This course is concerned with the modern study of mass extinctions of life and their importance in the evolution and history of life on Earth. The general question of catastrophism in the geological sciences will be discussed. We will examine the major mass extinctions and proposed causes ranging from asteroid and comet impacts, to super-volcanic eruptions, to changes in climate and sea level. We will also compare ancient extinctions with the present-day on-going extinctions of plants and animals, to see what lessons can be learned from the geologic
This is a small seminar class where we will read the literature and discuss it in class. Classroom participation is expected and required.

**Required Reading:**

Additional readings of current articles and review papers will be posted on the Classes site or handed out in class.

During the semester we will cover the following topics.

1. The Nature of the Geologic Record
2. Geologic Time and How We Measure it.
3. The Geologic Timescale
4. Plate Tectonics and Life.
5. The History of Life
6. The K-Pg Boundary
7. The Asteroid Impact Theory
8. The End-Permian Mass Extinction
9. Other Mass Extinctions
10. Catastrophism in the Geologic Sciences
11. Periodic Extinctions and Comet Showers
13. The Sixth Extinction and the Anthropocene

There will be 2 quizzes and a final paper (10 pages) with a short class presentation on topics related to the causes and consequences of mass extinctions in the geologic record.