MEMO

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To: Francine Vachon, Chair & Bareket Falk, Vice-Chair, IT&I

From: Rajiv Jhangiani, Vice Provost, Teaching and Learning

Date: May 12, 2026

Subject: Acquisition of modern bubble sheet-based assessment service

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MOVED (/)

THAT The Information Technology & Infrastructure Committee recommend that Senate endorse the acquisition of a modern bubble sheet-based assessment service (e.g. Scantron or Scantron alternative), based on the report presented to the Senate Information Technology & Infrastructure Committee on May 12, 2026.

RATIONALE

Brock University's bubble sheet-based assessment service, the sheets themselves, and the processing tools, are each commonly referred to by the vendor's name: Scantron. For simplicity, this report refers to the aggregated service as Scantron, and attempts to identify its sub-components as necessary.

According to Faculty Handbook III:C.5.3, Process for acquisition or development of academic technology or infrastructure, this motion tasks the key departments primarily involved in the current process, which in this case are the Centre for Pedagogical Innovation (CPI), Information and Technology Services (ITS), the Office of the Registrar and Enrollment Services (ORES), and Student Accommodation Services (SAS), to modernize the Scantron services while maintaining the current service level, obtaining process efficiencies, and conducting an appropriate change management campaign. Additionally, any procurement process should be conducted in alignment with Brock University's procurement procedures.

Finally, any new systems selected should meet the requirements set out in Faculty Handbook III:A.9, Examinations. Any potential for changes should be brought to Undergraduate Student Affairs Committee, and other relevant committees for consideration.

Whereas bubble sheet-based assessment has limitations related to the types of learning it can assess, recent concerns about ensuring the security of our assessment process has shifted priorities. Although a decade ago computer-based and cumulative assignment-based examinations were expected to grow, and bubble-sheet based assessment was expected to diminish, the influence of generative AI and other factors have sustained bubble sheet-based assessment at Brock and may even lead to its growth.

A survey of instructors who use Brock University's current Scantron system demonstrates the service's importance to instructors' current assessment methods.

Brock University's bottleneck in this process is that the current Scantron process requires all sheets to be scanned together in one location, where the scanners and processing software are located. This is because of the requirements to generate a single list of student scores, and to create reports on the performance of students and the assessment itself. Students who do not write bubble sheet-based assessments in the gym, whether for an accommodation or as a result of a make-up assessment, create a circumstance that either delays scantron processing or creates additional runs with "one-of-one" reports that are practically and mathematically difficult to merge with the rest of the assessment results.

Digitizing the bubble sheets as the first step after students submit their assessment removes downstream bottlenecks caused by the physical constraints. Modernization also allows for the use of modern hardware (more scanners) and digitization also allows for a faster, more distributed workflow, that also allows for better scrutiny of the processing and quicker access to results.

The current Scantron arrangement is a technical dead-end, as all vendors, including the Scantron corporation, offer modern solutions that are more cloud-based and that benefit from the course context provided by the LMS or SIS.

For these reasons more modern software and processes are recommended.

Background Information: Framing the need

- The current Scantron processing software, operated by ITS, requires running old versions of Microsoft Office and Adobe Acrobat to prevent technical (i.e. DLL) errors when scanning
- There have been issues with the inter-office mailing of results
- The current scanners have been serviced occasionally, but have not been replaced
    - In the last two years there has been an increase in issues with the current Scantron system, including a calibration issue that caused misread bubble sheets that was only detected by attentive faculty
- The Scantron system requires Scantron's specific bubble sheets that are subject to supply chain disruptions
- The current reporting is flawed, and limits analysis of question quality
    - Incomplete batches
    - Report types need to be requested before results are generated
- Physical sheets limit the ability for students to inspect their final examinations, as they are entitled to per Faculty Handbook III:A.9.3.4
- Errors hold up the entire process. Instructors have little visibility into issues and cannot inspect results until the physical sheets are returned to them
- Physical issues, such as bent/crumpled bubble sheets, or collection of filled sheets from different departments, hold up entire jobs because the system requires them to be processed together
- Updated software that integrates directly with the LMS can speed up results by removing the scanning process as a bottleneck and allowing the LMS to give context to individual scanned sheets (not simply the sheets being scanned together, or with a specific answer key)
- The recent external professional consultant reports have highlighted the scanning bottleneck. Removing the bottleneck can allow for the process to be distributed from ITS to other departments, including CPI and ORES
    - The Brock University EAF Implementation Plan emphasized that the university should "Enforce internal deadlines for submission of course grades," suggesting delays in meeting what is required by Faculty Handbook III:A.9.3.2.
    - The external report on IT services at Brock has also highlighted the lack of resources in ITS.

SURVEY OF CURRENT SCANTRON USERS

Survey Method

The population of Brock instructors (n = 140) who currently utilize Scantron services across various courses and sections were identified and emailed a link to the Scantron Users Consultation Survey on Monday May 4, 2026 by CPI. In this email, instructors were asked to complete the survey in Microsoft Forms by Friday May 8, 2026.

Survey Results

43 users responded to the survey by Friday May 8th, 2026. The overwhelming majority of these users (93%) reported being satisfied with the current Scantron services at Brock University.

The most common reasons for their satisfaction include that they receive results back promptly, that ITS staff resolve issues before the results get back to them, and that the process is easy to use for instructors. The following is an example of a relevant open-ended comment:

"The Scantron Service is easy to access without extra preparation time for inputting questions into the LMS. Also, the service is quick and efficient thanks to Les at ITS. I also appreciate the analysis they provide, which helps me to go over the questions and correct answer rates carefully again to learn which part the students made mistakes and sometimes I made mistakes. To me, this review step before uploading the exam results is important and educational."

The 7% of users who indicated dissatisfaction with the Scantron services at Brock cited reasons such as delays in receiving results for midterm exams, the whole process relying on one person in ITS, and that these users manually mark the assessments collected from SAS instead of waiting to submit all bubble sheets at once. For example:

"The service itself works ok but depends on a single person. When this person is not available (this has happened in recent times), then the system does not work at all. During exam season, this can be very problematic."

Users were also asked about what features an automated multiple choice test grading for paper assessments tool would ideally have. The list below outlines some of those features, organized from most frequently requested to least frequently requested:

- The ability to easily move grades into Brightspace gradebook
- The ability to have different versions of the test and easily mark them as such without it being obvious to the students
- A more accurate and reliable system
- A more efficient system, results are guaranteed to be analysed quickly
- An easy to use system
- The ability to revise and/or correct missing information from Scantrons so hand grading does not have to be done

“Right now if a student hands in a scantron with a wrong SN, I have to wait until they come back in the interoffice mail and then manually identify (usually by guessing) the student in question, find their scantron and confirm everything. If there was a way to easily separate the ones with "bad" student numbers and make suggestions on who it would be that would be great.”

Survey Conclusion

The findings of this survey demonstrate the importance of Brock University’s current Scantron service to the instructors who are currently using the service. While nearly all of the instructors who responded to the survey expressed satisfaction with Brock University’s current Scantron service, this satisfaction is largely attributable to the dedication of ITS staff, familiarity with the process, and the speed of results under optimal conditions, and not to the long-term viability of the system itself.

The existing Scantron infrastructure has not been updated in thirteen years and is increasingly vulnerable to hardware failure, software incompatibility, staffing dependencies, and process inefficiencies that introduce risk during peak assessment periods.

Instructors have also clearly identified a set of desired features that the current system cannot sustainably deliver. This includesseamless Brightspace gradebook integration, support for multiple exam versions, improved accuracy, faster and more reliable results turnaround, and the ability to correct common errors without manual intervention.

Upgrading Brock’s Scantron services is therefore necessary, not because the current service is failing instructors today, but because it cannot reliably support the institution’s assessment needs into the future without substantial risk and inefficiency.

SCANTRON ALTERNATIVES EXPLORED AT BROCK UNIVERSITY

- Akindi - Web-based Scantron alternative
  - First investigated by Classics department in 2024
  - April 2026 pilot: 5 courses, 6 sections, 6 instructors, ~1154 students
- Crowdmark: Administered Assessments
  - Used primarily for online submissions, but used occasionally for paper-based assessments from 2022 to present.
- Scantron TestFlex – Web-based Scatron sheet processing
  - Not deployed because of lack of BrockDb or Sakai compatibility