# Staff Teaching and Development

## **Rubrics for Assessment**

## **Department of Science and Environmental Studies (SES)**

The course *SCG1001—Scientific Investigation: Principles and Techniques* is aimed at enhancing understanding of the nature of scientific inquiry, as well as mastery of the skills and techniques involved. Students are guided in conducting inquiry so that they develop a good understanding of the processes involved. In this course at SES, the lecturers provide practical skills in scientific investigation and laboratory safety in the first few sessions. Students (in groups) are then required to design and conduct an inquiry project on a selected science topic (e.g. physics, chemistry, biology or environmental studies) using relevant scientific investigation techniques and science

process skills. Students are required to submit an individual portfolio, consisting of a log book with raw data of (i) the class work provided by lecturers and (ii) experiments conducted by students at the end of the semester, and they are assessed on their understanding of operating principles, handling procedures and safety precautions when conducting scientific inquiry with a wide range of apparatuses and instruments. The portfolio facilitates the assessment of important aspects of scientific inquiry, including applying scientific concepts, formulating experimental hypothesis, preparing materials, designing experiments and collecting and analyzing data.

The following rubric is used to assess the performance of the students in these various aspects:

	Distinction 10	8 Credit 7	$\begin{array}{c} \text{Average} \\ 6 \longleftrightarrow 5 \longleftrightarrow 4 \end{array}$	$\begin{array}{c} \text{Fail} \\ 3 \longleftrightarrow 2 \longleftrightarrow 1 \end{array}$
Question/ purpose	The purpose of the laboratory or the question to be answered is clearly identified and stated.	The purpose of the laboratory or the question to be answered is identified, but is stated in a somewhat unclear manner.	The purpose of the laboratory or the question to be answered during the laboratory is partially identified and is stated in a somewhat unclear manner.	The purpose of the laboratory or the question to be answered during the laboratory is erroneous or irrelevant.
Experimental hypothesis	Hypothesised relationship between the variables and the predicted results is clear and reasonable based on what has been studied.	Hypothesised relationship between the variables and the predicted results is reasonable based on general knowledge and observations.	Hypothesised relationship between the variables and the predicted results has been stated, but appears to be based on flawed logic.	No hypothesis has been stated.
Materials/ setup	All materials and setup used in the experiment are clearly and accurately described.	Almost all materials and the setup used in the experiment are clearly and accurately described.	Most of the materials and the setup used in the experiment are accurately described.	Many materials are described inaccurately or are not described at all.

### Science Laboratory Notebook Rubric

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	Distinction 10	Credit 8 ← 7	$\begin{array}{c} \text{Average} \\ 6 \longleftrightarrow 5 \longleftrightarrow 4 \end{array}$	$\begin{array}{c} \text{Fail} \\ 3 \longleftrightarrow 2 \longleftrightarrow 1 \end{array}$
Experimental design and procedures	Experimental design is a well-constructed test of the stated hypothesis. Procedures are listed in clear steps. Each step is numbered and is a complete sentence.	Experimental design is adequate to test the hypothesis, but leaves some unanswered questions. Procedures are listed in a logical order, but steps are not numbered and/or are not in complete sentences.	Experimental design is relevant to the hypothesis, but is not a complete test. Procedures are listed but are not in a logical order or are difficult to follow.	Experimental design is not relevant to the hypothesis. Procedures do not accurately list the steps of the experiment.
Variables	The relationship between the variables is discussed and trends/patterns are logically analysed. Predictions are made about what might happen if part of the laboratory were changed or how the experimental design could be changed.	The relationship between the variables is discussed and trends/patterns are logically analysed.	The relationship between the variables is discussed but no patterns, trends or predictions are made based on the data.	The relationship between the variables is not discussed.
Data	Neat looking and accurate representation of the data written in tables and/or graphs. Graphs and tables are labeled and titled.	Accurate representation of the data in tables and/or graphs. Graphs and tables are labeled and titled.	Accurate representation of the data in written form, but no graphs or tables are presented.	Data are not shown or are inaccurate.
Drawings/ diagrams	Clear, accurate diagrams are included and make the experiment easier to understand. Diagrams are labeled neatly and accurately.	Diagrams are included and are labeled neatly and accurately.	Diagrams are included and are labeled.	Needed diagrams are missing or are missing important labels.
Conclusion	Conclusion includes whether the findings supported the hypothesis, possible sources of error, and what was learned from the experiment.	Conclusion includes whether the findings supported the hypothesis and what was learned from the experiment.	Conclusion includes what was learned from the experiment.	No conclusion was included in the report or shows little effort and reflection.
Calculations	All calculations are shown, and the results are correct and labeled appropriately.	Some calculations are shown, and the results are correct and labeled appropriately.	Some calculations are shown, and the results labeled appropriately.	No calculations are shown or the results are inaccurate or mislabeled.
Scientific concepts	Report illustrates an accurate and thorough understanding of scientific concepts underlying the laboratory.	Report illustrates an accurate understanding of most scientific concepts underlying the laboratory.	Report illustrates a limited understanding of scientific concepts underlying the laboratory.	Report illustrates inaccurate understanding of scientific concepts underlying the laboratory.
Notebook	Clear, accurate, and dated notes are taken regularly.	Dated, clear, and accurate notes are taken occasionally.	Dated notes are taken occasionally, but the accuracy of the notes might be questionable.	Notes rarely taken or of little use.
Spelling, punctuation and grammar	One or fewer errors in spelling, punctuation and grammar in the report.	Two or three errors in spelling, punctuation and grammar in the report.	Four errors in spelling, punctuation and grammar in the report.	More than four errors in spelling, punctuation and grammar in the report.

## Peer Assessment, Self-Assessment and Formative Assessment

## **Department of Literature and Cultural Studies (LCS)**

Following his development of *Best Practices for Student Presentations in the University Classroom*, Dr. Jeffrey Clapp of LCS wanted to implement one of the key best practices, that is, student assessment of student presentations. Therefore, he has been refining his use of peer assessment for several semesters in attempting to develop an ideal practice which enfranchises the opinions of the students and leads to meaningful, deeply engaging student presentations. In this process, Dr. Clapp discovered three crucial things that need to be done: (i) require peer assessors to write a brief description of the work that they are assessing, rather than just giving a mark; (ii) give students a simple rubric to use when marking; and (iii) balance the mark of the instructor to be approximately equal to that of the students, for example, giving 50% of weight to student grades and 50% to the instructor. Finally, Dr. Clapp also discovered that the term *presentation* might well be part of the problem. Students associate the term with PowerPoint, and their *presentations* are often rather weak. Dr. Clapp believes that students should be assigned to do *Discussion Leadership*, and he is happy to discuss this work with his colleagues at the University.



#### Grading Rubric for Discussion Leadership

Spring 2016

Grade	Insight, Interpretation, Significance	Creativity, Imagination, Fun	Effort, Investment, Commitment
A=4	You led the class toward crucial observations that enhanced our understanding of the meanings of the text.	You used creative strategies to develop a basis for discussion. You elicited feedback from many class members, and were able to shape the discussion to enhance and diversify your point of view.	Impressive.
B=3	You led the class toward specific observations about the text.	You used creative strategies to elicit responses from many class members.	Meaningful.
C=2	You chose interesting topics for discussion.	You asked discussion questions, and then used the answers to stimulate further discussion.	Acceptable.
D-1	You introduced general topics for discussion	You asked the class questions.	Perfunctory.
F=0	You did not present ideas.	You read to us from Powerpoint.	Insulting.

See also the grade sheet, which both students and instructors will use for in-class assessment.

Instructor Grade and remarks:

#### Grading Sheet for Discussion Leadership

Your Name and Number:	
Topic and Date:	
Briefly describe what you learned.	
Assess the group in the three areas described below, then add the three scores. $(4=A; 3=B; 2=C; 1=D)$	
Assess the group in the three areas described below, then add the three scores. (4#A; 3=B; 2#C; 1=D) insight, interpretation, significance	N.
Assess the group in the three areas described below, then add the three scores. (4=A; 3=B; 2=C; 1=D) insight, interpretation, significance creativity, imagination, fun	1
Assess the group in the three areas described below, then add the three scores. (4=A; 3=B; 2=C; 1=D) insight, interpretation, significance creativity, imagination, fun effort, investment, commitment	V

Your Name and Number	
Tonic and Date	
Briefly describe what you learned.	
Assess the group in the three areas described below, then add the three scores. (4=A: 3=B: 2=C: 1=D)	
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## **Department of Asian and Policy Studies (APS)**

The teaching at APS focuses on the complete learning experience of students. Interactive and stimulating teaching methods and multi-method assessment approaches are encouraged. For instance, peer assessment and peer feedback on the ICT platform have been adopted in many courses. The benefit of conducting peer assessment on students' drafts in the learning process is that, with additional input from the course lecturer, students can use the feedback to revise their work. The use of ICT is also proved to be a helpful tool to engage students and enhance their participation. For example, Dr. Lui Ching-wu Lake (呂青湖博士) developed a Diversity Project online platform in the course GCS4004—Comparative Social Policy in Greater China to allow students to comment on the research of other students and generate new ideas. In the course POS2002-China's Rise and Globalized World, Dr. Lee Siu-yau (李肇祐博士) used Google Forms to conduct in-class polling on specific issues as a means to engage students and facilitate discussion (https://docs.google.com/forms/ d/e/1FAIpQLSfUOCoefkBoVIqgv7BuScKDgP1TgxB8hkEfAmnYdPPu 0LCaVQ/viewform).



Internships are a part of the complete learning experience offered by the programmes of the Department.



 ICT platform for the Diversity Project online platform and related photos



Summary



▲ Google Form in-class polling and summary

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### **Department of Health and Physical Education (HPE)**

Different assessment components are used to enhance Teaching. The reflective journal is an example. Each student is required to submit a reflective journal which recounts the events, incidents and activities that occurred during the course. The reflective journal is rated against assessment rubrics which cover different areas, such as professional image, attitudes and behaviour. Reflection is a deliberate cognitive activity where learners connect thoughts, feelings and experiences related to the learning activity in which they are involved. Through assessment of the understanding of the course, teachers can evaluate their teaching and develop effective pedagogical strategies. This strategy is related to GILOs, in particular, the promotion of the generic skills of the learner, such as communication skills, social interaction skills and reflective capabilities. PILOs 1 to 3 are also addressed through this teaching and learning activity, in which students effectively implement evidence-based practices in health education and are able to evaluate the outcomes.

The course lecturer provides individual feedback to students on Moodle and reminds students when they have read the feedback on Moodle. Through this instant feedback, the course lecturer can further understand the learning attitudes and progress of the students.



▲ A tick on the last column indicates that the students opened the feedback of the course lecturer in Moodle.

## Student Evaluation of Teaching (SET)

### **Department of Cultural and Creative Arts (CCA)**

The SET scores are important indicators of students' perception of a course lecturer's teaching performance from different perspectives. Particular attention is paid to the few items with the lowest scores. For example, there was one course, namely, Aesthetics and Art Criticism, which had scored relatively low in item (7): I was fully informed of the assessment requirements early in the course. When the same course was offered this year, a project brief was provided to students in the first lesson, during which the course lecturer briefly explained the assignment requirements, the expected performance of students and the grading criteria. Students were able to have a better understanding of the assignments after detailed input from the course lecturer. Students in general appreciated the fact that detailed explanation of the assignment requirements was provided to them earlier than before, that is, in the fifth lecture. Students therefore had more time to visualise and work on their assignments.



▲ Assignment for the course *Aesthetics and Art Criticism*: Critique of an artwork that they have visited recently.

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