

Università degli Studi Di Trieste
Department of Life Sciences
Educational Regulations for the Course Of Study in
(Degree Class in Functional Genomics)

Art. 1 – General Rules

1. These educational regulations specify the organisational aspects of the course of study for a degree in Functional Genomics. The regulations have been written with due consideration of:
 - a) Decree no. 270 of 22 October, published in Official Journal no. 266 on 12 November: “Amendments to the regulation concerning rules for the educational autonomy of universities”;
 - b) Law no. 240 of 30 December, published in the Official Journal no. 10 of 14 January 2011 – ordinary supplement no. 11: "Rules on the organisation of universities, academic staff and recruitment, as well as the Government mandate to incentivise the quality and efficiency of the university system";
 - c) regulations of the Department of Life Sciences;
 - d) the rules contained in the University Educational Regulations and compliant with the freedom of teaching as well as the rights and duties of the teaching staff and the students.
2. These Educational Regulations are decided upon annually by the Departmental Council, in particular with regard to the number of credits assigned to each course or other educational activity.
3. For the purposes of these regulations, the following definitions apply:
 - RDA means the University Educational Regulations of the University of Trieste;
 - “Department” refers to the Department of Life Sciences of the University of Trieste;
 - “Degree” means Degree in Functional Genomics;
 - “Course of Study” is the Course of Study in Functional Genomics (class LM-6);
 - “Council” refers to the Council for the Course of Study in Functional Genomics (if set up) or the Departmental Council (if no Course of Study Council has been set up); “Coordinator” is the Coordinator of the Course of Study in Functional Genomics;
 - “Academic Committee” is the Academic Committee for the Course of Study in Functional Genomics;
 - CFU stands for University Credit;
 - SSD stands for Disciplinary and Scientific Sector;
 - PDS stands for Study Plan;
 - TAF stands for Type of Educational Activity.
4. These regulations are published in full on the website for the Course of Study

Art. 2 – Specific learning aims

As far as concerns the specific educational aims of the master’s degree course, the goal is to train graduates who have acquired in-depth knowledge of the field of genomics - i.e., of the structure, function and evolution of the genomes of living organisms, including humans - and of proteomics, as an overall expression of the genes involved in regulating molecular and cell biological processes. Functional Genomics graduates will have advanced knowledge of the necessary mathematical and computer-based tools, with specific attention to bioinformatics applied to genomics and post-genomics, and they will acquire solid preparation in the use of the methods and instruments used to analyse genomes and proteomes. The course includes training in the following disciplines: genetics, molecular biology, cell biology, biochemistry, and bioinformatics for the purpose of studying the structure, function and evolution of genomes, and the practical use of this knowledge.

Training and laboratory work are part of the course and will include the use of experimental methods, tools and instruments specifically for the analysis and manipulation of genomes, individual genes and proteins. The degree course will include external activities, such as training internships with companies, public administration facilities and laboratories within national and international scientific institutions and research bodies, with which the Department has close collaboration relationships. Specific attention is paid to the possibility to undergo training outside Italy, within the numerous possibilities for collaboration and also Erasmus exchange agreements.

The required thesis will involve basic or applied original and experimental research to demonstrate the student's scientific and management autonomy and is an important part of the graduate's training process. Graduates will be trained for professional and management functions as stated in current standards as requiring the skills of professional biologists in all specific areas of application, which, although within the activities envisaged for the three-year degree in class L-13, require the contribution of a person with a wide-ranging cultural background and high professional profile. Graduates will be able to continue their training at the next level through doctorate courses, specialisations, etc. both to enter the field of research and to boost their professional level of expertise.

Art. 3 – Academic Committee

1. The Academic Committee, which was set up pursuant to art. 5 of the RDA, consists of a Coordinator, of at least two members of teaching staff, appointed by the Coordinator, and by a number of students from the Course of Study, equal to the number of teaching staff members, including the Coordinator, as chosen by the student members of the Council. Academic staff members of the Academic Committee remain in these posts for the duration of office of the Coordinator. The student members of the Committee are renewed in line with the duration of the student members in the Council or in case of forfeiture or disqualification of a student.
2. the Academic Committee performs the roles required as per these regulations or by the Department, and specifically, it:
 - a) assesses the actual workloads for each teaching period, proposing the necessary adjustments to improve overall teaching efficiency;
 - b) proposes the timescale distribution of teaching activities within the departmental teaching calendar;
 - c) coordinates the dates of written, oral and practical examinations;
 - d) coordinates tutorial activities;
 - e) supervises paperwork for study plans, transfers, recognition of credits, applications for internships, and formulas proposed for the organisation of the Course of Study;
 - f) coordinates student relations and supervises the website for the Course of Study;
 - g) checks acquired credits every 2 years for the purposes of assessing their non-obsolescence in terms of knowledge content.
3. The Academic Committee coincides with the Quality Assurance Group (QA) for the Course of Study.

Art. 4 – Admission to the Course of Study

1. The degree course in Functional Genomics is open to graduates from the degree courses, in force pursuant to Ministerial Decree 270/04, in Biotechnologies (Class L2) and in Biology (Class L13), as well as in the corresponding degree classes envisaged by M.D. 509/99 or other equivalent qualification.
2. The Master's degree in Functional Genomics is open to those holding a degree or undergraduate diploma provided that during their course of study, they have acquired an overall total of at least 60 CFU in the three groups of subjects defined below :
 - at least 15 CFU from classes in one or more of the following subjects: CHIM/01, CHIM/02, CHIM/03, CHIM/04, CHIM/05, CHIM/06, CHIM/07, CHIM/08, CHIM/09, CHIM/10, CHIM/11,

CHIM/12, MAT/01, MAT/02, MAT/03, MAT/04, MAT/05, MAT/06, MAT/07, MAT/08, MAT/09, FIS/01, FIS/02, FIS/03, FIS/04, FIS/05, FIS/06, FIS/07, FIS/08, INF/01, MED/01, SECS/01, SECS/02, AGR/13;

- at least 20 CFU from classes in one or more of the following subjects defined by: BIO/01, BIO/02, BIO/03, BIO/04, BIO/05, BIO/06, BIO/07, BIO/09, BIO/16, BIO/17, MED/04, AGR/12, VET/01, VET/02, VET/03;

- at least 20 CFU from classes in one or more of the following subjects defined by: BIO/10, BIO/11, BIO/12, BIO/13, BIO/14, BIO/18, BIO/19, MED/03, MED/07, AGR/07, AGR/16.

Per candidati che non siano in possesso di tali requisiti curriculari l'ammissione al corso di Laurea Magistrale.

For candidates who do not meet these curricular requirements, admission to the Master's Degree course depends on assessment of the individual curriculum, which may be completed by acquiring the necessary CFU before registration, including by sitting individual examinations.

3. Written and oral skills in English to at least level B1, is an admission requirement and will be assessed by an explicit statement in the curriculum or by other suitable certification.
4. Without prejudice to the requirements above, admission to the Master's degree course is automatic for candidates with a degree mark of at least 99/110, considered valid confirmation of suitable individual preparation.
5. Candidates who meet the above requirements, but whose degree marks are below 99/110, admission will depend on assessment of the candidate's course curriculum by the teaching staff members of the Academic Committee.

The Academic Committee may: a) accept the course curriculum and admit the candidate to the degree course; b) reject the course curriculum and refuse admission to the course; c) require an interview (including online) to assess the candidate's preparation in subjects inherent to the course and, based on the outcome of the interview, accept or refuse admission to the Master's degree course.

The Academic Committee's decision is final.

6. Students with different qualifications from outside Italy but recognised as valid, will be admitted to the Master's degree course according to the above criteria, following conversion of their CFU with the equivalent SSD and, if necessary, equivalence of their final mark for the qualification.

Art. 5 – Study plan

1. The course of study will last two years and is based on the training activities for the following types, pursuant to article 10 of MD no. 270 22/10/04, basic training activities (TAF A), core training activities (TAF B), elective and integrative training activities (TAF C), training activities freely chosen by the student (TAF D), activities pertinent to the final examination for the degree course and to attest the knowledge of at least one foreign language (TAF E) and further training activities, including orientation and training internships (TAF F). A number of CFU are assigned to each one for a total of 120 CFU over the two years.
2. The PDS, including the list of subjects and other training activities, is decided by a list of subjects and other training activities, is decided by the Departmental Council and annexed to these Regulations (Annex 1).
3. Students present their own PDS, according to the methods set down by the university and published on the website of the students' office and the courses of study, using options, if necessary, as provided for in the general PDS attached to these regulations, and adding subjects of choice.
4. the chosen subjects (TAF D) that can be added to the PDS include subjects activated by the department on an annual basis or specifically stated as part of educational offer data base; subjects from other courses at the university can also be included, based on personal interests, provided that these are coherent with the course of study.

5. PDS are approved by the Council; PDS in line with the PDS attached to these Regulations for the obligatory subjects and containing a choice of subjects that are automatically recognisable as being part of the course of study, are officially approved.
6. Any preparation for subjects and the minimum number of credits to be acquired by the student within set times, diversified according to students in full-time university education or in employment at the same time, are listed in the PDS attached to these Regulations.
7. The procedure for the achievement of credits for internship, includes application by the student, then completion of the internship following a specific project, and the allocation of the relevant credits after assessment by a tutor. The CFU from internship activities are listed in the PDS attached to these regulations. The process is detailed in the website for the course of study.

Art. 6 – Attendance obligations

1. Those in charge of teaching will establish any attendance obligations for their classes on an annual basis and will inform the Coordinator of these for the relevant advertising purposes.
2. the Academic Committee sets out the replacement activities for any obligatory course attendance on a case-by-case basis for working or disabled students, with the support, if necessary, of integrative remote education for students who do not attend or who are not attending on a full-time basis.

Art. 7 – Types of teaching, including remote, examinations and other tests for students.

1. each CFU for a subject will involve an average commitment of 25 hours by the student, with 32% (8 hours) divided into lessons and class exercises and 68% (17 hours) into independent study or study assisted by tutors. For experimental and field activities, each CFU is divided into 48% (12 hours) for the actual subject and 52% (13 hours) into the processing and analysis, carried out individually or with the aid of tutors, of data and observations. The CFU allocated to other educational activities (TAF E and F, such as internships, unpaid work, and final examination) include an overall average commitment of 25 hours by the student. In specific cases, such as F subjects, including lessons or class exercises, the Academic Committee may establish, on an annual basis, the number of hours committed to lessons/class exercises and independent study.
2. Assisted teaching may have the following formats:
 - a) lectures, including with audio visuals and multimedia tools;
 - b) exercises in class or in the computer room;
 - c) experimental activities in the laboratory, either individually or in groups;
 - d) courses and/or experimentation at structures outside the university or periods at other Italian or foreign universities, within a framework of international agreements, as well as with public or private entities as part of other special agreements.

Experimental activities in the laboratory or field are defined and coordinated by the member of teaching staff responsible for the course, and illustrated during the lessons.
3. All activities for which CFU can be acquired are assessed in compliance with the RDA. The examination commissions, to ascertain the preparation of students, may use written, oral and practical examinations. During the courses or at the end of same, assignments may be given to be carried out independently, either individually or in groups, which can be used to assess learning. To assess learning by means of tests during the course, it is possible to set distance tests using the internet or intranet.
4. The educational aims detailed for each subject are attached to these Regulations (Annex 2) and published on the Course of Study website. The types of final assessment for each subject are published on the course of study website.
5. Any CFU envisaged in the PDS for further language and/or computer skills may be accepted from students with suitable level certification from recognised external structures, within the maximum limit of these envisaged for this type, without further tests, provided that said documentation concerns the period of study.

6. the educational committee recommends the council recognise the credits acquired by students presenting suitable certification to state the acquisition of skills and professional expertise as well as further skills and abilities achieved as part of post-secondary education, designed and implemented with the participation of the university and in any case, acquired during the period of study. Specific methods and limits to the acknowledgement of this type of credit are provided on the course of study website.
7. The Academic Committee decides on any obsolescence of knowledge content concerning CFU acquired for subjects, the examinations for which were taken more than 10 years previously. It also defines, as required, the integration and validation methods for the CFU themselves.

Art. 8 - Examinations

1. Subjects concerning basic (TAF A), core (TAF B), elective, or integrative (TAF C) activities, and educational training as chosen by the student (TAF D) include an exam-based assessment, with marks expressed in thirtieths. For subjects divided across several modules, the final mark is given by the average of the marks achieved for the different modules and weighted according to CFU.
2. Examinations are held exclusively within the examination period decided by the university. the calendar for examination appeals is set by the department on an annual basis.
3. A successful examination must be recorded before the end of the session after which it was taken.
4. For subjects divided across several modules, if the modules are held in different semesters, the relevant examination for the module held in the second semester (and the registration of the overall mark) may only be taken starting in the summer session. The outcome of single modules will remain valid for one year: all modules must be successfully completed by the end of the session in the following year corresponding to the that of the first module passed.
5. The examinations programmes remain valid for two academic years; students who do not pass the examination within this period will have to agree the new programme with the course lecturer

Art. 9 – Final examination and award of degree.

1. The final test consists of a public discussion of a paper written under the guidance of a supervisor, containing the results of an original piece of basic or applied scientific research. The paper, which may be written and discussed in English, is discussed before a commission of course lecturers. A pre-degree formula will be used.
2. The Degree Commission consists of 5 lecturers from the Council or the Department, appointed by the Department Director, pursuant to comma 5 Art. 26 of the RDA. All academic staff in the Departmental Council or Councils can be alternate members.
3. The supervisor must be a lecturer from the Departments (with no constraints as to the disciplinary scientific sector). The supervisor may be a lecturer from other departments, other universities, or contract lecturer, provided that they are members of the Course of Study Council, and limited to the academic year in question.
4. The co-supervisor, if any, will be a lecturer from the Department Council or Councils, or from other degree courses or external to the university. In the event the student decides to choose a co-supervisor for the paper, as per point 1 in this article, said co-supervisor will be chosen by the supervisor or appointed by the Department Council or Councils.
5. Final degree mark: the final degree mark is expressed in one hundred and tenths and is calculated on the sum of the weighted arithmetical average of marks from examinations, with the weighted assessment average expressed by the Degree Commission. The weighted arithmetic average of marks refers to the examinations for basic, core, elective or integrative subjects and those chosen by the student, as stated in the RDA, recorded with a final mark expressed in thirtieths. The final mark is calculated using the arithmetical average of marks from educational activities, assessed with marks in thirtieths, weighted with the corresponding CFU, and converted to one hundred and tenths, to which the adjudicating Commission for the final examination may add extra marks from 0/110 to 7/110, as decided by a

majority, based on examination of the written paper presented and the outcome of the presentation. The candidate who sits the final test for their degree within the extraordinary session of the third academic year is awarded a further 3/110. Marks higher than 110/110 are rounded to the maximum mark of 110/110. The marks for the degree examination are decided by the majority vote of the adjudicating committee and is expressed in one hundred tenths, with the possibility of distinction.

6. To be admitted to the final examination, the student must, within the terms set by the Department:

- have completed all examinations and acquired all of the credits required of the study plan, with the exception of those for the final examination
- have uploaded the thesis in electronic format to the Esse3 system, which is different for each course of study

Art. 10 – Transfers and Enrolments with Shortened Course.

1. Enrolment in the first year of the course will depend on that set out in art. 4 of these Regulations.
2. Admission to higher course years may be granted or refused by the Council, based on previous university career, to those asking to transfer from other courses, from other Italian or foreign universities, and enrolment with shortened studies.
3. Acknowledgement of CFU from a previous university career is approved by the Council based on an assessment of the study curriculum, carried out by the Education Committee, and talking to the student concerned, if required. For students from foreign universities, the Education Committee will assess the consistency of the applicant's knowledge and skills with the educational aims of the Degree course, using the ECTS (European Credit Transfer System) wherever possible.

Art. 11 - Final Regulations

For anything not explicitly stated in these rules, the Council's specific decisions will implement any standards that may become necessary to the education activities of the Course of Study.