



## Section 31—Policy Handout No. 11:

### Legal Framework for Multiple-Choice Examinations

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Policy handouts from [Section 31: Quality Management and Legal Affairs](#) serve as guides for the planning, development, and management of degree programs, as well as the administration of degree programs and exams for those charged with organization and administration and directly responsible for degree programs and students. These handouts are intended as guides in a concerted effort in implementing high-quality tertiary education.

This is most effective when they are reviewed for practicability and constantly updated/revised. We encourage you to share your experience with each other, and with us, so it may contribute to the continual improvement of these policy handouts and ensure that they are always up to date. The staff of the Quality Management and Legal Affairs Section in the Department of Studies and Teaching would be more than happy to talk with you should you have concerns that require coordination or if you have specific recommendations or proposals.

This policy handout is intended for teachers and examiners to explain the legal framework and requirements governing the use of multiple-choice examinations.

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## 1. Introduction

In multiple-choice examinations, examinees must mark the correct answer(s) from among several given options. There are no other possible ways to answer. Examinees and examiners are not able to exchange views about controversial questions in the event of a difference in opinion. Multiple-choice examinations must therefore be graded in a different manner. The bulk of the examiner's work is carried out in advance and involves selecting the examination material, preparing the questions, and setting the answer options.

Multiple-choice examinations are generally permitted at Universität Hamburg. However, they must be explicitly addressed in the relevant examination regulations or subject-specific provisions. Given the special features listed above, the design of the examination is of particular importance. It is also important that the grading guidelines applied are clearly defined.

## 2. Legal basis

Article 12 subsection 1 of the Basic Law for the Federal Republic Germany (Grundgesetz für die Bundesrepublik Deutschland, GG) protects people's freedom to choose and practice a profession of their choice (occupational freedom). University examinations interfere with occupational freedom, especially if failing them (multiple times) leads to an examinee being excluded from further studies or not being awarded a degree. They must therefore have a legal basis. This also applies to continuous assessment.

The relevant legal basis for Hamburg can be found in Section 60 of the Hamburg higher education act (Hamburgisches Hochschulgesetz, HmbHG). As per Section 60 subsection 1 HmbHG, the details of the examination requirements and examination procedure must be set out in the university examination regulations (examination regulations / subject-specific provisions of the respective degree program). As per Section 60 subsection 2 HmbHG, in particular, examination subjects, type and weighting, and the organization of the examination procedure must be established for examinations in modular degree programs as well as for *Zwischenprüfungen* (intermediate examinations) and final examinations.

## 3. Special considerations for multiple-choice examination questions

### 3.1 Special features of this type of examination

Multiple-choice must be explicitly regulated as an examination type in your faculty's examination regulations or in the subject-specific provisions of the relevant degree program. According to the law, multiple-choice examinations are not covered by the category of written examinations. In written examinations, examinees have the opportunity to critically reflect upon and comment on the questions raised by the tasks in the examination (i.e., examinees can present their arguments). Multiple-choice examinations do not provide this option. Before using a multiple-choice examination, please check whether the examination regulations or subject-specific provisions pertaining to your examinations permit this type of examination.

If this is not the case, multiple-choice examinations do not have the necessary legal basis and for this reason alone are unlawful and subject to legal challenge. If the examination regulations or subject-specific provisions pertaining to your examinations do not contain any provisions on multiple-choice examinations, we recommend you discuss the need for change/inclusion with the relevant committees in your faculty.

➤ The staff of Section 31 responsible for your degree program are happy to assist you in developing a “watertight” formulation for examination regulations or subject-specific provisions.

### **3.2 Special features of the examination procedure**

Some examination regulations contain provisions of the following type: “Selecting answers from a list of choices (multiple choice) may also be given as a written examination.”

Multiple-choice examinations are therefore permitted. Separate authorization for multiple-choice questions is only required if there are indications that the exam was not prepared by the person grading the exam<sup>1</sup>.

However, the law takes the position that as the bulk of the examiner’s work for multiple-choice examinations is carried out in advance, the procedural requirements must be increased. The examination regulations or the respective subject-specific provisions of your faculty should therefore also provide more detailed information for the examination procedure.

➤ Furthermore, the following guidelines apply:

#### **3.2.1 Formulating error-free examination questions**

The examination questions must be clear, consistent, and unambiguous in order to ensure reliable examination results. Ambiguous questions are not admissible; questions whose meaning can only be deduced after time-consuming consideration might not stand up in court.

Therefore, examiners make sure that questions in multiple-choice examinations correspond to the grading structure they provide. The answer to be marked as correct must clearly be the correct answer and alternatives given should be plausible but incorrect—if according to the task, there is only one correct answer.

#### **3.2.2 Eliminating faulty examination questions**

All decisions relevant to examination regulations must be made at the time the questions for multiple-choice examinations are set. The examiner has the discretion to make assessments related to the examination, but only regarding the formulation of the examination questions and the answer choices. Examiners do not retrospectively evaluate the performance of individual examinees in the examination situation, but instead generally and abstractly specify assessment standards for an entire examination date.

As assessment is not required to grade the answers marked for each question, the examination questions themselves must be checked in advance to ensure that they meet the above requirements. If faulty questions remain undetected, corrections must be made following the exam. This can be done by not including the faulty question in the grading or by giving the examinees a plus point for the question. In any case, the reduced number of examination questions must not be to the detriment of the examinees.

#### **3.2.3 Two-examiner rule**

As per Section 64 subsection 7 sentence 1 HmbHG, *Zwischenprüfungen* (intermediate examinations) and final examinations must normally be assessed by two examiners. Deviations from this rule are only allowed if the examinations—as is usual in modular degree programs—take place

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<sup>1</sup> Niehues/Fischer/Jeremias, *Prüfungsrecht* (Examination laws), Sixth edition, 2014, Paragraph 42, 601.

during the degree program. According to current legislation, this also applies to multiple-choice examinations: as per the HmbHG, a second examiner is not required for multiple-choice examinations that are given during the degree program.

The legal situation is different if the applicable bylaws (examination regulations / subject-specific provisions) provide for a second examiner. If this is the case, two examiners must be involved in designing and checking the examination questions.

However, it is not necessary for both examiners (task creators) to participate in the subsequent grading of the completed answer sheets.

Questions may not be prepared by only one examiner with a second examiner subsequently grading some sections of the examination. Given the special features of multiple-choice examinations, the second examiner who grades the exam must also be able to assess the general suitability of the examination questions and not merely the performance of individual examinees.

### **3.3 Special considerations for grading multiple-choice examinations**

In contrast to traditional examinations, which can compensate for unintentional fluctuations in the degree of difficulty during their subsequent evaluation, the evaluation of multiple-choice examinations is fixed from the outset. Grading the completed answer sheets is a purely automated task. It is therefore important to take great care when assigning grades for multiple-choice examinations and particularly establishing the line between pass and fail.

➤ If the examination regulations or the respective subject-specific provisions of your faculty do not include specific provisions for grading multiple-choice examinations, the following guidelines must be observed:

#### **3.3.1 Absolute passing grade**

As with other examinations, the passing grade for a multiple-choice examination is calculated based on the percentage of questions answered correctly.

Where the two-examiner rule applies, each examiner must set an absolute passing grade or both examiners must agree on an absolute passing grade.

#### **3.3.2 Relative passing grade**

As already explained, multiple-choice examinations can fluctuate in their degree of difficulty, which can be considered when grading for other types of examinations. However, this is not possible with multiple-choice examinations as the evaluation of the examination occurs when the questions are created. This fluctuation can be compensated for by establishing a relative passing grade, which ensures grading the examination in question reflects a possible highest or normal performance.

The necessary relationship between passing grade and normal performance can only be established if statistical decision-making tools (average results of one or more examination dates) are used in the calculation of the results. The following example illustrates such a relative passing grade: “The examination is passed if at least 50 percent of the total points possible have been achieved (absolute passing grade) or if the total points achieved do not fall below the average score achieved by the reference group by more than 17 percent (relative passing grade).”

For example, the previous two or three examinations for the module can be considered as a reference group. If such data is not available, the average of one previous examination can also be

used as a reference value. The percentage value is then variable. The value is usually between 15 and 25. Ideally, the examination regulations or the respective subject-specific provisions of your faculty should contain regulations regarding the calculation method described here. The bylaws can also specify the reference group that should be used. If this is not the case, as the examiner you must establish and calculate the reference value. Both must be sufficiently documented in order to ensure verifiability, for example, in a subsequent reconsideration proceeding. If the two-examiner rule applies, both examiners must carry out this procedure.

The same applies to the percentage value of the absolute passing grade. The value here is usually between 50 and 60.

Defining the procedure in the applicable bylaws has the main advantage of ensuring transparency for the parties involved in the examination procedure. This also makes it easier for examiners to calculate and document the relative passing grade.

### **3.3.3 No penalty points**

Penalty points may not be given for incorrectly answered multiple-choice questions<sup>2</sup>.

Similarly, unequal scoring of correct, incorrect, or unchecked answer options is also not permitted.

On the other hand, an examiner must be able to grade a question as incomplete if the examinee does not mark all required multiple answer options. For examination questions of this type, if only some but not all of the correct answer options were ticked, partial points must not be given.

### **3.3.4 Differentiated grades**

For multiple-choice examinations, as the examiner you must also determine how many correct answers an examinee needs to achieve a certain grade. In any case, in *Zwischenprüfungen* (intermediate examinations) and final examinations, performance must be evaluated using differentiated grades in accordance with Section 62 subsection 2 sentence 1 HmbHG. In modular examinations, the examination regulations must establish which modules are to be evaluated using differentiated grades in accordance with Section 62 subsection 2 sentence 2 HmbHG. If the examination regulations or the relevant subject-specific provisions of your faculty do not include specific provisions for grading multiple-choice examinations, you must ensure that the differentiated grades are consistent with the relative passing grade.

We recommend you scale examination grades above the passing grade by percentage. To do this, you should determine the percentage by which each examinee exceeded the passing grade. This has the advantage that absolute and relative passes can be graded equally. You could, for example, calculate the grade to be awarded as follows:

“1.0, provided that this percentage is greater than 90%; 1.3, provided that this percentage is greater than 80% but not more than 90%; 1.7, provided that this percentage is greater than 70% but not more than 80%; 2.0, provided that this percentage is greater than 60% but not more than 70%; 2.3, provided that this percentage is greater than 50% but not more than 60%. 2.7, provided that this percentage is greater than 40% but not more than 50%; 3.0, provided that this

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<sup>2</sup> Higher administrative court in North Rhine-Westphalia (Oberverwaltungsgericht Nordrhein-Westfalen, OVG NRW), Ruling from 16 December 2008, Ref. no. 14 A 2154/08, legal par. 45; Administrative court Berlin (VG Berlin), Ruling from 4 August 2014, Ref. no. 12 K 748.13, legal par. 18

percentage is greater than 30% but not more than 40%; 3.3, provided that this percentage is greater than 20% but not more than 30%; 3.7, provided that this percentage is greater than 10% but not more than 20%; and 4.0, provided that this percentage is greater than 0% but not more than 10%.”

If two examiners are involved, ideally they will both agree on a grading structure in advance.

### **3.4 Examinations with a multiple-choice section**

Many examinations have a variety of tasks including a multiple-choice section. The guidelines described above then only apply to this section. Here, too, the examination regulations / subject-specific provisions do not have to regulate all of the individual details for the procedure. Many aspects therefore fall within the scope of the examiners’ own discretion and can be determined by the examiners themselves.

#### **3.4.1 Two-examiner rule**

If the two-examiner rule applies to the multiple-choice section of an examination, these questions must be created according to the guidelines detailed above. However, the section with open-ended questions is only to be written and graded by the first examiner. The multiple-choice section can be subsequently graded by one person as long as it is consistent with the grading structure both examiners developed. The section with open-ended questions may only be graded by the first examiner.

#### **3.4.2 Grading**

Particularly multiple-choice examinations subject to the two-examiner rule should be graded differently than examinations that consist only of multiple-choice questions. The reason for this is that the two examiners do not grade 100% of the examination; instead, the second examiner only grades the multiple-choice section. As a result, it is not enough to simply calculate the mathematical average. Instead, partial grades are to be given for both sections of the examination. For the multiple-choice section, the examiners have already “evaluated” the answers when they created the questions, meaning that the marker can use these guidelines to calculate both an absolute and a relative partial grade. The first examiner also calculates a partial grade for the section with open-ended questions. Depending on the weighting of the two sections—which is to be determined by the examiners—an overall grade can then be calculated. The examiners are also responsible for awarding grades, as described in 3.3.4 above. However, it is important that the grading scale is documented for subsequent transparency in grade calculation.

*Sample calculation:*

*A student marks 60% of the correct answers in the multiple-choice section, which results in a grade of 2.3 from both examiners (as specified in 3.3.4) and therefore a partial grade of 2.3.*

*In the section with open-ended questions, the student achieves 75% of the possible points, which results in a grade of 1.7 from the first examiner. Insofar as both sections are weighted as 50% in the overall grade, this would result in a final grade of 2.0.*

Note: Section 15 subsection 3 of most examination regulations is not directly applicable to the conversion of partial grades into an overall grade as this section of the examination regulations applies to components, that is, to multiple examinations.

### **3.4.3 Wording in the bylaws**

Even if it detailed regulations are not required, it is a good idea to outline basic procedural requirements in order to provide examiners with guidelines, to offer students a transparent procedure, and to meet the requirements of Section 60 subsection 2 no. 10 HmbHG. Where examiners are given the choice of whether they want to use an examination that is solely multiple choice or one that has a multiple-choice section, it is best to provide complete regulations for the procedure with an extra passage stating that in the case of an examination with a multiple-choice section the guidelines provided only apply to that section. Section 15 subsection 3 of the examination regulations can then be used as the basis for calculating the final grade.

Examinations that only have a multiple-choice section, should include the differences from purely multiple-choice examinations in the bylaws. In addition, required information included pursuant to Article 12 I Basic Law for the Federal Republic of Germany (Grundgesetz für die Bundesrepublik Deutschland, GG), i.e. how questions are created, that faulty questions will be eliminated, and that penalty points are not permitted should be included in the bylaws as a clarification.

If the examinations given include only a negligible number of multiple-choice questions (for example, one to two questions), adhering these guidelines are not mandatory as the examination should be considered in its entirety.

➤ If you have any questions, please contact the staff responsible for your degree program in Section 31: Quality Management and Legal Affairs.

## **4. Consequences of not adhering to the guidelines**

If the examination regulations or subject-specific provisions applicable to your examinations do not contain any provisions on multiple-choice examinations, this type of examination does not have a founding in law. For this reason alone, they are unlawful and subject to legal challenge. As part of appeal proceedings, for example, you must assume that you will be obliged to regrade the (entire) examination, and in the worst-case scenario that the examination will have to be repeated. The same applies in the case of non-compliance with the requirements described above for the examination procedure and grading the examination.

➤ If you have any questions, please contact the staff responsible for your degree program in Section 31: Quality Management and Legal Affairs.