

# Robophysics in high school?

Find out how Anières Elite Academy's ground-breaking program is keeping pace with today's ever-expanding technologies.

Feb 28, 2018, 3:35PM [JOL Staff](#)



With the advent of self-driving cars, advanced AI robotics and automated systems and the increasing popularity of coding, the future is seems to be written in java. In Israel, professionals in the field of science and tech are riding the wave, looking to encourage the next generation of tech minds with the inclusion of advanced courses in high school curriculums.

At [Anières Elite Academy](#), an exceptional science and technology high school in Israel, they are doing just that with a new and exciting **Robophysics** program.

Anières Elite Academy was created by **World ORT** and Naale, where the most exceptional young minds from all over the world receive the highest quality of education available from 9th-12th grade in science, technology, engineering and math. With every student receiving full scholarship, Anières is a truly unique program. Now, Anières is taking the next step in education by combining mathematics, physics and engineering (software, hardware, and algorithms) into a single unit.

The initiative was developed by **Ofer Danino**, an electrical engineering graduate from **Technion** and Israeli entrepreneur. He explains the value, and furthermore the necessity, to prepare our future scientists and engineers with a unique interdisciplinary education. "The development of systemic thinking skills, teamwork and internal motivation are "soft" skills required for life. High school students in the **Robophysics** program receive this preparation in the framework of our program, which also paves the way for academic science and engineering studies at universities such as the **Technion**," says **Danino**.

The curriculum for the course was designed for students to start in the 9<sup>th</sup> grade as a two hour per week enrichment class given alongside their weekly course load. 9<sup>th</sup> graders who are interested in the program undergo a set of tests in their first semester to ensure that they will be able to keep up with both their weekly core subjects and the **Robophysics** program.

In 10<sup>th</sup> grade, the students accepted to the program (about 50) learn **Robophysics** for double the time as part of their physics studies for matriculation exams. In the 11<sup>th</sup> grade, only the students who met the threshold conditions for the program (about 35), continued the program. In their final year of high school students who qualify to continue in the program (about 25) study for several hours a week in the electrical engineering faculty.

"The **Robophysics** program we've created at Anières is unique in the way it was developed to teach students by hands on learning and in the special attention given to the students."

The "special attention" **Danino** is referring to includes access to laboratories in **the Faculty of Electrical Engineering at the Technion** and an esteemed visit from **Dr. Zvi Aricha**, the national head of physics, who travels especially from Jerusalem to Nahalal once every two months. **Dr. Aricha** has a particular interest in the program and the success of its students as the head of the program's steering committee.

Teachers in this program are as exceptional as its students, which they must be in order to educate and inspire their students while keeping up with the daily developments in technology. In order to meet that scarce set of skills, they undergo special training from at the Technion and teach in class together with Technion graduates.

According to **Danino** the results indicate that a change was accomplished. "Students to date working according to this **Robophysics** curriculum are displaying quantitative growth in their reports, which they submit every 3 weeks." In fact, one report was awarded Best Paper by The European Association for Education in Electrical and Information Engineering.

With great strides made since launching the initiative in 2011, there is still work to be done, "We are training the future leaders in Israeli technology, in both industry and academia." For this reason, it's imperative that our educators and students keep up with today's ever expanding, fast-paced technologies.

For teens and parents, Anières is not just an education, it is a launch pad for a bright future.