

# Interdisciplinary studies rise in popularity

Study by the Chronicle of Higher Education highlights new popular minors

BY DANA BRUXVOORT  
Staff Reporter

Graduate student Chelle King Porter couldn't find a major at Truman that encompassed exactly what she wanted to do. So, she created her own: computational neurobiology.

Porter formed her own interdisciplinary major by combining biology, computer science, statistics and cognitive science classes.

"I thought that I wanted to go into a very computational career — basically to sit at a computer all day and sort of process biological data," Porter said. "And so in order to do that, the best thing I could think of was to combine a bunch of biology with a bunch of computer science and math."

Computational science and other majors that cross disciplines are gaining popularity and could be especially relevant to careers in the future, according to the Chronicle of Higher Education.

The Chronicle of Higher Education identified five areas as emerging disciplines: service science, health informatics, sustainability, public health and computational science.

Truman has more than 10 interdisciplinary minors, including environmental studies and mathematical biology. There is a public health minor in progress. These are all similar to the emerging fields of study the Chronicle of Higher Education identified as up and coming minors.

Michael Kelrick, professor of biology and the director of interdisciplinary studies, said common areas of interdisciplinary study pursued by Truman students are women's and gender studies, Asian studies, disabilities studies and environmental studies.

He said there are between 20 and 30 interdisciplinary studies majors. These students combine classes from various disciplines to craft their own program of study. Their plan must then be approved by a group of faculty members.

"They really have to show that what they're trying to do represents a unique effort that couldn't have easily been satisfied by

something that we already have on the books here ... [that] they are attempting something that is synthetic and worthwhile," Kelrick said.

Porter said computational biology is a field that combines biology and computer science. It involves processing information amassed in biology experiments.

"There are a lot of experiments going on right now, or in the recent past, that are accruing tons and tons of biological data," Porter said. "So the idea behind bioinformatics, or as it's sometimes called, computational biology, is to be able to do something with all of that data."

Porter said an example of computational biology can be seen in the Human Genome Project. By using computational biology, researchers were able to process the extensive amount of data collected by the project.

Porter has changed her career goals and wants to do lab work more than computational work, but she still is glad she decided on a computational neurobiology major.

Porter said interdisciplinary studies allow students to see how various disciplines affect each other while also teaching critical thinking.

"I think learning through interdisciplinary structure really teaches you to not have tunnel vision about something," she said. "The more you know about the big picture, the more you have this global idea of what's going on."

Kelrick said he thinks interdisciplinary studies will be important in the future.

"The biggest challenges we have are not going to be solved by narrow, disciplinary thinking," he said. "That's what it boils down to for me. You're going to need some people with knowledge and expertise in a wide variety of disciplines, and ... I think we're going

to need people whose problem-solving abilities are characterized by a lot of flexibility, willingness to collaborate with people from different backgrounds and tapping various people's expertise to address the problems at hand or the challenges at hand."

He said interdisciplinary thinking allows people to understand issues and problems from multiple viewpoints, giving them a broader perspective. Truman's mission as a liberal arts and sciences university supports this view.

"Our own liberal studies program, for example, is acknowledging that we would like people to have that diversity," Kelrick said.

He said he has seen increased interest in interdisciplinary studies among incoming students in the past two and a half years, and that there has been considerable growth in interdisciplinary minors.

For a new major to be introduced at Truman, Kelrick said there is an intensive process that must take place at the university and state level.

Kelrick said he has seen an interest in majors such as sustainability that he could foresee becoming established majors at the University.

"I think a couple of them could be viable here," Kelrick said. "Whether or not we were to go down that path is a larger issue than just whether they would be viable, because we have to go through the approval process."

"It would be a larger and more complex issue than most students would acknowledge."

He said he sees interdisciplinary studies as mission-appropriate for Truman and hopes it will continue to grow.

"It certainly looks like there's plenty of interest amongst faculty, and there's also clientele, in terms of students' interest," Kelrick said.

"I think learning through interdisciplinary structure really teaches you to not have tunnel vision about something."

Chelle King Porter  
Graduate student

## New Emerging Disciplines

Service Science

Health Informatics

Sustainability

Public Health

Computational Science

\*Chronicle of Higher Education

## Current Top Majors at Truman

Biology - 597 students

Health and Exercise Science - 533

Business Administration - 523

English - 431

Psychology - 414

Sarah Thompson/Index

# Student Senate rejects slate for student representative to Board of Governors, November deadline looming

BY COLETTE LINTON  
Staff Reporter

The selection process for a new student representative to the Board of Governors continues after Student Senate rejected the original slate of three applicants Sunday.

A student committee co-chaired by current student representative Cody Sumter and Student Senate president JoEllen Flanagan chose senior Charles Tomlinson, junior Adam Crews and freshman George Allan Jr. from 11 applicants. However, their approval as candidates for the position hangs in the balance after voting senators shot down the original slate.

After Student Senate rejected the slate Sunday, it was sent back to the selection committee for review. The committee, which is made up of 10 students from a variety of prominent campus organizations, chose not to change the slate. Thus, the original slate will be sent back to Student Senate for a vote in its executive meeting at 6 p.m. tonight.

"Basically the Senate gave us their reasoning for not passing the slate, brought it back

to the committee and the committee decided that we were comfortable in the slate we'd selected," said Sumter, whose term ends this semester. "We had picked the top candidates."

Voting senator senior Lizz Esfeld said earlier this week that Student Senate must make the final judgment and determine whether the slate presented to them displays the qualification and capability necessary to be considered for interviews with Nixon.

"What I was looking for, personally, when making the decision on the slate was making sure that there were three qualified candidates that I thought could represent the student body to the best extent possible," Esfeld said. "In that sense we wanted to really make sure that it was a very qualified group of people that would be sent to the governor's [office], one of which I could feel comfortable representing stu-

dents to the Board."

There is a Nov. 1 deadline for a slate to be approved by the Student Senate and sent to Gov. Jay Nixon's office.

"It's due Sunday but no one will be in the governors' office Sunday, so if it fails [to get Student Senate's approval] Thursday it can go back up for vote Sunday and we can send it to the governors' office Sunday night or Monday morning," Sumter said.

Once Student Senate approves the slate, Gov. Nixon will interview the three finalists and make the final selection. After this, the Missouri State Senate confirms the individual as the next representative to the Board.

The responsibility of a student representative entails communicating the interests, concerns and perspectives of students on campus to the Board of Governors, the University's highest policy-making body.

"We were comfortable in the slate we'd selected. We had picked the top candidates."

Cody Sumter  
Current student representative to the Board of Governors

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The Zeta Xi chapter of Beta Theta Pi is offering two \$250 scholarships to non-Greek male students at Truman State University. If interested in the scholarship, I encourage you to complete the application at [www.zeta-xi.com/rush/men\\_of\\_principle\\_scholarship](http://www.zeta-xi.com/rush/men_of_principle_scholarship). The deadline to apply is November 20, 2009. If you have any questions or concerns, contact Jon Grush at [jmg6242@truman.edu](mailto:jmg6242@truman.edu).

\*Applying for the scholarship does not commit yourself to membership in Beta Theta Pi or any other organization.