A unique ecological study opportunity

Qlik Academic Program gives Green River students invaluable hands-on analytical experience
“I want Green River to be a place where students can come knowing that when they leave, they are going to see ecosystems from a scientific, objective point of view. The Qlik Academic Program gives us the tools to do that.”

Daniel Najera, Biology Professor, Green River College

A college built on diversity

Based in the city of Auburn, a little over 20 miles south of Seattle, Washington, Green River College is similar in many ways to other community colleges. As an open access institution, its student body of around 13,000 reflects the wider population around it, which for Green River means a highly diverse demographic that ranges from refugees to long-standing residents to families brought to the area by employers such as Amazon and Microsoft. The students themselves can be at high school level, preparing for courses at nearby state universities, looking for practical skills to take to the job market or switching careers.

One of Green River’s ongoing challenges is to distinguish itself from over 20 other similar colleges in Washington. And while it successfully achieves this in a variety of ways, two in particular place Green River ahead of the competition. The first is its location: Green River’s main campus sits in a 200-acre forest that the college manages itself, with around seven miles of trails and a river teeming with salmon.

The second thing that sets Green River apart is Daniel Najera. As a key member of the college staff, Biology Professor Najera specializes in organismal ecology and evolutionary biology and relishes his work on Green River’s forest campus. “I’m the guy who shows up to meetings without a tie or button-up shirt, dragging mud into the room from my shoes,” he smiles. “I’m also a science nerd who loves graphs and data visualizations.”
The search for the right tool

Najera had long recognized the importance of data, analytics and presentation as a tool for measuring and illustrating the progress of the natural world, in particular flora and wildlife. As a graduate student working towards his PhD, Najera spent much of his time studying honeybees, but struggled to present his findings effectively.

Basic spreadsheet and analytics software fell short of Najera’s ambitions and were both frustrating and time-consuming. They simply were not able to deliver what was necessary for the data he was producing.

“We had circular data that was hard to graph; not many tools can handle that,” says Najera. “Some software can handle basic radar graphs, but we ended up having to get one of the computer science people to build a specific program for us to draw the circular histograms we were looking at.”

He continues: “That set a seed in my brain. If you don’t have the right tool to produce the right graph, you miss out on the ability to convey information properly. A good graph can help make sense of even the most complex data sets.”

The turning point came during a meeting with a fellow beekeeper who had been using Qlik Sense and suggested that it could be exactly what Najera was looking for.

Curiosity and creativity

Najera’s beekeeping colleague was right. Spending just a little time with Qlik Sense was enough for Najera to realize that it resolved all the issues and frustrations he had experienced with other software and provided a platform that would match and complement his creativity.

“I found myself looking at Qlik Sense with a massive stack of data and graphical options in front of me,” Najera recalls. “I’m obviously curious about the data, but probably the most important thing that stood out was that the graphs could build themselves at the same speed as my curiosity.”

Najera spent more time working with Qlik Sense, using graphical representation to work with confidence intervals and hypothesis tests, and playing with scripting and other tools to find out exactly what was possible with the platform. He also got involved with Qlik Community, using it as a resource to share code, troubleshoot and build his personal knowledge base.

Najera then realized that this was a tool that could transform the curriculum at Green River, in particular his biology major’s class.

“When I recognized the ability to drill down to whatever level your data has available to you, I immediately saw that students would be able to focus on analyzing the data, not working with the program to get the visualization,” he explains.

Enter the Qlik Academic Program

Najera needed a means to create an analytics-led biology class based upon large data sets of students’ collected ecological data. With Qlik at its core, this would be possible and accessible to students on the ground.

The Qlik Academic Program provided the bridge he was looking for.

“They’re enthusiasm for what I was saying matched our enthusiasm in thinking we could do this,” says Najera. “We saw how we could get students in here and working on things. It was seamless.”

The Qlik Academic Program gives qualified university students, educators and researchers free Qlik software and resources to prepare students for the data-driven workplace. Online learning resources, including instructional videos, lecture notes, handouts and real-world interactive business use cases are made available through Qlik’s online learning platform, Qlik Continuous Classroom. Students can also take Qlik Sense Business Analyst and Data Architect Qualification exams to earn a printed certificate and digital badge they can add to their resume or social media sites.

Joining the Qlik Academic Program granted Najera and his students with their own memberships, which included access to Qlik Sense, training and additional learning resources. And as both Najera’s class and the usage of Qlik Sense grew, the total number of educators and students enrolled in the program increased to more than 100 within a year.

Qlik Sense’s ease of use, and the opportunity for students to pick some initial training and hands-on experience, meant the impact in the classroom was both quick and impressive.

“All I really need to do now is point the students to the sheets we’re working with, and tell them to play with all the options,” says Najera. “Then it’s up to me to ask the questions. I’ll talk about an ecological parameter and they use Qlik Sense to make the graph. I don’t have to teach any more than that.”
A scientific and objective viewpoint

Qlik Sense has transformed both Najera’s teaching process and what it delivers for students and Green River. Not having to focus on software issues and limitations means Najera’s students can focus on analysis and outcomes and take their research to levels that were not previously possible. Even students who had not had hands-on experience of a computer before they arrived at Green River can work through tasks quickly and intuitively.

“Because Qlik’s visualizations are so fast, you can manipulate them at the speed of your curiosity,” says Najera. “You can ask a question, see an answer in the graph and that will stimulate another question that you wouldn’t otherwise have thought about.”

Najera has now built an impressive research program that sees students head into the campus forest and monitor the locations and progress of its wildflowers and birds.

Students then feed the data back into Qlik Sense and are developing an invaluable resource that both demonstrates the effectiveness of data and analytics, and documents the forest’s development.

“We spend more time talking about the ecological relevance of the data we’ve collected, not how to make software work,” says Najera. “For a teacher trying to help students understand ecological concepts, that’s everything.”

Najera now plans to develop the classroom exercises into a more permanent and formal research program that tracks long-term changes to the environment and its flowers and wildlife and is already looking to extend the project to state parks.

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**Green River College Bird Ecology Data**

![Image showing bird ecology data](image-url)
The keys to success

100+ students currently enrolled
3 Green River educators now enrolled

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About Qlik

Qlik’s vision is a data-literate world, where everyone can use data and analytics to improve decision-making and solve their most challenging problems. A private company, Qlik offers real-time data integration and analytics solutions, powered by Qlik Cloud, to close the gaps between data, insights and action. By transforming data into Active Intelligence, businesses can drive better decisions, improve revenue and profitability, and optimize customer relationships. Qlik serves more than 38,000 active customers in over 100 countries.

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