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Author: Mr. Nebiyu Mohammed
Ethiopia

ASTRONOMY TEXTBOOK'S COURSE OUTLINE OF HIGH SCHOOLS FOR LEAST DEVELOPED COUNTRIES

Abstract

Astronomy is the study of the heavens and the realms extending from the Earth's atmosphere to the distant reaches of the universe. Space education is very crucial for sustainable space development as young students are the next generation astronauts, scientists and engineers. Space education should motivate children toward the adventure of the universe with the effective use of space subjects and materials. Studying about space has multidisciplinary functions which can be applied to science, philosophy, technology and engineering.In least developed countries, the course must be given with high cost effective methods such that some astronomical tools can be available with home-made materials. In most of these countries, astronomy is not integrated into the formal science curriculum in High schools. However some of them have planned to incorporate astronomy as one course in High school studies after considering its significant for development. This future class program is designed to provide a non-technical overview of basic astronomy topics. It's very important to carefully arrange the course syllable that will adapt with the facilities and materials that these countries can provide. The general course outline which is the main part of the syllable has to be basic and very interesting. It should give a description of astronomical phenomena using the laws of physics and principles of chemistry and biology. It should also treat many standard topics which uses fundamental algebra and geometry. In these countries,the curriculum outline design for High School level is between grades 9 and 12. In 9th grade students should be thought about introduction to astronomy and the universe which cover about the cosmic landscape, navigating the night sky, history of astronomy, electromagnetic waves and atoms and Astronomical tools. Then in 10th grade program, solar systems should be given which include solar system survey, comparative planetology planet formation, the inner and outer planets, solar system debris, exoplanets and space exploration. For the 11th grade students, stars and stellar evolution should be given. Here the topics are about the sun, measuring the properties of stars, classification of stars and life cycle of stars. In grade 12, students should cover about galaxies and cosmology which discuss the Milky way galaxy, types and properties of galaxies and the evolution of the universe and life in the universe. Finally the course must be accompanied by space activities and creativity that include night-time sky viewing, computer simulations.