Course analysis template

After the course has ended, the course leader fills in this template. This is an important part of the quality assurance of the programme. The programme director decides whether the template should be supplemented with further information/questions.

Course code 5HI022	**Course title** Scientific Research Methods	**Credits** 7.5 HP
Semester VT2024	**Period** 2024-03-18- 2024-06-02	

Course leader Leonard Mauco	**Examiner** Sabine Koch
Other participating teachers Sabine Koch, Henrik Ahlenius Samuel Wiqvist, Henrike Häbel, Leonard Mauco, Emma Eliasson , Ulrika Lögdberg,	**Other participating teachers**

Number of registered students	**Number passed after regular session**	**Response rate for course survey (%)**
42	19	45.24%
Methods for student influence other than course survey Throughout the whole course, the students were asked to provide feedback about the workshops, as well as different parts of the course.		

Note that…

This analysis shall (together with a summary of the quantitative results of the students' course survey) be submitted to the LIME educational committee.

This analysis has been submitted to the LIME educational committee on this date:

1. Description of any implemented changes since the previous course based on previous students' comments

The course material underwent updates, and some outdated materials were removed. All efforts were made to ensure that only material critical to meeting the course objectives was shared with learners on canvas. This was in response to previous year students, who noted an issue of information overload resulting from indiscriminate sharing of teaching material. Another notable response to leaners' suggestions, was in ensuring that a leaner provides peer feedback for the same work through its different stages. Some new lecturers were also introduced in the course. The course leader made intentional efforts to be more accessible and responsive to learners' enquiries via email and Zoom. As such fostering a supportive learning environment

where students would feel valued and understood. Hence leading to increased motivation and engagement with the course. Feedback from the 2024 cohort will be considered to ensure continuous improvement to the course.

2. A brief summary of the students' evaluations of the course

(Based on the students' quantitative answers to the course evaluation and comments. Quantitative compilation and possible graphs attached.)

19 out of 42 students completed the course evaluation survey. Seventeen students had a clinical background and two had a technical background. For survey responses on general reflections about the course, the mean, standard deviation, and coefficient of variation, as a percentage, are presented in Table 1.

Table 1. Summary of the students' evaluation of the course.

#	Question	Mean	Standard Deviation	Coefficient of Variation (%)
1	In my view, I have developed valuable expertise/skills during the course.	3.1	1.1	37.0
2	In my view, I have achieved all the intended learning outcomes of the course.	3.6	0.6	17.0 %
3	In my view, there was a common theme running throughout the course – from learning outcomes to examinations.	3.6	1.2	34.0 %
4	In my view, the course has promoted a scientific way of thinking and reasoning (e.g., analytical and critical thinking, independent search for and evaluation of information).	3.3	1.1	31.9 %
5	In my view, during the course, the teachers have been open to ideas and opinions about the course's structure and content.	3.2	1.4	43.9 %
6	Teaching was based on real examples to develop students' professional knowledge.	3.1	1.3	42.8 %
7	My previous knowledge was sufficient to follow the course.	3.9	0.9	22.5 %
8	The course was challenging enough for me.	2.8	1.1	39.4 %
	AVERAGE	**3.3**	**1.09**	**33.6%**

According to Table 1, majority of the survey responses were affirmative regarding the above questions posed. A reflection that for the specific issues regarding the course, as illustrated in Table 1, a significant portion of the survey respondents expressed approval, support, or affirmation.

Students appreciated several aspects of the course, highlighting the effectiveness of the teaching methods and the supportive environment. They valued the concise feedback provided by the course leader, who some described as being prompt in responding to questions and approaching problems with solution-oriented strategies. According to some of the respondents, this responsiveness and problem-solving attitude were motivating and made students feel valued. Students expressed an appreciation of the course leader's openness to discussion and willingness to make improvements based on their feedback.

Some respondents provided a description about the benefit of peer reviews, which some believed exposed them to diverse types of studies and enhanced their constructive feedback

skills. Practical exercises accompanying the lectures were appreciated, as some respondents believed that they provided hands-on experience that complemented theoretical learning.

Some respondents also agreed that guest lecturers contributed positively to their learning experience. Overall, students found the course content to be "great", the lecturer approachable, and the concepts clearly explained, which significantly contributed to their learning experience.

Below are primary concerns raised by learners, along with their suggested improvements:

- Consider offering qualitative and quantitative research as separate modules across two semesters for in-depth teaching and better comprehension.
- Avoid running this course alongside another intensive course (Data Science for HI) to prevent students from being overwhelmed by concurrent deadlines.
- Complement the research project assignments/report with mandatory interactive seminars analyzing exemplary papers in the field.
- Spread complex topics over more days to prevent rushing through material and enhance comprehension.
- Include anonymity in peer feedback.
- For the course leader to avoid long, unrelated explanations and focus on direct, relevant points to cover more content effectively within the time limit.

3. The course-responsible reflection on the course implementation and results

1. Repetitive nature of Final report (Assignment 5)

The "draft" brings about some level of repetition to assignment 5. It would be more ideal if the final report strictly followed the IMRaD format.

2. Some students are not sharing peer feedback with each other promptly

I had to resolve issues where some students reported delays in receiving peer feedback on their assignments. Some students would submit peer feedback to the lecturer on time for grading but would not do the same with their peers. Solution to this may involve a lecturer actively monitoring the peer feedback process as well as making the timely sharing of peer feedback a part of the grading criteria.

3. Further refinement of grading rubrics

Grading rubrics for some of the assignments seem too general (especially those that give either a 1 point or 0-point grades). This may sometimes make it challenging for an instructor to justify grades, as the broad criteria provides insufficient guidance on how to differentiate between varying levels of performance. This may cause dissatisfaction among students. As such, further refinement of some grading rubrics is required.

4. Reorganization of the course schedule to improve students' clarity on assignments

According to the current course schedule, students have to attempt some of the assignments without first having a scheduled meeting with the course instructor, to ensure clarification. Furthermore, at times, they proceed to do the next assignment without first having a scheduled meeting with the instructor to provide in-person feedback. Solution: Where an assignment is issued or feedback on assignment is due (e.g. when students are with a guest lecturer or at DSV

at that time), then there should be a scheduled online meeting with the course instructor to provide feedback and clarity on assignments.

5. Further alignment of guest lecturers' presentations/workshops with objectives of the course syllabus

It may be worth clearly communicating the course objectives as well as the intended learning outcomes to guest lecturers for their workshops/presentations, well in advance. This will ensure that their content aligns more with the course objectives and to avoid information overload to students.

6. Enhancing attendance in the course and ensuring learners derive maximum benefit from it

Based on insight from the course evaluation, technical students are more likely to prioritize attending the data science course, anticipating that their research activities (thesis) would likely be conducted at Stockholm University. Hence perceiving attendance for this part of the course as Inconsequential. Also based on insight from the course evaluation, Some students with a basic introduction to research methods at the degree level, mistakenly believed they were adequately prepared to handle thesis requirements without taking this course. Hence also perceiving attendance of this course as inconsequential. To mitigate long term effects of this misperception among students about the course, some mandatory sessions are required.

3. Other comments

The course leader has proactively registered for the KI course "Teaching in a Glocal University" , for Autumn 2024. As a way towards being more equipped for enhacing leaner experience for the course offering.

4. The course-responsible conclusions and any proposals for changes

(If any changes are proposed, please specify who is responsible for implementing these and a time schedule.)

In response to feedback raised herein, and with a commitment towards continuous and objective improvement of the course. The course leader, course examiner and program director shall engage and map a strategy towards addressing issues raised within their respective authorities.