ANNUAL COURSE REVIEW REPORT

COURSE INFORMATION:

Course code	Course Title		Course Co-ordinator
EV5517	**Applications of GIS**		Dr Louise Page, Dr Philip Smith
Period of review**:** (1st / 2nd half session (or summer term for PGT) and academic year)	2nd half session, 2023-24		
No. students registering:			
No. students withdrawing:			
Pass Rate (%) based on first attempt and excluding any C7, NP, GC or MC:	100%		

COURSE APPRAISAL:

a) **PASS RATE:** Please provide a reflective commentary on the **pass rate**

All students passed the course at the first attempt. The distribution of grades (Fig. 1) suggested that students found the main element of assessment, the 'skeleton report' of a GIS investigation, more challenging, but all passed it, and higher marks for the lower weighted two assessments resulted in overall course grades being mainly in the C and B bands: D 8%, C 46%, B 39%, A 8%.
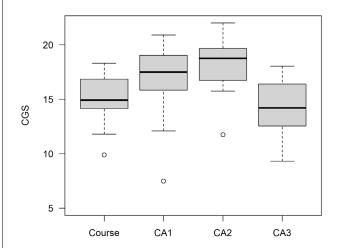

Figure 1. Grades for the overall EV5517 course and constituent elements of coursework. CA1, GIS skills test (20% weighting); CA2, GIS knowledge test (10%); CA3, GIS investigation ('skeleton') report (70%).

b) **STRENGTHS**: What worked well in the course (e.g. with respect to assessment, feedback on assessment, teaching methods, opportunity to develop graduate attributes)? You should use student feedback gathered by any method, which could include the Course Feedback Form, SSLC meetings, informal feedback during classes, mid-term evaluations, as well as feedback from external examiners, Programme Advisory Boards, Professional and Statutory Bodies and the teaching team if available.

Student feedback identified several strengths:

- Excellent teaching (e.g. "Beyond excellent teaching by both Louise and Phil. Very helpful, friendly, and easy to talk to if you have any questions. They explained concepts extremely well and made the class interesting." "Louise was very patient and explained things well.")

- Engaging practicals (e.g. "Engaging and challenging pracitcal [sic] exercises")

- Material on MyAberdeen, including recorded lectures and notes (e.g. "The lectures were split well and were easy to follow. The notes alongside the slides are great." "The video lectures were great and some of them showed how to use GIS on screen.")
- Students recognised that GIS is an important transferrable skill and enhances employability (e.g. "the tasks we were given reflected what we most likely would be doing in a job that involves GIS").
- Likert scores in the course feedback form were 3 or more for all but one question and 4 or more for around half.

c) **WEAKNESSES**: What did not work well in the course (e.g. with respect to assessment, feedback on assessment, teaching methods, opportunity to develop graduate attributes)? You should use student feedback gathered by any method, which could include the Course Feedback Form, SSLC meetings, informal feedback during classes, mid-term evaluations, as well as feedback from external examiners, Programme Advisory Boards, Professional and Statutory Bodies and the teaching team if available

There were two CFF comments that related to the high level of detail in the practical instructions, and one comment that the content of practicals differed. Nevertheless, there was less negative feedback on these aspects this year. Staff were explicit that the (unassessed) practical exercises differed in amount of work involved and that different amounts of time were allocated accordingly. The amount of text in instructions has been reduced and more video demonstrations of GIS procedures were provided this year.

One CFF respondent commented negatively that unlike an earlier statistics course 'answers' were not provided at the end of each session. This course differs from the statistics course in that rates of progress can differ markedly and after a relatively short period the class can be working on two or more exercises at the same time. Students were advised to have their work checked by staff or a demonstrator before they left a session, and for most exercises, answers and example maps were provided on MyAberdeen.

There was one CFF response complaining about deduction of marks in Assignment 1 after an error in a sequence of steps. The assignment was designed to avoid long sequences and credit was given where possible.

d) **IDENTIFIED GOOD PRACTICE**: Reflect on any new/innovative or particularly effective teaching or assessment methods. Indicate whether this good practice has been disseminated more widely within the School, University or outside of the University

The design of exercises to allow supported active learning and acquisition of skills using real-world data and scenarios.

e) **DECOLONISING THE CURRICULUM:** Reflect on issues of decolonising the curriculum and their application within this course, for example, including the decolonising agenda, and the anti-racist curriculum.

Many of the examples in the existing course materials are from the UK or Europe, owing to greater data availability of spatial data, but over recent years more overseas examples have been incorporated. For example, lectures and assessments now draw on case studies from Bangladesh, Argentina, Sri Lanka and Japan. If the course runs again, continued efforts will be made to present examples highlighting the collection and analysis of spatial data by scientists from the global south.

f) **EQUALITY, DIVERSITY AND INCLUSION:** Reflect on issues of equality, diversity and inclusion within the course, for example, EDI issues raised by way of Student-Staff Liaison Committee.

The CFF form indicated that some students had difficulty in relation to a protected characteristic. Text comments suggested that some non-native English speakers struggled with the practical guidance. Worryingly, there was one comment suggesting that the respondent had been spoken to unsympathetically by "an instructor" (it is not clear if that means staff or a demonstrator) in relation to following written guidance. This contrasted with positive comments about the patience of staff and their ability to explain things. Nevertheless, staff and demonstrators need always to be mindful of the importance of a patient and sympathetic approach with all students, and to be aware of cultural differences in how blunt comments can be perceived.

Reducing the amount of text in instructions and incorporating more graphics and video demonstrations has helped, and if the course runs again there will be continued development along these lines.

COURSE DEVELOPMENT:

a) **EVALUATION OF CHANGES MADE THIS YEAR**: Evaluate any changes implemented during this year as a result of feedback from previous years. Changes made that were not successful are just as important as changes that have been successful.

After poor attendance at live lectures in recent years, background information on key concepts in GIS were provided in recorded form with notes this year. There were two specific positive CFF comments about this.

A new assessment, a test with a low weighting on the lecture content, was incorporated in response to previous comments questioning the relevance of the lectures. There were no comments of this type this year.

In association with the inclusion of a new test, the weighting of the main assessment was reduced from 80% to 70%. There were no comments about overly heavy weighting of this assessment this year.

b) **PROPOSED CHANGES FOR NEXT YEAR**: Summarise changes planned in the light of this review

The School of Biological Sciences has suspended MSc teaching for one year, so this course will not run in 2024–25. If it runs in future, there will be continued efforts to present practical instructions and guidance in an accessible and digestible way, to further encourage students to have their work checked informally, perhaps to incorporate clearer 'staging posts' to review recent exercises and check understanding, and to continue to incorporate further material highlighting the work of scientific practitioners of GIS in other parts of the world, particularly the global south.

This course has been delivered using the software ArcGIS for Desktop. This is no longer available, so the course will need to switch to different software, possibly ArcGIS Pro, R or QGIS. ArcGIS Pro is broadly similar to the desktop version but requires an expensive licence, so will be unavailable to many students after they leave university. R is free and has various packages for processing spatial data, but is not easy to use even though students will have had a course in statistical analysis using R. QGIS is also freely available after students leave university, its graphical user interface is similar to ArcGIS, and it is used by some key ecological organisations such as NatureScot. There is already limited use of QGIS in some SBS undergraduate courses.

c) **APPROVAL**:

Will approval be needed to make changes to the course using the Curriculum Management System?	~~YES~~	NO

Signed: .... Philip Smith ....……………….. Date: .... 24 July 2024 ....

(Course Co-ordinator)

COPIES OF THIS FORM SHOULD BE:
1. UPLOADED TO THE QUALITY AND PLANNING SHAREPOINT SITE AS SOON AS POSSIBLE FOLLOWING COMPLETION OF THE COURSE. DEADLINES WILL BE DETERMINED BY THE SCHOOL, WITH AN OVERALL CENTRAL DEADLINE OF **31 AUGUST** (UG) AND **30 NOVEMBER** (PG)
2. PUBLISHED TO STUDENTS AND STAFF VIA MYABERDEEN
3. CONTRIBUTE TO THE ANNUAL PROGRAMME REVIEW

* Phase Co-ordinator for the MBChB curriculum; Interdisciplinary Degree Programme Co-ordinator, or Vice-Principal (Education) where appropriate.

Updated October 2023