

CytoFlex Independent User Requirements and Recertification

Research Instrumentation Core Facility - BYU

Student can certify to run the CytoFlex as Independent Users.

1. Take MMBio522 Flow Cytometry course in Fall semester.
2. Prepare for the competency exam (see recommendations below).
3. Pass the competency exam (see exam requirements below).
4. Maintain certification by using the CytoFlex at least once per month between recertification exams. If a student chooses to allow more than a month to lapse between use, the student can recertify by passing the competency exam again.
5. Testing times are offered during January, May and September.

The competency exam requires the following:

1. The student must correctly perform a full startup, sample experiment run, and shutdown of the machine without the assistance of any template, previous setting, or technician guidance.
2. The student must provide the experimental samples for the exam. Samples must include at least three colors, all appropriate controls and at least one multi-color sample.
3. During this process, the student must demonstrate the ability to set threshold, gains, compensation setup/calculation, experiment setup/data collection, and any appropriate trouble-shooting steps involved.
4. The student must also demonstrate the ability to refill the sheath fluid, refill the cleaning fluid and empty the waste tank.

Exam Scheduling and Billing

Students should schedule a 1.5 hour session with the RIC lab technician for competency testing which will be accommodated during technician work hours and charged to the professor for the time used to take the test. To pass the test, students must complete all tasks within the 1.5 hour session. Students who do not pass may re-take the competency test up to three times during a testing period. Testing periods are offered during the months of January, May, and September.

Password Management and Recertification

The CytoFlex password will be changed every three months. Independent users are expected to run the CytoFlex at least once per month to maintain certification, which will qualify the student to skip taking the competency exam for one year from the time of their certification.

Independent users whose certification has lapsed can re-certify at the next open testing time. A reminder will be posted in the RIC and an email will be sent to current independent users a few weeks before each password change, as well as before certification testing times.

Statement of Policy-Making for Competency Exams

Faculty of the Microbiology and Molecular Biology Department participated in determining the above policies and testing methods during the Fall 2018 Faculty Conference when the policies were discussed and approved by vote.

Recommended Preparation for Independent User Certification Exam

Students are highly encouraged to do the following to prepare for their exam:

- Review the Cytoflex Training Powerpoint. The Powerpoint file is posted on the RIC website.
- Study the Cytoflex Quick Guide. The Quick Guide is posted on the RIC website and a hard-copy is taped to the wall behind the Cytoflex in the RIC.
- Install the CytExpert software on their home or lab computer and practice using software analysis tools to become comfortable with how to manage plots. The CytExpert software is freeware and students can request for a copy of the software from the lab technician or can find a download online.
- Study the Cytoflex User Manual. The User Manual is posted on the RIC website.
- Shadow other students prior to testing.

Students may also consider scheduling a certification exam in which the student realizes he/she may not pass, but instead uses the exam time as a self-test and freely asks for technician feedback while taking the exam. If the technician guides the student during an exam, the student will not pass; however, the student can use the feedback and real-time practice to help understand exactly how to pass on a reschedule. As stated in the policies, students may retest up to three times during the one month testing period.