



CCNY STUDENT TECHNOLOGY FEE PLAN

FY 2018

By

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Background

In the fall of 2001, CCNY established a Technology Task Force which included representatives from the administration, faculty, student body and technology support offices. The goal of the Technology Task Force is to formulate a set of recommendations to improve technology throughout the college. Their recommendations for educational applications of technology provide the basis for discussions between the members of the *Technology Fee Committee* – the group charged with responsibility for drafting the annual plans for the investment of the Student Technology Fee (Tech Fee). A copy of the 2017-2018 Technology Fee Plan can be viewed at <https://www.ccnycunyu.edu/it/techfee>.

Introduction

The Technology Fee Committee has agreed on two planning principles:

1. The funds should be invested in ways that directly and positively impact the experience of students at the college
2. In the initial years, at least, the funds should be concentrated on a limited number of projects that are large enough to have significant visibility and effect.

With this agreement in place, the committee identified four goals:

Goal 1: Increase the number of students who are able to use new technology tools competently and creatively

Goal 2: Significantly expand faculty use of new technology tools within the College's classrooms and curricula

Goal 3: Enhance student access to new technology tools

Goal 4: Extend the learning and research resources that the City College libraries make available electronically.

FY 2018 Proposed Activities and Corresponding Budgets

For the coming year, the Technology Fee Committee identified four activities to be implemented with a total cost of \$3,369,264. The selection of this fiscal year's technology projects are guided by funding initiatives which:

- Impact the broadest number of students across schools/divisions
- Advance e-learning and improve access to higher education
- Promote post-graduate readiness
- Reduce CCNY's carbon footprint.

The projects are as follows:

Project Title	Cost
1. University-Wide Initiatives (UWI)	\$659,202
2. Library Digital Subscriptions	\$548,963
3. OIT – Maintenance Costs	\$466,111
4. Printing Access in Science Library	\$ 4,133
5. Psychotherapy and Counseling DVD's for Enhancement of Professional Training & Education in Psychology	\$ 6,188
6. NAC Aronow Theater AV Upgrade to Implement VIA Pro Connect	\$ 7,000
7. Upgrading the Division of Science Test Scoring Center	\$ 7,681
8. Multimedia Center Computer Upgrade	\$ 8,208
9. Learning & Technology Resource Center(LTCR) Computer Upgrade	\$ 8,208
10. Smarts boards Upgrade	\$ 8,292
11. Rapid and Modest Upgrade for the CCNY Planetarium Room	\$ 10,999
12. 3M Library Detection System for Tech Center Main Entrance	\$ 20,000
13. CWE Computer Lab Equipment Upgrade and Student Loan Program	\$ 20,462
14. Wireless Collaboration Solution Implementation Shepard Hall Smart Classrooms	\$ 27,000
15. Biology Lab Instruction for the 21 st Century	\$ 34,595
16. Upgrading & Expanding The Science Library Computer System	\$ 75,040
17. Student Technology Internship Program (STIP)	\$1,457,182
Grand Total	\$3,369,264

List of Accomplishments for the end of FY 2017

Since its founding in 2001, the City College Technology Fee Committee has been successful in continuing to systematically upgrade student computer labs, licenses, and wireless access points, as well as secure funding for electronic media resources and publications in libraries and University Wide Initiatives (UWI) while targeting specific new initiatives to meet student needs.

Enhancing the experience of our students and properly distributing the Technology Fee funds on campus are the committee's priorities. Using last year's Tech Fee funding, we were able to accomplish the following for FY 2017:

1. Office of Information Technology (OIT)

The OIT division was able to continue maintaining essential technology services for students, as well as completing several key projects to help ensure students continue to achieve their objectives. Some of these projected are listed below:

- Wi-Fi Expansion and Upgrades
- Laptop Loaner Program for students
- iMedia Laptops upgrade for Faculty Loan Program
- Smart Classroom Expansion
- General MAC Student Labs Upgrade
- Print Management Software

All the general student labs license agreements including Deep Freeze, wireless, Print Manager Plus, LabStats, Jamf Casper Suite, Citrix Xen Desktop, Webcheckout, Nemo-Q, Bomgar, and Next Bus for students, were renewed. Projectors and projector screens have been ordered to upgrade and extend our compliment of smart classrooms.

2. Library Subscriptions

This gives the college libraries the ability to renew their digital subscriptions – such as Thomson Reuters Sci, SciFinder, Thieme Package, etc. (online databases) – to thousands of academic journals, patents, images, books and conference proceedings. With the renewals in place, students can access these abundant resources to substantiate their academic papers and research, furthering the college's mission to graduate informed citizens who can excel in our global society.

3. University Wide Initiatives (UWI)

The Office of Information Technology division successfully allocated at least 10 percent of the Technology Fee revenue to CUNY-wide University Initiatives. This allocation of funds is mandated by CUNY policy and City College has complied with the request.

4. Student Technology Internship Program (STIP)

The Student Technology Internship Program is currently being implemented. This internship program placed 55 of our students in one of the following divisions of OIT:

- Service Desk

- OIT and Divisional Client Services Support
- General OIT and divisional computer labs.

Through this program, students are trained to address the daily technology needs of the students, faculty and staff on campus. Over the years, STIP has proved to be essential in helping the Information Technology division to deliver essential services to students, faculty and staff, both inside and outside the classroom setting while providing participating students with robust, 21st century job skills.

Thanks to the support of the Tech Fee Advisory Committee members at CCNY and the Tech fee funding this fiscal year (FY 2017), OIT has completed over 21 key projects which have improved student life on campus:

1. Wi-Fi Expansion and Upgrades

In the past several months we have deployed an additional 53 wifi access points (APs), bringing the total number up from 393 to 446. To accommodate the rapid increase in the use of the CCNY Wi-Fi, we have acquired an additional 92 access points (waiting to be installed) to increase our Wi-Fi footprint. Once all the newly purchased access points are installed, it will expand our current wireless infrastructure to a total of 538 APs. This will dramatically increase the bandwidth and coverage across the entire campus, focusing particularly on open areas such as the libraries, as well as lecture halls and classrooms. We will continue adding to our Wi-Fi deployment each year.

2. Laptop Loaner Program for CCNY Students

The OIT is pleased to announce that a new Laptop Loaner Program, funded by the CCNY Student Technology Fee, is now available for matriculated CCNY students. The loaner program offers 111 laptops (76 Dell Latitude and 35 MacBook Pro) with the latest technology. Laptops are available for daily use on a first-come, first-served basis, Monday through Friday. All laptops are loaded with MS Office, Wi-Fi, Adobe Acrobat, as well as other CCNY-approved software such as Matlab, AutoCAD, SPSS, SAS, Adobe Cloud, etc. Please note: a user must be logged into the network for some software packages to be fully operational.

3. iMedia Laptops Upgrade for CCNY Faculty Loan Program

In addition to creating a new laptop loaner program for CCNY students, we have also replaced all the outdated iMedia center's laptops (35 laptops: 25 Dell Latitude and 10 MacBook Pros) available for faculty loan. These laptops are available to all CCNY faculty through our iMedia department, which is located in NAC 5/220.

4. Smart Classroom Expansion

We are continuing to expand and upgrade our existing smart classrooms. At the direction of the Office of Senior Vice President of Finance /Administration and COO, Mr. Leonard Zinnanti and Tech Fee funds were secured to add ten (10) new smart classrooms (three in Marshak, five in NAC and two in Shepard Hall). These rooms have been outfitted with AV systems, including a projector, audio speakers, controllers, AV interfaces and screens. Additionally, two smart classrooms have been upgraded. NAC 6/150 has been outfitted with a completely new audiovisual system. Compton Goethals 252 now has a new lectern with a built-in desktop computer, laptop connections and speakers. The projectors in these

rooms are equipped with the latest technology lamps, providing sharper images with more energy efficiency.

5. General Use Student Computer Labs Mac upgrade

In order to better support the Macs in the Tech Center, Graduate and Student Life labs, the operating system of the computers was upgraded to the newest version of Mac OS X 10.11. The previous version was no longer supported. Additionally, OIT has deployed Jamf Casper Suite, Macintosh management software. This upgrade was critical for simplifying the management of the approximately 200 Macs in the general student labs. The service was designed so that it can be scaled to support all of the Macs use by students on campus.

6. Print Management Software

The printing software for the student computer labs was replaced because the previously installed software became unstable and prone to frequent crashes when the new print quotas were implemented. The new software allows for improved management of print quotas, better reporting, and a simpler and more stable interface.

7. Student Teaching Computer Lab Upgrades

OIT continues to work closely with the Office of Facilities to implement upgrades throughout the campus. Several student computer labs have been upgraded during the last several months, funded by the CCNY Students Technology Fee. These include:

a. Spitzer School Of Architecture Sustainable Building Performance CadLAB Computer Upgrade

One of the two School of Architecture CAD labs has been upgraded to a state-of-the-art “Sustainable Building Performance Lab” with 20 high-end workstation computers and a cutting edge thermal imaging infrared camera that allows students to perform processor-intensive calculations and designs in the sustainable engineering, design and studio courses. This lab also supports Capstone student projects for graduate sustainability programs. The new lab will benefit research and teaching, and consolidate NYC’s leadership role in the area of energy at CCNY.

b. Artino General Mathematics Computer Lab Upgrade NAC 1/506

Approximately 1,000 students each week use the lab to work on assignments and to run mathematics simulations using MatLab, Mathematica. In order for the students to work effectively, we replaced 24 obsolete computers, whiteboards, and the classroom projector. In addition, the computers were added to the campus’s Active Directory, which allowed us to retire the obsolete servers that had been managing the lab, enabling more efficient administration of the computers.

c. Mechanical Engineering Computer Labs Upgrade (ST 226 and ST B39)

Ten new Dell OptiPlex 7040 MT desktops and two Dell Latitude E5470 were purchased to upgrade the two main general labs for Introduction to Engineering Design I and Systems Modeling, Analysis and Control. The obsolete 10- year-old network switches and the network cabling (with Cat 6) in Lab ST 226 was upgraded. The School of Engineering only had 50 licenses of SolidWorks, which has been upgraded with the newest version. An additional 150 licenses more have been added to allow students from different majors in engineering to complete their assignments and projects on time.

8. New Laptops for newly-created online Clinical Intake Form

Three clinical support areas – AccessAbility, Counseling and Health – now have a unified online demographic and clinical form to ensure that accurate data on a wide range of issues affecting students, from chronic medical and disability issues to alcohol and drug use, mental health, homelessness and more is securely collected. It also provides the ability to track student outcomes based on their GPA. The collected data, along with a prevention assessment model will support a holistic and comprehensive approach to providing student support, which will potentially improve retention rates.

9. Campus-Wide Digital Signage

Funded by the CCNY Student Technology Fee, eight large digital displays have been replaced throughout campus in collaboration with the Offices of Facilities and Marketing & Communications. The current displays can be remotely programmed to broadcast pertinent information regarding campus events, upcoming deadlines, weather, CUNY alerts, class scheduling changes and cancelations, and campus bus schedules.

10. Computing and Printing Infrastructure for Students in the Division of Science

We have provided a new HP Designjet 36" poster plotter T790 to replace the 15-year-old printer in the EAS department, as well as a Dell OptiPlex Desktop 7040 SFF. This was necessary because the old plotter was fault, outdated and unable to handle large files and software packages, which are necessary for the creation of large format posters for national and international colloquia and meetings. This has alleviated the burden on heavily used plotters housed in the Biology department and will help the students in the Physics department, who did not already have access to a large format printer. We have also purchased and installed 20 software licenses for ENVI/IDL in the teaching lab in 044. These are for use by students performing assignments in several EAS courses involving the mapping and analysis of geospatial datasets.

11. Improved Computer Service for ChE Department Students – Citrix Server Upgrade

The Citrix virtual server assigned to the Chemical Engineering (ChE) students has been upgraded with additional hard drives and extra memory to minimize downtime and provide adequate resources during peak demand. The Citrix server purchased in 2010 was constantly shutting down, affecting in excess of 50 ChE undergraduate, doctoral and MS students, who need access 24/7 to use specialized software. These additional resources also provide a fail-over backup server to minimize downtime.

12. Symplicity Career Services Management System

OIT renewed the Symplicity contract from the Tech Fee budget. The Career Services Management System is the primary web-based operating system for the Career and Professional Development Institute, which enables CCNY students to access job and internship opportunities online. In order for CCNY to stay in compliance with a federal Gainful Employment mandate and state Experiential Learning law, this essential system is needed to administer and track these opportunities. Users are now able to view and apply for employment and internship opportunities, regularly communicate with over 5,000 potential employers, host and deliver the Senior Graduation and six-month post-Graduation surveys,

track student internship experiences, notify students, faculty and administration of any new opportunities, and receive career coaching.

13. Art and MCA Departments Student Checkout Equipment

The Art and Media and Communication Arts departments (MCA) received 30 iPads with accessories, two pocket projectors, one 360 degree camera to implement an equipment checkout system for all Art and MCA majors and minors (affecting a total of 1,175 students). This new equipment loan program operates on a first-come, first-served basis. This project, administered in two locations (Compton-Goethals and Shepard Hall) services both departments that would otherwise not be available to students who use this equipment for assignments and presentations both in and out of class (e.g., for future employment). The Tech Fee also funded the acquisition of BookingPoint software, which allows the program administrator to easily manage the equipment being loaned. MCA also installed a FileMaker-based web checkout system to be shared and jointly administered by Art and MCA.

14. Computer Lab Accessibility for Social Science SH – 105

The OIT has installed legally-required accessibility measure to the Social Science Lab, which was not compliant with accessibility laws by adding two new wheelchair accessible computer workstations (four new seats each workstation). To improve the quality of classroom instruction and increase the class size capability from 27 to 35 obsolete seven-year-old computers were replaced with 36 new Dell OptiPlex 9030 SFF computers. Additionally, a smart podium with a workstation was installed to accommodate the instructor's needs. This has significantly alleviated the waiting lists for students taking required courses, allowing more of them to stay on track for graduation.

15. NAC 6/325 Social Science AV Enhancement

With the support of the Office of Facilities and IT, NAC 6/235 was reconfigured to install a new projection system. Two new projectors and screens were installed along the longer wall of the room so that instructors' presentations are readily visible from all parts or angle of the room. The projectors in these rooms are equipped with the latest technology lamps, providing sharper images with more energy efficiency. In addition, video and recording equipment were also installed to enable remote learning and conferencing experience. This new reconfiguration increased the class size capacity from 60 to 80 students per class.

16. School of Education Smartboard Upgrade

The School of Education has a proud history of leading the way on using emerging technology in classrooms and preparing students to use these tools effectively in the classrooms in which they are employed. In the past few years, they have been occupied with ensuring students have the mobile technology and tools they need to complete the edTPA assessment and support system and equipped to succeed in their fields of expertise. In collaboration with OIT, six of the current 11 smart classrooms were upgraded with the newest smartboards technology, a faster desktop computers and the latest software version of Notebook uses with these smartboards.

17. Writing Center Collaborative Learning Initiative Upgrade

Four 65-inch digital displays have been installed in the Writing Center to allow students to share their laptop screens with other students. In addition, OIT deployed four VIA Connect Pros allowing students collaborate with each other by wireless present from their devices to the displays.

Proposed Activities and Corresponding Budgets

CCNY Student Technology Fee Plan

1. University Wide Initiatives (CUNY-UWI) Projects

Person Responsible for Project(s): Ken Ihrer, AVP & CIO Office of Info. Tech (OIT)
Telephone Number: 212-650-7400
E-Mail: kihrrer@ccny.cuny.edu
College Department(s) Affected: Entire College

Project Description: CUNY Central has been asked to reserve 10 per cent of the total Technology Fee revenue to pay for University Wide Initiative projects (CUNY-UWI). I am requesting a total of \$659,202 to continue funding the software listed below. These software are primarily for student use.

FY 2018 Fiscal Year Budget:

Items	Cost	Recurring Cost
	Year 17 (FY 2018)	Year 18 (FY 2019)
List of Software		
SHI - Identity Finder	\$814	
Texthelp Browsealoud	\$1,193	
SHI - BeyondTrust	\$3,368	
HPC Support - CSI	\$3,508	
Maplesoft - Calculus	\$3,553	
Dell Enterprise Solution	\$3,599	
SHI - Learning Object	\$6,390	
ProQuest - Ref/Works	\$9,522	
SHI - Proofpoint	\$10,694	
MathWork- MatLab	\$12,456	
iParadigms - plagerism	\$17,738	
Dyntek - McAfee	\$22,401	
SHI - Adobe Creative Cloud	\$26,476	
IBM SPSS - Statistical	\$36,524	
Annese - Cisco Maintenance	\$33,147	
Dell Microsoft	\$72,237	
Blackboard	\$95,332	
Others (Library subscription, Wiley, IEEE) etc.	\$300,250	
Total	\$659,202	

2. Library Services–Database & Digital Subscriptions

Person Responsible for Project(s): Charles Stewart, Technical Services Chief

Telephone Number: 212-650-7271

E-Mail: cstewart@ccny.cuny.edu

College Department(s) Affected: Entire College

Impact on Students: Digital subscriptions are used by students for study and research, both on campus and by internet web proxy. This content is vital to City College’s mission to graduate IT-literate citizens able to function in a global society. Students learn how to effectively use these databases through the information literacy program in our classrooms, and they require access to these databases from outside the campus as they do their research.

The law requires that assistive technology be made available to students with disabilities who need it to successfully complete required coursework for classes.

Project Description: The Library is requesting funding from the Technology Fee funds to cover continuing subscription costs for online resources that were funded in the previous years from the Technology Fee funds. Below, please find a brief description of each database/digital subscription:

1. Emerald Engineering and Management

The Emerald Engineering e-Journal Collection comprises online access to the abstracts and full text of all the journals within Emerald’s engineering, materials science and technology portfolio. It also features 120 Business and Management journals, all of which are peer-reviewed and full text journals, plus reviews from the world's top 300 management journals in computer science, marketing, information sciences and management.

2. CAS-SciFinder Scholar

SciFinder Scholar is a comprehensive database indexing the chemistry and related sciences literature. SciFinder Scholar is useful for locating articles concerned with specific chemical substances and reactions. This is a cooperative purchasing arrangement between seven CUNY schools.

3. Springer e-Books

CCNY has had full text access to 15,000+ Springer eBooks, since their inception in 2005. Almost all the publications are scholarly and are oriented toward seniors or higher-level students and researchers. The database covers all areas of study, but is weighted toward the sciences.

4. American Chemical Society Online, 2016 subscription

The American Chemical Society (ACS) publishes 38 journals and magazines covering all aspects of the science of chemistry. Index and abstract information is available for all of these publications. Full text is available for 33 of them. All of these ACS journals are scholarly, peer-reviewed publications oriented toward senior or higher level readers. We use the CUNY-negotiated pricing arranged through NYSHEI.

5. Elsevier Science Direct

Science Direct is a database of all the materials published by Elsevier and its affiliates. It consists of over 1,800 journal and book titles. All subject areas are covered, but more science and engineering titles are available because of Elsevier's publishing focus. Over 1,000 of the 1,800 searchable titles are available as full text. Almost all the journals are scholarly, peer-reviewed titles, making this database trove for more advanced students and researchers.

FY 2018 Fiscal Year Budget:

Items	Cost	Recurring Cost
	Year 17 (FY 2018)	Year 18 (FY 2019)
Library Digital Electronic Databases		
1. Emerald Management and Engineering	\$ 12,800	
2. SciFinder Scholar	\$ 23,533	
3. Springer e-Books	\$ 96,949	
4. American Chemical Society	\$ 48,799	
5. Elsevier Science Direct	\$366,882	
Total	\$548,963	\$576,411 (5%)

3. Office of Information Technology (OIT) Maintenance and Licenses Cost

Person Responsible for Project(s): Ken Ihrer, AVP & CIO Office of Info. Tech (OIT)
Telephone Number: 212-650-7400
E-Mail: kihrer@ccny.cuny.edu

College Department(s) Affected: Entire College

Impact on Students: The Office of Information Technology is responsible for maintaining and supporting the operations of the City College networking infrastructure and campus-wide student resources, which include:

- General Students Computer Labs, i.e., Tech Center and Fishbowl, Undergraduate and Graduate Student labs, as well as the General Lab for CWE at 25 Broadway
- Service Desk, Client Services, and Instructional Technology and Media Support Services and campus wide licenses and hardware for students use.

Support is also provided for wireless access, printing, Blackboard and security devices (firewall, anti-spam and wireless security scanning/protection).

Project Description: The OIT department is requesting \$445,067 from the college's Technology Fee Budget to cover recurring costs to pay for campus-wide licenses, hardware, audio/video for all smart rooms at the college and general computer labs equipment.

Some of the essential services, which benefit the entire student population include:

1. Hardware and peripheral support and maintenance agreements
 - i. Annual maintenance for AV equipment in classrooms, Loan Laptops, Charging Stations, scanners and copier machine.
2. Campus-wide license agreement extensions and maintenance for student use. This includes annual maintenance updates, wireless software releases and security software encryptions:
 - i. Deep Freeze, Paper Cut Manager Plus, iComple Digital Signage, Nemo- Q, LabStats, etc.
 - ii. Wireless Licenses renewal, Citrix Xen Desktop, Comodo SSL Certificate, Jamf Casper
 - iii. Web Check out, SysAid, NextBus for Students, etc.
3. General Student Computer Labs supplies (such as toner, paper, printer maintenance kits, etc.), computer lab replacement parts (such as keyboards, mice, etc. printers) which are located in:
 - i. Tech Center, Fishbowl, Undergraduate and Graduate General computer Labs
 - ii. Service Desk (Student Support Center)
 - iii. Center for Work Education (CWE) General Student Lab
 - iv. Kiosks in the Administration and North Academic Center (NAC) buildings
 - v. Music Library, Undergraduate and Graduate Student Labs

FY 2018 Fiscal Year Budget:

Items	Qty	Cost	Recurring Cost
		Year 17 (FY 2018)	Year 18 (FY 2019)
Hardware maintenance			
AV equipment, loan laptops, charging stations, scanners etc.		\$15,400	
Sub-total		\$15,400	\$16,170 (5%)
Campus-wide software licenses maintenance/upgrades			
SurveyMonkey		\$ 300	
Deep Freeze (Faro)		\$1,934	
Comodo SSL Certs for General Student Labs		\$1,992	
Paper Cut Manager Plus		\$2,165	
LabStats		\$3,000	
iComple Digital Signage		\$3,087	
Jamf Soft-Casper Suite OS-X		\$3,600	
Bomgar		\$4,254	
Nemo –Q		\$5,474	
WebCheckout		\$6,293	
LaNDesk		\$7,000	
Citrix Xen Desktop		\$7,560	
SysAid		\$7,938	
Next Bus – Students		\$11,684	
NoteBook, BookingPoint, Tutor Track, ENVI/IDL and Career Services Management System		\$21,044	
Wireless licenses & support, etc.		\$123,386	
Sub-total		\$210,711	\$221,247 (5%)
Smart Classroom Equipment Replacement			
Projectors, projector Screens, doc cameras, av accessories, lamps, etc.		\$35,000	
Sub-total		\$35,000	
Equipment Replacement			
Desktops, laptops, printers, AP, computers accessories for general labs,etc.			
Sub-total		\$60,000	
General Student Computer Labs supplies, paper, toners, etc.		\$145,000	
Total		\$446,111	\$237,417 (5%)

4. Printing Quota in Marshak Science and Engineering Library

Person Responsible for Project(s): The Undergraduate Student Government
Telephone Number: Ext. 8175
E-Mail: usg@ccny.cuny.edu

Department(s) of College Affected: All students who use the Science Library/Student Disability Services

Project Description: Printing Quota access is a necessary resource for students utilizing the Science and Engineering Library, especially students of Engineering/Science who take most of their classes in in the Science building.

Impact on Students: The lack of free printers in the Marshak, Science and Engineering Library inconveniences the Division of Science and the many students who take science courses and spend most of their time in the Marshak building. For free printing, students have to go to the North Academic Center building, which is impractical. There should be free printing throughout the college campus.

Currently, there is a printer in the Marshak library for which students are charged per page, via a Student Copy Card. However, since all CCNY students pay Tech Fee charges, it is unfair to penalize students merely because they happen to be housed in a building that doesn't offer free printing. According to the CCNY Fall 2016 census, approximately 4,000 students (1,120 science majors and 2,699 engineering majors) are affected.

Bassit Malam, a science major who works the front desk of the Science and Engineering library, says: "Every day, students approach me about the dynamics of printing in this library. It is upsetting that there are only a few resources for students." Librarian Gloria Daniels concurs. "There will be 20 to 30 students daily, asking me about the printing situation. The issue is, the Tech Center is too crowded to accommodate all majors. Students need certain resources to be available on their way to classes in this building, and it is very inconvenient for these students to have to go to a separate building simply for printing. In addition, whenever there is a fire drill in the NAC, Tech Center users come to the Science and Engineering Library to finish work – where there is no printer."

2017-2018 Fiscal Year Budget:

Items	Qty	Cost	Recurring Cost
Hardware		Year 17(2017-2018)	Year 18(2018-2019)
Peripherals			
HP LaserJet Enterprise M806xh with Duplex	1	\$4,133	
Sub-total			
Total		\$4,133	

5. Psychotherapy and Counseling DVD's Enhancement of Professional Training & Education

Person Responsible for Project(s): Leslie Galman
Telephone Number: 212-650-6412
E-Mail: lgalman@ccny.cuny.edu

Department(s) of College Affected: Psychology Department (including all its constituents: Masters of Mental Health Counseling, PhD in Clinical Psychology, Masters in General Psychology, undergraduate program, Credentialed Alcohol and Substance Abuse Counselor (CASAC) program.

Impact on Students: The project will provide enhanced employment opportunities for students in all programs in the psychology department to receive training in counseling and psychotherapy, including special issues involved in: alcohol and substance abuse, child, adolescent, family, couples, and LGBT counseling and evaluation. The students served would include all Mental Health Counseling students (40), all doctoral students in Clinical Psychology (60), and all students in the CASAC program and many students in the undergraduate program and general Master's Program (100). This project will be ongoing and continue to serve our students in future semesters for the foreseeable future.

Project Description: The availability of these professional DVD's provide greatly enhanced training resources for students to acquire the skills and understanding required for successful employment as counselors and therapists. It will directly impact the two professional programs: Mental Health Counseling and Clinical Psychology as well as students working towards the completion of their CASAC certification. While the DVDs will be used primarily in class, they can also be used by graduate students individually as well as in study groups, greatly extending their utility. We briefly had a trial period for graduate students in Mental Health Counseling to view some of these materials and the student feedback was extremely positive. Unfortunately, we have not been able to get funding to pay ongoing subscription fees, but purchase of the materials will enable us to use them for many years with a one-time expenditure.

2017-2018 Fiscal Year Budget:

Items	Qty	Cost	Recurring Cost
Hardware		Year 17(2017-2018)	Year 18(2018-2019)
DVD Player (Panasonic 5700 RK)	2	\$146	
Sub-total			
Miscellaneous (DVDs)			
Psychotherapy with the Unmotivated Patient Erving Polster, PhD 1:21 14	1	\$159	
Time Limited Dynamic Psychotherapy Hanna Levenson, PhD 1:15 16	1	\$159	
Motivational Interviewing William R. Miller, PhD 1:42 37	1	\$159	
Adlerian Play Therapy Terry Kottman, PhD 1:50 45	1	\$159	
Cognitive-Behavioral Child Therapy Bruce Masek, PhD 1:48 51	1	\$159	
Gestalt Therapy with Children Violet Oaklander, PhD 1:47 46	1	\$159	
Narrative Therapy with Children Stephen Madigan, PhD 1:43 55	1	\$159	
Object Relations Child Therapy David Scharff, MD 1:52 47	1	\$159	
Person-Centered Child Therapy Anin Utigaard, MFT 1:51 49	1	\$159	
Psychotherapy with Medically Ill Children Gerald Koocher, PhD 1:46 103	1	\$159	
Solution-Focused Child Therapy John J. Murphy, PhD 1:56 44	1	\$159	

Internal Family Systems Therapy Richard Schwartz, PhD 2:01 116	1	\$159	
Strategic Couples Therapy James Coyne, PhD 2:00 266	1	\$159	
Bowenian Family Therapy Philip Guerin, MD 1:57 267	1	\$159	
Healing Childhood Abuse through Psychodrama Tian Dayton, PhD, TEP 0:55 94	1	\$159	
Core Concepts of Motivational Interviewing Cathy Cole, LCSW 2:15 206	1	\$169	
Family Systems Therapy Kenneth V. Hardy, PhD 2:04 64	1	\$159	
Integrative Counseling Jeffrey Kottler, PhD 1:45 85 Child Therapy Case Consultation Violet Oaklander, PhD 1:46 188	1	\$159	
Leading Groups with Adolescents Janice DeLucia-Waack, PhD & Allen Segrist, PhD 2:20 189	1	\$199	
Carl Rogers on Person-Centered Therapy Carl Rogers, PhD and Natalie Rogers, PhD, REAT 1:10 204	1	\$139	
Mindfulness for Life: An Interview with Jon Kabat-Zinn Jon Kabat-Zinn, PhD 0:43 221	1	\$119	
Multicultural Competence in Counseling & Psychotherapy Derald Wing Sue, PhD 2:24 281	1	\$149	
William Miller on Motivational Interviewing William R. Miller, PhD 1:00 202	1	\$159	
Dialectical Behavior Therapy with Suicidal Clients vol. 1 Marsha Linehan, PhD 1:26 378	1	\$159	
Dialectical Behavior Therapy with Suicidal Clients vol. 2 Marsha Linehan, PhD 1:28 379	1	\$159	
CBT for Personality Disorders Arthur Freeman, EdD 2:46 293	1	\$159	
Harnessing the Power of Genograms in Psychotherapy Monica McGoldrick, LCSW, PhD 1:53 219	1	\$159	
Integrative Family Therapy Kenneth V. Hardy, PhD 1:57 176	1	\$159	
Emotionally Focused Therapy in Action Sue Johnson, EdD 3:33 178	1	\$229	
Psychoanalytic Psychotherapy Otto Kernberg, MD 4:15 264	1	\$149	
Otto Kernberg: Live Case Consultation Otto Kernberg, MD 2:26 164	1	\$159	
Cognitive-Behavioral Therapy with Donald Meichenbaum Donald Meichenbaum, PhD 1:49 87	1	\$159	
Solution-Focused Therapy Insoo Kim Berg, LCSW 2:01 63	1	\$159	
Emotionally Focused Couples Therapy Sue Johnson, EdD 1:55 100	1	\$159	
Depression: A Cognitive Therapy Approach Arthur Freeman, EdD 1:11 97	1	\$159	
Assessing ADHD in the Schools George J. DuPaul, PhD, and Gary Stoner, PhD 0:40 50	1	\$99	
Psychotherapy with Gay, Lesbian and Bisexual Clients Program 2: Individual Assessment and Psychotherapy Ron Scott, PhD (Series Producer) 0:48 24	1	\$139	
Irvin Yalom: Live Case Consultation Irvin Yalom, MD 1:30 11	1	\$179	
Sub-total		\$6,022	
Total		\$6,168	

6. NAC Aronow Theater AV Upgrade to implement VIA Pro Connect

Person Responsible for Project(s): Nana Abeyie
Telephone Number: Ext. 6899
E-Mail: nana@ccny.cuny.edu

Department(s) of College Affected: All academic departments and students who use the Aronow Theater for AV presentations.

Impact on Students: The AV upgrade will allow for the implementation of a VIA Connect Pro to allow this lecture hall to have the same wireless presentation abilities that are being implemented in other NAC building lecture halls and smart classrooms.

Project Description: NAC Aronow (1/214) Theater AV Upgrade to facilitate VIA Connect Pro integration for instructional use.

2017-2018 Fiscal Year Budget:

Items	Qty	Cost	Recurring Cost
Hardware		Year 17(2017-2018)	Year 18(2018-2019)
Projection device(s):	1	\$7,000	
Total		\$7,000	

7. Upgrading the Division of Science Test Scoring Center

Person Responsible for Project(s): Elizabeth Rudolph
Telephone Number: Ext. 6474
E-Mail: erudolph@ccny.cuny.edu

Department(s) of College Affected: Division of Science

Impact on Students: The Division Test Scoring Center impacts scores of CCNY students. During a typical semester, thousands of exams are graded in all Division of Science courses except math., including two or three exams in each of two Astronomy jumbo sections (>200 students); five EAS courses three jumbos (>150 students); two Chemistry courses (> 80 students); three to four Biology courses (as many as 350 students). The total impact can be in the neighborhood of 5,700+ students of all majors (some of the courses serve science and engineering majors and others satisfy the SW and LPS Pathways requirement). The key to student success is prompt feedback. Feedback helps students to correct their understanding of course material and empowers students to make important and timely decisions such as seeking supplemental instruction or dropping a course. If those exams were to be graded by hand, students would be greatly delayed in receiving the necessary feedback to make those decisions.

The new scanner will have a vital feature that our current scanner lacks: a printing function that stamps the feedback directly on the exam paper. This will greatly improve each student's ability to interpret his or her exam scores. Further, TAs, the great majority of whom are students themselves, often perform the grading. The ability to scan exams releases valuable time to these students to concentrate on teaching and work on their research.

Project Description: The Division of Science Test Scoring Center utilizes an Insight 4ES Scanner, bought new in 2009. It uses exam scoring software, Par Score LAN 6.5.0.65, last updated 2010, and runs on a Dell OptiPlex circa 2009 that remains healthy because it is not connected to the Internet.

Although utilization is high, affecting all science departments except math plus several users from the Colin Powell School, the system has been reliable for almost nine years because we manage usage closely, carefully train all users, and keep the system disconnected from the Internet. However, lately, we are more regularly experiencing problems with scanner crashes and unexplained form rejections and jams. The associated delays are offsetting the time-savings that scanning is intended to achieve. It is only a matter of time before there is a major crash, which would be disastrous as we are now approaching peak scanning season in the semester. We propose to replace our aging scanner, utilizing the same outdated software and computer, and donating the existing unit to the Biology department whose two scanners are no longer in service. The new version of the scanner has a very useful feature that we greatly need: it will also stamp the number of correct answers on the exam sheet. Two operational scanners in the division will greatly improve the scanning bottlenecks that we currently experience due to increased popularity of grading by scanning in light of the increased pressure to run large format classes.

2017-2018 Fiscal Year Budget:

Items	Qty	Cost	Recurring Cost
Hardware		Year 17(2017-2018)	Year 18(2018-2019)
Scanners - Insight 4ES IN4/2308 (with printer)	1	\$7,131	
Forms 10 packages (F-1712-PAR-L Enrollment 200 Items (500/PKG)) . \$55/package	10	\$550	
Total		\$7,681	

8. Multimedia Center Computer Upgrade – School of Education

Person(s) Responsible for Project(s): Leonard Lewis
Telephone Number: Ext 5795/7801
E-Mail: llewis@ccny.cuny.edu

Department(s) of College Affected: School of Education

Impact on Students: The School of Education has a proud history of leading the way on using technology in the classroom and preparing our students to use these tools effectively in the classrooms in which they are employed. In the past few years, we have been occupied with ensuring students have the mobile technology and tools they need to complete the edTPA. In addition, we have upgraded labs to make sure that students have multiple preparation and review sites for the three computerized assessments in which they must demonstrate proficiency prior to graduation. It is imperative that we continue to update the lab equipment that is used by all of our 1,800 (1/3 undergraduate, 2/3 graduate) students preparing for teacher certification.

Project Description: We ask for funding to replace six broken iMac desktop computers in the Multimedia Center. These iMacs are used to download, cut, and compress footage, which our student teachers take while teaching in a classroom. In order to become state certified, student teachers need to prepare an online portfolio called edTPA (Teacher Performance Assessment). Part of that portfolio is a recording of their teaching in an actual classroom. All students working towards their first certification after spring 2014 must go through that process to be allowed to teach in NYS public classrooms.

2017-2018 Fiscal Year Budget:

Items	Qty	Cost	Recurring Cost
Hardware		Year 17(2017-2018)	Year 18(2018-2019)
iMac 21" monitor, 2.8GHz Intel Core i5, 8GB RAM, \$1,368	6	\$8,208	
Total		\$8,208	

9. Learning and Technology Resource Center (LTRC) Computer Upgrade

Person(s) Responsible for Project(s): Doris Grasserbauer
Telephone Number: Ext 5795
E-Mail: dgrasserbauer@ccny.cuny.edu

Department(s) of College Affected: School of Education

Impact on Students: The School of Education has a proud history of leading the way on using technology in the classroom and preparing our students to use these tools effectively in the classrooms in which they are employed. In the past few years, we have been occupied with ensuring students have the mobile technology and tools they need to complete the edTPA. In addition, we have upgraded labs to make sure that students have multiple preparation and review sites for the three computerized assessments in which they must demonstrate proficiency prior to graduation. It is imperative that we continue to update the lab equipment that is used by all of our 1,800 (1/3 undergraduate, 2/3 graduate) students preparing for teacher certification.

Project Description: The LTRC Lab currently has six iMac desktop computers running on Mac OS X in the Review Room area of the Learning and Technology Resource Center. The systems are slow and clunky and need upgrading for maximum efficiency in utilization of LTRC resources. These systems extend the LTRC capacity of 37 computers to 43 systems in total. The increase in functional systems would provide greater access to students across the campus, since the lab is an open lab and is often utilized by students from Education, Psychology, Engineering, and Humanities.

2017-2018 Fiscal Year Budget:

Items	Qty	Cost	Recurring Cost
Hardware		Year 17(2017-2018)	Year 18(2018-2019)
iMac 21" monitor, 2.8GHz Intel Core i5, 8GB RAM, \$1,368	6	\$8,208	
Total		\$8,208	

10.School of Education - Smartboards Upgrade

Person(s) Responsible for Project(s): Doris Grasserbauer
Telephone Number: Ext 5795/7801
Email: dgrasserbauer@ccny.cuny.edu

Department(s) of College Affected: School of Education

Impact on Students: The School of Education has a proud history of leading the way on using technology in the classroom (we were an early adopter of Smart Board technology) and in preparing our students to use these tools effectively in the classrooms in which they are employed. It is imperative that we continue to refresh the Smart Board technology that is used by all of our 1,800 (1/3 undergraduate, 2/3 graduate) students preparing for teacher certification.

Project Description: We ask for funding to refresh and update two of the 11 remaining classrooms where we have Smartboards in place, understanding that we will need to seek additional funding to complete the project. These boards will be placed in key pedagogical classrooms so that all 1,800 students will share access to this resource for at least 5 years.

2017-2018 Fiscal Year Budget:

Items	Qty	Cost	Recurring Cost
Hardware		Year 17(2017-2018)	Year 18(2018-2019)
Dell OptiPlex SFF i5, 8GB RAM, 22" monitor. \$968 each	2	\$1,936	
Sub-total		\$1,936	
Peripherals			
Smart Boards – Interactive Display 4065 (including Notebook software) \$2,999 each.	2	\$5,998	
Wall display mount. \$179	2	\$358	
Sub-total		\$6,356	
Total		\$8,292	

11. Rapid and Modest Upgrade for the CCNY Planetarium Room

Person Responsible for Project(s): James Hedberg
Telephone Number: Ext. 6907
E-Mail: jhedberg@ccny.cuny.edu

Department(s) of College Affected: Initially, students enrolled in science courses would see the biggest benefits. As things mature however, students from all divisions and departments will benefit from having an active planetarium.

Introduction: In the basement of Marshak is a beautiful room with a 30-foot spherical domed ceiling - AKA the City College Planetarium. In years past, it was an active component of our science student's curriculum as well as an outreach tool for the community. Recently however, it has fallen into disuse. Thus, we are proposing a quick and relatively inexpensive short-term technology upgrade that will make the room useable for cross-discipline science instruction while the larger scale plans are being developed. (In the event that the large-scale upgrade happens, the vast majority of the components for this project can be re-used elsewhere in the division.)

Impact on Students: A long-term goal for the planetarium is to be able to once again provide shows for the general public. We are not ready for that step at the moment. However, this initial investment in the space will help prepare us for this exciting possibility. Currently, there are only a handful of active planetariums in the five boroughs. The only other one in Manhattan is the Hayden Planetarium at the American Museum of Natural History. Anyone lucky enough to have had a trip to their local planetarium during their youth will remember it for the rest of their lives. A view of the universe in a darkened planetarium can be profoundly inspirational – both for current students of science enrolled at CCNY, as well as for our future generations of science students. And for students from urban centers, where local light pollution and tall buildings obstruct the deep beauties of the night sky, the transformative power is even greater. CCNY is in a prime geographic location to offer this experience to many local school children. Some of our current students have also expressed interest in putting together shows for the public. With a modern projection system, we could begin the process of making the planetarium a viable resource for the community.

Impact across the division and school: If the planetarium is brought up to modern standards, many departments will be able to use the room for teaching. Traditionally, only astronomy classes have used the dome. However, because visualizations are such powerful components in nearly every discipline, astronomy is no longer the only applicable science to present in the dome. Life sciences can use the technology for visualizing anatomy and physiology. Earth Sciences can show incredible displays of our fragile planet. Even civic sciences can use it for real time geo-political visualizations. It's conceivable that the Electronic Media groups in the Art department would also be interested in using the room for digital installations or productions.

In short, the room, with the domed ceiling, is a very valuable piece of instructional real estate. With this small upgrade, it could be brought back into service. We would work with instructors to help create media that can leverage this amazing space. In addition to faculty-led presentations for class instruction, we envision the planetarium as a platform for our own students to put on science-themed shows and presentations. We may have the next Carl Sagan or Neil DeGrasse Tyson already on our rosters. They just need a venue to display their science communication skills. Additionally, students who participate in the development and design of this new system will get valuable technology experience.

Project Description: Initial quotes from external planetarium system suppliers are generally in the order of \$200,000. However, using some prosumer grade electronics and other DIY style components, we can build a

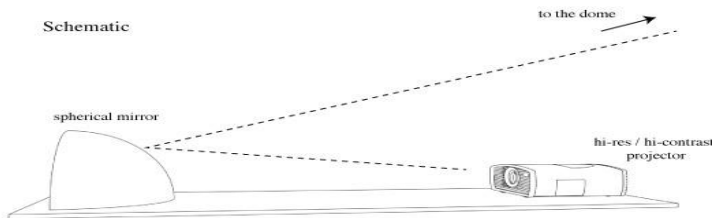
working digital projection system for approximately \$10,000. Initially, we would be able to use the system for classroom instruction as well as for in-house events.

The proposed purchases are as follows:

- a) A high-quality projector. This will give us the pixel density and contrast ratios necessary to make a viable image on the dome
- b) A spherical mirror to translate the rectilinear image into a spherical projection
- c) Mounting hardware to attach this setup to the wall
- d) A high-end desktop computer to drive the graphics and projector.

The current system was installed in 1973. It is an analog projector (essentially a bulb with a lamp shade with lots of holes where the stars are.) Modern planetariums use digital projectors to project images, animations, or simulations on the dome. This allows for the display of a wide variety of media types, not just starry skies and little dots for planets. We can show a fly-through of the human circulatory system, real-time maps of the earth, even digital art productions.

A proof of concept design has been assembled by Dr. Hedberg. Initial tests show that this will be able to work if we have a better projector and mirror system. Other groups around the world have built similar systems so there is plenty of documentation to guide us. In short, this is a **quick and relatively inexpensive way** to begin the process of restoring our once vibrant Planetarium.



2017-2018 Fiscal Year Budget:

Items	Qty	Cost	Recurring Cost
Hardware		Year 17(2017-2018)	Year 18(2018-2019)
iMac	1	\$2,500	
Peripherals			
Panasonic PT-RZ570 Projector	1	\$4,899	
Networking			
Bring Ethernet or Wifi into planetarium	1	\$1,000	
Miscellaneous			
Spherical Mirror	2	\$1,400	
Planar Mirror	2	\$ 200	
Mounting Hardware		\$1,000	
Total		\$10,999	

12.3M Library Detection System for Tech Center Main Entrance

Person Responsible for Project(s): Undergraduate Student Government
Telephone Number: Ext. 8175
E-Mail: usg@ccny.cuny.edu

Department(s) of College Affected: All Students, especially those who need to access the AccessAbility Center/Student Disability Services.

Project Description: To procure a 3M Library Detection System (body book scanner) at the main first floor entrance of the Tech Center, NAC 1/301. This will be in addition to the one on the second floor. Currently, students are only able to enter via the first floor, because no detection system (to check for unscanned books leaving the library) is in place, which would allow them to exit via the first floor.

Impact on Students: This is an assistive technology necessity for students with disabilities, because it allows those students to move more freely. However, it also improves student life as a whole by giving *all* students an extra exit. Students may enter the Tech Center via the first floor; however, they must leave through the second floor of the main Cohen library in order to pass through the book scanner systems. To exit the library, students who have classes on the first floor must take the elevators up to pass through the book scanners, and then take the escalators/elevators to descend one floor, which particularly time-consuming for all students and places an undue burden on those with physical disabilities.

Senior Claribel Sanchez, a student representative from the AccessAbility center, says: "It's often difficult when I want to go downstairs from the second floor, especially those frequent times that the escalator or elevators are not working." The Director of the Accessibility/Student Disability Center, Joseph LoGiudice, L.M.S.W., says: "Students from our department need to utilize the resources in the Tech Center but to have to resort to taking whatever form of transport, working or not, to exit is a serious inconvenience."

Overall, all CCNY students should have an exit route on the first floor. Students need to be able to exit efficiently to arrive to their classes on time, especially since the North Academic Center isn't the only building on campus that accommodates academic classes. The sole reason the students are not allowed to exit through the first floor is the lack of a body book scanner.

2017-2018 Fiscal Year Budget:

Items	Qty	Cost	Recurring Cost
Hardware		Year 17(2017-2018)	Year 18(2018-2019)
3M Model 3912 Detection System- Open plane with Classic finish	1	\$20,000	
Total		\$20,000	

13.CWE Computer Lab Equipment Upgrade and Student Loan Program

Person Responsible for Project(s): Robert Hernandez
Telephone Number: 212-925-6625 Ext. 262
E-Mail: robert@ccny.cuny.edu

Department(s) of College Affected: Division of Center for Worker Education

Impact on Students: All students at 25 Broadway

Project Description: Replacement of both CWE Computer Lab printers. The current printers are twelve years old and obsolete, having long ago exceeded their end-of-life warranties. Despite repairs and preventive maintenance the printers continue to have disruptive issues with errors and jams. Additionally, they are not fully compatible with campus printing management settings and software.

CWE Student Laptop Loan Program. Due to work and family obligations, many CWE students cannot commute to 25 Broadway often enough to do their college assignments. Students frequently mention their computers are not working. They often request CWE limited IT staff to service their personal laptops and to recommend repair suggestions for their personal computers. To this end, we are proposing a pilot program to loan laptops to students for one or two days. The loaned laptops will be trackable. Students who check them out will be accountable for the laptops.

2017-2018 Fiscal Year Budget:

Items	Qty	Cost	Recurring Cost
Hardware		Year 17(2017-2018)	Year 18(2018-2019)
Dell Lat. 5470, i-5,2.3 GHz, 8GB & 256 GB HD (\$1,000/unit)	5	\$5,000	
MacBook Pro 13" i-5, 2.7GH, 8GB , 256 SSD (\$1,562/unit)	5	\$7,810	
Sub-total		\$12,810	
Peripherals			
HP LJE M806dn + \$ 3,826 each	2	\$3,826	
Sub-total		\$7,652	
Total		\$20,462	

14. Wireless Collaboration Solution Implementation Shepard Hall Smart Classrooms

Person Responsible for Project(s): Office of Information Technology- Ken Ihrer
Telephone Number: x-7009
E-Mail: kihrer@ccny.cuny.edu

Department(s) of College Affected: All academic departments that provide instruction using AV presentations in Shepard Hall smart rooms.

Impact on Students: Instructors will be able to provide enhanced, collaborative instruction to students by sharing up to four participant screens simultaneously.

Project Description: OIT proposes to implement one of the newest wireless collaboration and presentation solutions on most of the smart classrooms in Shepard Hall. From any laptop or mobile device, meeting participants can view the main display, edit documents together in real time, share any size file, turn the main display into a digital whiteboard, as well as stream high-quality video. He or she only needs to log-in via the VIA Connect Pro application.

The solution can show up to four screens on the main display, allowing a faculty member and three students to edit and discuss documents in real time. This solution works with Macintosh, Windows, iOS, and Android devices. We are requesting funding to deploy 27 of these devices in Shepard Hall.

2017-2018 Fiscal Year Budget:

Items	Qty	Cost	Recurring Cost
Hardware		Year 17(2017-2018)	Year 18(2018-2019)
Kramer VIA Connect Pro: \$1,000/ Smart classroom	27	\$27,000	
Total		\$27,000	

15. Biology Laboratory Instruction for the 21st Century

Person Responsible for Project(s): David J. Lohman
Telephone Number: Ext. 8456
E-Mail: dlohman@ccny.cuny.edu

Departments of College Affected: Biology, Biomedical Engineering, CUNY Medical School, Psychology, Secondary Education (Biology), and Biochemistry

Impact on Students: The Biology Department graduates more students with bachelor's degrees than any other department in the Division of Science, and is surpassed in the College only by English, Education, and Psychology.

Many biology classes have laboratory sessions that require computers and other technology. Current computer resources are outdated, unusable, and must be replaced. As of Spring 2017, CCNY currently has approximately 500 biology majors (including BS, MS, BS/MS, and Biotechnology MS students). Note that students must pass BIO 10100 and 10200 with a C or better before declaring a major in biology; thus, many additional undeclared students are studying biology with the intent of majoring in this course of study. The combined enrollment of all biology classes was 1,352 in Spring 2016 and 1,540 in Spring 2017. Note that biology faculty teach many students from other majors, including Biomedical Engineering, CUNY Medical School (Sophie Davis), Psychology, Secondary Education (Biology), Biochemistry, and other departments in the Science Division. Thus, computers purchased for biology instruction will enhance the education of several hundred students each year from across the College. This funding request is essential to the continued pedagogical mission of the Biology Department.

The College does not require CCNY students to own computers, as is commonplace at other institutions, and many of our students simply cannot afford to buy their own. The College must therefore provide access to computers for students to use during learning activities that require them. Post-graduate readiness for the job market necessitates that biology graduates be computer-literate, including familiarity with data collection and analysis software.

Project Description: The Biology Department requests 50 Windows laptop computers with two locking computer carts. These computers will be used during laboratory sections for many classes, including Biology 10100: Biological Foundations I (~780 students enrolled in Spring and Fall 1016 semesters); Biology 10200: Biological Foundations II (~350 students/year); Biology 20600: Introduction to Genetics (~300 students/year); Biology 22900: Cellular and Molecular Biology (~180 students/year); Biology 22800: Ecology and Evolution (~180 students/year); Biology 40100: Cardio, Renal, and Respiratory Physiology (~80 students/year); and others. Students will use these computers for calculation, data analysis, accessing online learning media and databases, participating in online assessments, mathematical/statistical modeling, and many other uses. These computers will allow students to access online e-learning web sites for higher education. Two of the Windows laptops and two additional Apple MacBook Air laptops will be shared by all 25 biology teaching faculty to prepare and deliver interactive, media-rich lectures, which will be projected using a new, short throw LCD projector, which is needed to replace aging, marginally functional equipment.

The Biology Department has its own locking cart of ~22 laptop computers that are around 13 years old (Fig. 1). In addition, the Division of Science currently has four carts of laptops for instructional use, and one of these is earmarked for Biology. This cart has around 22, >10-year-old computers that—like the Biology Department's laptops—are well beyond their expected usable lifetime. Moreover, many of these decrepit laptops are not functioning. Biology instructors—in theory—have access to the Computer Classroom in MR829, but this room is heavily used by computer lab courses such as our non-Majors course (Biology 10004), as well as numerous other courses across the Science Division, and timing

conflicts are frequent. There is far more demand for instructional computers than supply, and it can be difficult to schedule any of these shared resources.

Laptops purchased by the Biology Department with Technology Fee funds will be cared for by the Department's CLTs with help from the Science IT group headed by Karl Li. The Biology Department has unsuccessfully requested funds for new laptop computers for the past two years. The situation is dire, and the department is concerned that we will have difficulty remaining accredited. The dearth of computers for instruction limits our ability to teach several important classes at full capacity, which may cause students to take them at other CUNY campuses via ePermit, thus draining the financial resources of the College as a whole.

We also request two ADInstruments PowerLab 26T data acquisition teaching systems to complement the four systems already used in the department, primarily for teaching Biology 40100: Cardiovascular, Renal, and Respiratory Physiology. This is one of the department's most popular elective courses (nearly 80 students/year), particularly with students aspiring to careers in medicine. The machines will also be used to teach Bio 20700 (Organismic Biology: ~240 students per year) as well as other elective courses in human and animal physiology.

As the Department's budget for hiring adjunct instructors has waned in recent years, course sizes have swollen, and the paucity of these electronic teaching systems needed to teach this course limits its enrollment. The two new systems must match the existing units, and there is thus a sole provider. ADInstruments provides a free downloadable data reader and analyzer, students may thus work with their data outside of class to produce reports and prepare for assessment, expanding the usefulness of this company's pedagogic products.

2017-2018 Fiscal Year Budget:

Items	Qty	Cost	Recurring Cost
Hardware		Year 17(2017-2018)	Year 18(2018-2019)
Lenovo Laptop Computers 6 GB/1TB, \$329 each	50	\$16,450	
Apple MacBook Air 13-inch 8GB/512GB; \$1,459 each	2	\$ 2,918	
PTB4264 Ultimate Physiology Teaching System; \$6,360	2	\$12,720	
Sub-total		\$32,088	
Peripherals			
Epson PowerLite Short-Throw LCD Projector	1	\$ 976	
Miscellaneous			
Epson Replacement Lamp	1	\$ 49	
Epson Carry Case for Projector	1	\$ 30	
Messenger Bag for Apple Laptop	2	\$ 64	
Messenger Bag for PC Laptop	2	\$ 72	
6' VGA Cable	3	\$ 21	
Apple USB SuperDrive	1	\$ 79	
Apple Thunderbolt to Gigabit Ethernet Adapter	2	\$ 58	
Apple Mini Display Port to VGA Adapter	2	\$ 58	
Luxor 24 Laptop Charging Cart	2	\$1,098	
Sub-total		\$1,530	
Total		\$34,594	

16. Upgrading and Expanding the Science Library Computer System

Person Responsible for Project(s): John F Carrero
Telephone Number: Ext. 7271
E-Mail: jcarrero@ccny.cuny.edu

Department(s) of College Affected: All Students who use the Cohen Library

Impact on Students: Replace 10-year-old Dell 755 Towers

Project Description: NAC Cohen Library computer workstation upgrade of 10-year-old Dell 755 Towers to provide enhanced technology workstations for academic and research data use throughout the library.

2017-2018 Fiscal Year Budget:

Items	Qty	Cost	Recurring Cost
Hardware		Year 17(2017-2018)	Year 18(2018-2019)
Dell Precision 3420 T-i-3, 4GB & 500 GB SATA each. \$649	70	\$45,430	
Computer Lab/Technology Center Furniture			
Glacier – School Library computer Carrel \$423 each	70	\$29,610	
Total		\$75,040	

17. Student Technology Internship Program (STIP)

Person Responsible for Project: Otto Marte, Director of OIT Business Services
Telephone Number: 212-650-6190
E-mail: marte@ccny.cuny.edu

College Departments Affected: Entire College

I am requesting support to continue the implementation of the FY 2018 Student Technology Internship Program. Total funding requested is \$1,457,182 which includes, 13 percent for fringe benefits and District 37 salary increase. Below is a brief description of the program.

Project Description: The Student Technology Internship Program (STIP) was created in the summer of 2002 to provide Service Desk, CUNYfirst support, and other technical assistance to faculty, and students. This program creates opportunities for a selected group of undergraduate and graduate students to gain advanced skills in the use of computer hardware and software as well as learn effective teaching and client support skills.

STIP supports and advances the technological needs of the college, both in and out of the classroom. By bringing the interns and technology users together as a team, we provide diverse skills and services to create a better teaching and learning environment at the college.

Below are the four major components of the Student Technology Internship Program (STIP) and the requested funding:

Student Tech Interns Program	No. of Students	Percentage	Total Cost/yr
1. Mid-term and Final Exams Extended hours		1	\$ 16,001
2. Service Desk	8	22	\$ 283,613
3. OIT & Divisional Computer Labs Support	27	33	\$ 428,181
4. OIT & Divisional Client Services Support	20	44	\$ 561,747
Sub-total	55	100	\$1,289,550
Fringe Benefits		13	\$ 167,640
Grand Total			\$1,457,182

1. Mid-Term/Final Exams Extended Hours

The extended hours will provide a safe after-hours facility for our students during midterms and final examinations week.

2. Service Desk Operation

The OIT Service Desk was revamped in the summer of 2011, expanding services to improve support for CUNY Portal, CUNYfirst, Blackboard LMS, laptops, wireless configuration and access, and to act as a central distribution point for campus-wide site-licensed software to the college community.

The Service Desk also provides Level 1 technical support in the following areas:

- Student email (CityMail)
- CUNYfirst support for students
- Mobile devices for Students
- Active Directory login
- Student training requests.

This one-stop shop solution has given the OIT staff a much more efficient way of addressing the diverse needs of students, faculty and staff, as well as a more efficient way of addressing the college's technology needs, particularly for students.

3. OIT and School/Division Client Services Support

In addition to servicing all the general student computer labs on campus, the OIT and School/Division Client Services Support teams also provide Level 2 and Level 3 hardware and software technical support and other technical assistance to college administrators, faculty, staff and students. This student group works continuously to ensure that the services they offer are of high quality and are customer-friendly. The program gives student interns the opportunity to gain advanced skills in the use of computer hardware, software, audio-visual equipment, presentation resources, and client support skills. These students are assigned to the main OIT Client Services department as well as to various divisional/school IT offices. They also receive on-going training from the college to support the advancing technology and audio-visual needs of the school. The training concentrates on software and hardware installations, troubleshooting, customer service, faculty, staff and student support and maintenance.

4. OIT and School/Division Student Computer Labs Support

The OIT and School/Division student computer labs facilitate the printing and computing needs of our students. OIT has two main general computer labs, (1) The North Academic Center General Fishbowl General Student Lab (NAC 1/501), which provides 102 PCs computers, and (2) The CITY Tech Center (NAC 1/301), City College's new state-of-the-art computing, learning and training resource center, located on the ground floor of the Cohen Library. Re-designed to accommodate student learning in a variety of stimulating configurations, it provides the following services:

- Over 300 workstations
- 10 media study rooms with dual flat-panel displays that accommodate up to six students
- 16 two-person study rooms equipped with Windows and Macintosh desktop workstations
- Three smart classrooms with dozens of workstations, high definition projectors and, in the largest classroom, a podium with AV controls and mobile device connections
- Dozens of single-use desktop and wireless workstations in the open bays
- Laptop loan program for students to use while inside the facility.

Each workstation is configured with the college's full range of campus-wide, site-licensed software, including Adobe Creative Suite, MathWorks, Matlab, Microsoft Office Suite, SAS, and SPSS. The spatial configurations are as important as the technological enhancements because they accommodate students who choose to work individually, as well as provide incentives for student collaboration.

At any given moment, the three training rooms are filled to capacity with students engaged in technology-enhanced learning with professors of Economics, Engineering, Psychology, and English. This highly successful facility has become the premier hub for student computing needs, as well as a general purpose learning resource center for the entire City College population. Hundreds of students occupy

every available workstation and study space, engrossed in everything from coursework to research to recreational breaks.

The computing and printing needs of special programs are provided by divisional Student Computer Labs, including the Education Lab (NAC 4/226), Engineering CAD Lab (ST-216), Electrical Engineering Lab (ST-269), Science Student Lab, (MR-829), Accessibility Student Lab (NAC 1/216), and Architecture CAD Lab, (SSA- 3rd floor), Music General Lab, and both graduate and undergraduate Student Government labs. These labs are open during the college hours of operation.

Student Technology Interns Program Budget Breakdown

Position Title	Pay Rate/hr	Total Hrs/Year	Total SL+AL /Year	Total Cost/Position	No. of Positions	
Mid-Term/Final Weeks						\$16,001
Extending Hours						
Service Desk Support (CAs= 2 & Hrly = 6)						
College Assistant	\$12/\$13.50	1040	121	\$14,802	2	\$29,604
Hourly IT Support	\$22.25	1560	182	\$38,760	3	\$116,280
Hourly IT Support	\$22.25	1560	220	\$39,605	1	\$39,605
Hourly IT Support	\$22.25	1664	194	\$41,341	1	\$41,341
Hourly IT Asst. 2	\$31.90	1560	220	\$56,782	1	\$56,782
					8	\$283,612
College Wide & School/Division Computer Labs Support (CAs=25 & Hrly = 2)						
College Assistant	\$12/\$13.50	800	93	\$11,387	2	\$22,773
College Assistant	\$13.26/\$13.50	800	93	\$11,948	4	\$47,794
College Assistant	\$12/\$13.50	860	100	\$12,240	4	\$48,960
College Assistant	\$12/\$13.50	1000	117	\$14,243	2	\$28,485
College Assistant	\$12/\$13.50	1040	121	\$14,802	7	\$103,614
College Assistant	\$13.26/\$13.50	1040	121	\$15,534	4	\$62,136
College Assistant	\$13.26/\$13.50	1040	147	\$15,869.00	2	\$31,738
					25	
Hourly IT Support	\$22.25	1664	194	\$41,341	2	\$82,682
					27	\$428,182
College Wide & School/Division Computer Labs Support (CAs=11 & Hrly = 9)						
College Assistant	\$12/\$13.50	520	61	\$7,401	1	\$7,401
College Assistant	\$12/\$13.50	1000	117	\$14,243	1	\$14,243
College Assistant	\$17.17	1000	141	\$19,591	1	\$19,591
College Assistant	\$12/\$13.50	1040	121	\$14,802	2	\$29,604
College Assistant	\$13.26/\$13.50	1040	121	\$15,534	2	\$31,068
College Assistant	\$13/\$13.50	1040	121	\$15,384	1	\$15,384
College Assistant	\$15.00	1040	121	\$17,415	2	\$34,830
College Assistant	\$17.00	1040	147	\$20,178	1	\$20,178

					11	\$172,299
Hourly IT Support	\$22.25	1600	187	\$39,761	2	\$79,522
Hourly IT Support	\$22.25	1600	225	\$40,606	2	\$81,212
Hourly IT Support	\$22.25	1664	194	\$41,341	3	\$124,023
Hourly IT Asst. 1	\$28.12	1600	225	\$51,319	1	\$51,319
Hourly IT Asst. 1	\$28.12	1664	234	\$53,372	1	\$53,372
					9	\$389,448
					20	\$561,747
				Total Salary		\$1,289,542
				Fringe Benefits		\$167,640
				Grand Total	55	\$1,457,182

Student Technology Fee Advisory Committee Members

The Technology Fee Committee is composed of 29 members, chaired by the Acting Provost, SVP and COO, and co-chaired by the AVP & CIO of Office of Information Technology. It includes fourteen students recommended by the Office of the Vice-President of Student Affairs (twelve undergraduates and two graduates), eight faculty, six academic representatives, and one ex-official members. The Technology Fee Committee will be the standing college committee that will advise the Office of the President on the expenditure of the Tech Fee revenue.

Committee Chair – Mary E Driscoll, Interim Provost and Leonard Zinnanti, SVP & COO (2)

Co-Chair – Ken Ihrer, APV & CIO Office of Information Technology (1)

Student Representatives (14)

Sameen Chowdhury, President Undergraduate Student Government

Suman Islam, Vice President of Student Affairs

Suliman Ahmed, Executive Vice President of Student Affairs

Abeer Ahsanul, Undergraduate Student Senator

Zulfiqar Soomro, Undergraduate Student Senator

Ateea Kazi, Undergraduate Student Senator

Ferdous Jahan, Undergraduate Student Senator

Taimoor Arif, Undergraduate Student Senator

Mohammad Farhan, Undergraduate Student Senator

Mora Hassan, Undergraduate Student Senator

Quintin Price, Undergraduate Student Senator

Safat Chowdhury, Undergraduate Student Senator

Muaad Alody, President Graduate Student Government

Qahtan AL Jammali Graduate Student Executive Chair

Faculty Representatives (8)

Prof. Annette Weintraub, Humanities and Arts

Prof. Ilona Kretzschmar, Grove School of Engineering

Prof. MT Chang, School of Architecture

Prof. Laurent Mars, Division of Science

Prof. Elizabeth Matthews, Center for Worker Education

Ms. Leslie Galman, Colin Powell School

Ms. Doris Grasserbauer, School of Education

Mr. Omar Kabir, CUNY Medical School (Sophie Davis)

Administrative Representatives (3)

Felix Lam, VP of Finance and Administration

Juana Reina, VP of Student Affairs

John Carrero, Library

Ex-officio Member (1)

Otto Marte, Project Administrator and Director of OIT Business Services

FY 2018 CCNY Student Tech Fee Plan Budget Breakdown

Staff Costs	(List each position, title, salary and fringes)	Academic Calendar Year		
		FY 2018	FY 2019	FY 2020
	38 College Assistants (Labs & Tech Support)	\$563,404		
	Fringe Benefits	\$73,242		
	17 Hourly IT: (Non-full time - Working 25 - 32 hrs/wk)	\$726,138		
	Fringe Benefits	\$94,398		
	55 Total Salary	\$1,457,182	\$1,457,182	\$1,457,182
Hardware, Networking, Peripherals, AV Equip				
	(PC) Computers/Servers/Laptops / AP/iPads	QTY		
	General Computers/laptops, peripherals replacements		\$60,000	
	PCs (Dell Optiplex , i-Mac, Others)	87	\$79,002	
	Laptops, iPads, Projectors,etc	62	\$32,178	
	HP Printers,	3	\$11,785	
	Other Classrooms Technologies, custom scre	12	\$35,000	
	VIA Connect Pro	28	\$34,000	
	Scanners	1	\$7,131	
	3M Detection System	1	\$20,000	
	Smartboards	2	\$5,998	
	Projectors, screens, etc	2	\$ 5,876	
	Sub-total	198	\$290,970	
Software: Other than Library				
	(Provide product name and estimated cost, if known)			
	SurveyMonkey		\$ 300	
	Deep Freeze		\$ 1,934	
	Comodo SSL Cert for Labs		\$ 1,992	
	PaperCut Manager Plus		\$ 2,165	
	LabStats		\$ 3,000	
	iComple Digital Signage		\$ 3,087	
	Jamf Casper Suite OS-X		\$ 3,600	
	Bomgar (Student labs)		\$ 4,254	
	Nemo-Q		\$ 5,474	
	Web Check Out		\$ 6,293	
	LaNDesk		\$ 7,000	
	Citrix Xen Desktop		\$ 7,560	
	SysAid		\$ 7,938	
	Next Bus - Students		\$ 11,684	
	Notebook, ENVI/IDL, BookingPoint, Tutor Track, Services Management System		\$ 21,044	
	Wireless Licenses & Support		\$ 123,386	
	Sub-total		\$210,711	\$ 221,247
				(5% increase)
				(5% increase)
Library Electronic Databases:				
	Emerald Management and Engineering		\$ 12,800	
	SciFinder Scholar		\$ 23,533	
	American Chemical Society		\$ 48,799	

Spring e-Books		\$	96,949		
Science Direct		\$	366,882		
Sub-total		\$	548,963	\$	576,411
				(05% increase)	(05% increase)
Hardware Maintenance					
AV equipment, Loan laptops, charging stations, scanners, etc.					
		\$	15,400		
Sub-total		\$	15,400	\$	16,170
				(5% increase)	(5% increase)
Furniture					
computer desks	70		\$29,610		
Sub-total		\$	29,610		
Miscellaneous					
Supplies: Papers, Toners, lab supplies					
ipads accessories , etc					
		\$	145,000		
		\$	12,226		
Sub-total		\$	157,226		
Enterprise Initiatives (Blackboard, Email, Academic Advisement, Etc.)					
SHI Identity Finder		\$	814		
Texthelp Browsealoud		\$	1,193		
SHI BeyondTrust		\$	3,368		
HPC Support -CSI		\$	3,508		
MapleSoft - Calculus		\$	3,553		
Dell Enterprise Solution		\$	3,599		
SHI Learning Objects		\$	6,390		
Pro-Quest Refworks			\$9,522		
SHI -Proof point			\$10,694		
MathWork			\$12,456		
iParadigms-Plagerism			\$17,738		
Dyntek-McAfee Endpoint & Virus			\$22,401		
SHI -Adobe Creative Cloud			\$26,476		
Annese -Cisco Maintenance			\$33,147		
IBM (SPSS)		\$	36,524		
Dell VLA (Vol Lic Aggr) Microsoft Enterprise		\$	72,237		
Blackboard		\$	95,332		
Others (Wiley, Nature, IEEE, etc.		\$	300,250		
Sub-total		\$	659,202	\$	692,162
Sub-total				(10% increase)	(10% increase)
Grand Total			\$3,369,264	\$2,963,172	\$3,038,471