



## Diploma Supplement

*This Diploma Supplement model was developed by the European Commission, Council of Europe and UNESCO/CEPES. The purpose of the supplement is to provide sufficient independent data to improve the international 'transparency' and fair academic and professional recognition of qualifications (diplomas, degrees, certificates etc.). It is designed to provide a description of the nature, level, context, content and status of the studies that were pursued and successfully completed by the individual named on the original qualification to which this supplement is appended. It should be free from any value judgements, equivalence statements or suggestions about recognition. Information in all eight sections should be provided. Where information is not provided, an explanation should give the reason why.*

### 1. INFORMATION IDENTIFYING THE HOLDER OF THE QUALIFICATION

- 1.1. Family name(s): ANJOS
- 1.2. Given name(s): BEATRIZ LOURENÇO DOS
- 1.3. Date of birth: 11-04-2000
- 1.4. Student identification code: 20180799  
Identification document number: 30230573

### 2. INFORMATION IDENTIFYING THE QUALIFICATION

- 2.1. Name of qualification and title conferred: *Licenciatura in Clinical Physiology, Licenciado.*
- 2.2. Main fields of study for the qualification: Base Science; Specialty Science; Sciences of the Scientific Area - Clinical Physiology; Complementary Science; Optional Areas.
- 2.3. Name and status of awarding institution: Polytechnic Institute of Castelo Branco – Public Higher Education
- 2.4. Name and status of institution administering studies: School of Health Dr. Lopes Dias - Teaching and Research Unit of the Polytechnic Institute of Castelo Branco
- 2.5. Languages of instruction/examination: Portuguese; The foreign language courses are taught and evaluated in the corresponding language.

### 3. INFORMATION ON THE LEVEL OF THE QUALIFICATION

- 3.1. Level of qualification: Polytechnic Higher Education – *Mestre* – Level VII (QNQ)
- 3.2. Official length of programme: 4 years; 8 semesters; 240 ECTS.
- 3.3. Access requirements: See point 8. Access conditions.

### 4. INFORMATION ON THE CONTENTS AND RESULTS GAINED

- 4.1. Mode of study: Full-time.
- 4.2. Programme requirements: Number of credits required for the degree or diploma: 240 ECTS.  
Frequency of curricular training and Realization and presentation of a final degree project  
The conclusion of the degree demonstrates the acquisition of skills defined in the study plan according to the quality standards pursued in the Institution.  
The Degree in Clinical Physiology allows the acquisition of technical-scientific skills in the following areas:
  - Invasive Cardiology - Electrophysiology and Pacing, Hemodynamics and Cardiovascular Perfusion;
  - Noninvasive Cardiology - Electrocardiology and Cardiac Ultrasonography;

ff

- Study of neurophysiological pathology - electroencephalography, electromyography and evoked potential;
- Pulmonary Function Tests - such as spirometry and lung volume determination tests; Bronchodilation Study and Arterial blood gas test;
- Vascular and Cerebral Ultrasonography;
- Physiopathology of Sleep and Non-Invasive Mechanical Ventilation.

It is intended that the degree in Clinical Physiology achieve a high qualification for the independent and autonomous professional exercise, corresponding to the functional content of the current professions of Cardiopneumology and Neurophysiology.

This degree also aims that the training of these professionals should include a comprehensive set of knowledges, skills and abilities that allow them to develop a professional exercise of excellence in multidisciplinary teams to:

- Ability to plan, program, execute and evaluate analytical and critically the exams to be carried out assuming the responsibility for the same ones;
- To carry out research within the scientific areas that integrate Clinical Physiology, favouring the development of scientific spirit and reflective thinking;
- Apply the means of diagnosis and therapy according to professional code of conduct available in the professions of Cardiopneumology and Neurophysiology.

The degree in Clinical Physiology develops a clear, flexible, dynamic and practical approaches to teaching methodology, are used to provide the active participation of students in the acquisition of knowledge and skills, ensuring that the teaching proc...Throughout the academic career of the student, the sense of community service is promoted in different areas by conducting diagnostic and therapeutic exams in the areas of cardiology, respiratory, vascular and neurological, aiming to identify health problems in the community, namely in its region of influence geographical area.

#### 4.3. Programme details:

Curricular Unit	Type of Classification	Classification	Classification (in words)	ECTS	ECTSGS
Curricular Year: 1					
Human Anatomophysiology I	Attendance	12	twelve values	5	5 (5) / 27
Cell and Molecular Biology	Improvement	14	fourteen values	5	2 (4) / 28
Biochemistry and Biophysics	Attendance	12	twelve values	5	15 (4) / 39
Technical English	Attendance	16	sixteen values	3	B
Introduction to the Profession	Attendance	15	fifteen values	3	2 (3) / 25
Health Psychosociology	Attendance	14	fourteen values	4	16 (3) / 26
Technologies in Clinical Physiology I	Attendance	16	sixteen values	5	2 (3) / 25
Biological Signals Analysis	Attendance	14	fourteen values	5	8 (7) / 27
Human Anatomophysiology II	Attendance	12	twelve values	5	3 (8) / 27
Epidemiology	Attendance	13	thirteen values	3	21 (2) / 25
Pharmacology, Pharmacokinetics and Therapeutics	Attendance	18	eighteen values	3	2 (12) / 29
Medical Image Applied to Clinical Physiology	Attendance	16	sixteen values	4	2 (5) / 26
Neuroanatomy	Attendance	15	fifteen values	5	A
Technologies in Clinical Physiology II	Attendance	13	thirteen values	5	15 (2) / 29





19

Curricular Unit	Type of Classification	Classification	Classification (in words)	ECTS	ECTSGS
Curricular Year: 2					
Eletrocardiology I	Attendance	13	thirteen values	4	14 (9) / 23
Electroencephalography I	Attendance	13	thirteen values	4	11 (5) / 25
Cardiorespiratory Ergometry	Exam	13	thirteen values	4	8 (4) / 26
Respiratory Studing Methods I	Attendance	16	sixteen values	4	9 (11) / 24
Pathology I	Attendance	14	fourteen values	5	3 (4) / 25
Evoked Potentials	Attendance	17	seventeen values	5	1 (1) / 24
Cardiac Ultrasonography I	Attendance	15	fifteen values	4	8 (6) / 24
Eletrocardiology II	Exam	16	sixteen values	4	2 (1) / 25
Electroencephalography II	Attendance	16	sixteen values	3,5	4 (11) / 32
Electromyography	Exam	12	twelve values	5,5	18 (8) / 30
Respiratory Studing Methods II	Attendance	16	sixteen values	4	12 (8) / 28
Cerebrovascular Pathology and Cardiac Surgery	Attendance	13	thirteen values	4	6 (7) / 26
Pathology II	Exam	16	sixteen values	5	3 (2) / 28
Cardiac Ultrasonography II	Attendance	15	fifteen values	4	3 (3) / 25
Curricular Year: 3					
Eletrophysiology and Pacing	Attendance	13	thirteen values	4	3 (8) / 29
Cerebrovascular Physiopathology	Attendance	15	fifteen values	4	1 (4) / 27
Pathophysiology of Sleep	Attendance	13	thirteen values	4	8 (11) / 29
Hemodynamics and Angiography	Attendance	15	fifteen values	4	5 (7) / 27
Investigation Methodology in Clinical Physiology	Attendance	12	twelve values	6	5 (7) / 28
Neurophysiology	Attendance	13	thirteen values	4	5 (7) / 29
Cardiovascular Perfusion	Attendance	13	thirteen values	4	7 (5) / 25
Practical Training in Clinical Physiology I	Attendance	17	seventeen values	30	3 (11) / 29
Curricular Year: 4					
Practical Training in Clinical Physiology II	Attendance	18	eighteen values	30	1 (8) / 33
Bioentrepreneurship in Clinical Physiology	Attendance	18	eighteen values	3	1 (10) / 33
Bioethics	Attendance	15	fifteen values	3	8 (10) / 31
Medical Emergency	Attendance	17	seventeen values	4	1 (9) / 33
Digestive Motility Study	Attendance	14	fourteen values	4	4 (11) / 31
Research in Clinical Physiology	Attendance	18	eighteen values	10	4 (4) / 16
Free Option	Crediting	a)	---	3	---
Health Pedagogy	Attendance	18	eighteen values	3	1 (4) / 36

ECTSGS – European Credit Transfer System Grading Scale | ECTS – European Credit Transfer System (1 ECTS = 27h)

a) Curricular Unit without classification

4.4. Grading scheme and, if available, grade distribution guidance: In each curricular unit is required the minimum classification of 10 (ten), on a numeric scale of 0 to 20.

4.5. Overall classification of the qualification:

Overall Classification: 15 (fifteen) values

ECTS Grading Scale – 1 (2) / 7

## 5. INFORMATION ON THE FUNCTION OF THE QUALIFICATION

- 5.1. **Access to further study:** Ensures access to other degrees or diplomas as described in 8.
- 5.2. **Professional status:** Use of the professional title after admission in the respective "Associação Profissional".

## 6. ADDITIONAL INFORMATION

### 6.1. Additional information:

Academic year of admission to this institution/course: **2018/19**.

- The credits of the course unit Free Option were obtained through extra-curriculum activities selected on a basis of students choice, in order to obtain an added value of knowledge, skills and personal experience aiming to strengthen the scientific, technical and practical know how obtained from school attendance.

### Mobility

Academic Year	Period	Type of Mobility	Receiving Institution	Country
2020/21	1st	Erasmus +	Deutsches Herzzentrum Munchen	Germany

6.2. **Further information sources:** [www.ipcb.pt](http://www.ipcb.pt); [www.dges.gov.pt](http://www.dges.gov.pt); [www.naricportugal.pt](http://www.naricportugal.pt)

## 7. CERTIFICATION OF THE SUPPLEMENT

7.1. **Date:** 29 July 2022

7.2. **Signature:**

  
(Francisco José Barbas Rodrigues)

7.3. **Capacity:** Director of the School of Health Dr. Lopes Dias

7.4. **Official stamp or seal:**

All pages of this document are officially stamped.

## 8. INFORMATION ON THE NATIONAL HIGHER EDUCATION SYSTEM

### Diagram of the Portuguese Higher Education System according to Bologna

The Framework Law on the Education System (Law no. 46/86 of 14 October, amended by Law no. 115/97, dated 19 September and Law no. 49/2005, dated 30 August, republished and renumbered in annex to the latter) establishes the general legal framework of the Education System. The **educational system** comprises three levels: basic, secondary and higher education. Pre-school education is for children aged between 3 and the age of entering basic education, and is universal for children from the age of 5.

**Basic education** is universal, compulsory and free and comprises three sequential cycles, the 1<sup>st</sup> lasting four years, the 2<sup>nd</sup> lasting two years, and the 3<sup>rd</sup> lasting three years. **Secondary education** comprises a three-year cycle (corresponding to the 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> years of schooling) and must be completed by schooled young people, an obligation that ceases at the age of 18.

### National Qualifications Framework

The National Qualifications Framework (QNQ) was adopted in 2009. It comprises the formal qualifications of all education and training subsystems as well as the non-formal qualifications derived from professional experience within the framework of the National Qualifications System. It includes eight levels of qualification, following the levels and descriptors of the European Qualifications Framework (EQF). The QNQ is referenced to the EQF.

**Higher Education Structure** Portuguese higher education includes university and polytechnic education. University education is provided by public and private university institutions while polytechnic education is provided by public and private non-university institutions. Private higher education institutions are subject to prior recognition by the competent Ministry.





89

### **Licenciado degree**

Both university and polytechnic education institutions award the degree of *licenciado*.

In polytechnic education, the cycle of studies leading to the degree of *licenciado* normally lasts six curricular semesters corresponding to 180 ECTS credits. In exceptional cases covered by national or European Union legislation, it may last up to seven or eight curricular semesters with up to 240 ECTS credits of student work. In university education, the cycle of studies leading to the degree of *licenciado* ranges from 180 to 240 ECTS credits, and normally lasts from six to eight curricular semesters. In the 1<sup>st</sup> cycle of studies the degree of *licenciado* is awarded to those who pass all the course units of the *licenciatura* study programme, therefore obtaining the required number of credits. The degree of *licenciado* corresponds to the level 6 of the QNQ and EQF.

### **Mestre degree**

Both university and polytechnic education institutions award the degree of *mestre*. The cycle of studies leading to the degree of *mestre* ranges from 90 to 120 credits, and normally lasts from three to four curricular semesters. In exceptional circumstances resulting from a stable and consolidated practice in that specific field at international level, it may amount to 60 ECTS credits and last two semesters.

In polytechnic education, the cycle of studies leading to the *mestre* degree must ensure predominantly that the student acquires a professional specialization. In university education, the cycle of studies leading to the *mestre* degree must ensure mainly that the student acquires an academic specialization through research, innovation or development of professional competences.

In university education, the *mestre* degree may also be awarded upon completion of an integrated cycle of studies, ranging from 300 to 360 ECTS credits and usually lasting 10 to 12 curricular semesters, in cases where the access to the practice of a certain professional activity depends on that length of time in accordance with European Union legal standards or results from a regular practice consolidated within the European Union. Within this cycle of studies, the degree of *licenciado* is awarded to those who have obtained 180 ECTS credits corresponding to the first six curricular semesters. In the 2<sup>nd</sup> cycle of studies, the degree of *mestre* is awarded to those who have passed all the course units of the *mestrado* study programme, and who have publicly defended an original dissertation, project work or traineeship report, therefore obtaining the required number of credits. The *mestre* degree corresponds to the level 7 of the QNQ and EQF.

### **Doutor degree**

The *Doutor* degree is awarded by universities and university institutes to those who have passed all the course units of the *Doutoramento* study programme, when applicable, and who have publicly defended an original thesis. It may also be awarded on account of a coherent and relevant set of research works or, in the field of the arts, on a work or a set of works or achievements. The *doutor* degree corresponds to the level 8 of the QNQ and EQF.

### **Cursos Técnicos Superiores Profissionais**

The *técnico superior profissional* diploma is awarded upon completion of a non-degree higher education cycle of studies entitled *curso técnico superior profissional* (CTeSP). It corresponds to a short cycle of studies within the cycle of studies leading to the *licenciado* degree. The CTeSP are provided by

polytechnic higher education institutions as well as polytechnic organic units integrated in universities.

The CTeSP have 120 ECTS credits and normally last four curricular semesters including general, scientific and technical subjects, as well as a training period at the workplace.

### **Other diplomas**

Higher education diplomas may also be awarded following the partial completion of a cycle of studies. In such cases, the chosen title must differ from the title of the final award of the applicable degree.

Diplomas may also be awarded for non-degree courses, some of which are regulated, e.g. postgraduate specialization courses in Nursing or supplementary courses in Nursing or Teaching.

### **Access conditions**

Admission to higher education institutions is subject to *numerus clausus*.

### **Admission to the first cycle of studies**

#### **General regime**

National and foreign students wishing to apply to the 1<sup>st</sup> cycle of studies leading to the *licenciado* degree through the general regime must fulfil the following conditions:

- Have successfully completed a secondary education course or a national or foreign qualification legally equivalent;
- Have taken the entrance exams required for the programme the student wishes to attend with a mark equal or higher than the minimum required (there are higher education institutions that accept foreign tests or exams);
- Have fulfilled the prerequisites (when applicable) of the programme the student wishes to attend.

An annual competition is held by the Directorate-General for Higher Education for admission to public higher education through the general regime.

Institutional competitions are held for admission to private higher education through the general regime.

#### **Special conditions**

Besides the *regime geral* (general regime), there are special conditions that apply to top-level athletes, Portuguese citizens on an official mission abroad, national or foreign diplomatic staff, permanent staff of the Portuguese Armed Forces, and scholarship holders within the framework of cooperation agreements agreed by Portugal.

An annual competition is held by the Directorate-General for Higher Education for admission to public higher education through the special conditions.

#### **Special competitions**

Besides the general regime and the special conditions, there are special competitions for applicants holding specific qualifications, thus opening higher education to new publics in a lifelong learning perspective, namely: - Applicants over 23 years old who have passed special exams for assessing their capacity to accede to higher education;

- Holders of other higher education courses, *técnico superior profissional* diplomas, and *diploma de especialização tecnológica* (a postsecondary course certificate).

- Holders of the *licenciado* degree wishing to apply to Medicine.

- International students.

19

In addition, students who have been or are registered and enrolled in higher education are allowed to apply for readmission or to opt for another institution/programme pairing.

The special competitions for applying to higher education are held by higher education institutions.

#### Admission to the second cycle of studies

Those who meet the following conditions may apply to the 2<sup>nd</sup> cycle of studies leading to the *mestre* degree:

- Holders of the *licenciado* degree or legal equivalent;
- Holders of a foreign academic degree duly recognised as satisfying the objectives identical to the *licenciado* degree by the relevant scientific body of the higher education institution they wish to be admitted to;
- Holders of an academic, scientific or professional *curriculum vitae* that is recognised as attesting to the capacity to carry out this cycle of studies by the relevant scientific body of the higher education institution they wish to be admitted to.

The relevant bodies of each higher education institution are responsible for the regulations, application requirements and selection criteria for admission to this cycle of studies.

The access and admission to the integrated cycle of studies leading to the *mestre* degree are governed the norms applicable to the access and admission to the 1<sup>st</sup> cycle of studies leading to the *licenciado* degree.

#### Admission to the third cycle of studies

Those who meet the following conditions may apply to the 3<sup>rd</sup> cycle of studies leading to the *doutor* (doctor) degree: - Holders of a *mestre* (master) degree or legal equivalent;

- Holders of a *licenciado* degree who have a particularly relevant academic or scientific *curriculum vitae* that is recognised as attesting the capacity to carry out this cycle of

studies by the relevant scientific body of the higher education institution they wish to be admitted to.

- Holders of an academic, scientific or professional *curriculum vitae* that is recognised as attesting the capacity to carry out this cycle of studies by the relevant scientific body of the higher education institution they wish to be admitted to.

The relevant bodies of each higher university or university institute are responsible for the regulations, application requirements and selection criteria for admission to this cycle of studies.

**Admission to CTeSP** Those who meet the following conditions may apply to a CTeSP: - Holders of a secondary education course or legal equivalent;

- Applicants aged over 23 who have passed the special exams for assessing their capacity to attend higher education required for a particular course;
- Holders of *diploma de especialização tecnológica*, *técnico superior profissional* diploma or of a degree wishing to undergo reskilling.

The specific conditions to apply for a *técnico superior profissional* course are set by higher education institutions, according to the field of the course. The competitions are held by higher education institutions.

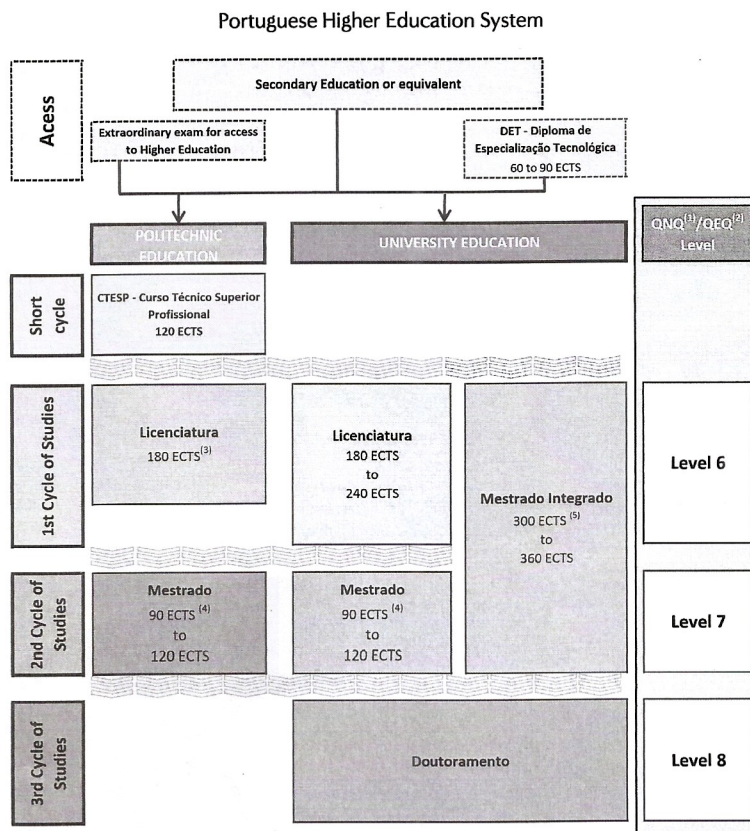
#### Classification system

The *técnico superior profissional* diploma, as well as the *licenciado* and *mestre* degrees are assigned a 10-20 final classification on a numerical scale from 0 to 20, as well as its equivalent in the European scale of comparability of classifications. The academic degree of *doutor* is assigned a final classification pursuant to the regulating standards approved by the awarding university or university institute.





PP



<sup>(1)</sup> QNQ - National Qualifications Framework.

<sup>(2)</sup> QEQ - European Qualifications Framework.

<sup>(3)</sup> Except when in order to exercise a certain professional activity requiring education and training ranging between 210 and 240 ECTS.

<sup>(4)</sup> In exceptional circumstances, a cycle of studies leading to a Mestre degree in a specialized field may have 60 credits, resulting from a stable and consolidated practice in that specific field at international level.

<sup>(5)</sup> A **Mestre** degree may also be awarded following an integrated cycle of studies, for access to a professional activity, if the length:

a) is established by European Union regulations;

b) results from a regular and consolidated practice within the European Union;

in such cases, a **Licenciado** degree is awarded to students having obtained 180 ECTS (3 years, 6 semesters).