

## ACADEMIC TRANSCRIPT

Mr. Rafael Contreras Cebrián, Attestor of Facultat de Ciències of the Universitat Autònoma de Barcelona

**HEREBY CERTIFIES:** that the following information corresponds to the documents held on-file in this office,

STUDENT DETAILS
<b>Name and surnames:</b> Maroua Marso Chairi El Fellah
<b>National ID/NIE/Passport:</b> 49978769E
<b>Place of birth:</b> Tetouan
<b>Date of birth:</b> 22 August 1997

  

INFORMATION ON DEGREE STUDIES
<b>Centre:</b> Faculty of Sciences
<b>Studies:</b> Bachelor's Degree in Physics + Bachelor's Degree in Mathematics
<b>Payment Issuance Degree:</b>
<b>Weighted Average Grade:Scale 0-4</b>
3,20*/ average grade calculated on a scale of 0-4 in accordance with* RD 1497/1987 (modified by RD 1267/1994 - RD 1044/2003)/
<b>Weighted Average Grade:Scale 0-10</b>
8,02** average grade calculated on a scale of 0-10 in accordance with** RD 1125/2003, Sept. 5 (GC 19/03/2015)

## SUBJECTS DETAILED IN THIS ACADEMIC TRANSCRIPT

Subject (credits / type)	Academic year	Conv. 1	Conv. 2
<b>100137</b> Mechanics and Relativity 6,0 credits (Compulsory subject,First Year)	2015/16	J 7,2 B	
<b>100138</b> Electricity and Magnetism 6,0 credits (Compulsory subject,First Year)	2015/16	J 9.0 A	

Subject (credits / type)	Academic year	Conv. 1	Conv. 2
<b>100150</b> Waves and Optics 6,0 credits (Compulsory subject,First Year)	2015/16	J 9.2 A	
<b>100145</b> Introduction to Experimental Physics 6,0 credits (Compulsory subject,First Year)	2015/16	J 8.7 B	
<b>100089</b> Fundamentals of Mathematics 9,0 credits (Compulsory subject,First Year)	2015/16	F 9.1 A	
<b>100091</b> Computer Tools for Mathematics (annual) 9,0 credits (Compulsory subject,First Year)	2015/16	J 8.7 B	
<b>100087</b> Real Variable Functions 12,0 credits (Compulsory subject,First Year)	2015/16	J 7.1 B	
<b>100088</b> Linear Algebra. 12,0 credits (Compulsory subject,First Year)	2015/16	J 7.8 B	
<b>100148</b> Classical Mechanics 10,0 credits (Compulsory subject,Second Year)	2016/17	J 6.5 C	
<b>100149</b> Electromagnetism 10,0 credits (Compulsory subject,Second Year)	2016/17	J 7.5 B	
<b>100150</b> Mechanics Laboratory 5,0 credits (Compulsory subject,Second Year)	2016/17	F 8.7 B	
<b>100151</b> Electromagnetism Labortory 5,0 credits (Compulsory subject,Second Year)	2016/17	J 9.2 A	
<b>100139</b> Structure of Matter and Thermodynamics 6,0 credits (Compulsory subject,Second Year)	2016/17	J 9.5 A	
<b>100147</b> Chemistry for Physicists 6,0 credits (Compulsory subject,Second Year)	2016/17	F 9.8 A	
<b>100095</b> Linear Geometry 6,0 credits (Compulsory subject,Second Year)	2016/17	J 7.2 A	

Subject (credits / type)	Academic year	Conv. 1	Conv. 2
<b>100096</b> Algebraic Structures 9,0 credits (Compulsory subject,Second Year)	2016/17	J 7.6 A	
<b>100093</b> Calculus of several variables and optimization 9,0 credits (Compulsory subject,Second Year)	2016/17	F 5.3 C	
<b>100154</b> Quantum Physics I 6,0 credits (Compulsory subject,Third Year)	2017/18	F 7.3 B	
<b>100155</b> Quantum Physics II 6,0 credits (Compulsory subject,Third Year)	2017/18	J 8,1 B	
<b>100100</b> Differential equations and modelling I 9,0 credits (Compulsory subject,Third Year)	2017/18	F 7,3 B	
<b>100101</b> Differential equations and modelling II 6,0 credits (Compulsory subject,Third Year)	2017/18	J 7,7 B	
<b>100098</b> Discrete Mathematics Seminar 6,0 credits (Compulsory subject,Third Year)	2017/18	F 9,2 A	
<b>100097</b> Numerical Methods 12,0 credits (Compulsory subject,Third Year)	2017/18	J 8.5 B	
<b>100094</b> Mathematical Analysis 9,0 credits (Compulsory subject,Third Year)	2017/18	J 8.2 B	
<b>100103</b> Complex and Fourier analysis 6,0 credits (Compulsory subject,Third Year)	2017/18	J 6.8 C	
<b>100106</b> Topology 6,0 credits (Compulsory subject,Third Year)	2017/18	J 8.8 B	
<b>100157</b> Thermodynamics and Statistical Mechanics 9,0 credits (Compulsory subject,Fourth Year)	2018/19	J 9.4 A	

Subject (credits / type)	Academic year	Conv. 1	Conv. 2
<b>100156</b> Optics 9,0 credits (Compulsory subject,Fourth Year)	2018/19	J 8,4 B	
<b>100158</b> Thermodynamics Laboratory 5,0 credits (Compulsory subject,Fourth Year)	2018/19	F 9.3 A	
<b>100159</b> Optics Laboratory 5,0 credits (Compulsory subject,Fourth Year)	2018/19	J 9.4 A	
<b>100104</b> Probability and Stochastic Modelling 8,0 credits (Compulsory subject,Fourth Year)	2018/19	F 8,1 B	
<b>100105</b> Statistics 7,0 credits (Compulsory subject,Fourth Year)	2018/19	J 9,0 A	
<b>100102</b> Galois Theory 6,0 credits (Compulsory subject,Fourth Year)	2018/19	F 7,3 B	
<b>100107</b> Differential Geometry 12,0 credits (Compulsory subject,Fourth Year)	2018/19	J 8,7 B	
<b>100161</b> Introduction to Astrophysics 5,0 credits (Optional subject,Fourth Year)	2018/19	J 9.2 A	
<b>100171</b> Quantum Mechanics 6,0 credits (Optional subject,Fifth Year)	2019/20	F 8.7 B	
<b>100173</b> Electrodynamics and Synchrotron Radiation 6,0 credits (Optional subject,Fifth Year)	2019/20	F 8.8 B	
<b>100170</b> History of Physics 6,0 credits (Optional subject,Fifth Year)	2019/20	J 9.6 A	
<b>100182</b> Quantum Information 6,0 credits (Optional subject,Fifth Year)	2019/20	J 9.2 A	

Subject (credits / type)	Academic year	Conv. 1	Conv. 2
<b>100184</b> Nanomaterial Physics 6,0 credits (Optional subject,Fifth Year)	2019/20	J 9,0 A	
<b>100126</b> Advanced programming 6,0 credits (Optional subject,Fifth Year)	2019/20	F 9.1 A	
<b>104051</b> Bachelor's Degree Final Project Physics 12,0 credits (Compulsory subject,Fifth Year)	2019/20	J 9.6 A	
<b>104051</b> Bachelor's Degree Final Project Mathematics	2019/20		

## SUMMARY OF ACADEMIC RECORD

Total Subjects Passed: 45

Total Credits Attained: 330

Examination sessions are abbreviated as follows: **F**: February, **J**: June, **N**: November, **Y**: May.

The total number of subjects detailed on this transcript is 45, from a total of 330 credits, as detailed below:

Credits Passed by Type	Passed	Remaining	Required
Compulsory subject	184,0	12,0	196,0
Optional subject	47,0	0	47,0
Basic studies	63,0	0	63,0
Academic Objective	Successfully Completed		
- Graduate in Physics and Mathematics			

The Universitat Autònoma de Barcelona is a Catalan public university with three campus sites in the metropolitan region of Barcelona.

The university is regulated by the Spanish Universities Act; the Catalan Universities Act and the developmental regulations of these laws as established by Spain and the Government of Catalonia, through their respective powers. It is additionally regulated by its own Decree (Law 5/1968 of 6 June 1968) and its Statutes approved by Decree 237/2003 of 8 October 2003 (Article 1). The University is registered with code 22 in the Spanish Registry of Universities, Centres and Degrees (RUCT).

#### ADDITIONAL INFORMATION: GRADING SYSTEM

Students academic performance is evaluated on a numerical scale from 0 to 10, in which 5 is the minimum grade for a pass. Correspondence with the qualitative grades approved by the UAB is the following:

SRD 1125/2003 Scale 0-10	SRD 1044/2003 Scale 0-4	ECTS Scale
Absent/Not assessable	Absent/Not assessable	-
Fail: 0.0 - 4.9	Fail: 0	F
C: 5.0 - 6.9	C: 1	C
B: 7.0 - 8.9	B: 2	B
A: 9.0 - 10	A: 3	A
A with Honours: 9.0-10	A with Honours: 4	A+

Bellaterra (Cerdanyola del Vallès), 14 July 2020.



Document signed electronically.