epistemon

presents

Lycée numérique

Open Yourself to Excellence

A new leader in the fields of publishing and digital training

epistemon

Excellence in Mathematics

Tomorrow's major challenge

- In France, an estimated 2.4 million jobs are directly linked to the study of mathematics. This represents 10% of all jobs in France and accounts for 15% of French GDP.
- The number of people employed in math-related professions has risen consistently in the past decade. There is no indication that this trend will slow down or level off.
- Comparable numbers can be seen in developed countries throughout the world.

The field of mathematics is a major source of growth and potential for investment in training programs

Business opportunities made possible by the study of metadata in the fields of research, manufacturing and services indicate that the labor market's demand for mathematically trained engineers, technicians and other salaried positions will continue to increase.

The social and economic impact is undeniable. Those who have been through mathematical training and scientific research already make up more than a quarter of all executive positions in associated fields.

In the coming years, the world's most successful and innovative companies envision a 300% increase in the number of mathematicians in their employ.

Mathematicians have become integral to the continued development of the global economy.

The future of the industry and the creation of Epistemon

Epistemon is deeply invested in all publishing ventures involved in training and research. It is also engaged in developing a dedicated e-learning component for students and teachers, which will allow both to pursue the most ambitious curriculum possible. Within Epistemon, distance learning is conceived of and operated by the ***Lycée numérique (Digital High School).***

High-quality training, innovative teaching

Lycée numérique

The Internet is a remarkable and complex tool. Understanding the way we interact, emulate, and question it is essential for expanding our knowledge.

The choice of training material is based on this fact and aims to make students active participants during the program. In other words, students must learn to be ambitious, to challenge themselves intellectually, and to progress by exchanging ideas with professors and peers alike.

The ***Lycée numérique*** provides a dynamic approach that gives students the ability to fully develop themselves, combining individual reflection and collaborative thinking, both of which are essential to confronting the varied and complex challenges of today.

A democratic access to excellence

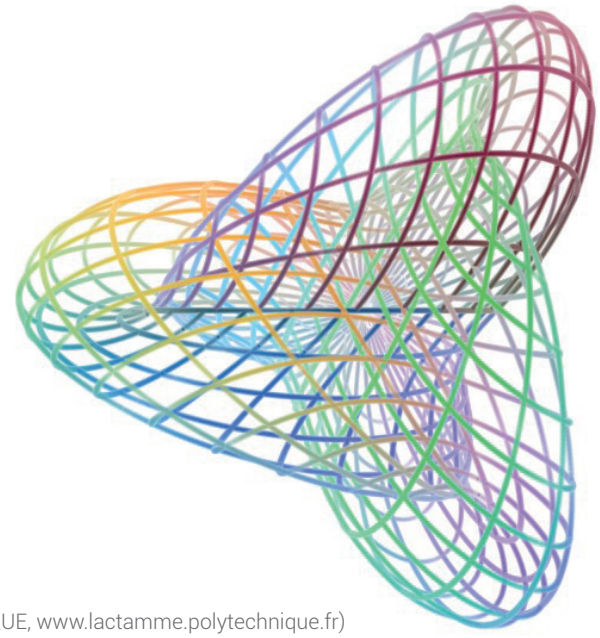
The ***Lycée numérique*** opens its doors to all students at the cusp of higher education, generally during their final year of secondary training. By providing the same possibilities for advanced science and mathematic training to all talented and hardworking students, the ***Lycée numérique*** aims to democratize access to top-level education.

An international program

Open to all, the ***Lycée numérique*** is currently developing an English language program. Soon, each student will be able to choose his or her language of study (French or English) at the time of registration.

Professional support from leading figures in the global economy

The ***Lycée numérique*** maintains a powerful and close-knit network of renowned teachers and intellectuals. It also receives support from leading figures in the industry, people who are attuned to ensuring the highest quality in scientific training for the industry's future managers and leaders.



Boy's Surface

Mathematics and progress in an ever-changing world

The ***Lycée numérique*** program begins with a rigorous introductory mathematics course. The digital coursework is enriched by numerous exercises and diverse problem sets, so that scientific research and a critical analysis of the solutions can guarantee a deeper understanding of the course material. Students submit their coursework online, whereby professors can engage with them by providing extensive feedback and corrections.

The program's coursework does not rely solely on official textbook material. This allows for a more comprehensive and holistic overview for students enrolled in a science diploma program (*Terminale S*).

Exchanges between students and professors are both encouraged and frequent. Online forums are accessible anytime, and a weekly live-chat further adds to a unique and rigorous experience.

Students are highly encouraged to engage with their peers. Group projects are emphasized through collective research of complex issues, in hopes of leading students towards further inquiry.

Mathematical training in preparation for higher education

A majority of the professors at the ***Lycée numérique*** have taught advanced-level *Terminale S* programs as well as preparatory courses at Louis le Grand High School. The ***Lycée numérique*** program is intended for highly motivated students who wish to discover what it means to study mathematics and science at the next level.

This is why the ***Lycée numérique*** is primarily concerned with providing a strong foundation in elementary mathematics to all of its students.

Our professors recognize the joys and advantages of pursuing a rigorous course of intellectual development. The *Lycée numérique* program was designed in this light.

By the end of high school, students will acquire

- valuable skills in academic rigor and critical reasoning.

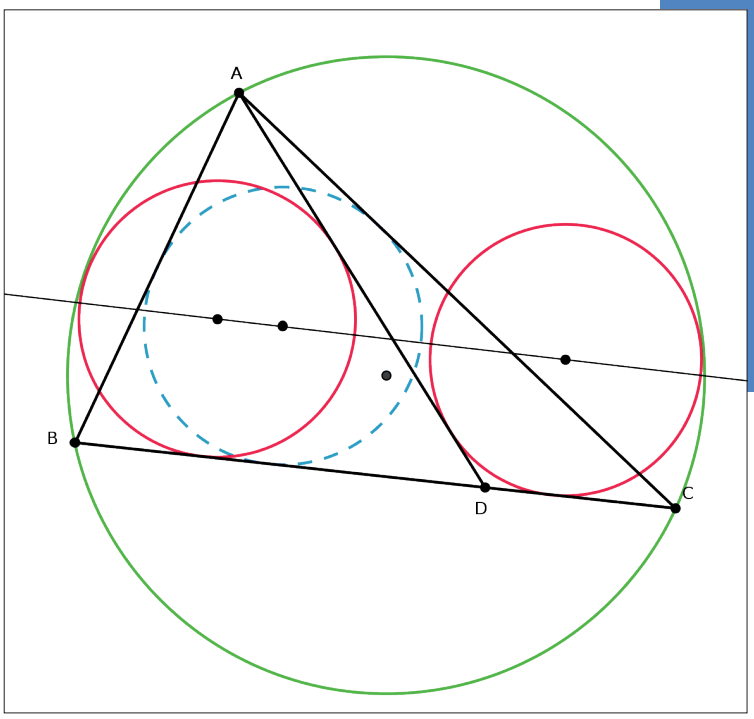
Students will learn how to

- Conduct individual research and learn how to work towards complex solutions by themselves,
- Write reports and calculate problem sets with precision, without fear of confronting complex subjects in order to acquire new insight and knowledge.

This is what the ***Lycée numérique*** promises its students.

Introducing students to the joys of learning and succeeding

This approach promotes science education by helping students choose their desired course of scientific study, all the while ensuring a smooth transition from high school to future university studies.



SAWAYAMA-THEBAULT THEOREM

Given any triangle ABC, and any point D on [BC], construct the incircle and circumcircle of the triangle. Then construct two additional circles, each tangent to [AD], [BC], and to the circumcircle. Then their centers and the center of the incircle are collinear.

Not just course material, intellectual food for thought

The ***Lycée numérique*** serves as a counterpoint to the widespread assumption that mathematics should only concern itself with the best students.

Although this is a common belief, it is contradicted by social and academic data.

While high quality science and math programs continue to simplify, this has not led to an increase in the number of science and math graduates. At the same time, the number of students pursuing scientific degrees continues to decline. This can partially be explained by the choice made by *Terminale* students who are finishing their diplomas: forced to engage in repetitive homework exercises and busy work instead of actively trying to solve complex problems, high school students currently show little motivation for mathematics and science. The assumption is that these high school students are not prepared for scientific courses of study because they lack the necessary foundations ... Small wonder why so many shy away from science and math.

Consequently, it is essential to confront the needs of curious and interested students in order to get them engaged in science and math and better understand the respective fields.

Nonetheless, it is also important to inspire students to study science and math by providing intellectual challenges that peak their curiosity and allow them to flourish.

Trusting the student gives the student confidence

Make no mistake: the continued excellence in the field of French mathematical research, as demonstrated in countless international academic journals, Fields Medals and other prestigious awards, cannot mask some of our young graduates' lack of mathematical proficiency.

Mathematics inspire all other domains

While the field of mathematics continues to develop on its own, it also is intimately connected to other scientific and technological disciplines. The field of mathematics provides a means of representation, surely, but also innovative ways of thinking in order to calculate, solve, decide upon and predict various problems.

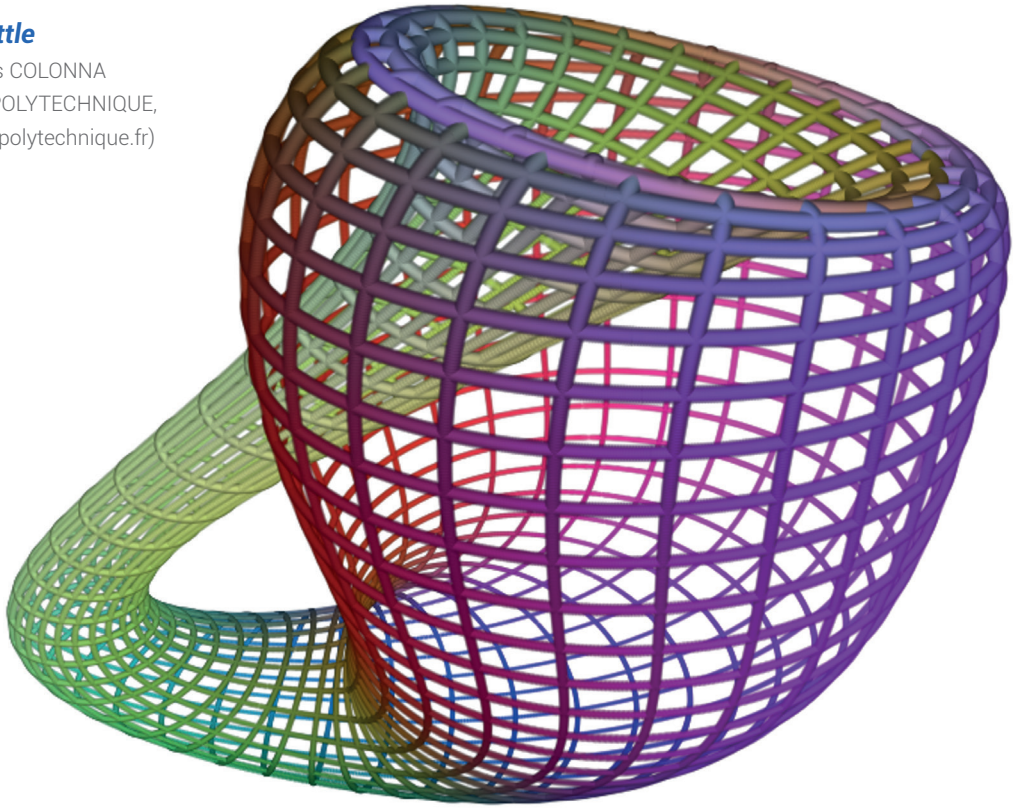
Without being reduced to a mere tool, the field of mathematics inspires all other fields related to research and development.

To consolidate the goals of the ***Lycée numérique*** and to generate the necessary synergies for the creation of a leader in digital publishing and training, Epistemon has teamed up with the RMS (French Mathematics Review, a quarterly review) and *Les Editions Cassini* (publishing house), whose dedicated mathematics catalogue is filled with valuable material.

REVUE DE LA FILIÈRE MATHÉMATIQUES RMS

Cassini

The Klein Bottle



An example of the program coursework as well as a few problem sets is available on the website :

www.lyceenumerique.fr

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