it crafters
TRANSFORMING CAREERS

Data Analytics Program

Name of the continuing education institution
BCS Koolitus AS (hereinafter BCS Koolitus).

1. Name of the curriculum
"Data Analytics Program"

2. Curriculum group and basis for curriculum preparation
CURRICULUM GROUP: Software and Application Development and Analysis[1].

THE BASIS OF CURRICULUM COMPOSITION: Data Analyst Competency Profile, requirements for data processing and data analytics specialists presented in OSKA ICT[2] sector reports, international sources on continuing education, vocational, and higher education curricula for data analysts.

3. Objective and learning outcomes
OBJECTIVE: The aim of this training is to support the professional development of specialists working in, or entering, the field of data analytics by equipping them with the skills needed to use data in decision-making and in the development of business processes and services. The course enables participants to strengthen their ability to collect, analyse and clearly present data to support data-driven decision-making within organisations.

LEARNING OUTCOMES:
- understands the role of a data analyst in supporting business decisions and can identify the data required for effective decision-making;
- acquires and prepares data, assesses data quality, and carries out statistical and exploratory analyses;
- creates summaries and reports that support business functions and presents analytical results clearly and in a structured manner;
- supports decision-making processes by drawing conclusions from existing data and forecasting future scenarios;
- collaborates with a range of stakeholders within the organisation, understands business needs, and interprets data within the appropriate context;
- uses data analysis tools and applies them appropriately according to the task;
- follows ethical and data protection principles in data analysis and assesses security risks.

4. Target group and conditions for starting studies
The course is intended for individuals who wish to begin or advance a career in data analytics and contribute to data-driven decision-making within organisations. It is suitable for those who:

- have good computer skills, including the ability to manage files, use a variety of software, and navigate digital environments;
- have a strong interest in data analytics and, preferably, some prior experience in the field;
- possess at least a B2 level of English;
- are able to commit to a 4-month course.

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[1] According to the classification of curricula set out in the current continuing education standard and the list of curriculum groups established in the annex to the regulation, which is based on the international classification of education and training fields, the International Standard Classification of Education Fields of Education and Training (ISCED-F 2013).

[2] OSKA is Estonia's national labour market and skills forecasting system that outlines current and future competency needs across sectors. Its ICT sector reports define the key skills and qualification requirements for data processing and analytics

specialists.

5. Volume and structure of the study

VOLUME AND STRUCTURE OF THE STUDY:

Mentor meetings:	26 academic hours
E-learning[3] and independent study:	231 academic hours
The total amount of study:	257 academic hours (during 16 weeks)

LEARNING ENVIRONMENT

The training is based on the Google Data Analytics Professional Certificate available on the Coursera e-learning platform, which comprises nine English-language online courses. Within this curriculum, eight courses are completed. Further information is available here: https://www.coursera.org/professional-certificates/google-data-analytics.

ARISA's e-learning environment is used for the data protection module. Learners are also provided with 26 academic hours of group sessions with mentors. All learning is delivered online, including meetings with mentors.

6. Description of the learning process, including learning content, learning methods, and materials

E-COURSE AND CONTENT

E-course module	
1. Module – Data Collection, Preparation & Analysis Basics	**1. Introduction of the Program (2 academic hours mentor meetings)** • introduction to the training content and structure, trainers, assessment methods etc; **2. Introduction to data (36 academic hours independent study and 2 academic hours mentor meetings).** Foundation: Data, Data, Everywhere • Basic concepts of data analytics: data, data analysis, and data ecosystems; • analytical thinking and self-assessment; • spreadsheet software, query languages, and data visualization tools; • the role of a data analyst and its connection to the workplace; • ethical use of data. Ask Questions to Make Data Driven Decisions • Applying the problem-solving process in typical analysis scenarios; • using data in decision-making; • using spreadsheets to perform core tasks of a data analyst. **3. Data Preparation and Protection (25 academic hours independent study and 2 academic hours mentor meetings)** Prepare Data for Exploration • Data collection, databases: functions and components, best practices for organizing data

	[Protecting Your Data in AI-Powered Services and GDPR](#) (ARISA) Principles of GDPR, fundamentals of personal data processing, data subject rights, and data protection when using artificial intelligence **4. Data Quality and Cleaning (21,5 academic hours independent study and 2 academic hours mentor meetings)** [Process Data from Dirty to Clean](#) • Data quality, sample-based datasets; • basic SQL functions and queries; **5. The Fundamentals of Data Analysis (33,5 academic hours independent study and 2 academic hours mentor meetings)** [Analyze Data to Answer Questions](#) • The importance of organizing data before analysis: sorting and filtering; • data conversion and formatting; • SQL queries to join data from multiple tables; • using functions for basic calculations and pivot tables in Google Sheets.
2. Module – Applied Data Analysis & Visualization	• **Data visualization (24 academic hours independent study and 2 academic hours mentor meetings)** [Share Data Through the Art of Visualization](#) • Data visualization for presenting data and analysis results; • Tableau as a data visualization tool and its applications; • data-driven storytelling; principles and practices for effective presentations. • **Introduction to Data Analysis Using Python (36 academic hours independent study and 2 academic hours mentor meetings)** [Introduction to Data Analysis Using Python](#) • Explain how Python is used by data professionals; • understand loops, control statements, and string manipulation; • explore basic Python building blocks, including syntax and semantics; • use data structures to store and organize data. • **Case Study and Using AI for Data Analysis (15 academic hours independent study and 2 academic hours mentor meetings)** [Google Analytic Capstone](#) • The complete data analysis cycle, data-driven decision making, and using artificial intelligence for data analysis.
3. Module - Graduation Project	**Graduation project (40 academic hours independent study and 10 academic hours mentor meetings)** Group selects a research problem to work on and finds or creates an example dataset to answer that research problem. The graduation project should include five parts: problem statement, plan

	for analysis, description of data, data analysis and results presentation. On the last day of the course, each group has 10 minutes to present their work to others

- E-course lectures
- E-course video lectures
- Workshops with mentor
- Practical exercises

STUDY MATERIALS:

The main learning materials are videos and digital materials.

7. Evaluation, i.e. conditions for completing studies
- Completion of all mandatory Coursera e-learning courses
- Participation in at least 75% of workshops
- Completion and presentation of the final project

8. Documents to be issued
Learners who have achieved the learning outcomes and successfully passed the assessment will be issued a certificate in accordance with the applicable continuing education standard in Estonia.

If participant fails to meet at least one of the following conditions, a certificate of participation will be issued: not completing all mandatory Coursera e-learning courses, participating in fewer than 75% of workshops and not completing graduation project.

9. Qualification of trainers
Trainers have extensive experience in the field of data analytics and, within the last three years, have conducted at least two training projects in the data analytics field.

10. Language of study
Course is conducted in English.

11. Curriculum created
05.02.2026