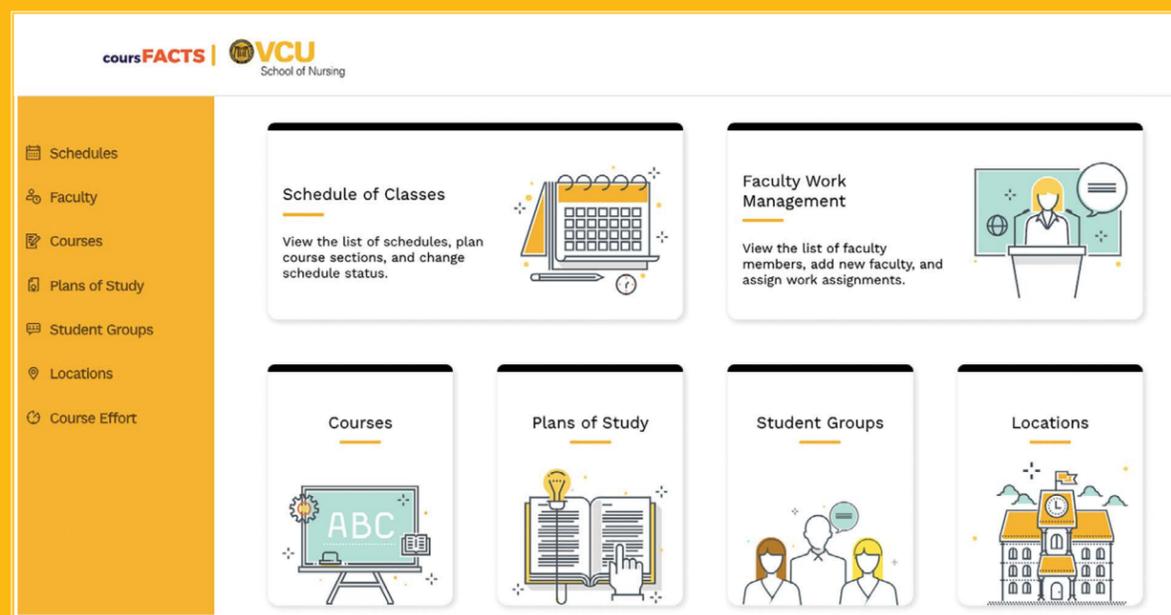


# The Anatomy of Invention

## School of Nursing debuts innovative course-scheduling software

In most cases, necessity actually is the mother of invention. It's certainly true of coursFACTS, cutting-edge software that simplifies and speeds up academic course scheduling.



The coursFACTS software improves scheduling of classes and management of faculty workload.

The brainchild of VCU School of Nursing Dean Jean Giddens, Ph.D., RN, FAAN, coursFACTS – or the idea for it, rather – originated while she was serving as associate dean for academic affairs at the University of New Mexico College of Nursing.

“I was struck by the amount of time involved in getting our own unit-level schedule ready for the university,” she recalls. “It felt like a three-ring circus.”

When she arrived at the VCU School of Nursing, Giddens found an even more complex and disjointed course-scheduling procedure in place. As she had previously noted, too many individual spreadsheets involving too many people resulted in inaccuracies and inefficiencies.

### The idea

At Giddens’ suggestion a new process and solution was explored. It was clear there was a need for

an integrated database affording prospective, as opposed to reactive, planning.

Thus began the search for a solution that would keep track of courses and cohort needs as well as future curricular changes. Incorporating the faculty work plan – and a three-year trajectory – would set it above and apart from existing software.

Once Giddens’ prototype was complete, VCU Innovation Gateway stepped in.

### The pitch

“Whenever a faculty member is developing a product that has potential,” Giddens explains, “Innovation Gateway becomes involved to help determine the potential for a commercial product.”

Brent Fagg is a licensing associate with Innovation Gateway, part of the VCU Office of the Vice President of Research and Innovation. Once an invention

disclosure has been filed, he says, faculty are asked to explain the project in their own words, why they think it’s of value and how much they want to be involved.

One newly developed software was trying to do something similar, Giddens says, but was missing a few key components. “So we knew this idea for our own software would be a unique application.”

Innovation Gateway needed to identify a firm that could frame a customized solution for the problem she had described and make it adaptable to other schools.

With the help of an outside sales lead firm, CIENCE, Innovation Gateway initiated interviews with other universities to find out who could use a product like this once it was on the market. “They did a phenomenal job,” Fagg says. As did Katharine Wise, he says, who was hired as an in-house sales and marketing lead.

Research suggested that the new product would be a good match for larger universities with more complex systems.

### The build

A request for proposal was issued, noting that a discovery phase – and flexibility — would be key. Of about 20 bids, SingleStone, a Richmond-based technology consulting firm, had the most compelling bid.

“In discovery, the big objective is to sit down and find out exactly what you want your product to do,” says Fagg, who typically works with software and copyright cases. “SingleStone spent about two months entrenched with people who really understand what’s important and what’s not, what’s necessary versus what’s nice to have.”

“We often just license a patent and that’s it,” Fagg says. But this project required more attention up-front.

SingleStone takes a “four-headed monster” approach to discovery, says Gray Hollins, solution lead for application development. Four team members, each with specific expertise in problem-solving, are assigned.

For the School of Nursing, Victoria Griffin served as user experience designer. Put simply, she says, “We craft the overall experience ... me in the beginning, probing the dean and administrators on what their problems were, then putting it into a design, making sure it met their needs, went above and beyond and was accessible.”

Once the crux of the problem was identified, Griffin says, design and development began. The full nine-month process included coding testing – lots of testing – with School of Nursing end users.

“Working with the dean and administrators was a lot of fun,” Griffin says. “It was my favorite project! They really picked up on technology fast and trusted us as the experts in the room.”

Hollins agrees. “The collaboration was exceptional on both sides, and I think the results are indicative of that. This is one project where we had that attention from the team.”

### The outcome

With final testing completed in December, expectations were high for licensing the new product to other colleges and universities. Unfortunately, Fagg says, COVID-19 put a damper on sales. Most universities make budgeting decisions early in the year; many had been forced to freeze their budgets. “We are marketing coursFACTS now,” Fagg says. “We are also generating new sales leads and conducting demos. But with the COVID closures, many of the schools are slower to respond and looking at this as a



Brent Fagg, licensing associate with Innovation Gateway.

future purchase.”

In the meantime, coursFACTS already has proved beneficial for the School of Nursing, which implemented it in January, since faculty workload can be rebalanced much faster.

That’s because coursFACTS can capture and visualize individual faculty members’ service-related and committee work, clinical practice and research-related activities. Having this information in one place not only helps to better manage workload and activities in general but contributes toward improved course planning and projections.

Its users are delighted. “It actually increases accuracy and reduces confusion in scheduling,” Giddens says. “It saves a lot of hours.”

“Our department chairs and scheduler have said over and over how amazing it is. They provided input into how this might work, so everyone had a good buy-in.”

In a nutshell, as SingleStone notes, “The complexities of scheduling don’t have to be so complex anymore.”

**To learn more about coursFACTS, contact Brent Fagg at [bfagg@vcu.edu](mailto:bfagg@vcu.edu) or call (804) 827-6089.**