

# Developing Subject Assessment Rubrics in alignment with grade descriptors

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#### Thanks to:

Sadler, D. R. (2005). Interpretations of criteria-based assessment and grading in higher education. *Assessment and Evaluation in Higher Education*, 30, 175-194



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# Model of Outcome Based Approach to Student Learning at Subject level

What you want your students to learn in the subject and how that relates to the programme as a whole:

Aims and Learning Outcomes

How you want your students to learn:

Teaching and Learning Methods aligned with Learning Outcomes

How you will judge how well your students have learnt:

Assessment methods and Standards aligned with Learning Outcomes



#### **Assessment in OBA**

#### What we assess

 subject level learning outcomes aligned with programme level learning outcomes

#### How we assess

- exams,
- essays,
- laboratories,
- Presentations, etc.

#### Criteria and standards of assessment

- Individual subjective judgement
- norm reference
- criterion reference
- standards reference



#### **Criteria and Standards of Assessment**

In recent years universities internationally have been moving away from norm-referenced assessment to criterion and standards referenced assessment.

- Students deserve to be graded on the bases of the quality of their work alone, not how they perform compared to other students in the class
- 2. Students need to know, at the start of their subjects, the criteria and standards by which they are going to be assessed.
- Quality assurance agencies, governments and the community in general are asking questions about standards and how we justify them – they are unwilling to accept norm-referenced approaches – Hong Kong QAC.



#### Some definitions:

Norm: A comparison of the achievement of one students to another student, without regard to the achievement itself.

Criterion: A distinguishing property or characteristic of something, by which its quality can be judged or estimated, or by which a decision or classification may be made.

Standard: A definite level of excellence or attainment, or a definite degree of any quality viewed as a prescribed object of endeavour or as the recognised measure of what is adequate for some purpose, so established by authority, custom, or consensus.





# **Standards Referencing and Grade Descriptors**

**Grade Descriptor**: Broad verbal statement about the general standard to be applied with a qualitative description of each grade

Institutional level Grade Descriptors

Programme level Grade Descriptors

Subject level Grade Descriptors

Subject level assessment item level marking rubrics

The descriptor at institutional/ programme level is necessarily fairly general, providing a guide to the standards being expected.

They are not necessarily marking rubrics for particular assessment items - marking rubrics for each assessment item need to be aligned with a grade descriptor.



# **Some Examples of Grade Descriptors**

#### (1) Institutional Level: University of Queensland Final Grade Descriptor

- 1. Fail. Fails to demonstrate most or all of the basic requirements of the course
- 2. Fail. Demonstrates clear deficiencies in understanding and applying fundamental concepts; communicates information or ideas in ways that are frequently incomplete or confusing and give little attention to the conventions of the discipline.
- 3. Fail. Demonstrates superficial or partial or faulty understanding of the fundamental concepts of the field of study and limited ability to apply these concepts; presents undeveloped or inappropriate or unsupported arguments; communicates information or ideas with lack of clarity and inconsistent adherence to the conventions of the discipline.
- 4. Pass. Demonstrates adequate understanding and application of the fundamental concepts of the field of study; develops routine arguments or decisions and provides acceptable justification; communicates information and ideas adequately in terms of the conventions of the discipline.
- 5. Credit. Demonstrates substantial understanding of fundamental concepts of the field of study and ability to apply these concepts in a variety of contexts; develops or adapts convincing arguments and provides coherent justification; communicates information and ideas clearly and fluently in terms of the conventions of the discipline.
- 6. Distinction. As for 5, with frequent evidence of originality in defining and analysing issues or problems and in creating solutions; uses a level, style and means of communication appropriate to the discipline and the audience.
- 7. High Distinction. As for 6, with consistent evidence of substantial originality and insight in identifying, generating and communicating competing arguments, perspectives or problem 11 NSOINAB approaches; critically evaluates problems, their solutions and implications.

# (2) Faculty or Programme Level Grade Descriptors – Based upon Faculty of Arts

(A)	Demonstrate evidence of original thought, strong analytical and critical abilities as well as a thorough grasp of the topic from background reading and analysis; should demonstrate excellent organizational, rhetorical and presentational skills.
(B)	Demonstrate evidence of critical and analytical thinking but not necessarily original in their thinking; show adequate grasp of the topic from background reading and analysis; should demonstrate strong organizational, rhetorical and presentational skills.
(C)	Demonstrate evidence of a reasonable grasp of their subject but most of their information is derivative, with rather little evidence of critical thinking; should demonstrate fair organizational, rhetorical and presentational skills.
(D)	Demonstrate evidence of being able to assemble the bare minimum of information, poorly digested and not very well organized in presentation. There is no evidence of critical thinking.
Fail	Demonstrate evidence of poor knowledge and understanding of the subject, a lack of coherence and organization, and answers are largely irrelevant. Work fails to reach degree level
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#### (3) ANIMAL BIOLOGY University of Cambridge

#### A Outstanding

Excellent insight into the practical aims; exceptionally good organisation and presentation; critical treatment of the results. The Discussion would be very clearly written and show evidence of originality.

#### **B** Good

Full understanding of the practical aims; coherent organisation; clear presentation; accurate answers to the questions. The Discussion would be a complete and critical response to the prompts and questions in the handout.

#### C Satisfactory

Good in parts, but important points omitted. Might also have defects in presentation or be not very well written. Reasonably competent, but might show misunderstanding of the material: significant inaccuracies or errors.

#### D Poor

Some knowledge of the material is evident, but there are serious deficiencies in understanding, organization, clarity or accuracy. Write-ups that are unduly brief would fall into this category.

N.B. A mark of grade 'B' is the one that is generally most frequently given, and it corresponds, as the descriptor above indicates, to a complete, coherent, correct, clear and critical write-up. A mark of grade 'A' is, therefore, exceptional, and is much less frequently given.

- (4) Oxford University: Department of Chemistry: The following Qualitative Descriptors of Classes have been adopted:-
- Class I The candidate shows excellent problem-solving skills and excellent knowledge of the material over a wide range of topics, and is able to use that knowledge in unfamiliar contexts.
- Class IIi The candidate shows good or very good problem-solving skills, and good or very good knowledge of much of the material over a wide range of topics.
- Class Ilii The candidate shows basic problem-solving skills and adequate knowledge of most of the material.
- Class III The candidate shows reasonable understanding of at least part of the basic material and some problem-solving skills. Although there may be a few good answers, the majority of answers will contain errors in calculations and/or show incomplete understanding of the topics.
- Pass The candidate shows some limited grasp of basic material over a restricted range of topics, but with large gaps in understanding. There need not be any good quality answers, but there will be indications of some competence.
- Fail The candidate shows inadequate grasp of the basic material. The work is likely to show major misunderstanding and confusion, and/or inaccurate calculations; the answers to most of the questions attempted are likely to be fragmentary only.

### (5) Grade Descriptors – Mathematics

- A. Evidence of understanding of theory through clear reasoning and critical argumentation in the solution of real world problems, with evidence of some originality in their solution.
- B. Evidence of understanding of theory through clear reasoning and critical argumentation in the solution of real world problems, with no evidence of originality in the their solution, but with few if any errors.
- C. Evidence of basic understanding of theory through being able to solve basic textbook problems with few in any errors. No evidence of originality or critical ability.
- D. Evidence of ability to assemble basic information and ideas, but with significant errors, in the solution of textbook problems.
- E. Evidence of serious errors and misunderstandings of basic ideas. Inability to solve basic textbook problems.

# **Some Extracts from Grade Descriptors**

	Example 1	Example 2	SOLO (Biggs)	Blooms Taxonomy
A	Excellent mastery Outstanding scholarship	Original thinking Strong analytical and critical Broader context	Is able to put aspects in a broader context Extended Abstract	Synthesis and Evaluation
В	Good mastery Good scholarship	Critical and analytical but not original	Is able to relate most aspects Relational	Application and Analysis
С	Acceptable mastery Usual level of achievement	Little evidence of critical thinking Information derivative	Reproduces most aspects Multistructural	Comprehension
D	Some mastery Minimal expected achievement	Minimum of information No evidence of critical thinking	Reproduces some aspects Unistructural	Knowledge
F	No mastery Failed to meet outcomes	Irrelevant information containing fundamental errors	Misses the point Pre-Structural	



# **Exercise**

But before we can start our marking rubric, we need to have an idea of the standards we wish the marking rubric to encapsulate.

Both within and outside the University, three key terms often figure in description of high grades –

- > critical analysis
- > originality or innovation
- > problem solving in unfamiliar situations



# **Exercise**

- 1. Pair up with a colleague in a cognate discipline.
- One member of the pair initially work on one of the above critical analysis, originality or innovation, problem solving unfamiliar situations. The other on another.
- Name and briefly describe the assessment item in a subject being focussed on.
- 4. Briefly describe what the chosen term might mean in that assessment item.
- 5. Swap your description with your partner.
- Read your partners response and identify questions or issues or ways of improving the description.
- 7. Discuss your response with your partner and amend your description as a result of your discussion.
- 8. Report back Relevant? Useful? Difficult to apply?



# Some Examples of Grade Descriptors and Marking Rubrics

# (6) Faculty level marking rubric Business and Economics

Grade

conventions

A+ A A-	All aspects were addressed and researched in great depth.  Demonstrates a clear understanding of and the ability to apply and theory, concepts and issues relating to the topic.  Able to clearly identify the most critical aspects of the task and adopt a critical perspective.  Excellent development of argument and offers a logically consistent and well-articulated analysis and insight into the subject.  Draws widely from the academic literature and elsewhere whilst maintaining relevance  All aspects conform to a high academic / professional standard
B+ B B-	Most aspects were addressed and researched in depth.  Demonstrates a good understanding and some application of the theory and issues relating to the topic.  Able to identify critical aspects of the task and adopt a critical perspective.  Some evidence of analysis, supported by logical argument and insight into the subject.  Draws on relevant academic and other material.

WRITTEN ARGUMENT Depth and breadth of Coverage, critical elements, structure, language and

Most aspects conform to a high academic / professional standard. C+ Most aspects were addressed and researched adequately. Demonstrates a good understanding of the theory, concepts and issues relating to the topic but limited application relating to the topic. Some argument presented showing some insight but not always consistent and logical. Draws upon an adequate range of academic and other material Most aspects conform to an acceptable academic / professional standard. D Basic aspects were addressed and researched adequately. Demonstrates mainly description, showing basic understanding of the topic but no application.

Little evidence of analysis but no clear and logical argument relating to the subject. Draws primarily upon course materials. Fail Basic aspects were superficial, inadequate or absent. E/F

Limited aspects conform to academic / professional standards. Demonstrates limited understanding of the topic and draws conclusions unrelated to the topic. 18 The written work is not of an academic / professional standard.

# (7) Faculty level marking rubric Business and Economics

Grade	ORAL PRESENTATION Depth and breadth of Coverage, critical elements, structure, language and conventions
A	The presentation was highly successful at communicating the essential elements of the topic to the audience. Concepts were thoroughly explained and clarified.  The presentation demonstrated deep understanding on comprehension of the topic.  There was clear evidence of independent thought and reflection on the topic.  The topic was covered in a highly professional and organized manner.  The presented displayed excellent verbal skills and delivered a highly interesting, coherent presentation at an appropriate level for the audience
В	The presentation was successful at communicating the essential elements of the topic to the audience.

The topic was covered in a professional and organized manner. The presenter displayed good verbal skills and mostly delivered an interesting, coherent pres3entation at an appropriate level for the audience. The presentation adequately communicated most of the essential elements of the topic to the audience. Most concepts were adequately explained. The presentation demonstrated good understanding and comprehension of most aspects of the topic. The topic was covered in a organized manner. The presenter displayed adequate verbal skills and mostly delivered a coherent presentation at an appropriate

The presentation demonstrated sound understanding and comprehension of most aspects of the topic.

E/F

The presentation basically covered the main aspects of the topic. The presentation demonstrated basic understanding and comprehension of most of the topic.

The presenter displayed minimal standards of verbal skills and or coherence an organization.

The presentation did not demonstrate sufficient understanding an comprehension of the topic

The presentation was poorly addresses and or concepts were inadequately explained.

The topic was covered in a basic manner.

Verbal skills were inadequate.

level for the audience.

The topic was not covered acceptably and or was poorly organized

D

Most concepts were well explained and clarified.



# **Exercise**

Outline a set of marking rubrics for the assessment item A (excellent grade), B/C (good grades), D (passing grade)





# Other Examples

# MIT Grading Policy

- A Exceptionally good performance demonstrating a superior understanding of the subject matter, a foundation of extensive knowledge, and a skillful use of concepts and/or materials.
- B Good performance demonstrating capacity to use the appropriate concepts, a good understanding of the subject matter, and an ability to handle the problems and materials encountered in the subject.
- C Adequate performance demonstrating an adequate understanding of the subject matter, an ability to handle relatively simple problems, and adequate preparation for moving on to more advanced work in the field.
- D Minimally acceptable performance demonstrating at least partial familiarity with the subject matter and some capacity to deal with relatively simple problems, but also demonstrating deficiencies serious enough to make it inadvisable to proceed further in the field without additional work.

# **Music Oxford University**

- 80 +: The essay will display a degree of independent thought, a refined and critical approach to its sources and a wide knowledge of the relevant scholarly field. It will be meticulously presented and written in a clear and engaging manner.
- 70-79: Presentation (English skills and, accuracy and conventions of layout) will normally be of a good standard. The candidate will show an extensive general knowledge of the chosen field, and an ability to handle effectively the range of materials (musical and non-musical, primary and secondary) relevant to the topic. The conclusions drawn will be well supported by the evidence, and may offer original insights.
- 60-69: The essay will be interesting and purposeful, though lacking some of the refinements and maybe also the originality of a first-class piece of work. There will be a good level of presentational accuracy and acumen.
- 50-59: Most commonly, candidates in this class will show weaknesses in some important aspect of the task. Sometimes dubious or ill-supported views will be presented with scrupulous accuracy, sometimes convincing and relevant views with sloppiness. The materials may be only partially understood, and the enterprise as a whole may lack rigour.
- 40-49: While the object of the essay may have been established, the candidate will have failed to address the central issues, and shown considerable weakness in understanding and handling the relevant materials. These failings may be combined with a poor level of presentation.
- 30-39: An inaccurate, poorly argued, shoddy and skimped piece of work, redeemed only by evidence of some acquaintance with the subject.

#### Princeton: Assessment in the School of History, Classics and Archaeology

#### A1 (90-100%)

**A2 (80-89%)** An authoritative answer that provides a fully effective response to the question. It should show a command of the literature and an ability to integrate that literature and go beyond it. The analysis should achieve a high level of quality early on and sustain it through to the conclusion. Sources should be used accurately and concisely to inform the answer but not dominate it. There should be a sense of a critical and committed argument, mindful of other interpretations but not afraid to question them. Presentation and the use of English should be commensurate with the quality of the content. In courses involving classical languages the work shows, where appropriate, a very high level of linguistic competence.

#### A3 (70-79%)

**B** (60-69%) Clearly structured work displaying an ability to deal with the concepts, sources and arguments relevant to the topic under discussion and critical judgement in selecting, evaluating and organising material. In the 65-69 range the work will display some of the qualities of excellence outlined above, although some aspects will be less fully realised. The 60-64 range represents above-average achievement in all or most respects. In courses involving classical languages the work shows, where appropriate, a sound grasp of the linguistic aspects of the subject.

**C (50-59%)** Sound and competent work which covers the basic subject matter and is appropriately organised and presented. May tend to narrative and description rather than analysis but does attempt to answer the question. There will be some evidence of the inclusion of irrelevant material, a certain lack of focus in the discussion or deficiencies in the evidence used to support the argument. Work in the 50-54 band is likely to be factually sound but to show only a general grasp of the issues which the question is raising, and to be weak in critical awareness and analytical qualities. In courses involving classical languages the work shows, where appropriate, a fair understanding of the central linguistic aspects of the subject.

**D** (40-49%) Work which is adequate but limited. It may include irrelevant material and be too descriptive and narrative. Some aspects of the question may be answered competently, but others will be ignored because of omissions in the reading, factual inaccuracy, difficulty in identifying the key issues and arguments, or poor style, structure and presentation. In exams, an answer left unfinished may earn a mark in this range if it gives evidence of the potential to perform better. In courses involving classical languages the work shows, where appropriate, a basic understanding of the principal linguistic features of the subject.

**E Marginal Fail (30-39%)** Work which is poorly structured and of very limited relevance to the question. It may be distinguished by a lack of supporting evidence, misunderstandings, a failure to address the question asked, substantial generalisation and the lack of any real argument. In courses involving classical languages the work approaches closely a basic understanding of the linguistic aspects of the subject but is deficient in important respects.



# **Development of Marking Rubrics**

- 1. It is recommended that each subject develops marking rubrics for assessment items aligned with the course level grade descriptors.
- 2. Marking rubric for each assessment item needs **not** include all aspects of the grade descriptor. Some assessment items may be more appropriate for the higher level grade descriptor (e.g. essay) and some for the lower level grade descriptors (e.g. MCQs)
- 3. In developing marking rubrics, the danger is to set too high levels of standards. The literature suggests that we should have examples of student work that have received a ranges of grades, try to generalise from them what characterises the difference in the work produced for each grade.
- 4. Each assessment item may have a marking rubric aligned with the grade descriptor, specific to that type of assessment item.





Q&A