

Scantron Report

Current Situation: There is one scantron machine on campus. It is housed and managed by User Support Services (Information Technology Services). Currently, the staff at the Help Desk are responsible for running the scantrons through the machine and providing a printed report to the faculty.

- **Current Usage** – Use has been declining, but is still significant:
 - 509 total runs for 62 users (Spring 2017)
 - 367 total runs for 61 users (Fall 2017)
 - 372 total runs for 60 users (Spring 2018)
 - 211 total runs for 50 users (Fall 2018)

Reason for Change: The Registrar has raised a FERPA-related concern because Help Desk staff have access to student grades while running the scanner. The location, operation, and maintenance of the Scantron system must be removed from Information Technology Services and placed into another department (possibly within Academic Affairs). A specific deadline has not been provided, but planning for the change must begin. There are several secondary concerns that may motivate further upgrades or changes:

- The current scantron machine is an older version and we do not have a back-up machine if it breaks.
- We use older software with limited analysis and reporting abilities, and requires unique ID numbers for each scan (or the scan fails).
- The scantron forms are so old they now require a special order and extra cost (\$3k per year compared to \$1500 for standard forms).

Online Exam Administration: The Academic Technology Advisory Committee strongly urges faculty who wish to use automatically-graded exams in their classes to administer those exams via Canvas *in person* instead of using Scantron forms. Administering exams in Canvas provides several benefits, including:

- More question types than Scantron
- More thorough analysis of results
- Instant grading of some question types without scanning
- Instant feedback to students (if desired)
- Backup and archiving of student answers and grades
- Options for question randomization to reduce peer-to-peer cheating during exam

In Spring, 2018, the committee surveyed recent Scantron users regarding Scantron and switching to Canvas. Based on those survey results and discussions with Scantron users, concerns with switching to Canvas for in-class exams fall into several categories:

- Cheating
- Difficulty of entering questions into Canvas
- Potential failures of student laptops or University technology (wifi or software issues during exams).

The DEC and ITS have been working with the Committee and other faculty to alleviate these concerns and have tools in place to address each. The DEC has staff and trainings to aid the transition for interested faculty. Several faculty with large classes (up to 160 students), and including the entire Nursing Department, successfully administer all of their in-class exams with Canvas.

However, since at least 50 faculty are regular users of Scantron exams, the Committee suggests the following options that will alleviate the FERPA concerns and possibly other Scantron-related concerns.

Options:

For all options listed below, testing on Canvas is highly encouraged.

A) *Stay with the current scantron hardware and software (includes one scanner). Move the management, operation, and maintenance of the scantron system to another department within Academic Affairs.*

Pros:

- Alleviates FERPA concerns by moving Scantron management out of ITS
- Allows faculty using scantron to continue with current practices

Cons:

- Lack of analysis features and question types
- Still need all scans to have unique ID numbers
- Costs of custom forms (\$3,000 per year)
- Single, old machine reliability

B) *Upgrade to new Scantron hardware and software (includes the purchase of new scanner). Move the management, operation, and maintenance of the scantron system to another department within Academic Affairs.*

Pros:

- Alleviates FERPA concerns by moving Scantron management out of ITS
- Faster and more reliable scans with no need for unique IDs
- More question types and better analysis options
- More information (videos, brochure) about the new scantron software and hardware is available at <https://www.scantron.com/scanners-forms/remark-classic-omr-software/>

Cons:

- Costs of new hardware, software, and training:
 - OpScan 4ES Model 2800 – \$5,045.00
 - Remark Software - \$1,800 per instance/scanner (one time fee)
 - Maintenance agreements – Annual Costs:
 - Hardware - \$598
 - Software - \$150
 - Forms – \$1,500 per year

- Since the University currently pays \$3,000 per year for current forms and pays for a hardware maintenance agreement, the net cost to upgrade would be about \$5,345 in the first year, with ~ \$1,500 savings each year thereafter.

C) *Upgrade to new Scantron hardware and software in addition to purchasing multiple new scanners. Move the management, operation, and maintenance of the scantron system to another department within Academic Affairs.*

Pros:

- Same as option B
- Multiple scanners allow redundancy in case of failure, and multiple locations on campus

Cons:

- Costs of new scanners and software (see above for breakdown)

D) *Discontinue support of paper-based exam scanning system in favor of Canvas.*

Pros:

- All hardware and software requirements are already in place.
- Training and support available on campus from DEC.
- More question types and analysis options possible
- Backup and archiving
- Randomization of questions and answers provides nearly infinite versions of exams to reduce in-person cheating

Cons:

- Relies on wireless access to the network which is currently being upgraded as requested
- Relies on functional student laptops (or loaners from the library)
- Faculty must learn how to create online exams