

# **International cooperation and mobility**

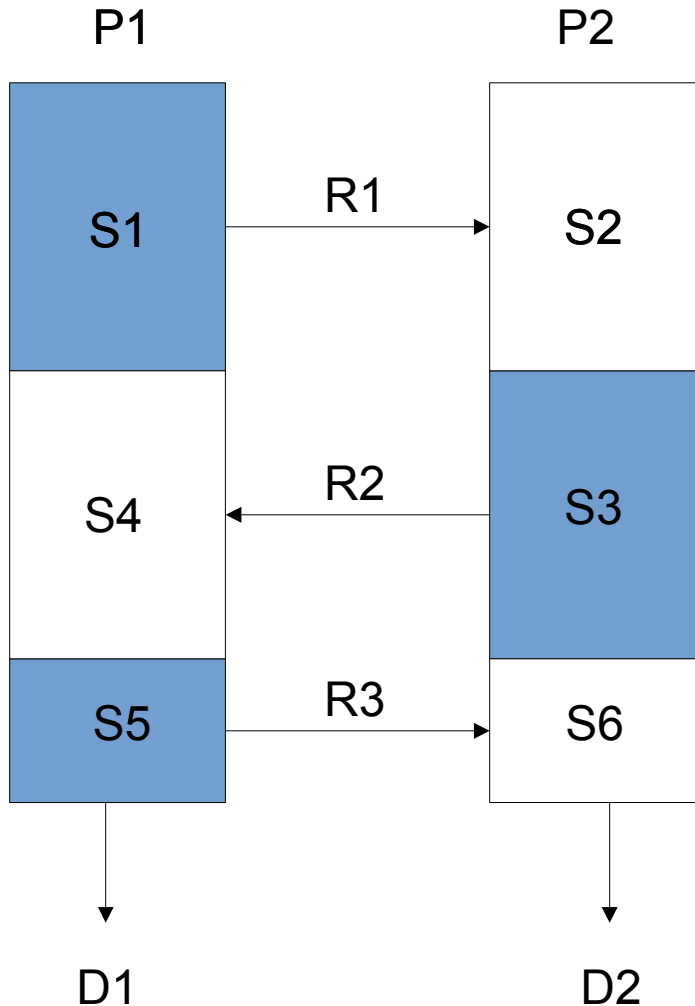
**The recognition of degrees and equivalence  
procedures**

**Double-diploma projects**

**2016 ICM Meeting**

Bragança, 28th February – 12th March 2016

## What will we talk about:



P1 - Programme at home Institution  
 P2 - Programme at IPB  
 S1, S3, S5 - Completed studies  
 S2, S4, S6 - Credited studies  
 R1, R2, R3 - Recognition processes  
 D1 - Diploma at home Institution  
 D2 - Diploma at IPB

$\text{credits}(S2+S3+S6) = \text{credits}(P2)$   
 $\text{credits}(S1+S3+S5) \geq \text{credits}(P2)$   
 $\text{credits}(S1) \geq \text{credits}(S2)$   
 $\text{credits}(S5) \geq \text{credits}(S6)$

$\text{credits}(S5) \rightarrow 0$  unless...  
 $\text{credits}(S6) \rightarrow 0$

## Recognition of prior learning:

- ✓ Programmes at home Institution and IPB are not equal: different course units and even different duration
- ✓ But they are enough similar to make it possible to create a double diploma project: same field of studies, similar profile and similar learning outcomes
- ✓ IPB recognizes all course units completed at home Institution that are relevant for the learning outcomes of the programme at IPB
- ✓ Students must complete a set of course units (at IPB) that complement their prior learning, allowing IPB to award the degree
- ✓ ECTS credits and the field of studies are really important; the contents of course units are not relevant

Subject	Year	Credits
Calculus I	1	5
Calculus II	1	5
Data Structure and Algorithms	1	5
Digital Design	1	5
Information Technology	1	5
Introduction to Computer Science	1	5
Introduction to Programming	1	5
Object Oriented Programming	1	5
Physics	1	5
Computer Communication and Networks	2	5
Computer System Simulation	2	5
Database I	2	5
Database II	2	5
Differential Equations	2	5
Elective Course	2	5
Electrical Engineering	2	5
Linear Algebra	2	5
System Programming	2	5
Web Programming I	2	5
Discreet Math. Structures	3	5
Elective Course	3	5
Elective Course	3	5
Elective Course	3	5
Elective Course	3	5
Elective Course	3	5
Elective Course	3	5
Elective Course	3	5
Elective Course	3	5
Information Security	3	5
Operating Systems	3	5
Statistics	3	5
		<b>155</b>
English Language I	1	5
English Language II	1	5
Georgian Language	1	5
Elective Language I (Turkish I, Russian I, German I, Spanish I)	2	5
Elective Language II (Turkish II, Russian II, German II, Spanish II)	2	5
		<b>25</b>

a)

b)

Course Unit	Year	Credits
Calculus I	1	6
Calculus II	1	6
Computer Architecture	1	6
Digital Electronics	1	6
Discrete Mathematics	1	6
Linear Algebra and Analytic Geometry	1	6
Mobile Communications	1	6
Physics	1	6
Programming I	1	6
Programming II	1	6
Algorithms and Data Structures	2	6
Computer Graphics	2	6
Computer Networks	2	6
Databases I	2	6
Databases II	2	6
Language Processing	2	6
Object Oriented Programming	2	6
Operating System Fundamentals	2	6
Operational Research	2	6
Statistics	2	6
Application Development	3	6
Communication Services	3	6
Digital Signal Processing	3	6
Software Engineering	3	6
System and Network Management	3	6
Web Development	3	6
		<b>156</b>
Distributed Systems	3	6
Final Project	3	12
Robotic Fundamentals	3	6
		<b>24</b>
Portuguese A1.1	1	3
Portuguese A1.2	1	3
		<b>6</b>

c)

d)

e)



# INTERNATIONAL BLACK SEA UNIVERSITY

## TRANSCRIPT

### STUDENT'S:

NAME & SURNAME : Nikoloz KAVTARADZE  
 NUMBER : 12200137  
 DOCUMENT NO : 15-3194

FACULTY : Computer Technologies and Engineering  
 DIRECTION : Informatics  
 DATE : 30 September, 2015

### FRESHMAN YEAR - Autumn Semester

CODE	SUBJECT NAME	HOUR	ECTS	GRADE
CEN122	Information Technology	3	5	88
CTF101	Calculus I	3	5	83
CTF104	Physics	3	5	78
CEN108	English for Specific Purposes I	3	5	57
HUM031	Culture of Georgian Oral and Written Communication	3	5	83
HUM017	English Language I (General English)	3	5	90
<b>Total:</b>		<b>18</b>	<b>30</b>	

### FRESHMAN YEAR - Spring Semester

CODE	SUBJECT NAME	HOUR	ECTS	GRADE
CEN107	Introduction to Programming	3	5	87
CTF102	Calculus II	3	5	78
CEN103	Introduction to Computer Science	3	5	65
CEN109	English for Specific Purposes II	3	5	65
HUM028	Culture of Georgian Oral and Written Communication II	3	5	95
HUM018	English Language II (General English)	3	5	89
<b>Total:</b>		<b>18</b>	<b>30</b>	

### SOPHOMORE YEAR - Autumn Semester

CODE	SUBJECT NAME	HOUR	ECTS	GRADE
CEN203	Data Structure and Algorithms	3	5	77
CEN208	Object Oriented Programming	3	5	63
CTF201	Linear Algebra	3	5	64
CFT205	Digital Design	3	5	72
HUM125	History of Georgian Civilization	3	5	68
HUM019	German Language I	3	5	69
<b>Total:</b>		<b>18</b>	<b>30</b>	

### SOPHOMORE YEAR - Spring Semester

CODE	SUBJECT NAME	HOUR	ECTS	GRADE
CEN204	Database I	3	5	60
CEN216	System Programming	3	5	61
CEN313	Electrical Engineering	3	5	69
CTF202	Differential Equations	3	5	80
HUM126	History of World Civilization	3	5	59
HUM020	German Language II	3	5	72
<b>Total:</b>		<b>18</b>	<b>30</b>	

**JUNIOR YEAR - Autumn Semester**

CODE	SUBJECT NAME	HOUR	ECTS	GRADE
CEN301	Database II	3	5	51
CEN206	Computer Communication and Networks	3	5	59
CEN312	Computer System Simulation	3	5	51
CTF303	Discrete Mathematical Structures	3	5	58
CEN330	Web Programming I	3	5	80
CEN302	Mobile Applications	3	5	74
<b>Total:</b>		<b>18</b>	<b>30</b>	

**JUNIOR YEAR - Spring Semester**

CODE	SUBJECT NAME	HOUR	ECTS	GRADE
CEN305	Operating Systems	3	5	70
CEN402	Computer Architecture	3	5	68
CEN410	Computer Graphics I	3	5	64
IEN207	Statistics	3	5	52
CEN331	Web Programming II	3	5	84
CTF340	Information Security	3	5	69
<b>Total:</b>		<b>18</b>	<b>30</b>	

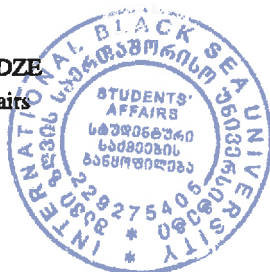
Total ECTS : 180

Total Successful ECTS : 180

CGPA : 70.89

Vepkhia KAMADADZE

Head of Student Affairs

## Deliberação relativa ao pedido de creditação de formação certificada

**Aluno:** Nikoloz Kavtaradze (#35883)

**Escola:** Escola Superior de Tecnologia e Gestão de Bragança

**Curso de Licenciatura em:** Engenharia Informática (EI)

### 1. Formação creditada para efeitos de progressão no plano de estudos do curso:

Instituição	Curso	Ano Lect.	Disciplina/UC/etc.	Tipo	Classif.	CH	CH T	ECTS	Área Cient.	Observações	Bloco
International Black Sea University	Informatics	2014/2015	Calculus I	Semestral	16	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	Calculus II	Semestral	15	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	Computer Architecture	Semestral	13	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	Computer Communication and Networks	Semestral	11	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	Computer Graphics I	Semestral	12	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	Computer System Simulation	Semestral	10	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	Data Structure and Algorithms	Semestral	15	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	Database I	Semestral	12	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	Database II	Semestral	10	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	Differential Equations	Semestral	16	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	Digital Design	Semestral	14	-	-	5	-	-	1

Instituição	Curso	Ano Lect.	Disciplina/UC/etc.	Tipo	Classif.	CH	CH T	ECTS	Área Cient.	Observações	Bloco
International Black Sea University	Informatics	2014/2015	Discreet Mathematical Structures	Semestral	11	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	Electrical Engineering	Semestral	13	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	English for Specific Purposes I	Semestral	11	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	English for Specific Purposes II	Semestral	13	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	German Language I	Semestral	14	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	German Language II	Semestral	14	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	History of World Civilization	Semestral	11	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	Information Security	Semestral	13	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	Information Technology	Semestral	17	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	Introduction to Computer Science	Semestral	13	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	Introduction to Programming	Semestral	17	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	Linear Algebra	Semestral	12	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	Mobile Applications	Semestral	14	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	Object Oriented Programming	Semestral	12	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	Operating Systems	Semestral	14	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	Physics	Semestral	15	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	Statistics	Semestral	10	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	System Programming	Semestral	12	-	-	5	-	-	1



Instituição	Curso	Ano Lect.	Disciplina/UC/etc.	Tipo	Classif.	CH	CH T	ECTS	Área Cient.	Observações	Bloco
International Black Sea University	Informatics	2014/2015	Web Programming I	Semestral	16	-	-	5	-	-	1
International Black Sea University	Informatics	2014/2015	Web Programming II	Semestral	16	-	-	5	-	-	1

## 2. Resultado do processo de creditação da formação certificada:

Unidade Curricular	Classif.	Por creditação de:
Álgebra Linear e Geometria Analítica	13	1
Algoritmos e Estruturas de Dados	13	1
Arquitetura de Computadores	13	1
Bases de Dados I	13	1
Bases de Dados II	13	1
Cálculo I	13	1
Cálculo II	13	1
Computação Gráfica	13	1
Comunicações Móveis	13	1
Desenvolvimento de Aplicações Informáticas	13	1
Desenvolvimento Web	13	1
Engenharia de Software	13	1
Estatística	13	1
Física	13	1
Fundamentos de Sistemas Operativos	13	1
Gestão de Sistemas e de Redes	13	1
Investigação Operacional	13	1
Matemática Discreta	13	1
Processamento de Linguagens	13	1
Processamento Digital do Sinal	13	1
Programação I	13	1
Programação II	13	1
Programação Orientada por Objetos	13	1
Redes de Computadores I	13	1
Redes de Computadores II	13	1
Sistemas Digitais	13	1

Data: 2016-03-02

Assinatura: \_\_\_\_\_

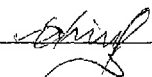
## Training plan (semester by semester outline):

- ✓ compulsory course units (to get the IPB diploma and to be recognized at home Institution):
  - Distributed Systems, 1st semester, 6 credits
  - Robotic Fundamentals, 1st semester, 6 credits
  - Final Project, 2nd semester, 12 credits
- ✓ extra course units (to be recognized at home Institution):
  - Artificial Intelligence, 1st semester, 6 credits
  - Programming Paradigms, 2nd semester, 6 credits
- ✓ additional course units:
  - Portuguese A1.1, 1st semester, 3 credits
  - Portuguese A1.2, 2nd semester, 3 credits

Academic Certificate		
Student's Name	David Kharatyan	
Course Name	Mark	Credits
<b>Humanitarian courses</b>		
Methodology and history of science	S (passed)	2
Modern challenges of science	S (passed)	2
English-1	S (passed)	4
English-2	S (passed)	4
<b>Fundamental courses</b>		
Software Complex MATLAB-1	100 (A+)	5
Software Complex MATLAB-2	100 (A+)	5
Software Complex MATLAB-2 course work	100 (A+)	2
Probability theory and statistics	100 (A+)	5
<b>Professional courses</b>		
Enterprise stability and development strategies	100 (A+)	5
Investment projects valuation	100 (A+)	5
Economic law	100 (A+)	5
Basics of economic forecast	100 (A+)	5
Basics of economic forecast course work	100 (A+)	2
Controlling in Machine building	100 (A+)	5
Scientific Seminar-1	S (passed)	2
Scientific Seminar-1	S (passed)	2

Invalid without the Seal of the University

Dean of faculty



Vice Director



Note 1) Estimation is carried out by the rate points:

2) A-, A, A+ (excellent), B-, B, B+ (good), C-, C, C+ (satisfactory), D (fail), S (passed), U (not passed)

A+(95-100), A (87-94), A- (81-86), B+ (75-80), B (67-74), B- (61-66), C+ (55-60), C (46-54), C- (40-45), S $\geq$ 40, U<40

STATE ENGINEERING UNIVERSITY OF ARMENIA (POLYTECHNIC), VANADZOR BRANCH

**ACADEMIC CERTIFICATE**

Name, Surname, Father's name

**DAVID KHARATYAN, son of ARMEN**

Specialty

**080600 ECONOMICS AND MANAGEMENT OF ENTERPRISES**

Specialization

**080602 ECONOMICS AND MANAGEMENT OF ENTERPRISES IN MACHINE BUILDING FIELD**

Autumn term 2010

Mark	Course Name	Credit	Grade	Numeric Point
1.4.11.01.08	Economics 1	5	100	4.0 (A+)
1.4.12.02.01	Mathematics 1	6	95	4.0 (A+)
1.4.13.02.02	Physics 1	3	100	4.0 (A+)
1.4.12.02.04	Informatics 1	4	100	4.0 (A+)
1.4.11.01.01	History of Armenian People 1	2	S	
1.4.11.01.03	Russian Language 1	2	S	
1.4.11.01.04	English Language 1	4	S	
1.4.11.01.11	History of Economic Doctrine	2	S	
1.4.11.01.10	Physical Education	0	S	

Program Credits	Qualification Credits	Rate Points		Term Average Qualification Grade	
28	18	1770	72	98.33	4.00

*Generalized results after autumn term 2010*

Filled Program Credits	Filled Qualification Credits	Rate Points		Final Average Qualification Grade	
28	18	1770	72	98.33	4.00

Spring term 2010

Mark	Course Name	Credit	Grade	Numeric Point
1.4.11.01.08	Economics 2	3	100	4.0 (A+)
1.4.12.02.01	Mathematics 2	6	100	4.0 (A+)
1.4.13.02.02	Physics 2	3	100	4.0 (A+)
1.4.12.02.04	Informatics 2	4	100	4.0 (A+)
1.4.11.01.01	History of Armenian People 2	2	S	
1.4.11.01.03	Russian Language 2	2	S	
1.4.11.01.04	English Language 2	4	S	
1.4.12.03.01	Computer Graphics 1	2	S	
1.4.25.02.03	Chemistry	3	S	
1.4.21.05.01	Introduction into Specialty	1	S	
1.4.11.01.10	Physical Education	0	S	

Program Credits	Qualification Credits	Rate Points		Term Average Qualification Grade	
30	16	1600	64	100.00	4.00

*Generalized results after spring term 2010*

Filled Program Credits	Filled Qualification Credits	Rate Points		Final Average Qualification Grade	
58	34	3370	136	99.12	4.00

Autumn term 2011



Mark	Course Name	Credit	Grade	Numeric Point			
1.4.12.02.01	Mathematics 3	6	100	4.0 (A+)			
1.4.11.01.05	Philosophy, Sociology	4	100	4.0 (A+)			
1.4.1303.06	Applied Mechanics 1	4	100	4.0 (A+)			
1.4.21.03.07	Material Science	4	100	4.0 (A+)			
1.4.21.04.01	Microeconomics	3	100	4.0 (A+)			
1.4.12.02.04	Informatics (course work)	1	100	4.0 (A+)			
1.4.21.04.01	Microeconomics (course work)	1	100	4.0 (A+)			
1.4.12.02.04	Informatics 3	3	S				
1.4.12.03.01	Computer Graphics 2	2	S				
1.4.11.01.04	English Language 3	2	S				
1.4.11.01.02	Armenian Language and Speech Culture 1	2	S				
1.4.11.01.10	Physical Education	0	S				
Program Credits		Qualification Credits		Rate Points	Term Average Qualification Grade		
32		23		2300	92	100.00	4.00

**Generalized results after autumn term 2011**

Filled Program Credits	Filled Qualification Credits	Rate Points		Final Average Qualification Grade	
90	57	5670	228	99.47	4.00

**Spring term 2012**

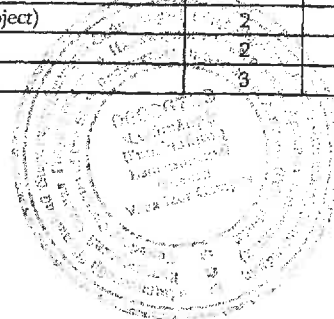
Mark	Course Name	Credit	Grade	Numeric Point			
1.4.24.03.05	Electrical Engineering	5	98	4.0 (A+)			
1.4.27.03.08	Metrology and Principles of Standardization 1	4	100	4.0 (A+)			
1.4.12.04.03	Statistics	4	100	4.0 (A+)			
1.4.21.04.04	Management	3	100	4.0 (A+)			
1.4.21.05.02	Machine Building Enterprise Economics 1	3	100	4.0 (A+)			
1.4.12.04.03	Statistics (course work)	1	100	4.0 (A+)			
1.4.21.04.04	Management (course work)	1	100	4.0 (A+)			
1.4.12.04.02	Informatics 5	3	S				
1.4.11.01.02	Armenian Language and Speech Culture 2	2	S				
1.4.11.01.06	Jurisprudence	2	S				
1.4.21.05.04	Theory of Organization	2	S				
1.4.11.01.10	Physical Education	0	S				
Program Credits		Qualification Credits		Rate Points	Term Average Qualification Grade		
30		21		2090	84	99.52	4.00

**Generalized results after spring term 2012**

Filled Program Credits	Filled Qualification Credits	Rate Points		Final Average Qualification Grade	
120	78	7760	312	99.49	4.00

**Autumn term 2012**

Mark	Course Name	Credit	Grade	Numeric Point
1.4.21.04.05	Accountancy	5	100	4.0 (A+)
1.4.21.05.06	Machine Building Production Organization 1	4	97	4.0 (A+)
1.4.21.05.03	Machine Building Enterprise Economics 2	4	100	4.0 (A+)
1.4.25.02.05	Environmental Protection	4	100	4.0 (A+)
1.4.21.05.05	Machine Building Enterprise Labor Economics and Organization	4	99	4.0 (A+)
1.4.21.05.03	Machine Building Enterprise Economics (course project)	2	100	4.0 (A+)
1.4.11.01.08	Political Science	2	S	
1.4.21.05.09	Metal Cutting Machines and Instruments	3	S	



1.4.11.01.10	Physical Education	0	S	
Program Credits	Qualification Credits	Rate Points		Term Average Qualification Grade
28	23	2284	92	99.30 4.00

**Generalized results after autumn term 2012**

Filled Program Credits	Filled Qualification Credits	Rate Points		Final Average Qualification Grade
148	101	10044	404	99.45 4.00

**Spring term 2013**

Mark	Course Name	Credit	Grade	Numeric Point
1.4.21.04.07	Economic-Mathematical Methods and Models 1	4	100	4.0 (A+)
1.4.21.05.13	Pricing	3	100	4.0 (A+)
1.4.21.05.14	Marketing	4	98	4.0 (A+)
1.4.21.05.07	Machine Building Production Organization 1	4	100	4.0 (A+)
1.4.21.04.06	Analysis of Economic Activity	4	95	4.0 (A+)
1.4.21.04.06	Analysis of Economic Activity (course work)	1	100	4.0 (A+)
1.4.21.05.07	Machine Building Production Organization 1 (course project)	2	100	4.0 (A+)
1.4.21.05.10	Machine Building Production Technology 1	4	S	
1.4.21.05.12	Machine Building Production Automatization	3	S	
1.4.21.08.06	Practicum-Production	4	98	4.0 (A+)
1.4.11.01.10	Physical Education	0	S	
Program Credits	Qualification Credits	Rate Points		Term Average Qualification Grade
33	26	2564	104	98.62 4.00

**Generalized results after spring term 2013**

Filled Program Credits	Filled Qualification Credits	Rate Points		Final Average Qualification Grade
181	127	12608	508	99.28 4.00

**Autumn term 2013**

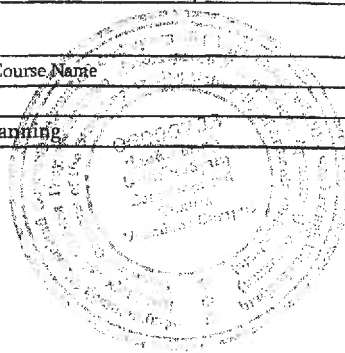
Mark	Course Name	Credit	Grade	Numeric Point
1.4.21.04.07	Economic-Mathematical Methods and Models 2	4	100	4.0 (A+)
1.4.21.04.09	Enterprise Finance	3	100	4.0 (A+)
1.4.21.04.11	Investments and Innovation Management	3	100	4.0 (A+)
1.4.21.05.08	Operational Management of Machine Building Production	4	100	4.0 (A+)
1.4.21.05.08	Operational Management of Machine Building Production (course work)	1	100	4.0 (A+)
1.4.21.05.11	Machine Building Production Technology 2	4	100	4.0 (A+)
1.4.21.05.11	Technology of Machine Building Production (course project)	2	100	4.0 (A+)
1.4.21.05.08	Practicum- Pre-graduation	4	100	4.0 (A+)
1.4.21.03.02	Security of Bioactivity	3	S	
1.4.21.05.16	Strategic Management	3	S	
Program Credits	Qualification Credits	Rate Points		Term Average Qualification Grade
31	25	2500	100	100.00 4.00

**Generalized results after autumn term 2013**

Filled Program Credits	Filled Qualification Credits	Rate Points		Final Average Qualification Grade
212	152	15108	608	99.39 4.00

**Spring term 2014**

Mark	Course Name	Credit	Grade	Numeric Point
1.4.21.04.10	Taxes and Taxation	2	100	4.0 (A+)
1.4.21.05.15	Machine Building Enterprise Planning	2	100	4.0 (A+)



1.4.21.05.18	Elective course-1. Costs Management	2	100	4.0 (A+)
1.4.21.05.19	Elective course-1. Insurance	2	100	4.0 (A+)
1.4.21.05.17	Structural Planning of Machine Building Enterprises	2	S	
1.4.21.03.03	Civil Defense and Principles of State of Emergency	2	S	
1.4.21.08.08	Final Examination	4	100	4.0 (A+)
1.4.21.08.08	Final Work ( Thesis)	12	100	4.0 (A+)
Program Credits		Qualification Credits		Rate Points
28		24		2400 96
				Term Average Qualification Grade
				100.00 4.00

**Generalized results after spring term 2014**

Filled Program Credits	Filled Qualification Credits	Rate Points		Final Average Qualification Grade	
240	176	17508	704	99.48	4.00

**Final results**

Accumulated Program Credits	Accumulated Qualification Credits	Final Rate Points		Final Average Qualification Grade	
240	176	17508	704	99.48	4.00

**End of the Academic Certificate**

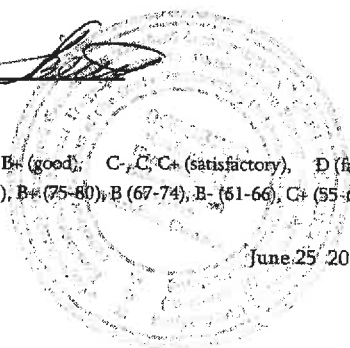
**Invalid without the Seal of the University**

Dean of faculty *[Signature]* Vice-Director *[Signature]*

Note 1) Estimation is carried out by the rate points:

2) A-, A, A+ (excellent), B-, B, B+ (good), C-, C, C+ (satisfactory), D (fail), S (passed), U (not passed)  
 A+(95-100), A (87-94), A- (81-86), B+ (75-80), B (67-74), B- (61-66), C+ (55-60), C (46-54), C- (40-45), S≥40, U<40

June 25 2014 Registration № . 949



## Deliberação relativa ao pedido de creditação de formação certificada

**Aluno:** Davit Kharatyan (#35291)

**Escola:** Escola Superior de Tecnologia e Gestão de Bragança

**Curso de Mestrado em:** Gestão das Organizações - Gestão de Empresas (EI)

### 1. Formação creditada para efeitos de progressão no plano de estudos do curso:

Instituição	Curso	Ano Lect.	Disciplina/UC/etc.	Tipo	Classif.	CH	CH T	ECTS	Área Cient.	Observações	Bloco
National Polytechnic University of Armenia	Economics and Management of Enterprises	2014/2015	Economics and Management of Enterprises	Semestral	19	-	-	36	Ges	Mestrado-Economics and Management of Enterprises	1

### 2. Resultado do processo de creditação da formação certificada:

Unidade Curricular	Classif.	Por creditação de:
Complementos de Gestão de Recursos Humanos	19	1
Comportamento Organizacional	19	1
Gestão da Inovação e Empreendedorismo	19	1
Gestão da Qualidade	19	1
Gestão Estratégica e Marketing	19	1
Optativa - Metodologias de Investigação	19	1

Data: 2016-03-02

Assinatura: \_\_\_\_\_





## Certificate

According to the archives of the Academic Services of the Polytechnic Institute of Bragança (Instituto Politécnico de Bragança) and in compliance with the Portuguese legislation on the Academic Degrees and Higher Education Diplomas, hereby certifies that Davit Kharatyan, born on June 21, 1994, son of Armen Kharatyan and Hasmik Hovhannisyan, native of null, attended the School of Technology and Management (Escola Superior de Tecnologia e Gestão de Bragança) and finished the second cycle degree (Mestrado) in Management, specialization in Business Management (100 ECTS), of the Association of the Polytechnic Institutes of Northern Portugal, on - -, -, with the final mark of null out of 20 and null in the ECTS scale. He is therefore qualified with the Master's degree in Management.

This certificate is accompanied by the appended Diploma Supplement.

This certificate is stamped with the official embossing seal of this Institute.

Academic Services of the Polytechnic Institute of Bragança, March 2, 2016.

The Head of the Academic Services of the Polytechnic Institute of Bragança,

Carla Cidália Ribeiro da Costa

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## 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):** Kharatyan
- 1.2 **Given name(s):** Davit
- 1.3 **Date of birth (day/month/year):** 21/06/1994
- 1.4 **Student identification number or code (if available):**  
Student number: 35291  
Civil ID number: AK0567502

### 2 Information identifying the qualification

- 2.1 **Name of qualification and (if applicable) title conferred (in original language):**  
"Mestrado em Gestão das Organizações, especialização em Gestão de Empresas". Title of "Mestre".
- 2.2 **Main field(s) of study for the qualification:**  
Management.
- 2.3 **Name and status of awarding institution (in original language):**  
Associação dos Institutos Superiores Politécnicos da Região Norte (APNOR, Association of the Polytechnic Institutes of Northern Portugal), formed by the Instituto Politécnico de Bragança, Instituto Politécnico do Cávado e do Ave, Instituto Politécnico do Porto and Instituto Politécnico de Viana do Castelo, all Public Higher Education Institutions, under Ministry of Science, Technology and Higher Education.  
The association of higher education institutions for joint degrees is allowed in the Chapter VI of the Decree-Law N.º 74/2006, published in the Diário da República (Official State Gazette) N.º 60 (1st series), on 24 March 2006.
- 2.4 **Name and status of institution (if different from 2.3) administering studies (in original language):**  
Not applicable.
- 2.5 **Language(s) of instruction/examination:**  
Portuguese.

### 3 Information on the level of the qualification

- 3.1 **Level of qualification:**  
2nd Cycle of Studies. EQF level 7. ISCED level 5.
- 3.2 **Official length of programme:**  
The study cycle has an official length of 100 ECTS credits, accomplished in two academic years. It is composed by a specialization course of 60 ECTS credits and a scientific dissertation, a project work or a professional traineeship which will be concluded with a final report comprising 40 ECTS credits.
- 3.3 **Access requirement(s):**  
The holders of the licenciado degree or legal equivalent, the holders of a foreign academic degree and the holders of a relevant academic, scientific or professional curriculum vitae may apply to the 2nd cycle of studies, as stated in the description of the Portuguese Higher Education System, provided by NARIC (<http://www.dges.mctes.pt/DGES/pt/Reconhecimento/NARICENIC/>) and presented in section 8 of the Diploma Supplement.

### 4 Information on the contents and results gained

- 4.1 **Mode of study:**  
Full-time.
- 4.2 **Programme requirements:**  
The degree of "mestre" (master) in Management, specialization in Business Management, is awarded to those students

that demonstrate, in this field, the ability to:

- a) develop and enhance the knowledge obtained in the first cycle, in order to develop and apply that knowledge to original situations often in the context of research;
- b) apply their knowledge and understanding and problem solving capacities to new and unfamiliar situations in wide multidisciplinary situations, although related to their area of studies;
- c) integrate knowledge, deal with complex matters, develop solutions or put forward opinions on situations of limited or incomplete information, including reflecting upon the implications and ethical and social responsibilities that result from both those solutions and opinions or indeed that condition them;
- d) communicate their conclusions and the knowledge and reasoning that underly them, both to experts and non-experts, clearly and unambiguously;
- e) develop competences that will enable them to benefit from self-oriented or autonomous lifelong learning.

To complete the qualification, the student is required to pass all compulsory course units of the study plan.

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

Scientific areas of the study plan:

Scientific Area	ECTS Credits	
	Compulsory	Optional
Management	73.0	9.0
Mathematics	6.0	6.0
Economics	3.0	0.0
Law	0.0	6.0
Social and Behaviour Sciences	12.0	0.0
Accounting	0.0	6.0
Social Sciences	0.0	3.0
<b>TOTAL</b>	<b>94.0</b>	<b>6.0</b>

The student's transcript of records is fully detailed in appendix I.

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

a) National and IPB classification scale:

The overall classifications of the qualification and of each course unit are expressed through a mark on a numerical integer scale from 0 to 20. In order to "Pass" a course unit the student must obtain a mark not under 10. To complete a qualification, to which it will be assigned an overall classification from 10 to 20, the student is required to pass all compulsory course units of the study plan.

b) ECTS classification scale:

The ECTS classification scale (European scale of comparability of classifications), for graduates and for students that pass course units, is composed by five levels, identified by letters A to E (where A is the highest and E the lowest grade), and aims to simplify the comparison between the classification scale used at national level and those current in other countries and to make more transparent the process of evaluation and the academic recognition of the results obtained. Classifications A, B, C, D and E will be awarded to 10%, 25%, 30%, 25% and 10% of the students, respectively.

The settle of the classifications included by each one the levels of the European scale of comparability of classifications is carried out: (i) for each programme, of each cycle of studies; (ii) for each course unit. The awarding of classifications according to the ECTS is based in the distribution of marks, from 10 to 20, of the graduates (or students that pass a course unit), in the three academic years before the one when the graduate (or student) completed the qualification (or passed the course unit), in such a way that the number of graduates (or students that pass a course unit) in that period is not below 30. When such dimension (thirty) is not reached for that period, it will evolve, at each stage, to: (i) the 4th year before; (ii) the 5th year before. If the referred dimension is still not verified, the following universes will be used:

(i) for programmes, we will consider all graduates from programmes: 1st - with similar goals; 2nd - of the same cycle of studies; 3rd - of the school and IPB, successively, from any cycle of studies;

(ii) for course units, we will consider all students that have passed course units: 1st - with similar outcomes; 2nd - of the same programme, curricular year and semester; 3rd - of the same programme and curricular year; 4th - of programmes with similar goals and of same curricular year and semester; 5th - of programmes with similar goals and of the same curricular year; 6th - of the same programme; 7th - of programmes with similar goals; 8th - of programmes of the same cycle of studies; 9th - of the school and IPB, successively, from any cycle of studies.

#### 4.5 Overall classification of the qualification (in original language):

In the national classification scale: -

In the ECTS scale: -

## 5 Information on the function of the qualification

### 5.1 Access to further study:

The degree of "mestre" allows to proceed to 3rd cycle studies, according to the diagram of the Portuguese Higher Education System, provided by NARIC (<http://www.dges.mctes.pt/DGES/pt/Reconhecimento/NARICENIC/>) and presented in section 8 of the Diploma Supplement.

### 5.2 Professional status (if applicable):

The Diploma holder is qualified to apply for senior management positions in businesses and nonprofit organizations in the private and public sectors.

## 6 Additional information

### 6.1 Additional information:

Not applicable.

### 6.2 Further information sources:

<http://www.apnor.pt>  
<http://www.ipb.pt>  
<http://www.ipca.pt>  
<http://www.ipp.pt>  
<http://www.ipvc.pt>

## 7 Certification of the supplement

7.1 **Date:** 2-03-2016

7.2 **Signature:**

Carla Cidália Ribeiro da Costa

7.3 **Capacity:**  
Head of the Academic Services

7.4 **Official stamp or seal:**  
This document is officially stamped in all pages.

## 8 Information on the national higher education system

Description and diagram of the Portuguese Higher Education System, officially provided by NARIC (National Academic Recognition Information Centre) at <http://www.dges.mctes.pt/DGES/pt/Reconhecimento/NARICENIC/>.

### Description of the Portuguese Higher Education System:

The Framework Law on the Education System (Law nr. 46/86, dated 14 October 1986, further amended by Laws nr.115/97, dated 19 September and nr. 49/2005, dated 30 August) establishes the general legal framework of the Education System.

According to this Law, the educational system comprises three levels: basic, secondary and higher education.

Pre-school education is optional and is for children between the ages of three and the age of entering basic education.

Basic Education is universal, compulsory and free and comprises three cycles, the first cycle lasts for four years, the second lasts for two years and the third lasts for three years.

Secondary education is compulsory and it comprises a three year cycle (corresponding to 10th, 11th and 12th year of schooling).

#### Higher Education Structure

The first steps towards the legal reform of the system of higher education were made in 2005, with the introduction of the new credit system (ECTS) for the cycles of study, mobility mechanisms, diploma supplement, amongst others. Changes were also made to the Basic Law for the Education System in order to implement the Bologna Process.

The new structure divided into three cycles of studies was created in 2006 and it was completely implemented in Portugal in 2009/2010. Generic qualification descriptors were also defined for each of the cycles of studies, based on acquired competences, as well as the structure for the first and second cycles of study in terms of typical ECTS intervals.

Portuguese higher education includes university and polytechnic education. University education is offered by public and private university institutions while polytechnic education is offered by public and private non-university institutions. Private higher education institutions must be subject to the previous recognition of the Ministry of Education and Science. The higher education system comprises also a concordatory institution.

#### Licenciado degree

Both university and polytechnic institutions confer the degree of *licenciado (bachelor)*. In polytechnic education, the cycle of studies that leads to the degree of *licenciado* has 180 credits and a normal length of six curricular semesters of students' work. In certain cases namely those covered by internal legislation or by European legislation, the cycle of studies can have up to 240 credits with a normal length of up to seven or eight curricular semesters of students' work.

In university education, the cycle of studies that leads to the degree of *licenciado* has from 180 to 240 credits and a normal length between six to eight curricular semesters of students' work.

In the first cycle of studies the degree of *licenciado* is conferred, by universities or polytechnics institutions, to those that, after concluding all the curricular units that integrate the study programme of the *licenciatura* course, have obtained the established number of credits.

#### Mestre degree

Both university and polytechnic institutions confer the degree of *mestre (master)*. The cycle of studies that leads to the degree of *mestre* has from 90 to 120 credits and a normal length of between three to four curricular semesters of students' work or in exceptional circumstances, 60 credits and a duration of two semesters, resulting from a stable and consolidated practice in that specific field at international level.

In polytechnic education, the cycle of studies that leads to the *mestre* degree must ensure predominantly that the student acquires a professional specialization. In university education, the cycle of studies that leads to the *mestre* degree must ensure that the student acquires an academic specialization resorting to research, innovation or expansion of professional competences. In university education, the *mestre* degree may also be conferred after an integrated cycle of studies, with 300 to 360 credits and a

normal length of 10 to 12 curricular semesters of students' work, in cases for which the access to the practice of a certain professional activity depends on that length of time established by legal EU standards or resulting from a stable practice consolidated in the European Union. In this cycle of studies the degree of *licenciado* is conferred to those who have obtained 180 credits corresponding to the first six semesters of work.

The degree of *mestre* is conferred to those that, after concluding all the curricular units that integrate the study programme of the *mestrado* course, have obtained the established number of credits, as well as successfully defended in public their dissertation, their project work or their traineeship report.

#### Doutor degree

The *Doutor (doctor)* degree is conferred by universities and university institutes. The degree of *Doutor* is conferred to those that, after concluding all the curricular units that integrate the study programme of the *Doutoramento (doctorate)* course, when applicable, and have successfully defended their thesis in the public act.

#### Access conditions

##### General regime to accede to higher education

National and foreign students wishing to apply through the general regime to the first cycle of studies, must fulfil the following conditions:

- Have successfully completed a secondary course or a national or foreign qualification legally equivalent;
- Have set for the entrance examinations required for the degree programme the student wishes to attend and get the minimal mark required (there are higher education institutions that accept foreign tests or exams);
- Have fulfilled the prerequisites for the higher education course the student wishes to attend, if required.

##### Special conditions

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

##### Special Competitions

Besides the general regime and the special conditions there are also special competitions for applicants with certain specific qualifications thus allowing new publics to accede to higher education in a perspective of lifelong learning, namely:

- applicants over 23 years old who have passed a especial exam for assessing their capacity to accede to higher education;
- holders of a specialization technological course (non higher education post-secondary course).

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

##### Admission to the second cycle of studies

Those who meet the following conditions may apply to the cycle of studies that leads 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 competent scientific body of the higher education institution where one wishes to be admitted;
- Holders of an academic, scientific or professional curriculum vitae that is recognized as attesting the capacity to carry out this cycle of studies by the statutorily competent scientific body of the higher education institution to which they wish to be admitted.

##### Admission to the third cycle of studies

Those who meet the following conditions may apply to the cycle of studies that leads to the *doutor* (doctor) degree:

- Holders of the *mestre* (master) degree or legal equivalent;
- Holders of a *licenciado* degree who have a particularly relevant academic or scientific *curriculum vitae* that is recognized as attesting the capacity to carry out this cycle of studies by the statutorily competent scientific body of the higher education institution to which they wish to be admitted.
- Holders of an academic, scientific or professional *curriculum vitae* that is recognized as attesting the capacity to carry out this cycle of studies by the statutorily competent scientific body of the higher education institution to which they wish to be admitted.

**Classification System**

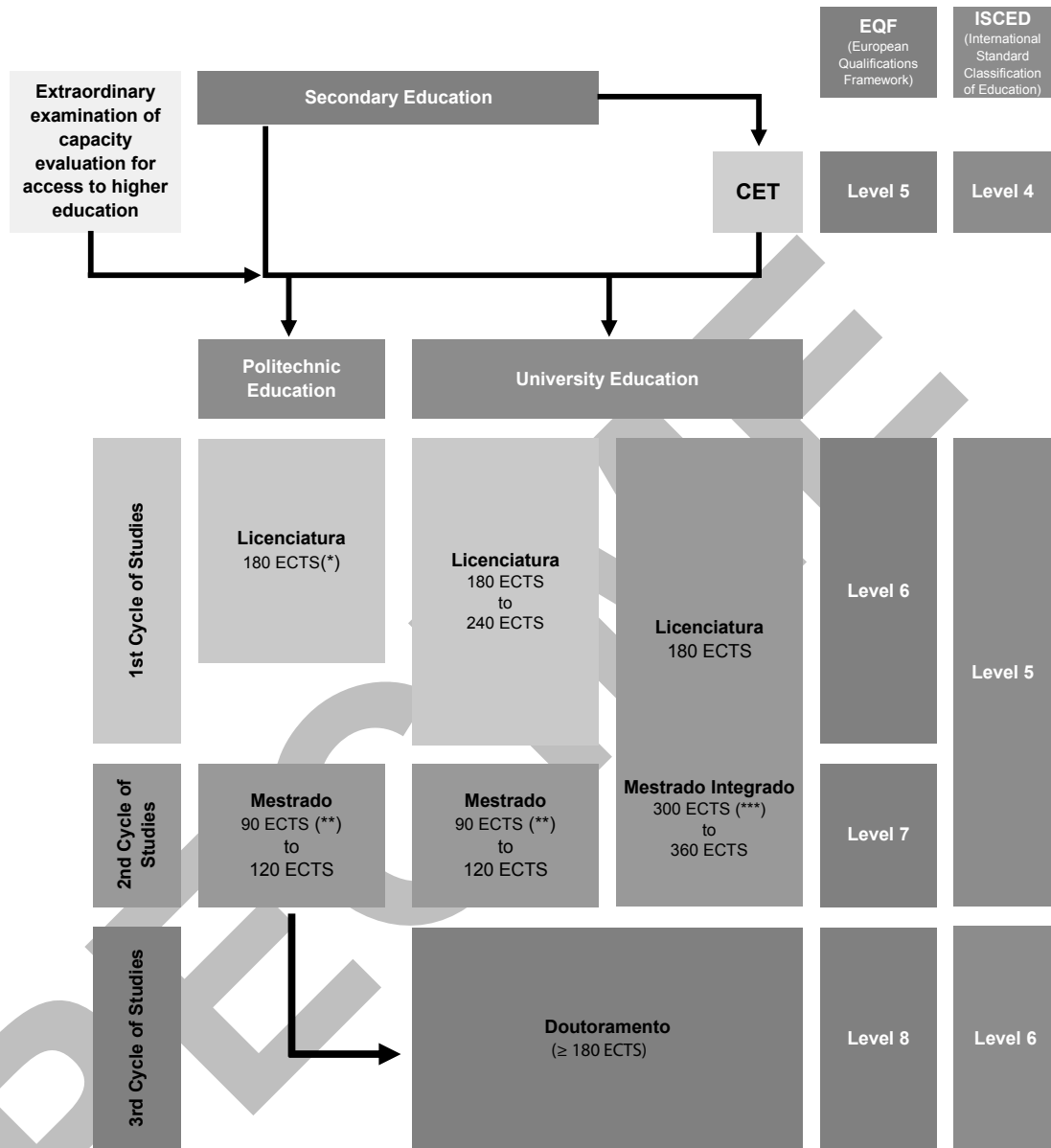
The degrees of *licenciado* and *mestre* shall have a final classification between 10 and 20 on a numerical scale of 0 to 20, as well as its equivalent in the European scale of comparability of classifications.

The academic degree of *doutor* is assigned a final classification pursuant to the regulating standards approved by the university that confers it.

SPECIMEN

This document is officially stamped in all pages.

**Diagram of the Portuguese Higher Education System according to Bologna:**



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

(\*\*) In exceptional circumstances, and subject to the fulfillment of every requirement relating to the definition of the objectives of the degree and the conditions for acquiring the latter, a cycle of studies leading to a Mestre degree in a specialized field may be amount 60 credits resulting from a stable and consolidated practice in that specific field at international level.

(\*\*\*) A Mestre degree may also be granted following an integrated cycle of studies of which the duration, for the purposes of obtaining access to a professional activity, a) is established by European Union regulations; and b) results from a regular and consolidated practice within the European Union; in such cases, a Licenciado degree is granted to students having obtained 180 ECTS (3 years, 6 semesters).

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## I Appendix Transcript of records

Year (*)	Sem. (**)	Course Unit	Academic Year	National Grade (***)	ECTS Grade (****)	ECTS Credits	Notes
1	1	Advanced Topics in Management	2015/2016	19 (Nineteen)	A	6	-
1	1	Organizational Behaviour	2015/2016	19 (Nineteen)	A	6	(1)
1	1	Economics and Corporate Finance	2015/2016	18 (Eighteen)	A	6	-
1	1	Managerial Instruments	2015/2016	18 (Eighteen)	A	6	-
1	1	Data Analysis	2015/2016	17 (Seventeen)	A	6	-
1	2	Advanced Human Resources Management	2015/2016	19 (Nineteen)	A	6	(1)
1	2	Innovation Management and Entrepreneurship	2015/2016	19 (Nineteen)	A	6	(1)
1	2	Quality Management	2015/2016	19 (Nineteen)	A	6	(1)
1	2	Strategic Management and Marketing	2015/2016	19 (Nineteen)	A	6	(1)
1	2	Option - Research Methodologies	2015/2016	19 (Nineteen)	A	6	(1)
<b>TOTAL</b>						<b>60</b>	

(\*) Curricular Year.

(\*\*) Semester: "1" and "2" are used for identifying 1st and 2nd semester curricular units, respectively, while "-" is used for annual curricular units.

(\*\*\*) National classification scale:

The overall classification of a course unit is expressed through a mark on a numerical integer scale from 0 to 20. In order to pass a course unit the student must obtain a mark not under 10.

(\*\*\*\*) ECTS scale:

The ECTS classification scale (European scale of comparability of classifications), for students that pass course units, is composed by five levels, identified by letters A to E, and aims to simplify the comparison between the classification scale used at national level and those current in other countries and to make more transparent the process of evaluation and the academic recognition of the results obtained. The conversion between this scale and the national classification scale is described in section 4.4 of this supplement.

### Notes:

(1) - Through the accreditation of the following higher education training, according to point a) of number 1 of the 45th article of the Decree-Law 74/2006:

Institution	Programme	Academic Year	Course Unit/etc.	Type	Grade	ECTS Credits
National Polytechnic University of Armenia	Economics and Management of Enterprises	2014/2015	Economics and Management of Enterprises	Semestral	19	36.0



**Contact:**

IPB International Relations Office

Joana Aguiar

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# **International cooperation and mobility**

**The recognition of degrees and equivalence  
procedures**

**Double-diploma projects**

**2016 ICM Meeting**

Bragança, 28th February - 12th March 2016