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): Pavão Carreiro

1.2 Given name(s): João Paulo

1.3 Date of birth (year/month/day): 1977-09-11

1.4 Student identification number or code: 23834
Identity card/Passport number: 11012091

2 Information identifying the qualification

2.1 Name of qualification and title conferred (in original language):
Licenciatura em Engenharia de Sistemas e Informática, Licenciado

2.2 Main field(s) of study for the qualification:
Computer Science and Systems Engineering (Computer Science, Software Engineering, Distributed Systems, Computer Communications, Information Technologies/Systems and Production and Systems Engineering)

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 - *Licenciatura* - Level 5 (ISCED).

3.2 Official length of programme:
5 years/10 semesters/40 weeks of full-time study per year/300 ECTS Credits. It includes one semester of practical training/individual project/seminar.

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. Compulsory curricular training period/placement in the last semester of the fifth year.

4.2 Programme requirements:
The *Licenciatura em Engenharia de Sistemas e Informática* offers two specializations: Information Technologies (ICT) and Systems.
Each specialization offers a group of compulsory core subjects, a group of subjects from the specific specialization field (Networks, Computer Communications or Architectures within the Specialization in Information Technologies and Production within the Specialization in Systems), one project assignment and a group of electives.
Both specializations include a one-semester curricular training period/placement, which is jointly supervised by the University and an External Organization and is subject to formal assessment.
The subjects from the specific specialization field correspond to approximately 25% of all ECTS Credits.
The goal of the *Licenciatura* is to prepare computing engineers able to analyse, conceive and implement computing solutions.

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

Scientific Areas	Compulsory	Optional
Systems and Productions	32 ECTS	67 ECTS
Programming Languages	20 ECTS	
Networks and Computer Communications	17 ECTS	
Software Engineering	15 ECTS	
Information Systems	15 ECTS	
Operating Systems	12 ECTS	
Computer Architectures	11 ECTS	
Electronics and Control	11 ECTS	
Artificial Intelligence	10 ECTS	
Mathematics	42 ECTS	0 ECTS
Project	22 ECTS	
Physics	20 ECTS	
Analysis	15 ECTS	
Social Sciences	6 ECTS	

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	[16-20]
B	25	[14-15]
C	30	[13]
D	25	[12]
E	10	[10-11]

4.5 Overall classification of the qualification: 13 (thirteen), C

5 Information on the function of the qualification

5.1 Access to further study:
The *Licenciado* degree allows access to postgraduate studies, according to the terms described in section 8.

5.2 Professional status:
The *Licenciatura* is recognized by the Engineers Professional Body. The professional title of Engineer demands formal enrolment at the Engineers Professional Body.

6 Additional information

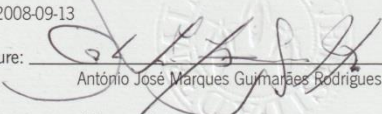6.1 Additional information:
- - - - - - - - - - - - - -

6.2 Further information sources:
http://www.uminho.pt
http://www.gri.uminho.pt/ects_eng

7 Certification of the Supplement

7.1 Date: 2008-09-13

7.2 Signature: _____
António José Marques Guimarães Rodrigues

7.3 Capacity: Rector of *Universidade do Minho*

7.4 Official stamp or seal:
This document is officially stamped.

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).

Universidade do Minho

Course Unit	Regime (1)	Type (2)	Academic Year	Grade (3)	ECTS Grade (4)	Credits (5)	Obs.
Programming Paradigms I	1	OB	1996/1997	11	D	5.0	
Programming Paradigms II	2	OB	1996/1997	13	B	5.0	
Introduction to Computer Systems	2	OB	1996/1997	13	B	5.5	
Physics I	1	OB	1997/1998	13	B	6.5	
Physics II	2	OB	1997/1998	12	C	7.0	
Linear Algebra and Analytical Geometry	1	OB	1997/1998	10	D	6.0	
Economics Engineering I	1	OB	1998/1999	14	B	3.5	
Mathematical Analysis I	1	OB	1998/1999	12	B	7.5	
Programming Paradigms III	1	OB	1998/1999	16	B	5.0	
Discrete Mathematics II	2	OB	1998/1999	16	A	5.0	
Economics Engineering II	2	OB	1998/1999	10	D	3.5	
Digital Systems I	2	OB	1998/1999	13	B	6.0	
Mathematical Analysis II	2	OB	1998/1999	10	D	7.5	
Complements of Mathematical Analysis	1	OB	1999/2000	15	B	5.5	
Computer Architecture I	1	OB	1999/2000	11	C	5.0	
Statistical Methods	2	OB	1999/2000	14	B	5.0	
Networks and Data Communication	2	OB	1999/2000	11	D	5.0	
Programming Paradigms IV	2	OB	1999/2000	15	B	5.0	
Electronics	2	OB	1999/2000	10	D	5.5	
Discrete Mathematics I	1	OB	1999/2000	14	B	5.0	
Fundamentals of Telecommunications	1	OB	2000/2001	10	D	4.5	
Operating Systems I	1	OB	2000/2001	10	D	5.0	
Computer Architecture II	2	OB	2000/2001	10	D	4.5	
Cultural Option - Human Resource Management	2	OB	2000/2001	13	C	3.0	
Programming Methods II	2	OB	2000/2001	10	E	5.0	
Numerical Methods I	1	OB	2000/2001	12	C	4.5	
Operational Research I	1	OB	2001/2002	11	C	6.5	
Knowledge Representation	1	OB	2001/2002	10	E	4.5	
Cultural Option - Portuguese Language Expression Techniques	1	OB	2001/2002	13	C	3.0	
Programming Methods III	1	OB	2001/2002	15	B	4.5	
Operating Systems II	2	OB	2001/2002	14	B	5.0	
Information Systems Development	2	OB	2001/2002	10	E	5.5	
Applied Statistics	2	OB	2001/2002	10	D	4.5	
Operational Research II	2	OB	2001/2002	11	C	6.5	
Option III - Project	1	OP	2002/2003	18	B	6.0	
Electricity and Magnetism	1	OB	2002/2003	10	D	6.0	
Option T III - Applied Cryptography	1	OP	2002/2003	12	C	6.0	
Programming Methods I	1	OB	2002/2003	14	B	5.0	
Computer Communications I	1	OB	2002/2003	13	C	5.0	
Distributed Operating Systems I	1	OB	2002/2003	12	C	4.5	
Digital Systems II	1	OB	2002/2003	10	E	5.0	
Option II - Cryptography Topics	2	OP	2002/2003	17	A	5.5	
Option T II - Computer Communications II	2	OP	2002/2003	13	C	5.0	
Language Processing I	2	OB	2002/2003	15	C	4.5	
Databases	1	OB	2003/2004	14	C	4.5	
Option T IV - Telematic Systems	1	OP	2003/2004	10	E	6.0	
Option IV - Language Processing II	1	OP	2003/2004	19	A	6.0	
Option I - Systems Administration I	1	OP	2003/2004	14	B	4.0	

Course Unit	Regime (1)	Type (2)	Academic Year	Grade (3)	ECTS Grade (4)	Credits (5)	Obs.
Intelligent Systems	2	OB	2003/2004	14	C	5.5	
Option T V - Distributed Operating Systems II	1	OP	2003/2004	14	B	6.0	
Option T I - Multimedia	1	OP	2004/2005	17	B	4.5	
Data Acquisition Systems	2	OB	2004/2005	11	C	5.5	
Professional Practice/Project	2	OB	2004/2005	17	C	30.0	

(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

Academic Services of *Universidade do Minho*, on the thirteen of September of two thousand and eight.

Universidade do Minho

APPENDIX II

Information on the National Higher Education System

System of basic and secondary education

The Comprehensive Law on the Education System (Law n°. 46/86, of 14 October, subsequently amended in respect of certain clauses by Law n°. 115/97, of 19 September) establishes the framework for the education system.

School education encompasses the following stages of teaching: basic, secondary and higher education. Pre-school education is optional and designed for children between the ages of three and the age for admission to the first cycle of basic education. Pre-school education is run free in nursery classes of the public sector supported by Ministry of Education (with the collaboration of regional or local authorities) and by other public or private organisations.

Basic education is universal compulsory and free, and consists of 3 consecutive cycles. The first cycle lasts for 4 years, the second cycle for 2 years and the third cycle lasts for 3 years. Secondary education is not compulsory and it comprises a 3-year cycle (10th, 11th and 12th years of schooling). Permeability is guaranteed between courses mainly geared to working life (technology courses) and those mainly geared to continued studies (general courses).

General admission requirements

Access to higher education is subject to a numerus clausus.

In order to quality for admission to higher education through the national competition students are required to:
- have successfully completed the 12th year of schooling or equivalent;
- have completed the national specific examinations in accordance with the higher education course the student wishes to attend;
- have obtained a minimum mark when required;
- have fulfilled the prerequisites for the higher education course the student wishes to attend, if required.

Structure of the higher education

Higher education in Portugal is divided into two subsystems: university and non-university higher education (polytechnical education) and it is provided in public and private universities and non-university higher education institutions (both public and private).

Private higher education institutions cannot operate without having been recognised by Ministry of Education.

Both Universities and Polytechnical institutions can award the *bacharel* and *licenciado* degrees, while the degrees of *mestre* and *doutor* can only be awarded by universities.

Courses leading to the *bacharel* degree have a normal duration of three years, are designed to train professionals to higher education standard, preparing them to enter the labour market.

Courses leading to the *licenciado* degree usually take 4 years, but may last for 5 or 6 years, depending on the field of the studies.

Courses leading to the *mestre* degree have a duration of 4 semesters and include the attendance of lectures and the preparation and discussing of an original dissertation. It is only open to those who have obtained at least 14 marks, along a scale of 0 to 20, in their former *licenciado* or a legally equivalent degree. Holders of a *licenciado* degree may also be admitted to a *mestrado* course on the basis of his/her curriculum even if the final mark is below 14.

The *doutor* degree is only awarded by a university institution after the elaboration and defence of an original thesis (doctoral thesis). This degree is only open to the holders of the *mestre* degree or equivalent and to those who have been awarded the *licenciado* degree or a legally equivalent qualification with a final mark of 16.

Holders of a relevant academic, scientific and professional curriculum may also apply to the *doutor* degree after analysis of the curriculum by the competent academic body.

Assessment system / Grading system

The result achieved in a subject, whether through continuous assessment or in an examination, is generally expressed along scale from 0 to 20 marks.

The lowest passing grade is 10.

The final grading of a course is shown on the relevant diploma or degree certificate along a scale of 0 to 20 marks (except on the certificate for the degree of *mestre* and *doutor* where the final grade is normally expressed in a qualitative way i.e. *Bom* (Good), *Bom com distinção* (Good with distinction) and *Muito Bom* (Very Good).

A result, instead of a number, may be entered on diplomas or degree certificates, with the following equivalences:

10 to 13 marks Adequate
14 to 15 marks Good
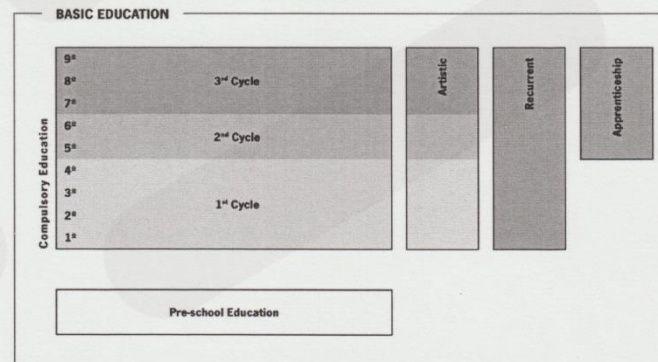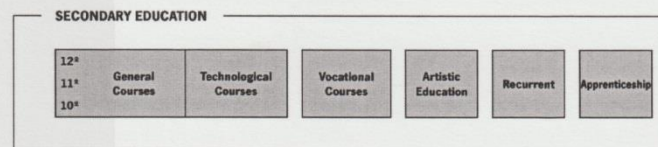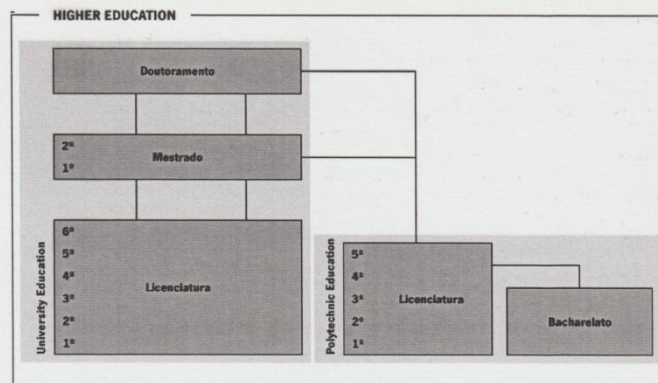16 to 17 marks Good with distinction 18 to 19 marks Very Good with distinction
20 marks *Magna cum laude*

Diagram of the Portuguese Education System

Universidade do Minho

HIGHER EDUCATION

University Education	Polytechnic Education
Doutoramento	
2ª 1ª Mestrado	
6ª 5ª 4ª 3ª 2ª 1ª Licenciatura	5ª 4ª 3ª 2ª 1ª Licenciatura — Bacharelato

SECONDARY EDUCATION

12ª 11ª 10ª	General Courses	Technological Courses	Vocational Courses	Artistic Education	Recurrent	Apprenticeship

BASIC EDUCATION

Compulsory Education				
9ª 8ª 7ª	3rd Cycle	Artistic	Recurrent	Apprenticeship
6ª 5ª	2nd Cycle			
4ª 3ª 2ª 1ª	1st Cycle			

Pre-school Education

Diploma Supplement - *Universidade do Minho*
João Paulo Pavão Carreiro

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