Evaluating students’ knowledge: forms, methods, criteria and scales

<table>
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<th>Evaluation form</th>
<th>Methods, criteria and scales</th>
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<td>Weekly midterm evaluation</td>
<td>Weekly midterm evaluation makes it possible to reveal the students’ knowledge of the material explained. The control is carried out by different means: a test (open questions or multiple choice questions), casus, issues, home assignment, etc. It is conducted in written form. The possible maximum grade for weekly evaluation is two points.</td>
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**Testing through multiple choice questions.** A test comprises four examples, each correct answer is estimated by 0.5 points, the wrong answer is estimated by 0 points. Each example has several probable answers, only one of them is correct.

**Evaluation through an open-question test or questions (casus).** If evaluation is carried out through one question (maximum 2 points), evaluation criteria are:

1. 1.5 – 2.0 points. The answer is complete. The issue is exactly and fully stated, the terms are correct, the student has a full command of the material, has mastered the basic and additional sources, there are no mistakes. The casus is perfectly explained, reasoning is excellent.
2. 1.0 – 1.5 points – the answer is complete, though somewhat short, the terms are correct, there are no significant mistakes. The student has a good knowledge of the given material; has studied the basic literature on the subject. The reasoning is good.
3. 0.5 – 1.0 points – the answer is incomplete. The terminology is not quite correct. The student knows the material covered by the program but there are some drawbacks. The reasoning is fragmentary.
4. 0.1 – 0.5 points – the answer is incomplete. Special terms are not used. The answer is essentially incorrect, only some fragments of the corresponding material are covered.
5. 0 points – the answer does not correspond to the question or is not given at all.

In case of evaluation through two questions (each one maximum one point) the evaluation can be carried out similarly to the criteria given above.

**Weekly mid-term evaluation can also be carried out by means of different kinds of home assignments.** For example, by means of making a drawing, a draft, a sketch, by describing laboratory work, by solving examples, tasks and cases as well as by preparing the material and presentations on a given issue or problem, or / and searching for information (an article, explanation, a book, an interview, questioning.

The student should prepare his home assignment independently and hand it in either in writing or according to any other form recommended in the assignment.

**If the home assignment is given in writing,** its maximum evaluation grade equals to two points and it is evaluated according to the following criteria

1. 1.6 – 2.0 points. The assignment is complete. The issue is exactly and fully stated, the terms are correct, the student has a full command of the material covered, has mastered the basic and additional sources, there are no mistakes. The casus is perfectly explained, the reasoning is excellent.
2. 1.1 – 1.5 points – the assignment is complete, though somewhat short, the terms are
correct, there are no significant mistakes. The student has a good knowledge of the given material; has studied the basic literature on the subject. The reasoning is good.

3. 0.6 – 1.0 points – the assignment is incomplete. The terminology is not quite correct. The student knows the material covered by the program but there are some drawbacks. The reasoning is fragmentary.

4. 0.1 – 0.5 points – the assignment is incomplete. Special terms are not used. The answer is essentially incorrect, only separate fragments of the corresponding material are covered.

5. 0 points – the work done by the student does not correspond to the assignment or it is not done at all.

If the home assignment implies making a drawing / sketch, its maximum evaluation grade equals to two points and it is evaluated according to the following criteria.

1.1.6 – 2.0 points. The assignment is complete. It is perfectly executed with the parameters indicated. The work is excellently done.

2. 1.1 – 1.5 points – as for its execution, the work is complete. It is thoroughly made with the corresponding parameters indicated. The student has a good knowledge of the given material, but the execution technique should be improved.

3. 0.6 – 1.0 points – as for its execution, the assignment is incomplete. It is completely done but the parameters are not indicated.

4. 0.1 – 0.5 points – as for its execution, the work has some defects. Only separate fragments are done. The parameters are not indicated.

5. 0 points – the student failed to fulfill the assignment.

### Midterm examination

During the midterm examination the student has to demonstrate the knowledge of the material studied. The control is carried out in written form and different methods can be applied: a test (open questions or multiple choice questions), solving examples, problems or casus, theoretical issues, presentation of a course paper or a report of part of practical training, by making a drawing, a draft or a closure, by describing/conducting laboratory work, etc. The maximum grade for a midterm examination is 20 points.

**Midterm examination by means of a multiple choice test.** It comprises 10 (or 20) examples. Each correct answer is correspondingly estimated by 2 (or 1) points, the wrong answer is estimated by 0 points. In case of multiple choice questions each example has several probable answers, only one of which is correct.

**Midterm examination by means of open-question test or issues.** The evaluation is carried out through four questions, each of them gets maximum 5 points. The evaluation criteria are as follows:

1.4.1 – 5 points. The answer is complete. The issue is exactly and fully stated. The special terms are correct. The student has a full command of the material, has mastered the basic and additional sources. There are no mistakes. The reasoning is excellent.
2. **3.1 – 4 points** – the answer is complete, though somewhat short, the terms are correct, there are no significant mistakes. The student has a good knowledge of the given material; has studied the basic literature on the subject. The reasoning is good.

3. **2.1 – 3 points** – the answer is incomplete. The terminology is not quite correct. The student knows the material covered by the program but there are some drawbacks. The reasoning is fragmentary.

4. **1.1 – 2 points** – the answer is incomplete. The terms are incorrect. Only part of material concerning the issue is stated. The student has not studied the sources well enough. Some essential mistakes are observed.

5. **0.1-1 points** – the answer is incomplete, special terms are not used. The answer is basically incorrect. Only some fragments of the corresponding material are presented. Given at all.

6. **0** points. The answer does not correspond to the question or there is no answer whatsoever.

If some issue is a report or a graphic picture, it gets 5 points and its evaluation criteria are as follows:

<table>
<thead>
<tr>
<th>Points</th>
<th>Description</th>
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<tbody>
<tr>
<td>1.4.1-5</td>
<td>the report is perfect, the graphic part is designed according to the standards.</td>
</tr>
<tr>
<td>2.3.1-4</td>
<td>the report is perfect, the graphical part needs to be improved.</td>
</tr>
<tr>
<td>3.2.1-3</td>
<td>the report is incomplete, the graphical part needs to be improved.</td>
</tr>
<tr>
<td>4.1.1-2</td>
<td>several grave mistakes in the report as well as in the graphic part are observed.</td>
</tr>
<tr>
<td>5.0.1-1</td>
<td>both the report and the graphic part are basically incorrect.</td>
</tr>
<tr>
<td>6.0</td>
<td>the work is not done.</td>
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### Final/additional examination

At a final examination a student is required to demonstrate the knowledge of the material covered. The control is carried out in different ways: a test (open questions or multiple choice questions), solving, examples, problems or casus, explaining theoretical issues, course paper/project, presenting a report on practical training, making a drawing, a draft, etc. One method or a combination of methods can be used at the exam. The maximum evaluation grade is 30 points.

**Examination through a multiple choice questions test.** If it comprises 10, 15 or 30 examples, each correct answer correspondingly gets 3, 2 or 1 points, an incorrect answer gets 0 points. Each example has several possible answers only one of which is correct.

**Examination through an open-question test or questions.** It comprises several issues. If
it consists of three issues, each of them gets 10 points. Evaluation criteria for each issue are as follows:

1. 9 – 10 points. The answer is complete. The issue is exactly and fully stated, the terms are correct, the student has a full command of the material, has mastered the basic and additional sources, the report is excellent, the graphic part is designed according to the standards.

2. 7 – 8 points: the answer is complete, though somewhat short, the terms are correct, there are no significant mistakes. The answer is exhaustive; there are no grave mistakes. The student has a good knowledge of the given material; has studied the basic literature on the subject.

3. 5 – 6 points: the answer is incomplete. The terminology is not quite correct. The issue is satisfactorily presented; the terminology is not quite correct; the student knows the material covered by the program but there are some mistakes.

4. 3 – 4 points: the answer is incomplete. The terminology is incorrect; only some fragments of the corresponding material are covered; the student has not studied the basic literature well enough. Several grave mistakes are observed.

5. 1- points: the answer is not quite correct; special terminology either is not used or is not relevant to the subject; the answer is basically incorrect. Only separate fragments of the corresponding material are presented.

6.0 points: the answer does not correspond to the question or there o=is no answer whatsoever.

If due to the subject specifics the evaluation of the report or the graphic part is required, it gets 10 points and the evaluation criteria are as follows:

1.9-10 points: the report is perfect, the graphic part is designed according to the standards.

2.7-8 points: the report is perfect, the graphical part needs to be improved.

3.5-6 points: the report is incomplete, the graphical part needs to be improved.

4.3-4 points: several grave mistakes in the report as well as in the graphic part are observed.

5.1-2 points: both the report and the graphic part are basically incorrect.

6.0 points: the work is not done.

The possible variants of evaluating the students’ knowledge are presented above. The author of a syllabus chooses a corresponding variant(s) himself/herself.