This past summer, while the rest of his college friends were relaxing in the sun, Ryan Cumpston of Crystal Lake was taking in some cool new experiences.

And we do mean “cool.”

As in avoiding polar bears, getting up close and personal with a 180-foot high glacier and adjusting to round-the-clock daylight.

Not to mention sampling seal, reindeer and whale meat, which tasted nothing like chicken. Or fish for that matter.

“It was good, surprisingly,” said Cumpston.

Cumpston, a 21 year-old senior geology major at Northern Illinois University in DeKalb spent a month in the world’s northern-most community, a former coal-mining town turned polar research facility known as Ny-Alesund, located on the Norwegian island of Svalbard, about 600 miles from the North Pole.

He was chosen to participate in a pilot joint-research program between NIU and the University of Massachusetts. The program prepares students for careers in science by allowing them to be directly involved in on-going research projects. It is known as Research Experiences for Undergraduates and is funded by the National Science Foundation.

Cumpston traveled to Ny-Alesund with NIU professor of geology Ross Powell. Working alongside a student and professor from the University of Massachusetts, Cumpston and Powell spent their days in a small aluminum boat, studying the Kronebreen glacier, a 180-foot tall, mile-wide behemoth.

Their goal? To determine whether it is melting at an accelerated rate, because of global
Sediment samples, taken from the bottom of the iceberg-filled fjord where Kronebreen is located, provide clues to the glacier’s behavior.

On one occasion, a chunk of ice larger than a football field broke off and crashed into the fjord, creating a wave about 30-feet tall. Cumpston, Powell and the other researchers rode out the swell in their boat.

“When it happens, it’s surprising and you’re certainly concerned about it, but afterward you have a story to tell,” said Powell.

Calving glaciers weren’t the only arctic hazards the researchers had to contend with. Cumpston’s orientation at Ny-Alesund included swimming lessons in sub-freezing arctic water wearing a survival suit and instruction in how to use a rifle and flare gun as protection against polar bears.

Fortunately, he didn’t have occasion to use either.

“There was a report of a bear while we were there, but we never saw it and I did get close to being in the water but I never actually fell in and had to swim. The water wasn’t pleasant, but the survival suit does keep you warm,” said Cumpston.

The remote settlement was also a destination for tourist boats, which stopped periodically at the island.

Several times, the researchers were mistaken for local residents and surprised the sightseers by speaking English.

“Some days, we’d see two or three tour boats and there would be swarms of people taking pictures; they thought we were locals who lived there,” said Cumpston.

Other than the research facilities, a souvenir shop catering to tourists and a bar that was open only on Wednesday and Saturday nights, the island was virtually deserted. During the summer, the population of Ny-Alesund peaks at about 100 people, Cumpston said, but generally only about 30 stay on through the winter.

When the researchers weren’t working or catching a few hours of sleep in a dorm darkened with room-darkening shades, they passed time playing darts, pool and foosball. They also took a few hikes, but stayed close to Ny-Alesund.

“As soon as you got outside there were signs warning of polar bear danger.

The island offered an abundance of wildlife. In addition to one of the arctic’s largest populations of polar bears; seals, walrus, fox and a number of species of birds also called
Svalbard home.

Whales had been spotted nearby, Cumpston said, though he did not see them, either.

Despite it's isolation, or perhaps because of it, Cumpston described Svalbard Island as one of the most beautiful places he has ever seen.

"It's untouched by man, as natural as you'll find left on the planet.

I'd never seen a glacier before. I'd heard about them, but never imagined ice could be that big," he said.

Currently, Cumpston and Powell are waiting for their sediment samples to arrive from Ny-Alesund, so they can begin laboratory analysis.

This spring, Cumpston will include the data obtained in the lab in his senior honors thesis. He says he hopes to return to the Arctic some day, either as a researcher or a tourist. Powell also looks forward to returning with more student researchers and hopes the work they are doing will contribute to a better understanding of glaciers and the Arctic ecosystem.

"It's a unique place where life lives on a razor's edge," he said.