

General Learning Outcomes*:

	Study Plan	Extra Curricular	1	2	3	4	5	6	7	8	9	10
QM - Quality Management												
QM01 - Quality Systems												
QM0101	European Quality Policy and Infrastructures											
QM0102	Introduction to Quality Management											
QM0104	Laboratory Quality Systems: ISO/IEC 17025											
QM0106	Good Laboratory Practice											
QM0107	Laboratory Quality Systems: ISO 15189											
QM0109	How to convert an Analytical lab into an accredited lab											
QM0110	Pharmaceutical regulations											
QM02 - Management												
QM0203	Managing Instalations, Equipment and Consumables											
QM0204	Quality Systems Documentation											
QM0207	Laboratory Information Management Systems (LIMS)											
QM0208	Risk assessment in analytical laboratories											
QM0209	Advanced Risk Analysis											
QM03 - Traceability												
QM0302	Calibration and Verification											
QM0306	Proficiency Testing Schemes and Certified Reference Materials											
QM0307	Metrology in Chemical ANALYSIS: A Practice course											
QM05 - Methods of analysis												
QM0502	Method validation											
QM0503	Technical Writing											
QM0504	Internal Quality Control											
QM06 - Audits												
QM0601	Laboratory Audits (EN ISO 19011)											
QM07 - Safety												
QM0701	Chemical Safety and REACH regulations											
QM08 - Postgraduate skills												
QM0801	Language course - Intensive "survival" Portuguese											
QM0802	IT Tools											
QM0803	Laboratory Skills											
QM0804	Fieldwork Skills: practical implementation of quality management systems											
QM0805	Research Skills											
QM0808	Communication skills											
AM - Analytical Methods												
AM01 - Natural Water Analysis												
AM0101	Water Directive and CEN Standards											
AM0102	Water – sampling and General Characterization											
AM0104	Water — Metal Analysis											
AM0105	Water —Analysis of Organic Components											
AM0107	Chemical and biological treatment of wastewater											
AM02 - Food Analysis												
AM0205	Foods – Sample treatment											
AM0206	Functional Foods Analysis											
AM03 - Clinical Analysis												
AM0309	Fundamentals of Biochemical Analysis											
AM0310	Genetic testing											
AM05 - Environmental Analysis												
AM0507	Environmental samples monitoring											
AM0509	Environmental toxicology											
AM0510	Bioindicators and biomonitoring for environmental quality											
AM08 - Sampling												
AM0801	Design of Sample Strategies and sampling techniques											
AM09 - Advanced Techniques of Analysis												
AM0903	Introduction to Chromatographic Techniques											
AM0907	Molecular spectroscopy											
AM0908	Vibrational spectroscopy											
AM0909	Quantitative IR Spectroscopy											
AM0910	Atomic Spectroscopy											
AM0912	Fundamentals of Mass spectrometry and Hyphenated Techniques											
AM0918	Automated methods of analysis											
AM0919	Gas Chromatography											
AM0920	Liquid Chromatography											
AM0923	Extraction Methods in Analytical Chemistry											
AM0925	Quality Parameters and Optimization in Chromatography											
AM0927	The practice of Capillary Electrophoresis: optimization and method development											
AM0930	Microbiological analysis											
AM0931	Chromatographic analysis of complex systems											
DA - Data Analysis												
DA01 - Basic Statistics												
DA0101	Measuring variability and Error Propagation											
DA0103	Regression Analysis											
DA0104	Statistical Decision and Analysis of Variance											
DA02 - Uncertainty measurement												
DA0201	Introduction to Uncertainty Measurement											
DA03 - Chemometrics												
DA0301	Experimental Design and Optimization											
DA0302	Pattern Recognition and Classification											
DA0306	Fundamentals of Multivariate data analysis											
DA0315	Sample and variable selection methods for classification analysis in analytical chemistry											

I propose myself to follow the above Study Plan within the Erasmus Mundus Master in Quality in Analytical Laboratories and hereby submit it to

Name:

Signature:

Date:

*GLO:

- 1 - Design, implement and manage a Quality System
- 2 - Develop and evaluate a quality control scheme for a given type of measurement
- 3 - Fully understand, both at theoretical and practical level, a set of advanced analytical techniques
- 4 - Research, develop and validate new techniques and methods of analysis;
- 5 - Plan a validation program for a given method of analysis
- 6 - Identify critical aspects in a given method of analysis;
- 7 - Estimate the uncertainty for a given analytical result
- 8 - Develop Reference Materials
- 9 - Organize and evaluate interlaboratory comparisons
- 10 - Fully understand the current state of worldwide standardization and comparability of analytical results