Luddy Research Tribune

Welcome back to another edition of the Luddy Research Tribune! This issue is unique from others in the sense that it is not focused on research. Instead, we show how you can connect with professors in ways besides researching with them. We interview two professors: the associate chair of informatics and a professor teaching quantum computing. If you want to learn more about becoming a teaching assistant or get involved in quantum computing, make sure to check out the following sections!

J Duncan, Informatics

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Dr. Duncan is the associate chair of informatics as well as a senior lecturer. As the associate chair for informatics, he is in charge of assigning teaching assistants (TAs) to courses. This includes PhD students, masters students, and undergraduates. He believes that the opportunity for students to teach others is "a tremendously different and valuable experience."

How are professors chosen to teach a specific course? This breaks into 3 main categories: tenure track, non-tenure track, and teaching track professors. Teaching track professors teach more classes than tenure track professors. Most professors are assigned based on their interests as well as class openings.

How are teaching assistants assigned? This is dependent on the class enrollment and the amount/type of workload in the course. If a student wants to be a TA for a specific course, Duncan would encourage them to contact the professor of the class directly. He also encourages students to "keep an eye on when it is being scheduled. If it is being scheduled next semester and is taught by a different faculty member, you should also reach out to them." Afterwards, Duncan (or another faculty member for different majors) would receive contact from that professor and typically assign the student to be a TA for that course. If someone wants to be a teaching assistant but does not have a specific course in mind, they can contact Duncan (or another faculty member for different majors) to get recommendations for professors to contact. However, contacting professors directly typically results in the most success as far as TA assignments go.

How many undergraduate teaching assistants are there? Duncan says: "In Fall 22, Informatics hired 61 undergraduate teaching assistants, and in Spring 23 we hired 70.Courses we hired more than one undergraduate positions for in Spring included: I101, I201, I210, I211, I300, I308, I311, I360, and I341."

What is the Scholarship of Teaching and Learning (SoTL)? Duncan states "in the same way that our tenure-track colleagues do disciplinary research, … the Center for Innovative Teaching and Learning (CITL) … helps (us) be a better professor." This can be in the form of workshops as well as research projects related to the professors' fields of study.

Duncan concluded by adding "if anybody has an interest in talking about teaching, a lot of us who are teaching focused faculty would be very interested in having this conversation." He compares this contact to contacting a researching professor about what it takes to be a researcher. If you are interested in learning more about teaching in informatics, make sure to reach out to Dr. Duncan!

Dan-Adrian German, Computer Science

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Dr. German is a professor of computer science, focusing on quantum computing, at Luddy. In 2018, he took on a role of acting as an industry liaison. Also, he took charge of a project at IU focused on making a quantum computing program. Great leaps in quantum computing have been make in recent years, including IBM making a cloud-available quantum computer. Field experts predict significant hardware improvements by the end of the decade. For more info about quantum computing at IU, make sure to check out this link(for program information) and also this article(to see the full announcement about the future of quantum computing at IU). For a paper written by Dr. German, please see this link.

Have you ever wanted to learn about quantum computing, but do not know where to start? Now, for the first time ever at IU, we have a quantum computing course! Taught by Dr. German, CSCI-C 290 is a class where, according to German, "I will assume you don't know anything. I will do my best to build your terminology. We can't cut corners, but I will teach you everything." If you are interested, make sure to check the syllabus at this link!

Furthermore, there is now a masters track in quantum computing. Dr. German made sure to note that anyone in the STEM field can take part in the accelerated masters program, which takes 3 semesters as well as a "boot camp" over a summer focused on learning the basics about quantum computing. The program had its first graduate this past summer semester and will give any student a strong background in quantum computing, so make sure to see this link for more information!

WORLD QUANTUM DAY APRIL 14

Quantum Day 2023

IU QISE

Have you every wondered what quantum music would sound like? The Indiana University Quantum Information Science and Engineering (QISE) Student Journal Club will be hosting an event on World Quantum Day 2023! On April 14th, an event will be hosted in the Jacobs School of Music because the theme is Quantum Music Playground. Some individuals include representatives from IBM and Intel as well as speakers from around the world. For more information, make sure to click the "Quantum Day 2023" link above!

Established in 2022, QISE is always accepting new members and is a space where students can share their interest in quantum computing. Furthermore, being a part of the club can lead to opportunities, such as hearing guest speakers and competing in quantum computing hack-a-thons (including one this year at MIT!). Make sure to check out the "IU QISE" link above!