## 《数据科学算法》课程中英文简介

Algorithm in Data Science

课程代码：071613B **Course Code：**071613B

课程名称：数据科学算法 **Course Name：**Algorithm in Data Science

学时：48 **Periods：**48

学分：3 **Credits：**3

考核方式：考查 **Assessment：**Assignment

先修课程：程序设计基础 **Preparatory Courses：**The basic of Programming design

本课程的缘起“大数据”在今天成为一个非常重要的概念，其影响已经远远超过了计算机学科本身，甚至影响到了自然科学、社会科学、人文科学等。由于其深远的影响和广泛的应用，大数据一直得到IT从业人员的重视，他们对大数据相关理论、技术的学习有着强烈的需求。“算法设计与分析”是计算机科学的重要主题，进行大数据计算，“算法设计与分析”是必不可少的步骤，可以说，算法设计是“大数据落地”的关键之一。本课程使学生针对大数据算法设计与分析中的主要方法，通过介绍原理、举例说明、算法分析等多个角度进行阐述，清晰地讲解算法设计方法，严谨地分析和证明算法的特性，有利于培养学生独立设计与分析大数据算法的能力。

The origin of this course is that "big data" has become a very important concept today, its influence has far exceeded computer science itself, and even affects natural science, social science, the humanities and so on. Because of its far-reaching impact and wide application, big data has been paid attention by the IT practitioners, and they have a strong demand to learn big data related theories and technology. "Algorithm design and analysis" is an important subject of computer science. It is a necessary step to carry out big data calculation and "algorithm design and analysis". Algorithm design is one of the key points of "big data landing". This course enables students to explain the main methods in the design and analysis of large data algorithms, explains the algorithm design methods clearly and accurately, analyzes and proves the characteristics of the algorithm by introducing the principles, examples, algorithm analysis and so on. It is helpful for the students to develop the ability to design and analyze big data algorithms.