

[FREIE UNIVERSITÄT BERLIN] 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 why¹



1. INFORMATION IDENTIFYING THE HOLDER OF THE QUALIFICATION								
	Last name(s)		First name(s)					
1.1		1.2						
L	Date of birth (dd/mm/yyyy)	l	Place of Birth					
1.3		1.4						
2. INFORMATION IDENTIFYING THE QUALIFICATION								
	Name of qualification and (if applicable) title conferred		Main field(s) of study for the qualification					
2.1	Master of Science (M. Sc.)	2.2	Statistics					
L	Name and status of awarding institution (in original language)	I						
2.3	Humboldt-Universität zu Berlin, Freie Universität Berlin, Technische Universität Berlin, Charité – Universitätsmedizin Berlin							
	Name and status of institution (if different from 2.3) administering studies (in original language)		Language(s) of instruction/examination					
2.4	Mathematisch-Naturwissenschaftliche Fakultät, Humboldt-Universität zu Berlin	2.5	German and English					
	Wirtschaftswissenschaftliche Fakultät, Humboldt- Universität zu Berlin							
	Fachbereich Wirtschaftswissenschaft, Freie Universität Berlin							
	Fakultät VII Wirtschaft und Management, Technische Universität Berlin							
	Charité – Universitätsmedizin Berlin							
	3. Information on th	E LEVE	L OF THE QUALIFICATION					
	Level of qualification	Official length of programme						
3.1	Master's program (UNESCO, ISCED Code 5A)	3.2	2 years					
l	Access requirements(s)							
3.3	Bachelor degree in a subject with quantitative profile, like Economic Engineering, Informatics, Mathematics including Mathematics in Finance and Insurance							
	4. INFORMATION ON THE CONTENTS AND RESULTS GAINED							
	Mode of study		Programme requirements					

¹ Explanatory notes:

http://ec.europa.eu/dgs/education_culture/repository/education/policy/higher-education/doc/ds_en.pdf

		·					
4.1	Full time study Full time study Programme details (e.g. modules or units studied), and th Internship + Master Thesis (40 ECTS), Learning Outcome Time Series Analysis, Econometrics + Survey Statistics.	es (50 E	CTS) in Module Official Statistics + Statistical Software +				
	Time Series Analysis, Econometrics + Survey Statistics. See transcript of records enclosed. Grading scheme and, if available, grade distribution guidance Overall classification of the qualification (in original language)						
4.4	See transcript of records enclosed	4.5	Deutsche Note, ECTS Note				
5. INFORMATION ON THE FUNCTION OF THE QUALIFICATION							
	Access to further study		Professional status				
5.1	Doctoral programs	5.2	The Master degree entitles the holder to use the legally protected title "Master of Science (M.Sc.)" and to exercise professional work in the field of Statistics.				

6. Additional information							
Additional information	Further information sources						

6.1	See EMOS learning outcomes in Annex 1	6.2	Humboldt-Universität zu Berlin Mathematisch-Naturwissenschaftliche Fakultät: http://mathnat.hu-berlin.de Wirtschaftswissenschaftliche Fakultät: http://www.wiwi.hu-berlin.de Charité: http://www.charite.de			
			Freie Universität Berlin Fachbereich Wirtschaftswissenschaft: http://www.fu- berlin.de/en/einrichtungen/fachbereiche/wiwiss			
			Technische Universität Berlin Fakultät VII Wirtschaft und Management: http://wm.tu- berlin.de/menue/fakultaet_vii			
	7. CERTIFICATION OF THE SUPPLEMENT					
7.1	Date	7.2	Signature]		
7.1 7.3	Capacity	7.2 7.4	Official stamp or seal			
	Capacity	7.4				



Learning Outcomes European Master in Official Statistics programmes

I. Programme Profile

Eurostat launched the European Master in Official Statistics (EMOS) project in 2014 in order to establish an EMOS label and to create a network of Master programmes dealing with official statistics at the European level. EMOS is a joint project of universities and data producers in Europe aiming at providing students with an advanced training in the specific themes of statistics in general and official statistics in particular, supported by the complementary quantitative and statistical tools offered by the hosting university. The main objective of the EMOS is to enhance the abilities of students to understand and to be able to analyse European official data at different levels: quality, production process, dissemination, and analysis in a national, European and international context. This range of skills represents the ideal foundation for the development of professionals able to interpret the fast-changing official data production system of the 21st century.

Universities offering EMOS Master degrees collaborate actively with the national statistical institutes to reduce the gap between theory and practice. The EMOS learning outcomes are included in a degree designed for students aiming at economical/social/statistical knowledge-intensive careers. It contributes to offer a solid foundation for those willing to pursue a preparation in the field of data collection on societal and economic facts or other professional activities characterised by a strong need for awareness about the development, production and dissemination as well as use of official statistics.

II. Learning Outcomes :Graduates who have successfully completed an EMOS programme of 50 ECTS will be able to demonstrate knowledge about:

- 1) The system of official statistics
 - To be aware of the relevance of official statistics as information infrastructure for the society and of its principles;
 - To master the organisation and role of the European Statistical System (ESS), the European System of Central Banks (ESCB) and other official data producers and their legal bases, including those referring to confidentiality;
 - To be aware of the main institutions operating at national and international level and their data sources (e.g. Eurostat, ECB, IMF, ILO, BIS, UN, OECD, World Bank);
 - d. To understand the statistical principles in the European Statistics Code of Practice (for the ESS)² and the Public Commitment (for the ESCB) and how they apply to the different steps of data production and dissemination;
- 2) Production models and methods
 - To understand and be able to use different kinds of data sources (censuses, sample surveys – cross section, longitudinal –, administrative sources, big data, integrated sources) and critically evaluate pros and cons, also in terms of implications of the results;
 - b. To be able to design and manage data production processes, including the definition of the main dimensions of quality and how to monitor and evaluate them;
 - c. To be aware of different production models, including the business and enterprise architecture concepts applied to official statistics (e.g. metadata management, Generic Statistical Business Process Model, data archiving, mixed mode surveys, statistical standard classification);

- 3) Specific Themes
 - a. To be able to understand methodological issues related to some official statistics specific fields and to interpret correctly official statistics in the field (e.g. general and regional statistics, economy and finance, population and social conditions, industry, trade and services, agriculture and fisheries, international trade, transport, environment and energy, science and technology);
 - b. To be able to apply methods suitable to produce and analyse data in the specific field;
- 4) Statistical Methods
 - Knowledge of and ability to apply statistical methods such as sampling methods, small area estimation, nonresponse adjustments and imputation, treatment of big data, time series analyses, index theory, multivariate statistics, econometrics;
 - Critical capacity of framing analysis of statistical data within the context of editing, imputation, missing data problems, knowing the definition of metadata and paradata, data integration;
 - c. Ability to use statistical computer programmes such as SAS, R, SPSS or STATA;
- 5) Dissemination
 - d. Ability to present data in an effective way to different kinds of audience;
 - e. Understand confidentiality issues in the dissemination of official statistics and the main methods to ensure it (i.e. statistical disclosure control), especially when disseminating micro data;
 - f. To be aware of the different tools available for data dissemination and presentation of results (tables, charts in a static and dynamic web-based environment, data warehouses, advanced visual graphics, etc.).

² Laid down in Regulation (EC) No 223/2009 as amended as well as Council Regulation (EC) No 2533/98.