003) *Blending qualitative and quantitative research methods in theses and dissertations*. Thousand Oaks, Calif.: Corwin

Townend, J. (2002) *Practical statistics for environmental and biological scientists*. Oxford: John Wiley & Sons

Key websites:
http://www.york.ac.uk/library/subjects/researchmethods.htm#gen
http://www.socialresearchmethods.net/kb/design.php

g **Specialist learning resources**

Students must have access to the following minimum computer hardware and software to access the

	programme: 1. Dial-up internet connection (broadband recommended) Students are expected to make full and regular use of UHI's e-library resources, as relevant to their research topic, on a weekly basis; 2. Microsoft Windows XP or Vista; 3. Internet Explorer 7 or above; 4. Soundcard with connected speakers and/or headphones; 5. Ability to play DVDs; 6. Microsoft WORD 2003 (or more recent version); and 7. Adobe Acrobat Reader - available as a free download from www.adobe.com. This is necessary to allow students access to some of the materials made available to them. Students are expected to: 1. Be competent users of Microsoft Office - in particular WORD, EXCEL and PowerPoint; and Be able to surf the internet and download files with confidence.