

March, 1994

CITY COLLEGES OF CHICAGO
PHYSICAL SCIENCE COMMON COURSE OUTCOMES
COURSE: PHYSICAL SCIENCE 101/111

The distinction between Physical Science 101 and Physical Science 111 is only that the latter includes a laboratory component while the former does not. Outcomes listed below which primarily involve laboratory skills are for Physical Science 111 only.

The successful student at the completion of the course will be able to do the following:

In Geology:

1. Differentiate between minerals and rocks and identify many of the common rocks.
2. Classify types of rocks and draw the rock cycle.
3. List causative agents and products of various types of erosion.
4. Describe the causes and results of diastrophism.
5. Classify earthquake waves, faults and types of unconformities.
6. Use the laws of geology to determine the relative age of rock structure.
7. Describe the gross structure of the Earth, i.e., crust, mantle, core.
8. Sort and identify a mixture of minerals according to physical properties such as hardness, color, streak, crystal form, luster, cleavage, etc.
9. Identify geological land forms and describe their origin.
10. Relate diastrophism and land forms to tectonic plate motion.
11. Describe the composition and structure of the oceans.
12. Describe the origin and effect of ocean circulation.

In Meteorology:

13. Describe the structure and composition of the atmosphere.
14. Describe atmospheric circulation patterns.
15. Read simple weather maps and identify fronts, air masses and wind direction.
16. Describe the movement of air about high and low pressure centers.
17. Use principles of air mass and frontal movement to predict weather in various parts of the U.S. with the use of daily newspaper maps and weather satellite information.

In Astronomy:

18. Give evidence of the sphericity, rotation and revolution of the Earth.
19. Use latitude and longitude to identify geographical and time zones on Earth.
20. Describe the motions of the Earth and the Moon in their orbits and relate the motion to: lunar phases, lunar and solar eclipses, origin of the seasons, etc.
21. State and explain the various cosmological models.
22. List Kepler's Laws.
23. Use scale models as they relate to astronomical systems.
24. List types of stars and describe the process of stellar evolution.
25. Describe composition, structure, and possible origin of the solar system.
26. Describe the structure and evolution of the universe.

In all three areas:

27. Use laboratory equipment to perform experiments and demonstrations.