GEOL 6379: Applied Biostratigraphy
Syllabus

This course is designed to develop an understanding of the methods used in determining biostratigraphic models of sedimentary sequences with various biostratigraphic and geochronologic methods. Additional methods and algorithms are discussed to interpret paleoenvironmental settings of sedimentary sequences.

Dr. Don Van Nieuwenhuise

August 26th Friday 1:00 – 5:00 PM
Lecture 1 Introductions and Overview
Lecture 2 Biostratigraphic Data
Reading Exercise: Paleoenvironments

August 27th Saturday 8:00AM – 5:00 PM
Lecture 3 Bioevents
Lecture 4 The Fossil Record and Graphic Correlation Exercise
Lectures 5 a-e Fossil Groups
Lecture 6 Stratigraphy

September 2nd Friday 1:00 – 5:00 PM
Test for Badge 1 of Applied Biostratigraphy
Lecture 7 Time Scales
Exercise and Review of GC Basics

September 3rd Saturday 8:00AM – 5:00 PM
Lecture 8 Graphic Correlation and Composite Standards
Lecture 9 Graphic Correlation Applications
Lecture 10 Graphic Correlation Integration
Lecture 11 Paleobathymetry with Exercise

September 7th Wednesday 6:00 to 7:30PM
Test for Badge 2 of Applied Biostratigraphy

Dr. Peter Copeland

September 9th Friday 1:00 – 5:00 PM
Lecture 1 Introduction to Geochronology
Lecture 2 Isochronology
September 10th Saturday 8:00AM – 5:00 PM
Lecture 3 Uranium-Lead and Thorium-Lead Dating Systems
Lecture 4 Potassium-Argon System
Lecture 5 Fission Track Dating
Lecture 6 U-Th-Sm/Helium Dating

September 16th Friday 1:00 – 5:00 PM
Lecture 7 Detrital Thermochronology

September 21st Wednesday 6:00 to 7:30PM
Chronostratigraphy Test, Badge 3