



Universidade do Minho



Diploma Supplement

This Diploma Supplement follows the model 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): Machado Costa
- 1.2 Given name(s): Domingos Manuel
- 1.3 Date of birth (year/month/day): 1995-04-06
- 1.4 Student identification number or code: 73723
Identity card/Passport number: 14246565

2 Information identifying the qualification

- 2.1 Name of qualification and title conferred (in original language):
Mestrado Integrado em Engenharia e Gestão Industrial, Mestre
- 2.2 Main field(s) of study for the qualification:
Industrial Engineering and Management (Industrial Engineering and Management)
- 2.3 Name (in original language) and status of awarding institution:
Universidade do Minho (University)
Public Higher Education Institution, created in 1973 by the Decree-Law 402/73, published in *Diário da República 1ª série*, n.º 188, August 11th.
- 2.4 Name (in original language) and status of institution (if different from 2.3) administering studies:
Not applicable
- 2.5 Language(s) of instruction/examination:
Portuguese

3 Information on the level of the qualification

3.1 Level of qualification:

University Education - *Mestrado* - Level 7 (QNQ/QEQ).

3.2 Official length of programme:

5 years/10 semesters/40 weeks of full-time study per year/300 ECTS Credits.

3.3 Access requirement(s):

Enrolment on the Degree Course can be achieved through the National Competition for Access to Higher Education, the Special Regimes, the Special Access Competitions or the Re-Entry, Change and Transfer of Course Regimes.

To apply for access to higher education through the National Competition, students must fulfill the requirements described in section 8.

4 Information on the contents and results gained

4.1 Mode of study:

Full-time.

4.2 Programme requirements:

The first 4 years of *Mestrado Integrado em Engenharia e Gestão Industrial* aim to provide students with solid learning outcomes in industrial engineering subjects that are essential to the profession. This period of studies involve an important emphasis in the area of basic sciences and engineering sciences. The fifth year is dedicated to an optional technological overview or to a specialization in an industrial engineering subject. This year will also include a project in industry or, alternatively, a scientific dissertation.

The first 3 years includes basic formation, and provide a degree on Engineering Science - branch Industrial Engineering and Management with a total of 180 ECTS.

The *Mestrado Integrado em Engenharia e Gestão Industrial* provides the acquisition of skills and competences on basic sciences, engineering sciences, business sciences and other human and social areas.

Furthermore, these graduates also get technical and professional knowledge, which promote the ability to solve complex problems in the study cycle area, to use informatics systems, to analyze, synthesize and interpret, to supervise and develop engineering practices, to innovate with sustainability and use correctly available resources (human, material, cost and time).

A graduate in engineering is expected to have: professional ethics and responsibility; capability to understand the impact of Engineering solutions within a social context; capability to guarantee health and the public safety, have relational skills, leadership, conflict management and team building competences; capability to communicate orally and in written.

All these competences and skills are complemented with lifelong learning for professional development.



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4.3 Programme details (e.g. modules or units studied), and individual grades/marks/credits obtained:

Scientific Areas	Compulsory	Optional
Specialty Sciences	160 ECTS	0 ECTS
Basic Sciences	65 ECTS	
Engineering Sciences	55 ECTS	
Complementary Sciences	15 ECTS	
Any Scientific Area	5 ECTS	

In the academic year 2017/2018, the student performed the 2nd semester of the 4th year at *UNIVERSITÉ DE TECHNOLOGIE DE COMPIÈGNE*, France, under the ERASMUS Programme, achieving a total of 28 ECTS credits.
The following course units were carried out within this scope:

Course Unit, Duration, Original Classification

- English – Preparation for the B2+ Level, Semester , A
- Enterprise Resource Planning, SAP, Semester , A
- Environmental Economics, Semester, E
- French as a Foreign Language: Reading and Writing Skills (European A1 level), Semester , A
- French as a Foreign Language: Speaking and Listening Skills (European A1 level) (Extracurricular), Semester , B
- Multicultural Approach of Business and Management, Semester , B
- Value Analysis and Functional Analysis (in English), Semester , A

The Transcript of Records is enclosed (see Appendix I).

4.4 Grading scheme and, if available, grade distribution guidance:

On a 0 to 20 grading scheme, a minimum grade of 10 in each course unit is necessary to pass.

In order to establish the course grades for each group of the ECTS grading scale, the distribution of students with passes in the previous five years and/or in a total of at least thirty graduates is taken into consideration. When a cohort of this scale is impossible, the ECTS grading scale is replaced by the use of an institutional conversion table based on all course grades of all *Universidade do Minho's* Degree Courses from the previous five years. It is important to notice that not all groups of the ECTS grading scale might be represented.

ECTS Grading Scale	% of Graduates	Grades
A	10	[17-20]
B	25	[16]
C	30	[15]
D	25	[14]
E	10	[10-13]

4.5 Overall classification of the qualification: 15 (fifteen), C

5 Information on the function of the qualification

5.1 Access to further study:

The *mestre* degree allows access to doctoral studies, according to the terms described in section 8.

5.2 Professional status:

The *Mestrado Integrado em Engenharia e Gestão Industrial* is recognized by the Engineers Professional Body. The professional title of Engineer demands formal enrolment at the Engineers Professional Body.

6 Additional information

6.1 Additional information:

In the academic year 2018/2019, the student carried out a extracurricular placement entitled "Sales Internship Recruitment Consultant" at the enterprise/institution *Westhouse Italia SRL*, Italy, from 17/06/2019 to 30/08/2019, under the Erasmus+ Programme.

In the academic year 2017/2018, the student performed the 2nd semester of the 4th year at *UNIVERSITÉ DE TECHNOLOGIE DE COMPIÈGNE*, France, under the ERASMUS Programme.

6.2 Further information sources:

<http://www.uminho.pt>

<http://www.eng.uminho.pt>

7 Certification of the Supplement

7.1 Date: 2021-03-22

7.2 Signature:



Rui Manuel Costa Vieira de Castro

This document has been electronically signed by the Rector of *Universidade do Minho*.

7.3 Capacity: Rector of *Universidade do Minho*

7.4 Official stamp or seal:

This document was signed with a qualified electronic certificate for Legal Representatives of an Entity. This Certificate includes the name of the Represented Entity, the name of the person who represents it and the identification of the powers of attorney held by the representative (by the inherent powers of the post or by presenting a proxy of powers of attorney delegation) relevant to the signature of documents and / or authentication to third parties.



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8 Information on the National Higher Education System

The description of the Portuguese Education System, officially provided by NARIC (National Academic Recognition Information Centre), is enclosed (see Appendix II).

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APPENDIX I

Transcript of Records

Course Unit	Regime (1)	Type (2)	Academic Year	Grade (3)	ECTS Grade (4)	Credits (5)	Obs.
Mathematical Analysis EE	2	OB	2014/2015	14	B	5.0	
Physics EE	2	OB	2014/2015	12	C	5.0	
Introduction To Economic Engineering	2	OB	2014/2015	17	B	5.0	
Contexts Programming and Programming Environments	2	OB	2014/2015	14	B	5.0	
Applied Statistics	2	OB	2014/2015	17	A	5.0	
Cost Analysis	2	OB	2014/2015	19	A	5.0	
Integrated Project of Industrial Engineering and Management I	1	OB	2014/2015	15	B	5.0	
Linear Algebra EE	1	OB	2014/2015	17	A	5.0	
Introduction To Industrial Engineering and Management	1	OB	2014/2015	14	C	5.0	
Algorithmics and Programming	1	OB	2014/2015	17	A	5.0	
General Chemistry EE	1	OB	2014/2015	12	D	5.0	
Calculus EE	1	OB	2014/2015	15	B	5.0	
Option UMinho - Data Analysis with Statistical Software: SPSS and R	2	OP	2015/2016	17	A	5.0	
Numerical Methods	2	OB	2015/2016	14	C	5.0	
Complements of Statistics	1	OB	2015/2016	13	C	5.0	
Electrotecnics and Electronics	2	OB	2015/2016	12	D	5.0	
Cost Analysis	1	OB	2015/2016	12	C	5.0	
Operational Research	2	OB	2015/2016	12	C	5.0	
Complements of Mathematical Analysis EE	1	OB	2015/2016	13	C	5.0	
Thermodynamics and Fluid Mechanics	1	OB	2015/2016	12	D	5.0	
Technical Drawing and Metals Manufacturing Processes	2	OP	2015/2016	14	C	5.0	
Databases	1	OB	2015/2016	14	B	5.0	
Electromagnetism EE	1	OB	2015/2016	12	C	5.0	
Project Analysis	2	OB	2016/2017	15	C	5.0	
Decision Models	2	OB	2016/2017	13	C	5.0	
Production Control and Planning	2	OB	2016/2017	12	C	5.0	
Industrial Hygiene and Safety	2	OB	2016/2017	14	D	5.0	
Ergonomics and Work Study	2	OB	2016/2017	14	D	5.0	
Production Systems Organization I	1	OB	2016/2017	14	C	5.0	
Technological Elective I - Materials Science	2	OP	2016/2017	11	D	5.0	
Technological Elective III - Introduction to Polymers	1	OP	2016/2017	14	C	5.0	
Stochastic Models of Operational Research	1	OB	2016/2017	13	D	5.0	
Energy, Environment and Industrial Infrastructures	1	OB	2016/2017	13	B	5.0	
Logistics	2	OB	2016/2017	12	E	5.0	
Automation and Process Control	1	OB	2016/2017	16	B	5.0	
Quality Engineering and Management	1	OB	2016/2017	13	C	5.0	
Production Systems Organization II	1	OB	2017/2018	16	C	5.0	
Production Integrated Management	1	OB	2017/2018	14	D	5.0	
Ergonomic Study of Work Places	1	OB	2017/2018	15	D	5.0	
Integrated Project of Industrial Engineering and Management II	1	OB	2017/2018	17	B	5.0	
Production Informations Systems	1	OB	2017/2018	12	D	5.0	
Simulation	1	OB	2017/2018	16	C	5.0	
Computer Aided Manufacturing	2	OB	2017/2018	16	B	5.0	(6)
Computer Aided Design/Computer Aided Process Planning	2	OB	2017/2018	16	B	5.0	(6)
Sociology and Organization Law	2	OB	2017/2018	17	B	5.0	(6)

Course Unit	Regime (1)	Type (2)	Academic Year	Grade (3)	ECTS Grade (4)	Credits (5)	Obs. (6)
Reliability and Maintenance	2	OB	2017/2018	16	B	5.0	(6)
Advanced Quality Engineering	2	OB	2017/2018	16	B	5.0	(6)
Integrated Project of Industrial Engineering and Management III	2	OB	2017/2018	16	B	5.0	(6)
Option II - Lean Project Management and Teams	1	OP	2018/2019	17	B	5.0	
Research Methods	1	OB	2018/2019	16	B	5.0	
Option I - Strategic Management and Marketing	1	OP	2018/2019	12	D	5.0	
Option III - Lean tools	1	OP	2018/2019	11	D	5.0	
Dissertation in Industrial Engineering and Management	A	OB	2018/2019	17	C	40.0	
Title: "Study of the Internationalization of an University Engineering Department"							
Total ECTS credits achieved: 300							

(1) - Regime

A - Annual

1 - 1st Semester

2 - 2nd Semester

(2) - Type

OB - Compulsory

OP - Optional

(3) - Grade

On a 0 to 20 grading scheme, a minimum grade of 10 in each course unit is necessary to pass.

(4) - ECTS Grading Scale

ECTS Grading Scale	% of Approved Students
A	10
B	25
C	30
D	25
E	10

In order to establish the course units grades for each group of the ECTS grading scale, the distribution of students with passes in the previous five academic years and/or in a total of at least thirty students is taken into consideration. When a cohort of this scale is impossible, the ECTS grading scale is replaced by the use of an institutional conversion table based on all course units grades of all *Universidade do Minho's* Degree Courses from the previous five academic years. It is important to notice that not all groups of the ECTS grading scale might be represented.

(5) - ECTS Credits

1 academic year = 60

1 semester = 30

1 term = 20

(6) - Course units subject to academic recognition

The corresponding course units can be found in item 4.3 of the Diploma Supplement, whenever taken under academic mobility programmes.

(7) - Extracurricular course units

(8) - Curricular units accredited by demonstration of professional competence and/or other training

Academic Management Service of *Universidade do Minho*, on the twenty-second of March of two thousand twenty-one.



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APPENDIX II

Information on the Portuguese Higher Education System

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 1st lasting four years, the 2nd lasting two years, and the 3rd lasting three years.

Secondary education comprises a three-year cycle (corresponding to the 10th, 11th and 12th years of schooling) and must be completed by school-aged 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.

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 1st 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 2nd 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 1st 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.



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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 post-secondary course certificate);
- Holders of the *licenciado* degree wishing to apply to Medicine;
- International students.

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 2nd cycle of studies leading to the *mestre* degree:

- Holders of the *licenciado* degree or legal equivalent;
- Holders of a foreign academic degree fully 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 by the norms applicable to the access and admission to the 1st 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 3rd 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.

Former higher education structure

Degree programmes

Prior to Law no. 49/2005, dated 30 August, and ensuing adoption of the regulatory principles for the creation of the European Higher Education Area:

- The degrees of *bacharel*, *licenciado*, *mestre* and *doutor* were awarded in university education;
- The degrees of *bacharel* and *licenciado* were awarded in polytechnic education;
- Diploma to *licenciatura* programmes, organised in two stages, the first leading to the *bacharel* degree and the second to the *licenciado* degree, could be provided in polytechnic education. The first stage lasted six semesters and the second lasted two to four semesters;
- The programmes leading to the *bacharel* degree usually lasted three years, but under certain conditions could be one or two semesters shorter;
- The programmes leading to the *licenciado* degree usually lasted four years, but under certain conditions could one to four semesters longer;
- The programmes leading to the *mestre* degree had a maximum length of four semesters;
- Degree programmes were not assigned a given range of ECTS credits.

The former degrees remain valid as there is no matching mechanism or automatic conversion from the former to the current degrees.

The degrees and diplomas prior to the Bologna Process implementation were given the following correspondences within the framework of the QNQ:

- The *bacharel* and *licenciado* degrees correspond to level 6;



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- The *master* degree corresponds to level 7;
- The *doutor* degree corresponds to level 8.

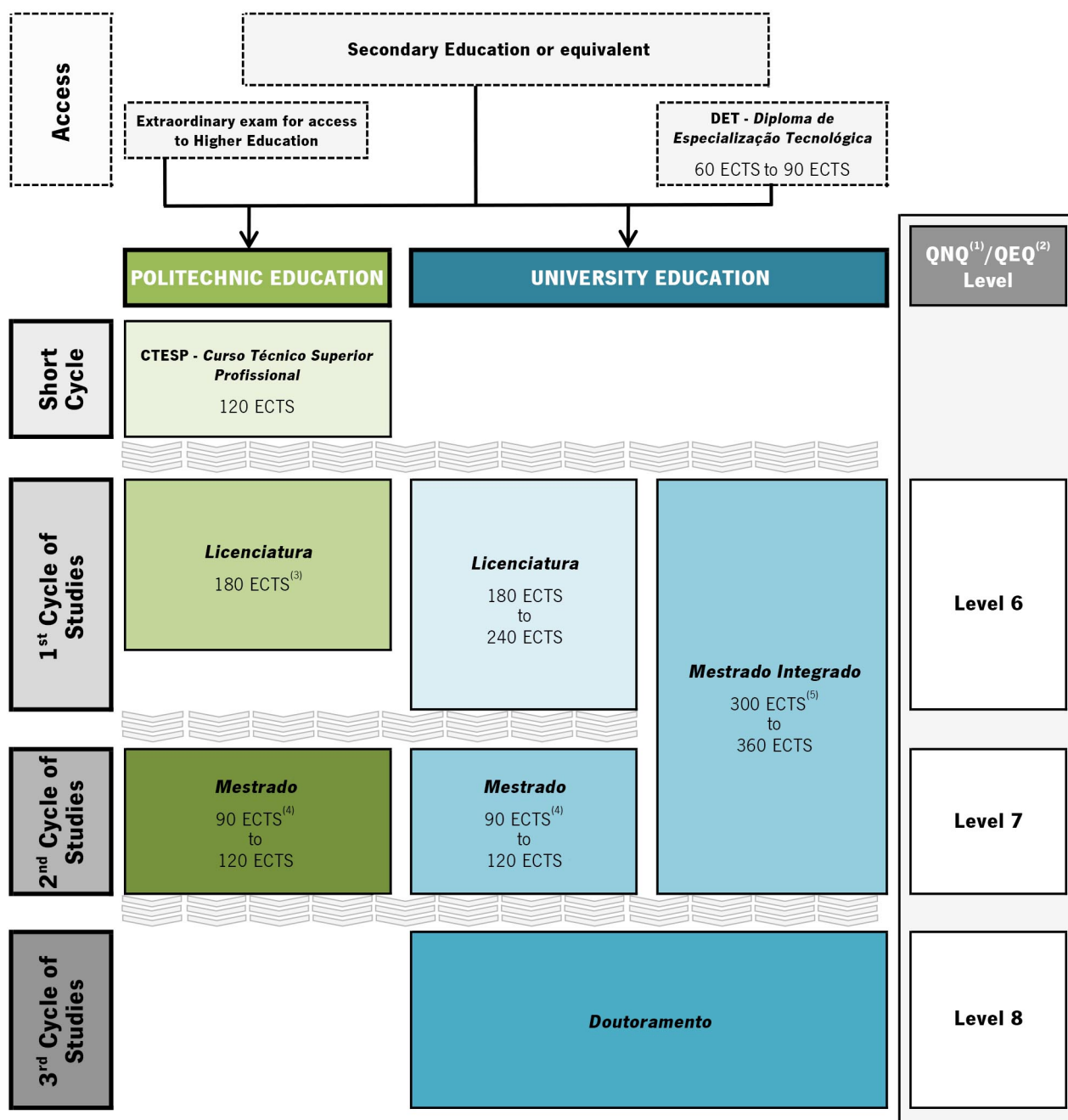
Cursos de Especialização Tecnológica

Higher education institutions were given the deadline of 31 December 2016 to conclude the provision of post-secondary courses aimed at specialized professional training, entitled *Cursos de Especialização Tecnológica* (CET).

The CET range from 60 to 90 ECTS credits and include subjects in general, scientific and technical areas, as well as a training period at the workplace.

The completion of a CET implies a technological specialization certificate providing a level 4 professional qualification, in accordance with Council Decision 85/368/CEE of 16 July, which corresponds to a level 5 qualification within the framework of the QNQ.

Portuguese Higher Education System



⁽¹⁾ QNQ - National Qualifications Framework.

⁽²⁾ QEQ - European Qualifications Framework.

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

⁽⁴⁾ 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.

⁽⁵⁾ 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).