

Data Science and Big Data Technology

Guizhou University

** The information below is extracted from the curriculum for current Chinese students at the university, which will be adjusted for international students according to relevant requirements as appropriate. Therefore, please refer to the curriculum used in the year of entry as the final curriculum.*

1. Program Overview

University/School: College of Big Data and Information Engineering,
Guizhou University

Major: Data Science and Big Data Technology

Awarding Degree: Bachelor of Engineering

Duration: 4 years

2. Teaching Outcomes

Based on theories and methods on data science, telecommunication, Internet of Things (IoT) and computer science, in the context of the development of big data and cloud computing, this programme aims to foster talents who are able to work in the areas of information for research, engineering design and technology development in relation to large-scale processing, data mining, filing system development, database development, cloud computing, Internet and storage system. Graduates will be able to work as high-level professionals in industrial big data analysis and application with competencies of data collection, transmission, processing and analysis.

Requirements:

Students are expected to have strong foundation in data science with theories and knowledge in data collection, processing and analysis, basic methods and techniques in big data analysis, and basic problem-solving abilities for various industries through big data technology.

Graduates will be equipped with the following knowledge and abilities:

- 1) Healthy and ethical, with strong sense of social responsibility;
- 2) Solid foundation in mathematics and science, and mastery of one foreign language with basic abilities for listening, speaking, reading and writing;
- 3) Knowledge in natural science and mathematics for scientific research, methods for application, and technical services;
- 4) Basic theories and methods in data science and data management, as well as specialist knowledge in data collection, transmission, processing and application;
- 5) Abilities to discover new methods for big data processing and solve real-world problems;
- 6) Updated about new theories, application and trend of development in science and big data, with international vision and cross-cultural communication skills for competition and collaboration;
- 7) Organizational and managerial skills, communicative skills and people skills, team spirit.

3. Curriculum

Core Modules:

- Big Data Collection and Processing, Data Structure, Data Science Foundation, Data Warehouse and Data Mining, Data Visualization Principle, Distributed Processing and Cloud Computing, Big Data Analysis and Application.

Featured Modules:

- Bilingual Module: Data Structure
- Research Module: Big Data Analysis and Application
- Discussion Module: Social Network Experience and Analysis