Astronomy Education in **Tunisia**



This overview is part of the project "Astronomy Education Worldwide" of the International Astronomical Union's Office of Astronomy for Education.

More information: https://astro4edu.org/worldwide

Structure of education: children begin formal schooling at the age of 6, after one year of nursery (preparatory). They follow six years of primary education, three years of basic education and four years of secondary education. They begin to study basic subjects such as writing, reading, grammar, sciences, mathematics and arts. In the secondary school they have one year of common studies then they choose one of the specialized sections offered by their school or another one (different available sections: Scientific Studies, technical studies, computer sciences, economics, literature for sports). At the end of the fourth year, they pass a baccalaureate exam that allows them to enter university. In Tunisia, most schools are public; nonetheless, we have several private institutions that are seriously controlled by the ministry of education. Only the pupils of public and private controlled schools have accredited studies and are allowed to pass the baccalaureate.

Education facilities: Tunisianschoolshave classes with under 30 pupils as an average (number of pupils can be higher if needed) each class is divided in two groups during sessions for practical learning. Currently, teachers are militating to have a maximum of 20 pupils per class. Practical subjects suffer from lack of material and chemical products and some schools (especially primary ones) suffer from lack or absence of running water. Pupils can change school if necessary when they choose a specialized section of studies that does not exist in their region. Pupils benefit from low tariffs for transport in busses, metro and trains. Some categories are eligible for grants that exempt them from enrollment fees and allow them to receive free furniture. Practice of sport and social clubs are active in all governorates but not in all schools especially in rural ones.

Governance and organisation: Public schools are run by an administration (chaired by the school director), supervised itself by the regional representation of the ministry of education.

Teacher Training: Every teacher in primary school must have a college degree that allows him to teach either a language (Arabic, Frenchor English) or scientific courses. Art lessons are insured by all teachers, sport is taught only by the qualified ones.

In basic and secondary school, every teacher must be qualified for the subject he/she will be teaching through a university degree. He/she must also pass a teaching qualification certificate that allows him to teach.

Astronomy in the curriculum: There are no specialized school courses in astronomy. Instead, astronomy content can be found in sciences and physics courses.

Pupils begin familiarization with the solar system in fifth primary grade (10 to 12 years old) so they can recognize planets, their orbits, and relative sizes.

In the first year of secondary education, pupils learn more about the solar system, deep sky (galaxies, nebulae ...) and artificial satellites as part of their physics curriculum. At the level of the 3rd year in secondary school, they study the Galilean reference frames as well as the Kepler's laws from the perspective of motion and dynamics. Astronomy courses are only theoretical in most schools and teens cannot observe stars and planets. Only a limited number of institutions are able to organize observation events for their pupils through the collaboration with the Tunisian Astronomical Society that offers mentoring and access to equipment.

At the University:

- The Institute for continuous education(training for primary and secondary school teachers), offers two units for teachers that want to upgrade their knowledge: 1-Astronomy of Position. 2-Astrophysics.
- At the Faculty of Sciences of Tunis: several modules of astrophysics are presented to students.
- Research: Although there are no astronomical observatories in Tunisia, scientific research is carried out on interstellar molecules, stellar plasmas, calculations and analysis of spectra, etc.
- Non-governmental organizations: Activities related to astronomy have been initiated by associations such as the Tunisian Astronomical Society, through observation courses, construction of astronomical instruments at different levels taught from participating in camps and training modules. Young people trained in such associations continue to develop and spread their knowledgeas amateur astronomer throughthese activities. As a result, several astronomy clubs have been implemented in most high schools and colleges. General public lectures, night observations, radio broadcasts etc. are very common in the field of astronomy in Tunisia. However, most of these operations are insured by volunteers, the lack of funding and astronomical instruments are real obstacles facing astronomy education in and outside schools in Tunisia.

The International Astronomical Union's National Astronomy Education Coordinator (NAEC)
Team for Tunisia: Ahmed Ridha Messaoudi (Chair), Abdelhafidh Teyahi, Ridha Zarai, Hassen
Rabaaoui, Mayssa El Yazidi

Document coauthors: Saadia Ksouri Teyahi, Nissem Abdeljelil

For specific information about astronomy education in Tunisia or on this document please contact the Office of Astronomy for Education (oae@astro4edu.org).