The tell-all of a BCCB major

Well known as one of the most immersive study programs on this campus, the Biochemistry and Cell Biology (BCCB) major is one unique to Jacobs University. Owing to the separate heritage of these disciplines in classical chemistry and biology respectively, most universities shy away from offering such a combined degree. It may even be that no other university has an undergraduate equivalent to the BCCB course structure as found in Jacobs.

This is where our story begins.

Anyone is free to apply for this major, with neither high school level biology nor chemistry being a mandatory pre-requisite. Launching off directly into introductory biochemistry and cell biology courses, this structure immediately puts at disadvantage those who came here intending to learn something new. The chemists’ and the biochemists’ (although they might not explicitly state this) conscience hurts to be eventually handing out a degree in Biochemistry to students who may have no experience even with balancing basic chemical equations. The professors integrate relevant aspects of chemistry into these classes, but the concepts are taught in a manner too focused to reflect the entirety of their nature; in simpler words, there runs a high risk of oversimplification.

The overarching objective of this major is to prepare students for a career in academia, to be the scientists who change tomorrow. Simple concepts given in a watered-down form are perfect for the students to understand or pass a class, but what about the implications in the long run? Stunted knowledge makes for a vocational degree, one where you’re trained to do, rather than to think.

This is not in any way meant to negatively reflect on the faculty. BCCB has the good fortune of being blessed with professors who not only have vast knowledge of the subject matter, but also are willing to go the extra mile to be effective educators. Student-teacher interactions are not confined within the classroom, they are even encouraged without.

Does this create avenues for the development of favouritism? That cannot be answered in black and white terms. BCCB is by nature a competitive field, and it only follows naturally that the major would be a little bit of a dog-eats-dog world. The top twenty percent of students in a batch are often given significant preference over the rest of the students in handing out jobs within the major, e.g. to be a teaching assistant, and of course, skill begets opportunity. However, the competition that arises amongst these students increases drastically over the years, as they are constantly pitted against one another for grades, student jobs, internships, etc – not a very conducive atmosphere for the development of a unified student body in the major. The academic stress present is high enough without the added politics this “competition” necessitates to keep from getting pulled under.

BCCB majors do spend significant amount of their time cooped up behind their books. It’s flattering if you’ve assigned this to their devotion, in reality, it is simply the enormity of the workload that leaves no other way to cope. A quiz a week per course, elaborate lab reports every alternate week, long hours in the laboratory itself – this is tough, but understandable and certainly not unheard of. The sheer magnitude of work is showcased better by the fact that 4th semester BCCB students are being taught material from a graduate level textbook, or that some courses are based solely on research articles than textbooks.

BCCB is a challenging combination of two advanced disciplines that the Jacobs module structure has further squeezed into two years, the third year being exclusively devoted to practical research (“Career”, as they’d call it). The module system has crippled a lot of the education at this university, but its effects resonate very loudly through the BCCB major. Trying to make the best out of this constrained structure is the true unifying factor for the BCCB students and faculty.

The problems that the BCCB faculty face are a whole different hornet’s nest. The biological life sciences are an expensive discipline, and Jacobs University’s knack for skewed priorities presents (almost) unnecessary challenges in areas the faculty should have the right to take for granted. Funding remains a standing problem, with lab courses being run on money that comes not from the teaching budget, rather personal research grants of the professors. Cost-cutting is adversely affecting the quality of teaching, and the problem amplifies year after year with more students admitted every subsequent batch.

BCCB was the major at Jacobs University that was chosen by an accreditation agency and experts from other universities to be specifically accredited, and for good reason. With alumni that have gone on to achieve huge acclaim in this field, this major represents the potential of the singular approach to undergraduate education offered by Jacobs university. The module system in its infancy is already teeming with drawbacks. Should the adamant nature toward changing this system persist, we stand to lose so much more than any student at this university deserves.