

## COURSES IN BASIC SCIENCES

### Theoretical course requirement:

From the list of courses given below, the student should study at least one, as part of the requirements for the Master's degree.

#### Industrial Engineering and Management

096327*	Nonlinear Models in Operations Research
096575	Non-Cooperative Games
097334*	Integer Programming
098311	Optimization 1
098413*	Stochastic Processes
098414*	Theory of Statistics
098416	Theory of Probability

#### Mathematics

106156	Mathematical Logic
106173	Game Theory
106349	Advanced Probability
106380	Modern Algebra 1
106393*	Matrix Theory
106396*	Graph Theory
106383	Algebraic Topology
108324	Elements of Modern Analysis for Electrical Engineering
108327	Functional Analysis for Electrical Engineering

#### Computer Science

236308*	algebraic graph theory and combinatorial designs
236313*	Complexity Theory
236359	Algorithms 2
236374*	Probabilistic Methods and Algorithms
236508	Cryptography and Complexity
236518	Communication Complexity

#### Physics

116031	Quantum Information Theory
117140*	Math. Methods in Physics-Groups
118081*	Theory of Gravitation <b>or</b> 118130 Introduction to General Relativity
118122	Quantum Mechanics 3
118128	Advanced Solid State Physics <b>or</b> 118138 Graduate Solid State
118130	Introduction to General Relativity
118132	Quantum Field Theory 1
118137	Atom Photon Interactions

\* Courses marked \* will not be given 2018-2019