

Learning in style in Dal's renovated Biology labs

Regis Dudley - October 26, 2012



A look at the new, stylish labs. (Nick Pearce photo)

When you walk into the newly renovated biology labs in the Life Sciences Centre, it's clear that something has changed. Students sit at round workstations in groups – exchanging thoughts, or perhaps getting ready to study specimens under their microscopes. Display cases line the walls, and inquisitive chatter fills the room.

A recent renovation has truly breathed new life into an old space and students and faculty are loving the improvements.

Three Biology department teaching labs in the Life Sciences Centre underwent extensive renovations this summer, resulting in changes that Biology senior instructor Todd Bishop believes will improve student learning.

“The old school method of teaching in Biology labs involved the instructor lecturing while students followed instructions from a lab manual and worked individually, but that’s probably not the best way for most students to learn,” explains Bishop. “Learning happens when students collaborate and interact. The new labs promote real learning.”

Dalhousie’s Facilities Management Trades Group gave the labs a total gut job, replacing old lab benches with custom made, wooden hexagonal workstations ideal for student interaction.

“With the old benches, students didn’t have the same flexibility to collaborate and share ideas,” explains Mr. Bishop. “The new seating has the students facing each other in groups. This promotes interaction and collective problem-solving.”

Supporting students

When instructors lecture, they have the tools to engage students: two projection screens fully equipped with audio and a long chalkboard. The workstations also allow students to share information with the entire lab by projecting from their electronic devices onto to the screens. The majority of the time, though, students work in small groups while instructors circulate around the room to promote self-directed learning.

“Instructors and teaching assistants are there to support the students,” says Biology instructor Gillian Gass. “The main goal of the renovation was to enhance students’ learning in the lab setting. Students need opportunities to think independently, learn techniques and make observations, work with their classmates, and get guidance as needed from the teaching team.”

The renovations included top-to-bottom changes such as better lighting, double sinks, new flooring and comfortable chairs. Each lab also has a “personality” – a unique set of floor patterns and chair and door colours that give the lab a special vibe.

Learning that flows

“The lab is set up really well,” says first-year student Shelby MacDougall. “It doesn’t matter where you sit because everyone can see the instructor and the other students.”

According to Dr. Gass, the new seating arrangement also makes moving around the lab easier.

“We can interact better with students and small groups when there’s a natural flow through the labs,” she says. “Workstations are set up so instructors and teaching assistants can get to every student without disrupting others.”

The labs have been praised by many Dal instructors and will likely serve as inspiration for future psychology and ocean sciences labs. In Bishop’s words: “They’re a great place to study biology.”

The remodel took two years of planning and four months of construction. The renovation was done by Dalhousie’s Facilities Management department, Audio-Visual Services and Networks and Systems staff. Chris Young from the Halifax firm Duffus Romans Kundzins Rounsefell Architects Ltd. designed the labs and local suppliers provided materials. Many Dalhousie faculty and staff played a role through attending meetings, giving feedback and coordinating projects.