



## The Journey to a New ATOC Major: What do we want our students to learn?



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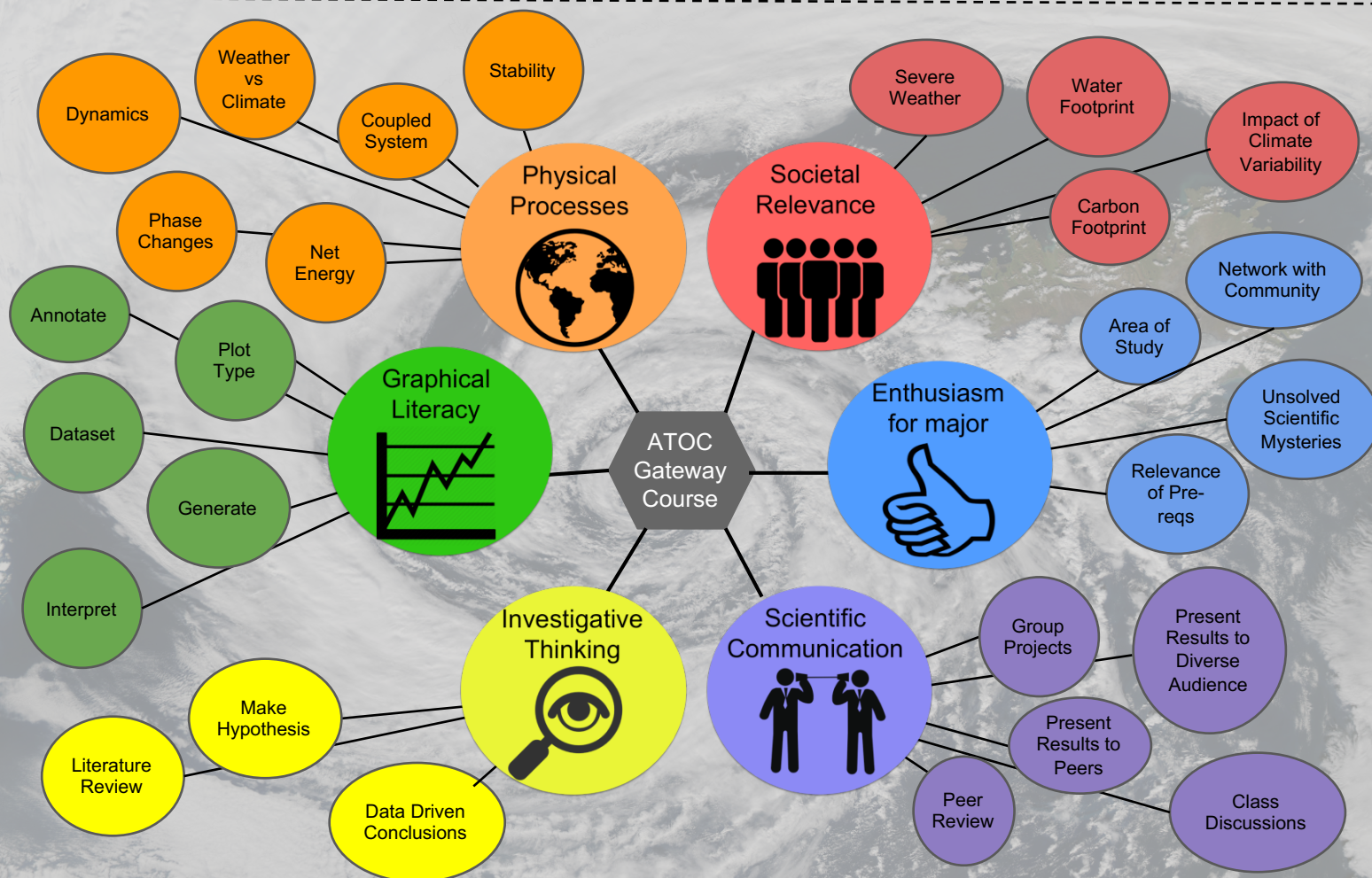


### Objective:

The Atmospheric and Oceanic Sciences (ATOC) department at the University of Colorado Boulder has just launched a new undergraduate major. Working with the Transforming Education, Supporting Teaching and Excellence (TRESTLE) Scholars program we used the concept of backwards design to develop a vision statement for the major, as well as course-level learning goals and topic level objectives for the major's gateway course.

### Vision Statement:

ATOC majors apply **investigative thinking** to solve critical **natural science problems** rooted in the **physical processes** of the atmosphere and ocean, employing approaches that emphasize **scientific theory, empirical data, modeling, and computational analysis**. ATOC majors can **communicate** scientific concepts clearly and elegantly, act with **professional integrity**, and are prepared for a **diverse set of careers**.



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