Microsoft Skills For Jobs

Microdegree Program

LEARNER-CENTRIC | WORLD-CLASS | FUTURE-READY | GLOBAL EMPLOYABILITY | PATHWAY TO HIGHER EDUCATION

Data Engineering

A joint program by Microsoft, KAMK University, Leading EU Universities and Global Tech Companies with European Higher Education Transfer Credits (ECTS)

ECTS
European Credit Transfer System

DATA ENGINEERING

SELF-PACED | 7 CERTIFICATES | ONLINE | IN-CLASS MENTORSHIP | ASSIGNMENTS AND EXAM BASED

IN PARTNERSHIP WITH GLOBAL MENTOR COMPANIES

DATA ENGINEERING MICRODEGREE PROGRAM BROUGHT TO YOU BY

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What is it?

The Microsoft Skills for Jobs Microdegree Program is designed to help you build **real-world tech skills** that employers want and a pathway for higher studies in EU countries.

Microdegree Programs focuses on **in-demand technology** areas like cybersecurity, cloud computing, Low code tool set, AI, data analytics, and more. The program is built around **practical, job-relevant skills and uses a flexible, self-paced learning** model that fits your schedule.

Whether you are a student, recent graduate, freelancer, technology professional, career changer, or an individual seeking skills for employment without pursuing a full degree or diploma, this program is tailored for you.

You will learn through high-quality courses jointly developed by **Microsoft, in partnership with KAMK University of Applied Sciences (Finland), leading EU universities and global tech companies (GTC).**

The courses follow the **European Credit Transfer and Accumulation System (ECTS),** meaning your credits and certificates are internationally recognized for quality international and local jobs and higher studies in EU countries. The Microsoft Skills for Job Microdegree Program is an online program designed for self-paced learning, with in-class mentorship (region-specific) to support your journey.
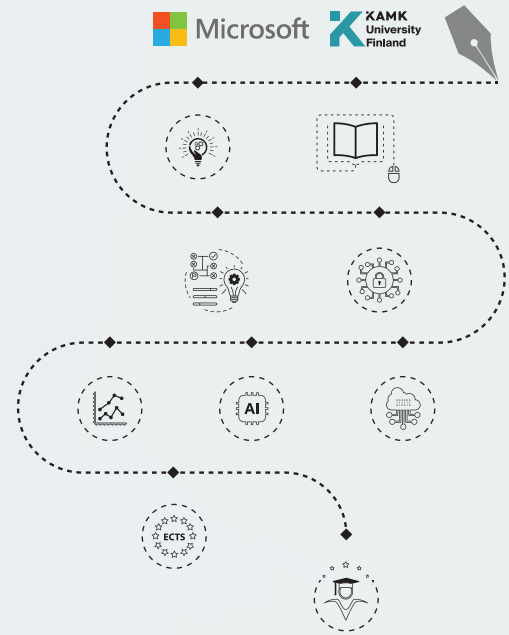
You will receive:
· ECTS credits for each course
· Digital badges
· Course Certificates from Microsoft and KAMK University
· Professional Certificate from Microsoft and KAMK University

Concepts & Technologies	**ECTS Credits**	**Course Certificates**	**LinkedIn Badge**
Online Verification	**International Jobs**	**Local Jobs**	**Study Abroad**

Microdegree Program Goals

- Validate your skills and knowledge for the global job market
- Gain a competitive edge in today's evolving employment landscape
- Upskill or reskill to support career growth and advancement
- Bridge the gap between academic learning and real-world industry demands
- Create a pathway to higher education opportunities in EU countries
- Promote lifelong learning through flexible, targeted, and accessible education

The Microdegree Program is Designed For

- **University students** seeking hands-on, career-relevant qualifications
- **Job seekers** aiming to stand out in a competitive recruitment process
- **Career changers** acquiring new digital skills to enter the IT industry
- **Freelancers** looking to expand services and increase earning potential
- **Working professionals** focused on efficient upskilling or reskilling
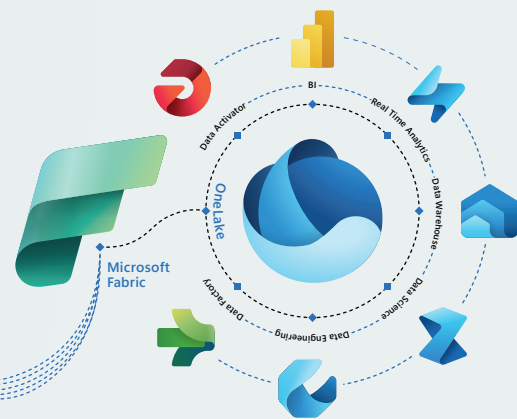- **Organizations** investing in certified microlearning for employee development
- **Students** planning for higher education in European & North American Universities

Data Engineering Microdegree Program

RDBMS

Traditional Analytics'BI

Data Lakes

Cloud Data Stores

Apps & Doc. Repositories

Microsoft Fabric

Data has become one of the most valuable resources in today's digital world. Organizations across every industry rely on data to make informed decisions, enhance services, and drive innovation. **Data Engineering** is the process of designing, building, and maintaining systems that collect, store, transform, and make data available for analysis. Combined with **Data Skills,** it equips the program graduates with the ability to understand, process, and communicate insights from complex datasets, enabling smarter and faster decision-making. The Data Engineering Microdegree Program provides the foundations for working with data and builds advanced expertise in data engineering using **Microsoft Azure, Power BI, Synapse Analytics, and Microsoft Fabric.**

The Data Engineering Microdegree Program consists of six courses, brought to you by Microsoft, KAMK University, and global mentor companies. **Build a Strong Foundation in Data & Cloud,** learn about data roles, relational and non-relational databases, cloud adoption, and Microsoft Azure services. **Master Data Analytics with Power BI,** gain hands-on experience in preparing, cleaning, modeling, and visualizing data. **Engineer Data Pipelines,** work with Azure Synapse Analytics, Data Lakes, Apache Spark, and data pipelines. Explore Modern Architectures, understand data warehouses and lakehouses, and learn how to secure, monitor, and optimize large-scale data environments. **Leverage Microsoft Fabric,** orchestrate real-time intelligence, work with Delta Lake tables, implement medallion architecture, and manage environments with governance and compliance. **Apply AI in Data Contexts,** explore Azure AI services, document intelligence, computer vision, and natural language processing to enrich data insights. By the end, program graduates will have both **technical expertise and the problem-solving mindset** to manage and analyze data for real-world business applications.

Earn Globally Accepted Industry & Academia Recognized Credentials

- 6 Course Certificates issued by Microsoft and KAMK University
- Domain Professional Certificate issued by Microsoft and KAMK University
- Course skills qualification badges
- 9 ECTS credits transcript from KAMK University
- LinkedIn badge
- QR-verifiable Certificates for global authentication

Job Roles For Graduates

Data Analyst.	Interpreting data to provide business insights.
Business Intelligence Developer.	Designing reports, dashboards, and BI solutions.
Data Engineer.	Building and managing data pipelines, warehouses, and scalable storage systems.
Cloud Data Specialist.	Implementing cloud-native data solutions with Azure.
Machine Learning/ Data Science Associate.	Supporting AI-driven analytics through clean, structured data.
ETL Developer.	Extracting, transforming, and loading data across platforms.

Microsoft Skills For Jobs
Data Engineering Microdegree Program

Study Program

Certificate	Course	Online / Supervised	Mentorship-GTC	Online Assessments	ECTS Credits	Course Certificate
01	Exploring Microsoft Azure	54 Hours	04 Hours	Yes	02 Credits	Completion Certificate
02	Exploring Artificial Intelligence	54 Hours	04 Hours	Yes	02 Credits	Completion Certificate
03	Exploring Data And Analytics	27 Hours	04 Hours	Yes	01 Credit	Completion Certificate
04	Data Analytics with Power BI	27 Hours	04 Hours	Yes	01 Credit	Completion Certificate
05	Data Engineering with Azure	54 Hours	04 Hours	Yes	02 Credit	Completion Certificate
06	Data Engineering with Fabric	27 Hours	04 Hours	Yes	01 Credit	Completion Certificate
		243 Hours			09 Credits	

*Region-Specific

Students earn the Data Engineering 'Professional Certificate and Shareable Badge' after completing all 6 courses

6 Course Certificates

Professional Certificate

COURSE 1
Exploring Microsoft Azure

UNIT 01
INTRODUCTION TO AZURE

1. Basics of Azure
2. Physical Infrastructure
3. Management Infrastructure
4. Computing Service
5. Virtual Networking

UNIT 02
DATA, STORAGE AND SAFETY

1. Azure Storage
2. Storage Services
3. Data Migration
4. Authentication and Authorization
5. Conditional Access

UNIT 03
GOVERNANCE AND COST MANAGEMENT

1. Project Management in Azure
2. Managing with Azure Arc
3. Governance and Compliance
4. Cost Management
5. Summary

COURSE 2
Exploring Artificial Intelligence

UNIT 01
GETTING STARTED WITH AZURE AI

1. Fundamental Concepts of AI
2. Introduction to Machine Learning
3. Supervised Learning
4. Unsupervised Learning
5. Azure and AI

UNIT 02
AZURE AND COMPUTER VISION

1. Fundamental Concepts of Computer Vision
2. AI and Facial Recognition
3. Recognizing Characters with AI

UNIT 03
AZURE AND NATURAL LANGUAGE PROCESSING

1. Fundamental Concepts of NLP
2. Question Answering
3. Conversational Language Understanding
4. Azure and AI Speech

UNIT 04
AZURE AND GENERATIVE AI

1. Fundamentals of Generative AI
2. Azure OpenAI Services
3. AI and Copilots
4. Responsibility and Ethics

UNIT 05
AZURE AND DOCUMENT INTELLIGENCE

1. Fundamental Concepts of DI
2. Azure and Cognitive Search
3. Enriched Data and Query Design
4. Azure AI Search
5. Summary

COURSE 3
Exploring Data and Analytics

UNIT 01
FOUNDATIONAL DATA CONCEPTS

1. Identifying Data
2. Databases and Processing
3. Data Roles and Services

UNIT 02
RELATIONAL AND NON-RELATIONAL DATA

1. Exploring Relational Data
2. Relational Databases in Azure
3. Adopting Cloud Services
4. Exploring Non-relational Data
5. Fundamentals of Azure Cosmos DB

UNIT 03
DATA ANALYTICS IN AZURE

1. Large-scale Analytics
2. Real-time Analytics
3. Data Visualization
4. Summary

COURSE 4
Data Analytics with Power Bi

UNIT 01

GETTING STARTED WITH DATA ANALYTICS

1. Discovering Data Analytics
2. Getting Familiar with Power BI
3. Preparing Data for Analytics
4. Preparing Data and Troubleshooting
5. Simplifying and Cleaning

UNIT 04

MANAGING WORKSPACES AND DATASETS

1. Managing Workspaces in Power BI
2. Managing Semantic Models
3. Creating Dashboards
4. Implementing Row-level Security
5. Summary

UNIT 02

MODELING DATA SECTIONS

1. Essential Data Structures
2. Defining Frameworks
3. Setting Up Semantic Models
4. Data Granularity and DAX
5. Understanding Measures
6. Optimizing Model Performance

UNIT 03

VISUALIZING DATA SECTIONS

1. Report Design Requirements
2. Designing Data Reports
3. Configuring Filters
4. Performing Analytics

COURSE 5
Data Engineering with Azure

UNIT 01

GETTING STARTED WITH DATA ENGINEERING

1. Data Engineering and Azure
2. Introduction to Azure Data Lake
3. Querying Data with Azure Synapse Analytics
4. Transforming Data in a Data Lake
5. Creating a Lake Database

UNIT 04

DATA WAREHOUSES AND LAKEHOUSE ANALYTICS

1. Planning Transactional and Analytical Processing
2. Implementing Processing Solutions
3. Managing Solutions with Azure Synapse Link
4. Summary

UNIT 02

TRANSFERRING AND TRANSFORMING DATA

1. Exploring Data Pipelines
2. Enhancing Pipelines with Spark Notebooks
3. Transforming Data with Spark
4. Analyzing Data with Apache Spark

UNIT 03

DATA ANALYTICS IN AZURE

1. Introduction to Data Warehouses
2. Setting Up Relational Data Warehouses
3. Managing Data Warehouses
4. Securing Data Warehouses

COURSE 6
Data Engineering with Fabric

UNIT 01

GETTING STARTED WITH MIRCOSOFT FABRIC

1. Introduction to Microsoft Fabric
2. Orchestrating Processes and Data Movement
3. Real-Time Intelligence in Microsoft Fabric
4. Real-Time Eventstreams
5. Working with Real-Time Data

UNIT 04

MANAGING FABRIC ENVIRONMENTS

1. Implementing CI/DC Policies
2. Monitoring Fabric Activities
3. Securing Data Access
4. Administering Fabric Environments
5. Summary

UNIT 02

IMPLEMENTING A LAKEHOUSE INFRASTRUCTURE

1. End-to-end Analytics and Lakehouses
2. Apache Spark and Microsoft Fabric
3. Working with Delta Lake Tables
4. Organizing Lakehouses with Medallion

UNIT 03

IMPLEMENTING A DATA WAREHOUSE

1. Foundations of a Data Warehouse
2. Loading Data into a Warehouse
3. Querying a Data Warehouse
4. Monitoring a Data Warehouse
5. Securing a Data Warehouse

Eligibility

Eligibility Criteria	Details
English Language	A good command of the English language is required, as all course content, assignments, and communication are conducted in English.
Prior Knowledge	Not required. Anyone can enroll.
Recommended Background	Basic IT awareness is helpful but not mandatory.
Learning Format	Online with mentorship classes, self-paced and browser based (no downloads).
Assessment Method	Pass or fail assignments.
Hardware with Internet Access	Laptop, Tablet or Smartphone.
Study Program Duration	The Edukamu Learning Management System (LMS) remains accessible for 12 months to complete the Microdegree Study Program. On average, students finish their chosen Microdegree within 3–5 months, depending on the specific program selected.

For inquiries and partnerships outside the EU, please contact:

Exclusive Authorised Academic and Training Partner

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