

Master of Statistics : indicative course overview of year 1
(ICP)

BIOSTATISTICS		(STATISTICAL) BIOINFORMATICS		EPIDEMIOLOGY & PUBLIC HEALTH METHODOLOGY	
Course ECTS	Course Name	Course ECTS	Course Name	Course ECTS	Course Name
SEMESTER 1 - COMPULSORY					
4	Concepts of Bayesian Inference	4	Concepts of Bayesian Inference	4	Concepts of Bayesian Inference
5	Project: Learning from data	5	Project: Learning from data	5	Project: Learning from data
5	Concepts of probability and statistics	5	Concepts of probability and statistics	5	Concepts of probability and statistics
5	Software and Data Management	5	Software and Data Management	5	Software and Data Management
8	Linear Models	8	Linear Models	8	Linear Models
SEMESTER 2 - COMPULSORY					
4	Nonparametric methods	4	Concepts of Bioinformatics	4	Concepts of Epidemiology
5	Sampling Theory	5	Introduction to Algorithms and Programming	5	Sampling Theory
6	Generalized Linear Models	6	Generalized Linear Models	6	Generalized Linear Models
6	Medical and Molecular Biology	6	Medical and Molecular Biology	6	Medical and Molecular Biology
8	Project: Multivariate and Hierarchical Data	8	Project: Multivariate and Hierarchical Data	8	Project: Multivariate and Hierarchical Data
4	Design of Agricultural Experiments (ICP)	4	Design of Agricultural Experiments (ICP)	4	Design of Agricultural Experiments (ICP)

**Master of Statistics : indicative course overview of year 2
(ICP)**

BIostatISTICS ICP		(STATISTICAL) BIOINFORMATICS ICP		EPIDEMIOLOGY & PUBLIC HEALTH METHODOLOGY ICP	
Course ECTS	Course Name	Course ECTS	Course Name	Course ECTS	Course Name
SEMESTER 1 - COMPULSORY					
3	Computer Intensive Methods	3	Computer Intensive Methods	3	Computer Intensive Methods
5	Principles of Statistical Inference	3	Statistical and Computational Methods for Integrated Analysis	5	Spatial Epidemiology
4	Survival Data Analysis	4	Advanced Programming	3	Environmental Epidemiology <i>or</i> Microbial Risk Assessment
6	Longitudinal Data Analysis	6	Longitudinal Data Analysis	5	Modeling Infectious Diseases
4	Topics in Advanced Modeling Techniques	5	Analysis of High Dimensional Omics Data	3	Mathematical Biology and Epidemiology
3	Planning of Health Studies (ICP)	4	Analysis of Protein Expression	3	Topics in Epidemiology
3	Optional course	3	Planning of Health Studies (ICP)	3	Planning of Health Studies (ICP)
				3	Optional course
SEMESTER 2 - Q3 - COMPULSORY					
5	Clinical Trials	3	Capita Selecta Computational Biology (ICP)	3	Capita Selecta Computational Biology (ICP)
3	Capita Selecta Computational Biology (ICP)	5	Advanced Methods for Genomics	5	Project: Incomplete Data
6	Master Thesis Biostatistics/ICP	6	Master Thesis Bioinformatics/ICP	6	Master Thesis EPI&PHM/ICP
SEMESTER 2 - Q4 - COMPULSORY					
18	Master Thesis Biostatistics/ICP	18	Master Thesis Bioinformatics/ICP	18	Master Thesis EPI&PHM/ICP

SEMESTER 1 - OPTIONAL COURSES, ONLY WITH PERMISSION OF EXAM BOARD					
3	Statistical and Computational Methods for Integrated Analysis	5	Principles of Statistical Inference	3	Statistical and Computational Methods for Integrated Analysis
5	Analysis of High Dimensional Omics Data	4	Survival Data Analysis	5	Analysis of High Dimensional Omics Data
4	Analysis of Protein Expression	4	Topics in Advanced Modeling Techniques	4	Analysis of Protein Expression
3	Topics in Bayesian Data Analysis	3	Topics in Bayesian Data Analysis	6	Longitudinal Data Analysis
3	Microbial Risk Assessment	3	Microbial Risk Assessment	3	Topics in Bayesian Data Analysis
5	Spatial Epidemiology	5	Spatial Epidemiology	4	Survival Data Analysis
3	Environmental Epidemiology	3	Environmental Epidemiology	5	Principles of Statistical Inference
5	Modeling Infectious Diseases	5	Modeling Infectious Diseases	3	Environmental Epidemiology <i>or</i> Microbial Risk Assessment
3	Mathematical Biology and Epidemiology	3	Mathematical Biology and Epidemiology		
3	Topics in Epidemiology	3	Topics in Epidemiology		
SEMESTER 2 - OPTIONAL COURSES, ONLY WITH PERMISSION OF EXAM BOARD					
3	North-South	3	North-South	3	North-South
5	Advanced Methods for Genomics	3	Data Mining	5	Clinical Trials
3	Data Mining	5	Clinical Trials	3	Data Mining
3	Advanced Topics in Clinical Trials	3	Advanced Topics in Clinical Trials	3	Advanced Topics in Clinical Trials
				5	Advanced Methods for Genomics