

Universities Without Mathematics?

Editorial

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Laurentian University, in deep financial trouble, has decided to drop their mathematics program as part of what is essentially a bankruptcy proceeding. What are we to make of this?

We may be surprised at the idea that a university *can* declare bankruptcy. But clearly this – or something like it – must be so. Universities can take on debt, and unless you're just slipping \$20 to a friend who came out without their wallet, debt involves the question of what happens if it isn't paid back. It is said that King's College, Cambridge, at the suggestion of John Maynard Keynes, mortgaged King's College Chapel and by canny investment of the proceeds set the college up financially. (*Si non è vero, è ben trovato!*) Of course, in such a case, one wonders what re-course the investors would have had if the college had defaulted. No doubt they would have had both legal and practical difficulty turning the chapel into a factory or a dance hall. Similarly, the bricks and mortar of a modern university have few alternative uses, and are often encumbered by zoning restrictions; the most likely use that a creditor could make of them would be to rent them back. Nonetheless, it is unusual for a

university to take such a step.

But suppose a university to be in deep enough financial trouble that drastic cuts must be made: what are the options? It's easy to point at another program and say "cut there!" but every department can play at that game. And while we may feel that some of the specialized programs at modern universities are marginal to the traditional role of a university, they tend to bring in students – or outside funding – and pay their way. That's how they got there.

Uniform cutting across all programs sounds like a fair option – but many specialized programs have a closely defined curriculum, few options, and exactly the courses that they need to be viable. Moreover, some external body has usually approved that curriculum. Cutting 25% of the courses might leave the program completely unviable. Of course, the same thing is true of more traditional programs: it's just not quite as obvious. Closing programs is not a pleasant option: and this is especially true of math programs.

What's so special about mathematics? An institution of higher learning can exist without a mathematics program. In Nova Scotia, for instance, the Atlantic School of Theology, the Nova Scotia College of Art and Design, and the Gaelic College of Cape Breton all do very well without one. But you can see the pattern: these are institutions teaching limited, though important, branches of knowledge. Even the little Université Ste-Anne, with about 400 full-time students, offers ten math courses, supporting their BSc and education programs. Without mathematics, the range of programs that an institution can offer is strictly limited. It may train excellent poets, hairdressers, automobile mechanics, or musicians; but in the twenty-first century it would be hard to think of it as a university.

Of course, it is possible to keep a few mathematics instructors around to teach service courses, without offering any higher level courses or degree programs. But this may be a false economy. Most CMS members know that their teaching will always lean towards calculus, linear algebra, and other service subjects, and we accept this. Varying this with even one course per year on more advanced subjects, however, keeps the instructor fresh – and in a department of any size, this gives the students, at little extra cost, the valuable option of a minor, or even a major, in mathematics. It is hard to imagine an institution without such an option competing successfully for the best instructors, or the best students.

We can offer no solutions ourselves to Laurentian's financial woes, which are clearly all too real. It does seem, however, that by dropping mathematics (more than most other subjects) they are moving onto a dangerous course that will make it impossible to maintain, and difficult to recover, their current status.