

Actuarial and Financial Mathematics

Enrichment programs are one of the most important global methods used to enrich the knowledge of gifted students. From this point of view, Mawhiba has designed specialized scientific enrichment units representing 75% of the program, enriching students' knowledge and experiences and challenging their abilities in a number of scientific fields, in cooperation with the best international expert houses in the field of Talent and creativity, provided with progressive levels of knowledge; With the aim of continuing to build quality cumulative scientific experiences, which increase in depth and diversity as students progress in participation year after year.

As well as for the importance of the skill aspect, Mawhiba allocated 25% of the summer enrichment program, and therefore a set of skill bags were designed that are concerned with building the basic and important life skills of gifted students, which contribute to the development of personal, social and innovative skills that keep pace with the skills of the twenty-first century such as future vision and digital security. leadership, social influence and other skills .

What is the Actuarial and Financial Mathematics unit?

This unit focus on the actuarial and financial mathematics and the functions of the actuary, and how the actuary deals with problems related to risks using examples from finance, investments, and banking services and insurance, and how actuarial science uses mathematical and statistical methods to assess risks in economic enterprises and other professions. The module is carefully designed so that those without knowledge of calculus and advanced mathematics can learn a lot about this science and what the actuary does.

Unit objectives

students shall learn the importance and origins of actuarial and financial mathematics, math operations on dates, periods, simple and compound interest, periodic payments, loans and depreciation of fixed assets, Evaluation of cash flow series, calculate probabilities using a life table, incorporation of uncertainty into the cash flow resulting from investment and death, simulation of uncertain cash flows, application of actuarial

methods to life insurance and forecasting the expected average of human life, and how to use actuarial mathematics in financial resources, investments, banking and insurance.

The skills that students will acquire

Students will be able to build and develop basic skills, such as “teamwork, problem solving, reading and analyzing scientific literature, demonstrating understanding through oral and written communication, in addition to a number of targeted skills, which are provided through training packages appropriate to the age group, provided by Specialized and trained staff, including:

- Future vision.
- Digital security.
- Leadership and social influence.

Program components

- A specialized enrichment scientific unit.
- Practical activities and scientific projects.
- Skill activities.