MASTER OF APPLIED MATHEMATICS (8460112)

Introduce to the Program:

The Master training program of the major Applied Mathematics is an advanced program which meets the demands of the social economy and catches up with of the changing dynamic economy.

The Master degree training program produces the labor force that has specialized knowledge in the field of Mathematics, creativity, ability to use effectively Math Models, Math Softwares, calculations to solve the practical issues happening during working time. On the other hand, this program helps students master the research methodology to develop their careers and reach the international working standard.

Besides, many courses are based on the curricula of Top 100 reputable universities in the world.

Program structure:

The program is divided into 3 large courses which are progressed in 3 semesters, as below:
- **1st Semester:** Students will study general and fundamental courses;
- **2nd Semester:** Students will study specialist courses;
- **3rd Semester:** Students prepare master's dissertation in 6 months;

ADDRESS

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	Curriculum of Master program in Applied Mathematics:		

Course Code	Course title	Credit	Theory
A. General Knowledge		**15**	
FL700000	English	10	10
SH700000	Philosophy	3	3
IN700000	Research Methods	2	2
B. Fundamental and Specialist knowledge		**30**	
B.1 Mandatory courses			
MS701010	Advanced Functional Analysis	3	3
MS701020	Advanced linear algebra	3	3
B.2 Selective courses (select 8 courses, including 01 Advanced Topic)			
MS701030	Advanced discrete mathematics	3	3
MS701040	Real Analysis	3	3
MS701050	Partial Differential Equations	3	3
MS701060	Integral Transforms	3	3
MS701070	Partial Differential Equations in Mathematical Physics.	3	3
MS701080	Ill-Posed Problems	3	3
MS701090	Numerical Method for Solving Inverse Problems	3	3
MS701100	Complex Analysis	3	3
MS701110	Topological Vector Spaces	3	3
MS701120	Differentiation in Banach Spaces	3	3
MS701130	Degree Theory and Applications	3	3
MS701140	Numerical Analysis	3	3
MS701150	Finite Element Method	3	3
MS701160	Finite Difference Method	3	3
MS701170	Finite Volume Method	3	3
MS701180	Mathematical Methods for Digital Image Processing	3	3
MS701190	Advanced optimization	3	3
MS701200	Symbolic Computation	3	3
MS701210	Mathematical Statistics	3	3
MS701220	Advanced Theory of Statistics	3	3
MS701230	Stochastic processes	3	3
MS701240	Bayesian statistics	3	3
MS701250	MuTheoryivariate statistics	3	3
MS701260	Models of Financial Mathematics	3	3
MS701270	Applied informatics	3	3
MS701280	Theory of Polynomials and Applications	3	3
MS701290	Functional Equations	3	3
MS701300	Relations between Geometry and Algebra in High School	3	3
MS701310	Applications of Algebraic Equations in Geometry and Trigonometry	3	3
MS701320	Number Theory	3	3
MS701330	Coding Theory	3	3
MS701340	Mathematical Modeling in Mechanics	3	3
MS701350	Artificial Intelligence	3	3
MS701360	Reliability Analysis	3	3
MS701370	Advanced Topics in Applied Functional Analysis	3	3
MS701380	Advanced Topics in Applied Numerical Analysis	3	3
MS701390	Advanced Topics in Computational Statistics	3	3
MS701400	Advanced Topics in Methods of High School Mathematics	3	3
C. Master thesis		**15**	
MS701000	Master's Thesis	15	0
TOTAL		**60**	