



Decreto Rep. 2056/2017 Prot. n. 184407  
Anno 2017 Tit. III Cl. 2 Fasc. 164

**OGGETTO:** Regolamento didattico di Corso di studio - Emanazione.

### IL RETTORE

**Visto** la legge 19 novembre 1990, n. 341, relativa alla riforma degli ordinamenti didattici, e in particolare l'art. 11, comma 2;

**Visto** il decreto del ministro dell'istruzione dell'università e della ricerca 22 ottobre 2004 n. 270, relativo alle modifiche al regolamento recante norme concernenti l'autonomia didattica degli atenei, approvato con decreto del ministro dell'università e della ricerca scientifica e tecnologica 3 novembre 1999, n. 509;

**Visto** il decreto del ministro dell'università e della ricerca 16 marzo 2007, relativo alla determinazione delle classi delle lauree magistrali;

**Visto** il decreto del ministro dell'istruzione, dell'università e della ricerca 30 gennaio 2013, n. 47, relativo ad autovalutazione, accreditamento iniziale e periodico delle sedi e dei corsi di studio e valutazione periodica, così come modificato dal decreto ministeriale 23 dicembre 2013, n. 1059;

**Visto** lo Statuto dell'Università degli Studi di Padova emanato con decreto rettorale n. 3276 del 16 dicembre 2011, e successivamente modificato con decreto rettorale n. 1664 del 27 giugno 2012;

**Tenuto conto** dell'art. 4 del Regolamento Didattico di Ateneo, emanato con decreto rettorale n. 1623 del 16 giugno 2008, e successivamente modificato con decreto rettorale n. 693 del 26 febbraio 2013;

**Vista** la delibera del Senato Accademico del 12 maggio 2014, n. 56, avente a oggetto "Approvazione degli schemi di Regolamento Didattico dei Corsi di studio (Laurea, Laurea magistrale e Laurea magistrale a ciclo unico)", rivisti ai sensi del su citato art. 4 del Regolamento Didattico di Ateneo;

**Tenuto conto** di quanto stabilito dal Senato Accademico con la delibera del 4 ottobre 2010, n. 185 avente a oggetto "Linee guida per l'adeguamento dei Corsi di Laurea e di Laurea magistrale in vista della predisposizione dell'offerta formativa 2011/2012 e, successivamente, con la delibera del 7 aprile 2014, n. 46, avente a oggetto "Linee guida per il miglioramento della qualità della didattica";

**Vista** la delibera del Consiglio della Scuola di Scienze del 27 aprile 2017 in cui è stato approvato il Regolamento didattico del Corso;

**Verificato** che il Regolamento è conforme al Regolamento Didattico di Ateneo, parte generale, e alla normativa vigente;

**Preso atto** che la struttura proponente ha accertato la conformità del provvedimento alla legislazione vigente e ai Regolamenti di Ateneo;

DECRETA

**art. 1.** di approvare il Regolamento didattico del seguente Corso di studio raggruppato nella Scuola di Scienze:

- Corso di laurea magistrale in PHYSICS (LM-17)  
Dipartimento di Fisica e Astronomia "Galileo Galilei"

dando atto che il Regolamento didattico del Corso di studio in allegato costituisce parte integrante del presente decreto, ed entra in vigore dall'anno accademico 2017/2018.

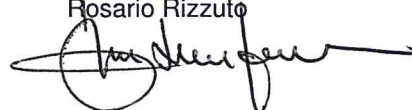
Prima dell'inizio dell'anno accademico il Regolamento sopra elencato, completo dei propri allegati, verrà pubblicato nel sito di Ateneo all'indirizzo: <http://www.didattica.unipd.it> nella pagina del Corso di studio;

**art. 2.** di dare atto che ogni Regolamento sopra elencato decadrà qualora non si provveda all'aggiornamento, se dovuto, dei suoi allegati;

**art. 3.** di incaricare il Servizio Accreditamento, sistemi informativi e qualità della didattica dell'esecuzione del presente provvedimento, che verrà registrato nel Repertorio Generale dei Decreti.

Padova, 13 giugno 2017

Il Rettore  
Rosario Rizzuto



**Il Pro-Rettore Vicario**  
Giancarlo Dalla Fontana

Il Responsabile del servizio o del procedimento amministrativo Cristina Stocco Data 8/6/2017	Il Dirigente Andrea Grappaglia Data 8/6/2017	Il Direttore Generale Alberto Scuttari Data 15.6.2017
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## PART I DEGREE COURSE AIMS AND STRUCTURE

### Art. 1 — Introduction and purpose

1. The second cycle degree course in PHYSICS belongs to the class LM-17 of second cycle degree courses, pursuant to Ministerial Decree 270/2004.
2. The second cycle degree course in PHYSICS comes under the Department of PHYSICS AND ASTRONOMY and is coordinated by the School of SCIENCE.  
The President and the Degree Course Teachers' Council, hereinafter referred to as DCTC, form the board of the second cycle degree course in Physics.
3. The second cycle degree course structure with the general framework of educational activities, drawn up in accordance with the scheme laid down by Ministerial Decrees and in compliance with the requirements of ANVUR (Agenzia Nazionale di Valutazione del Sistema Universitario e della Ricerca / Italian National Agency for the Evaluation of Universities and Research Institutes), is shown in Annex 1, which forms an integral part of these Regulations.
4. Annual activation of the second cycle degree course is subject to the number of students enrolled in the previous academic year, which must be higher than or equal to the number required by national and university regulations. The second cycle degree course, albeit part of the educational offering, will not be activated if, at the closing date of pre-enrolments, the number of pre-enrolments is lower than the minimum number published annually in the University Manifesto degli Studi (official overview of educational offer) and indicated in the Course Admission Notice.
5. These Regulations, in line with the University Educational Regulations (UER) (Regolamento didattico di Ateneo – RDA) and the University Schools Regulations, govern the educational organisation of the second cycle degree course for what is not stipulated in the abovementioned Regulations.

### Art. 2 — Admission

1. Students who intend to enrol in the second cycle degree course in PHYSICS must possess a three-year first cycle degree or university diploma, or equivalent qualification obtained in Italy or abroad and recognised as suitable according to the current legislation, and must possess specific curricular requirements and the following knowledge, skills and abilities: basic knowledge in the disciplines of classical and quantum physics and statistical mechanics; mathematical analysis and geometry; and laboratory experience of general physics.  
The possession of knowledge, skills and abilities will be assessed according to the methods in Paragraph 3 below.
2. The curricular requirements are as follows:
  - a. Possession of the degree in the class/es L-30 Physical Technology and Science, ex Ministerial Decree 270/04 or the degree in the class/es L-25 Physical

Technology and Science, ex Ministerial Decree 509/99;

- b. Obtain a predetermined number of University Educational Credits (CFUs) in the following Disciplinary Scientific Sectors (SSD):

CFU	SSD
24	FIS/01-08 of which at least 12 in SDA FIS/02 and 6 overall in SDA FIS/03, FIS/04 or FIS/05
24	MAT/01-09

A different initial entry pathway and/or specific admission tests may be provided for graduates with a high level of preparation resulting from knowledge and skills certified in the curriculum, and who come from training pathways that are not perfectly consistent with the entry requirements.

For candidates in possession of an Italian qualification from a body other than those regulated by Ministerial Decree 509/99 or Ministerial Decree 270/2004, or in possession of a qualification awarded abroad, verification of the possession of curricular requirements will be conducted by the Admissions Committee.

3. For admission purposes, the possession of the knowledge, skills and abilities referred to in Paragraph 1 will be verified according to the following criteria:
- Minimum degree classification for entry equal to 85/110 or equivalent;
  - Knowledge of English-language receptive skills (reading and listening) at the B2 level.

In the case of students who have obtained their qualification abroad, the verification referred to in letter a. above will be carried out in accordance with the criteria established by the DCTC.

4. For non-EU candidates not resident in Italy with a qualification obtained abroad, verification of the adequacy of personal education must ensure the provision of a merit ranking, except in those cases where international agreements provide for a different admission method.
5. During the annual activation phase of the second cycle degree course, the Department of reference, on the proposal of the DCTC, establishes the methods and content for verification of the knowledge, skills and abilities required for access, also with reference to non-EU candidates not resident in Italy with a qualification obtained abroad: methods and content are published in the Admission Notice.
6. Enrolment is possible during the year, within the deadlines set by the Academic Senate and the Department of reference for candidates in possession of the requirements and adequate knowledge, skills and abilities, and in accordance with the terms set out in the Admission Notice.

### **Art. 3 — Course structure**

1. The second cycle degree course in PHYSICS may be organised as a single curriculum or as curricula. The activation of the curricula, proposed annually by the DCTC to the Department of reference, is published in the University Manifesto degli Studi (official overview of educational offer), and is subject to the minimum number of students enrolled (at least 5), as established by the Academic Senate.
2. Teaching is organised into two semesters.
3. Annex 2 is an integral part of these Regulations; it is prepared annually upon activation of the second cycle degree course with reference to the cohort of students in the academic year.
4. Annex 2 defines the following (separately for each curriculum in the second cycle degree course in PHYSICS):
  - The educational activities proposed, the list of course units and their organisation into modules
  - The Disciplinary Scientific Sector or Sectors associated with each educational activity
  - The University Educational Credits for each educational activity
  - The hours of teaching for each educational activity
  - Any preparatory activities, as indicated in the Student Regulations
  - The year of the course in which each course unit is delivered
  - The period of delivery (semester or trimester)
  - The language each course unit is taught in
  - The type of assessment envisaged for each course unit
5. All the information required by current legislation, such as the educational aims of the degree course and the educational activities activated, and the list of university teachers involved in the second cycle degree course in PHYSICS are published and updated according to the University Educational Regulations (UER).

The programmes of course units and other educational activities validated by the Chair of the DCTC as well as the calendar of lessons, exam sessions and other forms of final exam are published before the beginning of the academic year.

### **Art. 4 — Exams and tests**

1. For each educational activity, a final assessment is held at the end of the period in which the activity takes place. For the educational activities organised into modules, the final assessment is in any case unitary and collective. Only passing the final assessment allows the student to acquire the University Educational Credits (CFUs) attributed to the educational activity in question. The educational activities explicitly indicated in Annex 2, the final assessment of which entails the awarding of a mark expressed in thirtieths, contribute to determining the final mark of the second cycle degree.
2. The maximum number of exams or final assessments necessary for obtaining the qualification cannot be more than 12. For calculation purposes the following educational activities must be taken into account:
  - i. Core
  - ii. Related or supplementary
  - iii. Optional (counted together as a single exam)
3. The final assessments may consist of: an oral or written exam or both; a written or oral report on the activity conducted or a test with essay or multiple choice questions, or a laboratory test or computer test. Before the beginning of each academic year, the teacher in charge of the course unit communicates the modalities for the final

assessment, which may also include more than one of the abovementioned forms, the assessment criteria and the possibility of ongoing assessments. Exam methods must be the same for all students and comply with the provisions established at the beginning of the academic year.

4. Any ongoing assessments must not disrupt the teaching of the other course units and cannot substitute the exams specified in Paragraph 1.
5. The results of the internship will be verified by the supervising university teacher, who will assess the slide report prepared by the student, in which the student will describe the internship activity and the results achieved.  
The results of study periods abroad will be checked and the relative University Educational Credits will be recognised by the DCTC in place of those attributed to educational activities previously identified and envisaged in the study plan.
6. The University Educational Credits acquired are valid for a period of 10 years from the date of the exam. After this term the DCTC must check for any obsolescence in cognitive content and confirm, even partially, the University Educational Credits acquired.

#### **Art. 5 — Final exam**

1. The final exam consists of an original thesis developed by the student under the guidance of a supervisor. During the second year, the student will carry out an original research project under the guidance of a supervisor. The final exam will consist in the elaboration and discussion of a thesis that will present the results of the research activity.  
The discussion of the thesis will take place before a Commission appointed by the Director of the Department of reference.
2. The thesis will be written in English, as previously agreed with the DCTC.  
The discussion will take place in Italian or English.
3. The graduating student will be asked to sign a “confidentiality agreement”, according to the module approved by the Academic Senate, regarding confidential information, knowledge and materials, i.e. not accessible to the public, which are made available for the development of the thesis or any other final exam.

#### **Art. 6 — Obtaining the second cycle degree**

1. The second cycle degree is obtained with the acquisition of at least 120 University Educational Credits, subject to the maximum number of exams or final assessments pursuant to Article 4, Paragraph 2. The student must also have passed the final exam referred to in the previous article.
2. The final mark of the second cycle degree is expressed in one hundred and tenths and consists of the sum of:
  - a. The weighted average (WA) of the marks  $m_i$  of the exams referred to in Article 4, Paragraph 1 and Article 11, Paragraph 2, weighted with the relative credits  $c_i$  and weighed against one hundred and tenths, according to the following formula:  
$$WA = ( \sum_i m_i c_i / \sum_i c_i ) 110/30;$$
  - b. The increase/decrease of the mark, also expressed in one hundred and tenths, obtained in the final exam;
  - c. Any increase of the mark linked to a career award.If the candidate has obtained the highest mark, *cum laude* may be awarded.
3. The criteria for determining the mark increases/decreases referred to in Letters b) and c) of Paragraph 2 are decided by the Department of reference on the proposal of the DCTC.

4. The second cycle degree can also be obtained in less time than the usual duration of the degree course (two years).

## **PART II STANDARD OPERATING PROCEDURES**

### **Art. 7 — Attendance obligations**

1. Attendance of teaching activities is obligatory for the educational activities specified in Annex 2 and may be assessed by the university teacher in ways deemed most suitable. To take the final assessment and be awarded the University Educational Credits for each course unit, students must have attended at least 90% of laboratory activity (or similar) hours, which are necessary for carrying out the programme. Hours not attended must be recuperated in the manner and times set by the DCTC.
2. University teachers have the power to forbid attendance at a workshop, or similar activity, to students who have not passed the final assessments indicted in Annex 2 as preparatory activities to the said workshop or to the course unit of which the workshop is part.
3. The second cycle degree course in PHYSICS provides for the registration of part-time students who have the requisites to do so, according to the provisions published annually in the University Manifesto degli Studi.

### **Art. 8 — Enrolment in subsequent years**

1. The acquisition of a minimum number of University Education Credits is not required to take the second-year exams.

### **Art. 9 — Transfers from other courses or from other universities**

1. The transfer from other courses or universities is allowed after verification of all the requisites pursuant to Article 2 of these Regulations and subject to current legislation.
2. In the presence of recognitions and/or validations, the DCTC proposes the year of enrolment.

### **Art. 10 — Credit recognition**

1. In the case of transfer pursuant to Article 9, the University Educational Credits are recognised by the DCTC according to the following criteria:
  - a. If the student's second cycle degree course belongs to the same class, and provided that the directly recognised quota of University Educational Credits related to the same Disciplinary Scientific Sector specified in Annex 1 is equal to at least 50%, recognition results from the identification of educational activities set out in Annex 2 of the target second cycle degree course, while also providing for possible additional tests to verify knowledge. Other educational activities may also be recognised providing they are only in the field of optional credits. Non-recognition will be adequately justified by the DCTC. If the original degree course is delivered via distance learning, this must be credited pursuant to Ministerial



Decree no. 47 of 30<sup>th</sup> January 2013.

- b. If the student's degree course at the University of Padova belongs to a different class, and provided that the directly recognised quota of University Educational Credits related to the same Disciplinary Scientific Sector specified in Annex 1 is equal to at least 50%, recognition results from the identification of educational activities in Annex 2 of the target second cycle degree course of arrival, while also providing for possible additional tests to verify knowledge. Other educational activities may also be recognised providing they are only in the field of optional credits. Non-recognition will be adequately justified by the DCTC.
  - c. If the student's degree course belongs to a different university and is included in a different class, or delivered via distance learning but not accredited pursuant to Ministerial Decree no. 47 of 30<sup>th</sup> January 2013, recognition of University Educational Credits will be according to Letter b. above.
2. The criteria for assigning obsolescence of credits acquired in previous educational pathways is 10 years
  3. In the case of recognition, any marks will be awarded according to the following rules:
    - o In the case of one or more recognised exams, the average of achieved marks is recorded for one or more exams, weighted across the University Educational Credits if information exists, or calculated arithmetically and rounded up to the higher integer.
    - o In the case of an exam recognised as an exam plus another educational activity, the exam mark is retained for both activities.
    - o Exams taken at Military Academies, the University of the Vatican and the University of the Republic of San Marino are always registered with an approved mark.
    - o In other cases, the DCTC shall decide and justify which mark to award.

## **Art. 11 — Study plans**

1. All Students are required to present their study plan by the deadlines indicated by the Department of reference of the second cycle degree course within the periods provided for by the Academic Calendar.
2. Educational activities autonomously chosen by the student, providing they are coherent with the educational programme and approved by the DCTC, can be chosen among the base, core and related course units provided by the University or, on the basis of specific agreements, by other universities and institutions. They are registered with their relevant mark and number of University Educational Credits. The mark contributes to determining the mark of the second cycle degree pursuant to Article 6, Paragraph 2 of these Regulations.
3. Students who intend to follow a different educational path, subject to the limits set by the second cycle degree course structure, providing it is in the field of the educational activities actually provided and the established number of University Educational Credits, will have to present their study plan within the deadlines established annually by the Department of reference and in accordance with the methods established by the University. The study plan must be approved by the DCTC, after assessment by a Committee appointed by the DCTC, that will consider the needs for cultural education and professional preparation of the student and the specific educational aims of the second cycle degree course.
4. The study plans pursuant to Paragraph 1 may not show any overlaps in terms of the content of the various educational activities, even regarding those referred to in Article 10, Paragraph 5, Letter a) of Ministerial Decree 270/2004.
5. The study plan of students who are following an international mobility programme must be accompanied by the Learning Agreement which specifies the set of educational activities to be passed abroad and — correspondingly— the number of activities in the



plan that will not be undertaken.

The two documents make up the international study plan of the student.

The international study plan can be updated on the basis of the documentation relative to the recognition process of studies undertaken abroad.

6. Students with disabilities are guaranteed the necessary support for any preparation of a customised study plan which, subject to the constraints imposed by the second cycle degree course structure, may provide for the substitution of obligatory educational activities with other activities deemed to be equivalent by the DCTC.

#### **Art. 12 — Tutoring**

1. The DCTC can organise tutoring in compliance with the University Regulations for Tutoring (Regolamento di Ateneo per il Tutorato) and with what has been approved by the competent bodies.

#### **Art. 13 — Assessment of teaching activities**

1. The DCTC implements the forms of quality assessment of teaching activities provided for by current legislation, applying the methods and the deadlines defined by the University Presidium responsible for educational quality.

#### **Art. 14 — Assessment of educational load**

1. Pursuant to Article 4, Paragraph 3, Letter b) of the University Educational Regulations, the Joint Committee of the School of SCIENCE is responsible for evaluating the coherence between the University Educational Credits assigned to the educational activities and the specific educational aims using the analyses produced by the DCTC.

### **PART III FINAL AND TRANSITIONAL RULES**

#### **Art. 15 — Modifications to the Regulations**

1. Modifications to these Regulations are proposed by the Chair of the DCTC or by at least one third of the members of the Council and must be approved with the vote in favour by an absolute majority. These modifications must be submitted for approval to the Council of the School of SCIENCE, after hearing the formal opinion of the Councils of the Departments concerned.
2. Any modifications to these Regulations, after checking their compliance with the University Educational Regulations, the typical outline of the degree course regulations and the current legislation, are issued with a decree by the Chancellor.
3. When any modifications to the University Educational Regulations or to the Department/School Regulations, or other new instructions on the subject come into force, they will be verified and integrated accordingly into these Regulations.
4. Any issues regarding the interpretation or application deriving from the succession of Regulations over time will be subject to specific review by the DCTC.

**Art. 16 — Transitional rules**

1. These Regulations shall apply from the 2017/18 cohort, except as provided for by the Admission Notices published before their entry into force.

Attachments to this regulation:

- Annex 1 at:  
<http://didattica.unipd.it/didattica/allegati/regolamento/allegato1/1007265.pdf>
- Annex 2 at:  
<http://didattica.unipd.it/didattica/allegati/regolamento/allegato2/1007265.pdf>