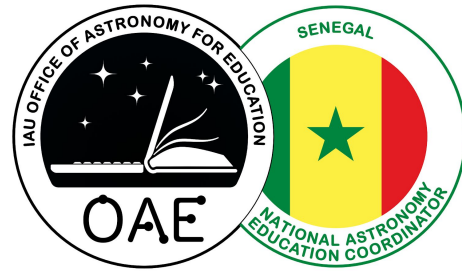


Astronomy Education in Senegal



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: The Senegalese education system is divided into three sectors: National education, Technical education and vocational training and Higher education. National education is characterized by the formal and non-formal sectors. Formal education is structured in 3 cycles. It concerns several levels and types of education: Preschool education (1 year minimum between 5 and 6 years old), Elementary education (6 years between 6 and 11 years), General middle-secondary education ("Middle": 4 years between 12 and 15 years, "Secondary": 3 years between 16 and 18). At each of these levels, alongside public education, we find private education which has greatly diversified and developed in recent years. The share of the private sector in the enrollment was 16.9% in 2018. The apprenticeships are compulsory until the end of the middle cycle. They are done in French, the official language of Senegal. English is introduced from the intermediate level. The system also integrates modern Daaras for religious education through the Daaras modernization project which aims to eradicate children begging in the street. In 2018, the number of preschool children stood at 246,677 children, including 128,947 girls, or a percentage of 52.27%. Regarding elementary school, for a school-age population of 2,480,184, boys represent 51.0%, i.e. 1,264,823 children and outnumber the girls estimated at 1,215,361 children; or 49.0%. The school-age population in the Middle cycle stood at 1,458,550 individuals. The demand for general secondary education was estimated at 1,002,190 individuals, including 492,368 girls, or a percentage of 49.1%. The non-formal education sector includes literacy, basic community schools and "type 3 schools". The last two teaching methods are being tested.

Education facilities: Senegalese schools, both public and private, are made up of classes with an average size of teaching groups which varies overall between 26 and 44 students with a national average of 36 students (Last census in 2018). By status, the average size of an educational class is included between 26 and 54 pupils in the public versus 27 and 51 pupils per Educational Group in the private sector. Depending on the area, the size is between 37 and 56 students per Educational Group in urban areas and in rural areas between 23 and 40 students. Internet access is not yet generalized to all schools in the country. In 2018, the number of establishments with an Internet connection was 258, a rate of 25.7%. However, it is important to note a good mobile penetration and many students, outside of school, have access to the internet through their smartphone. The availability of running water is important in the daily life of establishments. It has a great influence on the physical environment of establishments and on the quality of teaching and learning. Of all preschool structures, 84% have running water. Out of 8,481 Elementary schools, only 6,242 have running water, i.e. 73.6%. For second cycle establishments, the national value in 2018 is 98.2%. Also, of the sixteen (16) academies in the country, eleven (11) have reached the 100% threshold. Transport in public establishments and part of the private sector is the responsibility of the student. Some private

establishments have means of transport in the form of school buses. Overall, the condition of buildings in urban areas is satisfactory. In rural areas, there are significant disparities.

Governance and organisation: The education system is managed by the Ministry of National Education which ensures its governance on behalf of the State of Senegal. It defines the program and validates the content on the national territory. It is represented across the 14 regions of Senegal by a total of 16 Academies in charge of schools in their assigned areas. Faced with the development of digital technology and in response to Senegal's expressed desire for the development of distance education, the Ministry of National Education is considering the dematerialization of the curriculum in order to better respond to the use of distance education platforms.

Teacher Training: The Faculty of Science and Technology of Education and Training (FASTEF) of UCAD (University Cheikh Anta Diop, Dakar) is the institution which, since 1976, has been exclusively in charge of the initial training of middle and secondary teachers. FASTEF also organizes a Master in education and training (educational sciences, didactics of disciplines, evaluation, management and piloting of educational systems, etc.) The target audience is that of teachers or any person exercising a professional activity in relation to education and training.

Depending on the chosen training course, recruitment is done either on the basis of an application file, the secondary school leaving certificate, a teaching license in science or letters or human sciences, 'A teaching master's degree with ten (years) of experience in the body of secondary education teachers (CAES) or a master's degree for inspectors of elementary education and preschool education. Several distance training devices are also set up by FASTEF, DFC and RESAFAD, targeting pre-university teachers, temporary and contract teachers, education volunteers and chalk-in-hand teachers in continuing education. Teachers sometimes benefit from ad-hoc training programs (capacity building) as part of specific projects of the Ministry of National Education.

Astronomy in the curriculum: Astronomy is not included in the school curriculum as a subject. It is rarely mentioned. In the second class (4th year of the middle-secondary cycle), students briefly get to know the solar system through a quick overview of the different planets. This sequence is integrated into a chapter of the geography course. The Earth-Moon-Sun movement is also mentioned in order to understand the seasons.

Astronomy education outside the classroom: The outreach activities of astronomy are mainly carried out by the Senegalese Association for the Promotion of Astronomy (ASPA). It has set up around ten clubs since its creation in 2006. There is a plan to build a planetarium in the new town of Diamniadio (in progress).

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