

GEOLOGY PROGRAM HISTORY AT UWRF

Chronological Account of the Program

The first formal general geology course at UWRF was offered almost 100 years ago, in 1910, as part of a program entitled, "The Earth Sciences". This program also included several geography courses and a course in physiography. C. G. Stratton joined the staff in 1915 and taught the geology and physiography courses for the next 3 decades. The name of the program was changed to "Geology and Geography" in 1928. At this time, general geology became a two-quarter, eight credit course required for high school teachers majoring in science. A course in historical geology was also added at this time.

In 1948, Geology and Geography were separated and listed under science and social science, respectively. At the same time, a minor in Earth Science was added to the Geology program. The minor included 24 credits in physical geology, earth science, maps and graphs, meteorology, astronomical geography, and climates of the continents. In 1952 a minor in Geology replaced the minor in Earth Science and included the following new courses: Geomorphology of Wisconsin, Lithology, Invertebrate Paleontology, Structural Geology, Mineralogy, Physiography of North America, Petroleum Geology, Economic Geology, and Advanced Historical Geology. Robert Polk taught courses in the geology minor from 1954--1958 but the faculty did not include a geologist.

In 1962, a Soil Science course, "Soil Genesis and Classification" was added to the Geology program and cross-listed with Agronomy. John Foss of the College of Agriculture taught this course as well as the general geology course. Up until this point, Geology had been a program within the School of Arts and Sciences, but in 1966 it became part of the College of Agriculture. A Bachelor of Science in Earth Science degree was added that year, and a Bachelor of Science in Earth Science Education degree was added the following year. A minor in Earth Science was added to the minor in Geology in 1971.

Since then, the majors have remained in essentially the same format, although numerous curriculum modifications have occurred through the years, representing the changing needs of the students and the changes occurring in the discipline itself. In 1987, the title of the Bachelor of Science in Earth Science degree was changed to a Bachelor of Science in Geology, to more accurately reflect the content of the curriculum. In 1990, a minor in Hydrogeology was added to the program. The Earth Science Education degree was eliminated in 1991, becoming instead an option within the geology degree. In 1995, the Plant and Earth Science Department, of which geology is a part, was selected as the "Regents Outstanding Academic Department" in the University of Wisconsin System. The geology major adopted the minimum of

120 credits to degree rule (from 128) in the 1997-1999 catalog. At the present time, the program involves five full time geologists on the faculty who teach 20 separate semester geology and earth science courses. The courses include all the traditional core courses in earth science and geology, plus other advanced courses such as Regional Geology Field Trips, Geophysics, Hydrogeology, and a Senior Seminar Course.

One significant asset to the Geology Program has been the dedication and longevity of the faculty. Sam Huffman was added to the staff in 1970 and retired in 1999. Bill Cordua joined the staff in 1973, Bob Baker in 1977, Ian Williams in 1982, Mike Middleton in 1984, and Kerry Keen in 1997. All are currently still on the geology faculty.

Regional Field Trips

A unique feature of the Geology Program is the annual regional geology field trip. Generally run during spring break or immediately after final exams in the spring, these 10-14 day trips take students to study the geology of various parts of the United States and Canada. They are essentially total immersion geology experiences in classic geological locales where students camp, cook their own meals, and study the geology unique to areas other than Wisconsin. Recent trips have gone to the Colorado Rockies, the Four Corners area, New England and the Maritime Provinces of Canada, the Lake Superior region of the US and Canada, Hawaii, and the Southeastern US. The numbers of students participating have varied from about 15 to almost 40.

Amusing stories related to regional trips are plentiful. For instance, on the 1994 Southeastern trip, the group traveled in the "Falcon Flyer", a 28-passenger bus owned by UWRF and used primarily by athletic teams. The vehicle had two gas tanks, but unfortunately it was discovered after leaving town that only one of them worked. Consequently, the group proceeded on a 4000-mile trip with gas stops every 100 miles! In fact, in the hills of northern Georgia, a neglectful driver bypassed a gas stop without checking the gas gauge resulting in the vehicle running out of gas about 2 miles from the next town. With a deadline for a whitewater rafting trip looming, a decision was made to have everyone disembark the bus and start pushing. About 45 minutes later an exhausted group of students pushed the bus into a Gulf Oil station and the group made their rendezvous for rafting on time.

In 1993, the Southwestern Regional trip ran into some unusual weather. Tents were blown over and shredded during a windstorm at one campsite, the group was rained on in the desert during a hike to see dinosaur bones, and snowed on in the Front Range. But perhaps the most exciting event was the rafting trip on the Colorado River, which was near flood stage that year. One raft, of course the one with the faculty member in it, flipped in the current and everyone ended up

in the water. As the faculty member tells it, he found himself below a mass of kicking arms and legs as the students tried vainly to keep him under. All were pulled safely into another raft looking like drowned rats, but you can imagine the stories that were told after that! To this day, that faculty member has an undeserved reputation for bad weather on field trips!

As mentioned above, weather conditions frequently affect regional field trips. In 1997 the class was in Glen Rose, Texas, and a tornado came through necessitating a night spent on the concrete floor of the campground shower facility. It was at this locality that the students wanted to debate the creationists who have a "museum" near the Dinosaur Valley State Park (well, a trailer actually), but fortunately for all concerned, the museum was closed.

Many of the regional trips have benefited from the cooperation of geologists from other parts of the country. For instance, the Oklahoma trip always receives help from a geologist from the Oklahoma Geologic Survey who spends a day doing sequence stratigraphy in the Ouachita Mountains with the class. Similarly, the trip to Yellowstone has been assisted by one of our alumni, Steve Koehler, led the class on a tour of a gold mine. Utilizing our contacts in ways such as this has enhanced the educational experience for our students.

The Appalachian regional trip, taken during Spring break, often encountered bad weather. The worst was an ice storm that caught the group one night in West Virginia. The tents were all bowed in under the weight of the ice, and everyone was soaked. The students spent the morning drying sleeping bags in a laundromat, and the UWRF vans were about the only vehicles on the road that afternoon. A friend found a lodge in a county park for the next night and everyone weathered the second night of ice around a roaring fireplace, indoors!

That trip also gave many students cultural shock. The group would spend a day going into downtown Washington D. C. to see the museums, riding the Metro through some rough districts. It was interesting seeing the students react as the racial mix in the subway car changed during the trip until the students were, for the first time in many of their lives, in a situation where they were the racial minority.

On the Superior trip it is fun to show the students geology in places they had visited before as tourists. Since the trip involves much less driving, there is time to do many longer field problems and projects along the way, thus making it into a practical introduction of doing geology in the field. The many mines, particularly in Canada, were also very welcoming to student groups and gave thorough and exciting tours to the best geology. The Superior trip also had its share of adventure. A bear stalked the group one evening outside the lodge where they were preparing dinner. The ranger had provided the group a can of mace for this particular bear, but the bear recognized the mace can and ran away before it got sprayed. All went back into the lodge for the evening, but when the

students returned to their tents, they found the bear had paid tents a visit, eating everything imaginable including the toothpaste.

The Northeast Regional Trip (Maine, New Brunswick, Quebec) is a long trip that reaches Quebec before the weather has warmed up there. Thus our group campsites were the main attraction in some coastal Canadian towns. The Appalachian geology, turbidites, mines, and coastal landscapes with impressive tides make for a memorable trip. Other memories include Jay Gilbertson (UWRF geology alum from 1979 and van driver) wearing shorts every day, Johnny Cash on the tape player, sea kayaking, cabins on the one bad rainy night, and possibly a van going the wrong direction on a one-way street in Old Quebec. We encountered an interesting mix of wildlife: including moose, porcupines, seals, whales, and lots of cool birds, like Harlequin ducks, kittiwakes, and a Black-throated Blue warbler. A couple of the male students were perhaps hoping for another type of 'wild life,' but in Quebec City after working for days on their French (e.g., les yeux sont tres belles!), they were met with the following response from some young French-speaking women: "You need to learn French better."