

Savannah Christian Preparatory School Syllabus

- Course:** *The Atmospheres*
Meteorology / Climatology
- Term:** 1 Semester -- 4 lectures and 1 lab per week
- Text:** *Understanding Weather and Climate*, Aguado, Edward, and Burt, James E. Prentice Hall, 1999
- Goal:** To develop an appreciation for the atmospheric processes, their importance in human affairs, and upon our personal lives. This dynamic branch of Earth science includes discussion of both the widespread possible destruction and of the beauty wrought by atmospheric phenomena.

Requirements:

The course is offered primarily to seniors who desire an additional elective in the field of science. There is a minimum of mathematics required, with scientific concepts considered more important than complex problem solving.

- Objectives:**
1. To learn the composition and structure of the atmosphere.
 2. To understand the causes of Earth's seasons and the quantity of radiation received from the Sun.
 3. To learn the importance of water in the atmosphere, cloud forms and development, and the precipitation process.
 4. To study the distribution and movement of air, circulation patterns, and masses and weather fronts.
 5. To discuss disturbances in the atmosphere, including mid-latitude cyclones, lightning, thunder, and tornadoes, tropical storms and hurricanes.
 6. To investigate the human activities associated with weather forecasting and analysis; the human effects on air pollution and urban heat islands.
 7. To study the Earth's climates and climatic changes past and future.