When he was a little boy, Byron Fritch would have a lot of questions in his mind about everyday occurrences: How does a bird fly? How does a suspension bridge bear the weight of so many cars? Then, as he grew older, he found out that physics and mathematics had answers to most of these questions and more. He has known since that physics is what he wants to study. So, once he completed high school, the question was not what but where to study.

Byron chose the University of Northern Iowa, among other reasons, for the size of its campus. “The campus is just big enough to meet new people every day, if you so desired, but small enough to get to know your professors,” he says.

Knowing the professors has been a part of his “wonderful experience” at UNI. “The professors here care about you as an individual,” he says. “I can walk into their office and ask questions if I don’t understand something in class.”

That helps because undergraduate coursework is difficult. “If a non-physics major were to take an upper-level physics class, they would probably say that the coursework is pretty challenging,” he says.

However, difficulty is something Byron looks forward to. “I like being challenged and the physics courses are a perfect combination for me,” he adds.

He singles out Dr. Paul Shand’s Modern Physics class as his most favorite. “Modern Physics essentially covers every major physics discovery in the 20th century,” he says.

“The topics range from Einstein’s Theory of Relativity to the Schrodinger Equation,” he adds. “I find these topics so interesting because it corrects some of the huge failures in Newtonian physics.”

Another high point has been the research with nanocellulose aerogel under the supervision of Dr. Tim Kidd.

“This material is very lightweight with an extremely low density,” Byron explains. “Being composed of nanocellulose allows the material to be relatively non-reactive but safe for humans.”

“We are currently in the process of trying to use this material to break down water into hydrogen and oxygen,” he continues. “If we find that this works, we can then collect hydrogen and use it as a renewable fuel.”

Byron wants to go on and get a Ph.D. in physics. He also wants to raise awareness among the general populace about the need for scientific research.

“We are at a critical point,” he says. “The need for scientific research is being increasingly questioned in society. It is important that people understand the positive impacts scientific research has had on humanity and do not devalue and deny results that have been repeatedly proved.”

Byron has recently taken interest in long-distance running. “Running is not something that I did in high school,” he admits. “But I have run a half and a full marathon since starting college. I am not signed up for any right now but will surely be finishing more of those in the future.”

Besides being the vice-president of the UNI Physics Club, Byron is also a Student Admissions Ambassador.

“This allows me to connect with high school students interested to enroll in UNI,” he says. “I share with these prospective students the story of my college life and the great things that UNI has to offer.”

To prospective STEM students, his advice is: “Don’t be in it for the job outlook or the possible salary after graduation. Decide to be a STEM major because you enjoy learning about it.”

“Classes are going to be difficult,” he warns. “Do not be afraid to reach out to classmates and professors for help when you need it.”

“Just because I say it will be difficult does not mean you should shy away from it,” he adds. “The most important thing is to do something that you enjoy.”

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