GRADUATE CERTIFICATE IN COMPUTER SCIENCE

ITC 5001  PROGRAMMING FUNDAMENTALS  3 US CREDITS
The course is addressed to students, who are new to programming and are interested in understanding the relevant techniques. It provides the opportunity to develop the algorithmic way of thinking, to gain experience in programming concepts, and to apply them through a programming language. The course combines theoretical concepts with hands-on experience.

ITC 5002  DATA ANALYTICS WITH R  3 US CREDITS
The course is addressed to students, who would like to know how to manage data, create models that explain the data, and making predictions about the data. The student will be acquainted with introductory statistics, data mining, and data management approaches. The course combines theoretical concepts with hands-on experience with R language.

ITC 5003  DATABASES  3 US CREDITS
The course focuses on the functions of a database system and its role as the foundation of modern information systems. It exposes students to planning, collecting data, designing, implementing, maintaining and managing databases. Finally, exposes the connection of a programming language (e.g. Python) to a relational database. The course combines theoretical concepts with hands-on experience.

ITC 5004  APPLIED MATHEMATICS  3 US CREDITS
Linear algebra: Matrices and matrix computations, vectors, linear systems of equations, determinants, inner product, eigenvalues and eigenvectors.