



TÉCNICO
LISBOA

Knowledge and Skills Assessment Regulation

Approved by the Pedagogic Council, March 26, 2010

Revised by the Pedagogical Council, July 4, 2013

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Framework

Reforms in higher education resulting from the Bologna process aimed at a wide range of objectives, among which are:

- adoption of a degree system easily readable and easily comparable, based on an organization in two cycles: graduate and post-graduate;
- establishment of an European credit system (transmission and accumulation);
- promoting mobility and of the higher education of European dimension through the creation of dual degrees and joint degrees;
- promoting European cooperation in quality evaluation;
- promoting learning throughout life;
- involvement of students in decision-making;
- attractiveness of European higher education system;
- increasing synergy between research and higher education.

Alongside these objectives, the Bologna process calls for the adoption of more efficient models of teaching/learning to allow for better performance of academic periods and enable students to acquire skills in complementary fields to their specific training.

The Instituto Superior Técnico (IST) during the academic years 2006/2007 and 2007/2008 worked to redesign the curricula to adapt them to the degree system adopted by Decree-Law 74/2006 and the organization in credits pursuant to Decree-Law 49/2005.

As a result of a strategic choice based on strong internationalization of its teaching, IST, in recent years has enhanced its participation in various international programs. Apart from participation in partnership programs with American universities (MIT, CMU, UT Austin), IST includes a set of master's degree programs leading to double degree within the CLUSTER network. At the same time, the number of student exchanges under the Erasmus program has had a significant growth, increasing with the number of courses of IST 2nd cycle to be frequented by foreign students and thus to be taught in English.

Despite these important changes to the organization of the degrees, changing the curricula and the enlargement of foreign students, the teaching/learning process in IST has not changed much. Teaching continues to be primarily based on lecture sessions with a weak intervention by the students. The skills assessment is still essentially based on the achievement of final examinations.

The organization of teaching activities is based on the existence of two terms (semesters) consisting of 14 weeks, one week to prepare for exams and 5 weeks of final evaluations. Generally final evaluations have two exams for each course. Normal school activities take place from mid-September until the end of July, not allowing any periods dedicated to developing extracurricular activities. The school calendar adopted is not synchronized with that of most European schools and affects student exchanges.

During the semester, students mainly follow-up the subjects taught and collect support elements in addition to the development of projects and practical work in some courses. It is essentially that students seek to acquire the skills needed for the courses approval during the final evaluations. This period is labour intensive marked by the delivery and discussion of projects and the realisation of final exams at an approximate rate of one examination every two days.

The organizational model of school activities at IST proves to be inefficient. It is necessary to change this organizational model looking for:

- increase training efficiency during the school year;

- reduce the assessment period;
- prevent peak loads during the school year that promote the non-attendance of students in classes;
- coordinate IST school activities with schools with which makes exchange of students;
- allow periods for organizing internships, summer courses or extracurricular activities;
- improve the quality of training through a more consolidated knowledge, as an alternative to a mere collage of concepts aimed at passing a set of sequential assessments.

In order to meet these challenges we propose the following set of measures:

- changing the school calendar format, allowing:
 - reduction of time devoted to final evaluations;
 - maintaining a semester of 14 weeks per semester;
 - the completion of normal school activities at the end of June;
 - the release of July for internships, summer courses and extracurricular activities;
 - the transfer of the special examination season for the end of July in order to allow the closure of all activities relating to a school year up to 31 July.
- change of assessment regulation of knowledge and skills to enable:
 - lessen the load of the final evaluations;
 - allow balance components and assessment dates during the school year;
 - increase the work done by students during the school year;
 - maintain the possibility of appeal in the ratings;
 - increase clarity in the adopted evaluation methods;
 - maintain the possibility of using flexible assessment methods adapted to the different nature of each course;
 - reduce the occurrence of fraud in examinations.
- monitoring the operation of the school activities in order to know the causes and enable the adoption of measures which:
 - avoid high drop-out rates;
 - promote student participation in school activities;
 - reduce school failure;
 - increase the effectiveness of formative processes of teaching and assessment of knowledge and skills.

Taking into account the objectives set forth herein, the Pedagogical Council IST hereby:

- 1) approve a new version of Knowledge and Skills Assessment Regulation;
- 2) propose to the President of IST the adoption of a new school year model;
- 3) prepare an initiative aimed at systematic monitoring of school activities;
- 4) Following the systematic monitoring, adapt this Regulation in the educational opportunities of IST.

1. Objectives and Principles

1.1. Scope

This regulation aims to define the general rules on the Knowledge and Skills Assessment applicable to all units.

The Course Pedagogical Commissions will adopt specific rules which are best suited to the specific requirements of each course in compliance with the general rules set forth herein.

In exceptional cases can the Course Pedagogical Commissions adopt different rules laid down by the current regulation, which in this case shall be subject to prior approval by the Pedagogical Council.

1.2. Assessment Objectives

The knowledge and skills assessment is intended to demonstrate that the learning objectives set for each course were achieved by students and assess their level of compliance.

The adopted assessment methods shall be in line with these objectives, allowing students to demonstrate and teachers to evaluate the knowledge, skills and capabilities provided.

1.3. Information on the Assessment

The Management Academic and Administrative System (FENIX) is the only means of official communication of academic information among teachers of the course and students. Only information and notices posted at the FENIX system can be considered official as part of a course.

Students must have the information about the curricula, methods of assessment and the relevant deadlines, before the start of the semester. For each course, the FENIX system must have the following information:

- objectives that students must achieve within the course;
- assessment methods, including, where relevant, specific aspects related to the evaluation of student-workers and especial evaluation time;
- schedule of assessment tests and the compulsory attendance activities;
- calculation materials and consultation allowed for the written tests;
- rules for the use of previously obtained classifications, for students in reinstatement.

Compliance with the terms and obligations of the elaborate program before the semester is an essential principle for the proper functioning of educational activities.

1.4. Effort Distribution in the Semester

Excessive concentration of work-load for students during certain periods of the semester should be avoided, particularly in the exam period.

In this sense, students must plan their work, it is essential that all information relating to the timing and scope of any assessment tests be available before the beginning of the semester.

The Course Pedagogical Commissions will make this schedule in order to have a distribution of effort expended by students as balanced as possible.

1.5. Resit

The assessment methods adopted by courses must allow the possibility of a student to recover components of the evaluation process as it has failed to achieve the goals or has been unable to attend, subject to the constraints associated with conducting laboratories and projects. Should always be granted two complete assessment attempts to the student.

1.6. Equality in the Assessment

Students should be on equal position in the assessment. Students should be able to freely choose among the alternative assessment methods if available.

In the case of assessment tests in normal season and or recap, the teaching staff should seek to ensure that the degree of difficulty is the same on all dates.

2. Teaching Activities

2.1. Definition

The teaching activities are all learning moments in the presence of a faculty member, defined in the context of a course and expressed in contact hours.

2.2. Classification

The teaching activities are typified as follows:

- Lectures (T);
- Theoretical-practical or problems classes (TP);
- Practical classes or laboratory (P/L);
- Seminar classes (S);
- Tutorials (OT);
- Internships (E);
- Fieldworks (CT).

2.3. Laboratory Activities

Laboratory activities are those that require the use and handling equipment or experimental means which cannot be exercised in another space than the specific locations in the IST or other R&D institution.

2.4. Other Activities

There may be other teaching activities in a course that are not specified in the preceding paragraph and not on the regular workload of it, such as study visits.

Such activities must be approved by Pedagogical Course Commission and, when subjected to assessment, set out in the assessment methods defined in the beginning of the semester for the course.

2.5. Compulsory Attendance Activities

The presence of students in teaching activities is not generally required.

The Pedagogical Course Commission may grant the compulsory presence to laboratory classes, invited seminars and study visits which are the only way to acquire and evaluate certain competence.

Other teaching activities, other than those referred to which it is intended to grant compulsory presence of students, must be submitted annually by the course coordination, prior appraisal of the Executive Committee of the Pedagogical Council.

2.6. Courses Taught in English

The courses that are part of the ongoing plans of 2nd and 3rd cycle are taught in English whenever they have foreign students enrolled that declare do not have enough knowledge of Portuguese.

The courses taught in English:

- must have bibliography support for that language;
- summaries of lessons are compulsorily introduced in English;
- assessment of knowledge, in particular the examination papers and work guides, shall be in English, ensuring the possibility of providing also examination papers in Portuguese for students who so desire.

3. Assessment Methods

3.1. Definition

The evaluation method is the set of criteria and evaluation rules of a course that determine the final classification of each student.

3.1.1. Definition of Non-Rated Student

Students that have not completed all mandatory components of the evaluation process should be considered as "non-rated" students. If the student has completed all components of the evaluation process but get final grade lower than 10 points, or does not reach the minimum score required in the evaluation of any of the components is to be considered as "failed".

3.2. Rating Scale

The final grade of a student in a course is assigned in the absolute scale of 0 to 20, considering the student passed with a rating equal to or higher than 10, after rounding to the nearest integer, for excess when the decimal value is equal or greater than 5.

Rating scales resulting from the comparison of a student with the remaining or any form of statistical distribution are not permitted.

The compliance with all the established objectives for a course must correspond to the allocation of a maximum score of 20 points.

3.3. Evaluation Components

3.3.1. Classification

Assessment components of courses are typified as follows:

- assessment by examination;
- evaluation by tests;
- evaluation by course-work or projects;
- evaluation by sheets;
- oral examination;
- performance evaluation of compulsory attendance activities.

3.3.2. Assessment by Examination

Evaluation by exam takes place in the examination period set in the academic calendar and has two dates.

The exam is a written test, with a maximum duration of three hours, which focuses typically on all of the objectives of the course.

The student has the right to take the examination in one of the two dates of his choice or both. The best of the two ratings is to be considered.

3.3.3. Evaluation by Tests

The evaluation by tests is carried out in one or more tests during the school year. The last test can be conducted in the normal season of exams.

A test is a written test, with a maximum duration of two hours, which focuses typically on part of the objectives of the course.

Three general situations are accepted:

- tests and resit tests. In this case, it is possible to resit each individual test at the student choice;
- tests and examination. In this case, the student may resit one of the tests or the final mark does not consider the worst mark of the tests;
- tests and examinations with two exam dates. Access to the first exam date can be denied to students who select via "Tests". Students who deliver the last test are considered bounded to via "Tests", or when it coincides with the first examination when they have select via "Test" at the beginning.

3.3.4. Evaluation of Course-work or Projects

The course-works or projects are assessment components carried out individually or in groups in which they are requested to students some tasks within the competence defined in the objectives of the course.

Included in this assembly, including:

- practical work reports, laboratory, computational or others;

- results of other works or projects (software or systems, electronic assembly, mechanical assembly, models, plans or schemes, etc.);
- reports of study visits, seminars or other activities;
- electronic chips;
- problem series;
- articles or monographs.

The statements of work and projects shall indicate clearly which goals and the methodologies used, as well as the criteria for evaluation and marking. It is also advised to indicate an estimate of the time required to develop each of the components work.

3.3.5. Evaluation by Sheets

The evaluation sheets are carried out through a set of small formative tests carried out during class. The evaluation forms should be accounted for just like bonus, allowing only the increase the classification.

3.3.6. Oral Examination

Oral assessment includes oral examinations, oral presentations and discussions of works or projects.

3.3.7. Performance Evaluation of Compulsory Attendance Activities

Performance evaluation in the compulsory attendance activities that have been established under number 2.4 may be accounted for as an evaluation component.

3.3.8. Other Assessment Components

Different components of the assessment under this regulation should be justified and its adoption is subject to the appreciation of the Pedagogical Council.

3.4. Rules and Evaluation Component Weights

3.4.1. General rules

Assessment components and their respective weights and rules should be defined in the Assessment Method of the course, to be approved and announced at the beginning of the semester.

Weights of the evaluation components should be defined according to the objectives of the course and taking into account the effort of the students in their preparation and realization.

An evaluation component can not be rated negative.

3.4.2. Qualification Assessment Components

The existence of qualifying evaluation components (i.e. with a minimum grade) should be justified based on the objectives of the course and included in the valuation method.

Assessment components weighing up to 30% of the final grade may not have eliminatory nature, except for laboratory activities, where this figure could be 25%.

Assessment components that are qualifiers, except for projects or laboratories shall have right of appeal.

3.4.3. Components of Alternative Assessment and Options

The unit may provide alternative assessment methods with each other or with some optional evaluation components, getting in such cases, the choice of the student how prefers to be evaluated.

3.4.4. Waiver Assessment Components

There may be some evaluation components that the student may be waived by exceeding a specified value in another evaluation component classification.

3.4.5. Assessment Components for Rating Confirmation

It may also exist evaluation components for confirmation of higher ratings over a certain threshold (i.e. "mark defense"). In these situations, the student should be able to choose not to perform the component of rating confirmation, and to be assigned the highest rating that can be achieved without the rating confirmation.

3.4.6. Final Grade Calculation

The final grade of a course shall be calculated clearly and as it was established at the beginning of the semester, including all components of evaluation used in this course. The various possible alternatives to obtain the final score, should always be considered the one that leads to the best possible rating.

3.5. Special Season

All courses must provide a Special Season for all assessment components, namely achieved through written examination, course-works and projects and oral examination.

3.6. Reinstated students

3.6.1. General Rules

Students who are re-enrolled in a course may be waived by the teacher in charge of some evaluation components which already have passed.

Students who wish to perform all tests, including those that have obtained approval can not be prevented from doing so.

3.6.2. Ratings Improvement

Students are entitled to an attempt to improve their grades in a course, within two semesters after that they received approval or equivalence.

The improvement of rating is subject to prior registration at the Academic Services. Only one attempt is granted to the students enrolled for improvement of a classification.

It is not allowed to improve their grades in the Special Season.

4. Assessment Tests

4.1. Definition

Assessment tests are a way to measure the knowledge and skills (learning outcomes) of a student within a course.

4.2. Classification

The assessment tests are typified as follows:

- Written tests (examinations and tests);
- Oral examination.

4.3. Written Tests

4.3.1. Definition

Written tests are the individual evaluation tests which the students will present at written reply to a statement.

4.3.2. General Rules for Written Examination

Time counting will be started after the students have taken their places, have been distributed the examination paper and made any warnings.

Students will not be allowed to enter the room after 30 minutes from the beginning of the written examination, or come out during the examination, except in case of waiver or early delivery of the answers to the written examination.

The teacher responsible for the surveillance should require the identification of students through the IST card, may exceptionally be accepted other suitable document with updated photography. A plan view should be produced marking the location in the room of each student.

Early waiver or delivery of a written examination can only take place one hour after the start of it. In these cases, the examination paper shall be give back to the teacher who surveilles the examination.

The responsible of the course must provide procedures to solve any unforeseen occurrence during the tests. If it is detected an error in the examination paper, this should be immediately communicated to all students.

All the sheets delivered for marking shall be identified with name and student number.

The written examination is individual being prohibited the contact (oral or written) with other colleagues.

Any violation of the rules for doing written tests is sufficient reason for the invalidation of the examination attempt, without prejudice to any disciplinary procedure.

The responsible of the course and all the teachers responsible for surveillance of each room are obliged to ensure that there are no fraud during the examination and shall report any fraud occurrence to the Management Board for disciplinary procedures.

The teacher responsible for each course must archive all the written answers delivered for a minimum period of five years.

4.3.3. Examination Paper

The examination paper must contain the following information:

- duration of the test or exam;
- quotation for each of the questions.

The examination paper should be disclosed in FENIX system until 72 hours after the end of the test or exam and should be accessible to the entire academic community of the IST ("People of the IST"). The probable date of publication of the results and of the review of meeting must be posted at the same time. It is recommended to make available the solution or resolution of the test or exam on the course webpage.

4.3.4. Material for Calculation and Consultation

The means of calculating capable of being used in the written examination should be defined and publicized by the teacher in charge at the beginning of the semester, along with the assessment method.

The teacher responsible for the surveillance may require any other material is placed outside the desk.

It is expressly prohibited the use or display of mobile phones, or other remote communication means.

4.3.5. Enrollment

The organization of the student enrollment process for each evaluation component lies with the responsible of the course. Enrollment must be open for at least 3 days and should be announced in the course webpage.

At least two business days mas be kept between the end of registration period and evaluation test.

The information of the distribution of students through the rooms shall be made available in advance in the course page.

Whenever possible, should not be denied access to non-enrolled students, unless their numbers make it impossible to carry out the test.

Non-enrolled students accepted to carry out the test are considered to be on equal position in terms of marking with the students previously enrolled.

4.3.6. Waiver during a Written Examination

During a written examination the student may choose to give up and not be assessed and must for that indicate its intention in the sheets used in the examination, along with the name and student number.

The waiver can only take place after a minimum period of one hour; the examination paper must be returned to the teacher who oversees the room.

Waiver of a written test is equivalent to not show to the exmination.

4.4. Oral Examination

The oral examination is an assessment type in which the student must answer questions by a panel consisting of a minimum of two teachers.

This examination might be public in which case it is allowed the presence of all interested if they do not disturb or interfere in it.

4.5. Publication of the Assessment Results

Final evaluation results shall be published and maintained in FENIX system by the end of the semester. The results which the student has in each of the assessment tests, and the disclosure of ratings should preferably be made from the same system provided by the tool.

The ratings must be disclosed as soon as possible, taking into account good practice to be disclosed within two weeks after its completion. During the school year, the grades have to be published at least one week before the evaluation that they influence. The classification of laboratory elements, reports, projects or courseworks, should be made available on a regular basis throughout the semester.

4.6. Review Meeting

4.6.1. General Rules

The students have the right to access the correction of any written work or project they conduct, and to be informed about the marking criteria.

A draft resolution of the examination paper shall be made available to students for consultation, which may be published on the course page.

During the review meeting, student may request the remarking of the corresponding written assessment.

The teacher responsible may prepare a separate regulation for consultation and for the review meeting which must be disclosed at the beginning of the semester.

4.6.2. Deadlines

The time and place of consultation and review meeting shall be published in the FENIX system at least 48 hours in advance.

The assessment results must be disclosed before the review meeting.

Publication of the assessment results after the review meeting shall be performed at least 48 hours before the date of the next written examination.

5. Schedule of Assessments

5.1. Schedule Regulations

The completion or delivery of the assessment components of courses are scheduled throughout the semester, divided into three periods:

- school period;
- preparation period for exams;
- exam period.

The Course Pedagogical Commission shall provide this schedule before the beginning of each semester.

The schedule of the assessments shall ensure the opportunity for students to complete at least 40% of the overall assessment of the courses before the exams period.

It is not permitted to schedule assessment exams weighting 60% of all assessments of the exam period and exam preparation, except in the case of resit.

These percentages shall be calculated taking into account the share to be obtained in each stage of evaluation, as well as the distribution of ECTS for the different courses.

5.2. Examination Period

The Examination Period (as defined in the Academic Calendar) is divided into Normal Season and Special Season, and is intended for examinations or final tests.

The Commission Pedagogical Course and the GOP/GAL define the schedule of the tests to be carried out at the time of examinations.

5.3. Works and Projects

The dates for statement release, delivery and eventual discussion of the work and projects shall be defined before the beginning of the semester.

The delivery of works and projects shall preferably be scheduled within the school period.

If the delivery of the work or project is scheduled during the exam period then it will be accounted for as assessment exam period (for the purpose of subparagraph 5.1).

5.4. Oral Examination

The period to perform oral examinations shall be defined by the Course Pedagogical Committee at the beginning of the semester, with the date, time, and exact location to carry out. Oral examinations are to be published with minimum of 48 hours in advance.

5.5. Examinations not Scheduled

All stages of evaluation shall be scheduled. Not schedule assessment tests are not permitted unless for bonus purposes.

6. Pedagogical Commissions

6.1. Preparation of Academic Semester

Before the start of the semester, the Course Pedagogical Committee shall meet in order to define:

- evaluation method of all units, including those defined in paragraph 3.5 of this Regulation;
- schedule of all the assessment tests, in accordance with the provisions of paragraph 5 of this Regulation;
- mandatory presence activities, as specified in paragraph 2.5.

The Course Educational Commission should then send the information listed here the Pedagogical Council.

6.2. Conflict Resolution and Omissions

Conflict resolution, clarifying omissions or changing conditions as methods and schedule for assessment is in the first instance competence of the Course Pedagogical Commissions or the Course Coordinators, in coordination with the Course Delegates.

6.3. Changes

Any change in the methods and in the schedule defined at the beginning of the semester can only be held with the agreement of the teacher responsible, the delegate of the year and course coordination.

Any change in the methods and schedule defined at the beginning of the semester should be communicated to the Pedagogical Council.

6.4. Course Assessment Regulations

Pedagogical Commissions Course may approve assessment regulations for each course, following the general rules laid out in this Regulation.