The Data Analysis program for high-school major in Israel

The evolution of technology accelerates information overload, and we have witnessed this very strongly in recent years following the Corona Pandemic. At this time of crisis, we are repeatedly exposed to decisions that are based on different data sources. These decisions are often presented to us visually as a way to make the information more accessible (storytelling, visualization).
In recent years, the Data Analysis profession has risen to the top of the list of required jobs. The role of Data Analysts is to process vast amounts of data and transform them into data-driven recommendations.
To handle information load, visualize and understand data, produce meaningful insights, and exercise critical thinking – tools and skills are needed. As part of the studies in the Data Analysis program for high school, students experience these skills while dealing with current and relevant information and exercising data-driven research methods.
Specifically, students experience a variety of techniques, such as Data Mining (DM), information management, information analysis (using different technologies), and information visualization with plots, dashboards, and presentations as they engage in knowledge management and address ethical issues. Students further learn descriptive statistics, using complex off-the-shelf data analysis tools and more.
Learning in the program is carried out in an innovative and experiential, 'hands on' learning concept that is adapted, among other things, to remote learning such as MOOC, Flipped Classroom, Problem Based Learning, and Gamification. Students also learn by watching short videos (micro-learning) and applying the information learned through challenging questions and tasks.
Learning in the program emphasizes developing and strengthening skills, such as independent learning, entrepreneurial thinking, creativity, collaborative learning, critical thinking, planning ability, and process thinking.

The Data Analysis program is a ten-study unit major (BAGRUT). It is intended for outstanding students with excellent verbal abilities and high analytical thinking who are interested in taking a pivotal role in the technology industry of the 21st century.
The final exam is computerized and includes open book questions, in which students must demonstrate their ability to find and apply information and knowledge.
The final project is an analytical report using a dashboard for visualizing data and deriving recommendations based on these data.
Learning materials are currently in the process of being adapted to both Arab and ultra-Orthodox societies.

To learn more about the program

for further details
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The data analysis program includes the following topics:

Introduction to data analysis
Data Collection
The information pyramid
Search for information
Information evaluation
Data retrieve
Information Ethics
Data and information Analysis
Data governance
Descriptive Statistics
Excel
decision making and conclusions
knowledge management
Visualization
The power of visualization
Ways to display data
messaging
Visualization tools
Analytical research and Benchmark
Principles of scientific research