

CONTENT: NATURAL/PHYSICAL SCIENCES

General Education

“Guaranteed Transfer” Course Criteria

State-level Goal:

Collectively, the general education requirement in natural and physical sciences is designed to help students master scientific **knowledge** at a level that facilitates communication in an increasingly technological society, including:

- to instill a clear understanding of the basic scientific viewpoint.
- to enable students to learn and use the scientific method.
- to evaluate the impacts of science and technology on society.
- to increase the level of science literacy.

Criteria for Designating a Science Course as State Guaranteed:

1. The lecture content of a “state guaranteed” science course (GT-SC1 or GT-SC2) shall:
 - a). develop foundational knowledge in specific field(s) of science.
 - b). develop an understanding of and ability to use the scientific method.
 - c). recognize that science as a process involves the interplay of observation, experimentation and theory.
 - d). develop quantitative approaches to study natural phenomena.
 - e). identify and highlight interconnections between specific science courses being taught and larger areas of scientific endeavor.
 - f). distinguish among scientific, nonscientific, and pseudoscientific presentations, arguments and conclusions.
2. The laboratory (either a combined lecture and laboratory, or a separate laboratory tied to a science lecture course) content of a ‘state guaranteed’ science course (GT-SC1) shall:
 - a). develop concepts of accuracy, precision, and the role of repeatability in the acquisition of scientific data.
 - b). be predominately hands-on and inquiry-based with demonstration components playing a secondary role.
 - c). emphasize a student’s formulation and testing of hypotheses with scientific rigor.
 - d). stress student generation and analysis of actual data, the use of abstract reasoning to interpret these data, and communication of the results of experimentation.
 - e). develop modern laboratory skills.
 - f). emphasize procedures for laboratory safety.

AND

3. Competency in mathematics
4. Competency in critical thinking

Maximum number of science credits that are guaranteed to transfer:

The total number of science credits guaranteed to transfer in the gtPathways curriculum is seven (7) (two courses, one of which may be a non-laboratory science course).

11/30/2005