

STUDENT TECHNOLOGY FEE PLAN

A Summary of the Plans for FY 2022



Brooklyn College
The City University of New York

Prepared by the
The Brooklyn College Student Technology Fee Committee
-and-
Brooklyn College Information Technology Services

More information can be found on the BC Tech Fee web site:
<https://www.brooklyn.cuny.edu/web/academics/technology/stfp.php#>

TABLE OF CONTENTS

WHAT IS THE STUDENT TECHNOLOGY FEE	4
HOW DOES STUDENT TECHNOLOGY FEE WORK	4
PURPOSE OF THE STUDENT TECHNOLOGY FEE AND COMMITTEE	4
STUDENT TECHNOLOGY FEE CALL FOR PROPOSALS	5
WHAT IS THE STF PROPOSAL, DECISION, AND PROCURMENT PROCESS	6
BROOKLYN COLLEGE STF COMMITTEE 2020-2021	7
BROOKLYN COLLEGE PRIORITIES FOR 2020-2021	8
ALIGNMENT WITH THE BROOKLYN COLLEGE STRATEGIC PLAN	8
SCHOOL OF BUSINESS	
QUICKBOOKS 2019	10
SCHOOL OF EDUCATION	
ENHANCING STUDENT PARTICIPATION & IMPROVING FACULTY PRESENTATIONS OF ONLINE COURSEWORK	10
SCHOOL OF HUMANITIES & SOCIAL SCIENCES	
LAPTOP LOAN PROGRAM	10
NEW MEDIA CENTER IMAC COMPUTER UPGRADE	11
SUPPORT FOR EVIDENCE-BASED PRACTICE TRAINING IN COMMUNICATION SCIENCES AND DISORDERS	11
TV CENTER VIDEO EQUIPMENT LENDING UPGRADE	12
PURCHASE THE SAGE RESEARCH METHODS CORE	12
PURCHASE BLACK LIVES IN AMERICA, SERIES 1 & 2	13
TV CENTER STUDIO B EQUIPMENT REPLACEMENT	13
TV CENTER MULTI-CAMERA PEDESTAL REPLACEMENT	14
SCHOOL OF NATURAL AND BEAVIORAL SCIENCES	
ENHANCING ACTIVE LEARNING ENVIRONMENT IN GENERAL PHYSICS COURSES	15
BC ACADEMIC ENRICHMENT PROGRAM	16
USER-FRIENDLY MICROSCOPY OF NORMAL AND PATHOLOGICAL TISSUES WITH DIGITAL IMAGING FOR IN-PERSON AND ONLINE EDUCATION	17

WEB LABS 237 & 239 CAMPUS NETWORK INTEGRATION	18
HARDWARE FOR AUDIO RECORDING AND MUSIC CLASSES	19
STF REQUEST FOR THE PIMA MFA PROGRAM	19
ONLINE FILM EQUIPMENT INVENTORY AND QR CODE PER KIT	20
CONSERVATORY OF MUSIC REPLACEMENT OF OBSOLETE EQUIPMENT	20
VIRTUAL REALITY TECHNOLOGY FOR THEATER	21
JAMS BACKPACK KITS	21
BROADCAST VIDEO EQUIPMENT FOR THEATER	22
MDM LICENSING FOR SMARTPHONES FOR FILMICPRO APP	23
TREM, BA ENTRY PROFESSIONAL 4K CAMERA PACKAGE	24
BROOKLYN COLLEGE – ADMINISTRATION (11 PROJECTS)	
FULLTIME STAFFING – ACCESSIBLE TECHNOLOGY SUPPORT	24
FULLTIME STAFFING – INSTALLATION & MAINTENANCE OF COMPUTER SERVICES	24
PART-TIME STAFFING – INSTALLATION & MAINTENANCE OF COMPUTER SERVICES	25
SMART CLASSROOM UPGRADES	25
COMPUTER LAB UPGRADES	25
ACADEMIC NETWORK INFRASTRUCTURE	26
LIBRARY RESOURCES	26
SOFTWARE LICENSE FEES – INSTRUCTIONAL SOFTWARE	26
SOFTWARE LICENSE FEES – STUDENT SERVICES SOFTWARE	26
UNIVERSITY WIDE INITIATIVES	26
STRATEGIC INITIATIVES	26
BUDGET (attached Excel File)	27

STUDENT TECHNOLOGY FEE COMMITTEE

WHAT IS STF AND HOW DOES IT WORK?

What is the Student Technology Fee?

The Technology Fee Advisory Committee was established in 2003 to develop the College's plans for use of the revenues from the new student technology fee adopted by the University Board of Trustees. The committee was charged with developing a budget plan in accordance with guidelines established by the University as to the expenditure of these funds and to maximize input across the College community.

How does Student Technology Fee work?

The Student Technology Fee ("Tech Fee") was created as an interactive way to enhance technology available to students on all CUNY campuses. Fees collected from students are held in reserve to fund projects that have a "demonstrable affect" on the student body. Each campus has an advisory committee that consists of administrative staff, faculty and student representatives that oversee budget allocation and project approval; however, Tech Fee is totally dependent on the entire college community for its functioning: without proposals submitted by students, faculty, and staff, there would be no projects to fund.

What is the purpose of the Student Technology Fee and the Committee?

The Student Technology Fee ("Tech Fee") casts the students as consumers of technology provided by the college. The revenue generated by the Tech Fee must be used to improve the technological services for students and should be expended on resources that have a perceptible and demonstrable impact on students. These funds can be used to provide innovations in curricular related activities in which students will have direct access to industry-leading and emerging technologies. Approved projects are expected to further the college's goals of expanding student access to computing resources, improving computer-based instruction, improving support for students using college computer, improving student services, and using technology to enrich student life on campus. These goals should not only make college life more enjoyable, but also provide Brooklyn College students with an edge as they enter the job market or move on to postgraduate studies.

The purpose of the Brooklyn College STF Committee is to convene and execute these official functions annually:

- Provide to the President of Brooklyn College a recommended budget for the allocation of BC STF funds for the upcoming fiscal year.
- Perform a bi-annual student satisfaction survey where questions related to current student tech fee use as well as areas for investment are included in questions.
- Provide an assessment report on the current year's Tech Fee Plan, including a final financial overview. The assessment shall include the source of all student tech fee income by constituency, past reserves, surplus accounts and projects that will continue to roll over from year to year.

STUDENT TECHNOLOGY FEE CALL FOR PROPOSALS 2021-2022

This is a formal call letter to request proposals for projects to be funded by Student Technology Fee funds for the 2021-2022 academic year.

How to apply:

STF proposals must be submitted via an online tool. To propose a project to be funded by the Student Technology Fees, visit the STF web site: <http://www.brooklyn.cuny.edu/bctf/stfp/>, where you can review the proposal guidelines and access the online application. Please pay close attention to the submission deadline, which is December 21, 2020, and the accompanying guidelines, some of which are reproduced below.

All proposals are routed first to a designated executive area head, who must approve the proposal for it to proceed to the committee for consideration (Dean of School for faculty, VP Ron Jackson for student affairs and clubs, SVP Alan Gilbert for miscellaneous administrative submissions, and Associate Dean Mary Mallery for Library submissions).

The STF Committee meets in early Spring to review the proposals and decide which to fund. Proposers will be informed of the committee's decisions later in the spring semester.

WHAT CAN BE FUNDED BY STF FUNDS?

Almost all activities on campus are ultimately related to students. However, only proposals that provide direct and immediate benefit to students in specific ways will be considered.

Examples of acceptable uses of STF funds:

- Implementing or upgrading of instructional computer labs
- Acquiring or upgrading accessible technology
- Implementing or upgrading student-serving computer labs
- Improving and implementing student services
- Faculty development of new or improved courseware
- Electronic information resources in the library
- Personnel for installation and maintenance of computer services
- Upgrading instructional spaces to support technology-assisted learning
- Acquiring technology tools to support college-sponsored student activities
- Expand student access to current and emerging technology
- Purchase of Enterprise Solutions

Examples of unacceptable uses of STF funds:

- Supplies, other than an initial small starter supply for a new piece of equipment
- Construction or other infrastructure needs, such as HVAC, electrical work, painting, window shades, etc.
- Equipment or software for faculty research or private faculty use
- Requests to utilize STF funds to replace or subsidize standard budgeted expenditures for college operations.

WHAT IS THE STF PROPOSAL, DECISION, AND PROCUREMENT PROCESS?

The STF committee, chaired by the Provost, reviews each proposal in early Spring and assigns one of the following determinations to each: Approved in whole or in part, declined, held in queue for possible funding later in the year. The decision will be communicated to each submitter, typically within one month after the STF decisions are made.

Approved proposals will be executed and funded in the 2021-2022 fiscal year. Those funds do not typically start becoming available until Fall of that year, and are collected throughout the year (Summer, Fall and Spring). While every effort will be made to initiate purchases as quickly as possible, most purchases will not be completed in time for the Fall term, and some may have to be deferred to Spring. Please keep this in mind when planning your 2021-2022 classes.

Proposals approved for funding go through the standard CUNY procurement process, which is time consuming and those orders must adhere to many NYS and CUNY regulations. This requires the cooperation of the proposers now and during the procurement process in the following year. CUNY requires that STF funds be expended in the year they are collected. Therefore, if ITS or College Purchasing determines that a purchase is not practically attainable in the necessary timeframes, that allocation may have to be rescinded, and the funds reallocated to other queued projects.

Proposals are approved only for the items requested. Any subsequent cost savings return to the general STF fund for reallocation. Funding allocations are based on the proposal estimate and may not increase to cover any subsequent price increases.

PREPARING YOUR PROPOSAL:

Proposals previously submitted, but not funded for any reason, do not automatically get considered in subsequent years. A new proposal must be submitted each year.

Instructional software requests must be approved by the college's Software Coordination Committee, which verifies technical compatibility, and ensures that true campus-wide implementation costs are considered.

If a proposal requires a new space on campus, it will NOT be considered unless the submitter FIRST obtains an appropriate location, approved by the administration for this use.

STF allocations are based on the proposal's good-faith estimates, which should preferably be based on actual price quotes where possible. ITS is prepared to assist with pre-proposal reviews and advice.

Proposals should include all related needs in one application. Do not submit multiple applications for smaller amounts of equipment that will serve the same purpose.

Please be sure to include copies of any quotations, estimates, suggested vendors, and sole vendor letters that may be required to facilitate the procurement, if approved.

If you have any additional questions about the application process, please contact Anil Lilly at 718.951.5861 or anil@brooklyn.cuny.edu.

Brooklyn College
Student Technology Fee Committee 2021-2022

ADMINISTRATION

Anne Lopes
Provost and Senior Vice President of Academic Affairs

Alan Gilbert
Senior Vice President for Finance and Administration & Chief Information Officer

Ronald Jackson
Vice President for Student Affairs

Mary Mallery
Chief Librarian and Executive Director of Academic Information Technology

FACULTY COMPUTER UTILIZATION AND EDUCATIONAL TECHNOLOGY COMMITTEE (CUET)

Karen McFadden
Early Childhood Education/Art Education Department, Chair of CUET

Madeline Fox
Sociology Dept./Children & Youth Studies

Michael Hughes
Library

Eto Otitigbe
Art Dept.

STUDENTS (INCLUDING STUDENT GOVERNMENT)

Amanda Waldron – President, GSO

Aharon Grama – Chief of Staff, USG

Andy Ebbin

Amina Tariq – Senate, USG

Dapo Ibrahim

Dave Dodson – Senate, USG

Emmanuel Valdez – Senate, USG

Joseph Safina-Hamadani

Brooklyn College Priorities for 2021-2022

The student technology fee will be distributed across the categories listed below according to the percentages indicated. Details are in the appended project descriptions and spreadsheet. The budget is based on projected revenue of \$3,910,884 from the collection of student technology fees.

- Implementing or upgrading of instructional computer labs (1.31%)
- Acquiring or upgrading accessible technology (2.89%)
- Implementing or upgrading student-serving computer labs (8.61%)
- Improving and implementing student services (4.04%)
- Faculty development of new or improved courseware (0%)
- Electronic information resources in the library (12.1%)
- Personnel for installation and maintenance of computer services (18.96%)
- Upgrading instructional spaces to support technology-assisted learning (10.4%)
- Acquiring technology tools to support college-sponsored student activities (0%)
- Expand student access to current and emerging technology (3.33%)
- Purchase of Enterprise Solutions (38.35%)

Alignment with the Brooklyn College Strategic Plan

The Student Technology Fee Plan for 2020-2021 supports the success of all five goals of the Brooklyn College Strategic Plan 2018-2023

GOAL 1: ENHANCE OUR ACADEMIC EXCELLENCE

1(c). Enhance the excellence of our teaching to support students' success and promote critical thinking and problem solving.

- Enhancing Active Learning Environment in General Physics Courses
- Enhancing Student Participation & Improving Faculty Presentations of On-line Coursework
- User-friendly microscopy of normal and pathological tissues with digital imaging for in-person and online education

GOAL 2: INCREASE UNDERGRADUATE, MASTER'S, AND DOCTORAL STUDENTS' SUCCESS

2(a). Increase our rates of student retention and degree completion.

- BC Academic Enrichment Program

2(b). Increase students' opportunities for high-impact academic engagement, such as service learning/community-based learning, research, study abroad, and capstone courses and projects.

- JAMS Backpack Kits

GOAL 3: EDUCATE STUDENTS FOR FULFILLING WORK AND LEADERSHIP IN THEIR COMMUNITIES

3(c). Infuse career development into curricular and co-curricular offerings.

- Work Stations for 3D Modeling and Animation
- QuickBooks 2019
- Student Interview and Digital Content Creation Room

GOAL 4: DEVELOP A NIMBLE, RESPONSIVE, AND EFFICIENT STRUCTURE TO SERVE OUR STUDENTS AND CARRY OUT OUR MISSION

4(e). Enhance campus facilities, technology, and infrastructure, with an emphasis on sustainable best practices.

- New Media Center iMac Upgrade
- Work Stations for 3d Modeling and Animation
- WEB Labs 237 & 239 Campus Network Integration
- Hardware for Audio Recording and Music Classes
- STF Request for the PIMA MFA Program
- Enhancing Student Participation & Improving Faculty Presentations of On-Line Coursework
- TV Center Video Equipment Lending Upgrade
- BC Academic Enrichment Program
- Purchase the Sage Research Methods Core
- Purchase Black Lives in America, Series 1 and 2
- Online Film Equipment Inventory and QR code per kit
- TV Center Studio B Equipment Replacement
- TV Center Multi-Camera Pedestal Replacement
- Conservatory of Music Replacement of Obsolete Equipment
- Student Interview and Digital Content Creation
- User-friendly microscopy of normal and pathological tissues with digital imaging for in-person and online education
- Virtual Reality Technology for Theater
- JAMS Backpack Kits
- Implementing Frame.io Cloud Collaboration platform for all post-production at Feirstein School during and post COVID-19

GOAL 5: LEVERAGE BROOKLYN COLLEGE'S REPUTATION FOR ACADEMIC EXCELLENCE AND UPWARD MOBILITY

5(d). Improve the mechanisms of communication to strengthen our reputation and identity.

- New Media Center iMac Computer Upgrade

BROOKLYN COLLEGE TECHNOLOGY FEE ALLOCATIONS FY21

SCHOOL OF BUSINESS - \$500 (1 PROJECT)

Project: QuickBooks 2019

Description of Proposed Project: This item is an update to current QuickBooks software. The latest software allows for seamless computing on Windows or Mac based computers and gives students access to the most up-to-date learning environment.

SCHOOL OF EDUCATION - \$2950 (1 PROJECT)

Project: Enhancing Student Participation & Improving Faculty Presentations of On-line Coursework

Description of Proposed Project: As a result of teaching during the pandemic for two semesters, there is increased clarity about how to increase student engagement and quality of that engagement during on-line classes. In addition, it is clear that for faculty who conduct either synchronous courses or present students with recorded material from home, that the quality of material must be high. For that reason, this proposal is for items which will assist faculty to increase student engagement and to increase the quality of materials that they provide students with. It is critical that students have various methods in which to participate in class, so that their motivation and engagement remains high.

The quality of teacher presentations is critical for student engagement. Additionally, it is critical that when presenting either live or recorded material, the presentations would be enhanced by using higher quality microphones.

While classes may will return to be on-line, there are a number of classes that are hybrid and more that may have more on-line components. Therefore, while this proposal answers an immediate need, it also addresses the long term need of engaging students virtually.

- Padlet: Yearly membership = \$96 - 10 memberships for CBSE - Total request \$960
- Microphones: Samson Technologies Q2U USB/XLR Dynamic Microphone Recording and Podcasting Pack -109.00 each unit - 10 microphones for CBSE faculty - Total request: \$1,090
- Lighting: Foxin Light Video Conferencing, Lighting for Remote Working - 10 Foxin Lights for Video Conferencing - Total request: \$900
 - Total Request: \$2950

SCHOOL OF HUMANITIES & SOCIAL SCIENCES - \$247,115 (9 PROJECTS)

Project 1: Laptop Loan Program - \$38,874

Description of Proposed Project: The New Media Center laptop loan program has played an integral part in fostering these important learning experiences. During the pandemic, many of the laptops were loaned out to students. At this point, we do not know the condition of the laptops that will be returned, the number returned in time for redistribution, nor when that return date will be. In addition, the laptops that we loaned out during the pandemic were the newer, more reliable models. At present, we have 66 old laptops that should be phased out and replaced.

- Complete replacement of 66 laptops - \$38,874.

The entire student body (approx. 19,000 students) could benefit from this project. The Library is an important and popular student computing and work area. Undergraduates can borrow laptops for a 1 day or 3-day period. Graduate students can borrow laptops for a 30-day period. The popularity of the Library as a technological work center has often resulted in long lines waiting for a computer during the peak hours of the day, and during the midterm and finals periods of the semester. The availability of laptops helps to alleviate the problem by making more computers available reducing congestion and competition for a workstation.

Project 2: New Media Center iMac Computer Upgrade - \$17,988

Description of Proposed Project: The New Media Center's 12 Apple iMac computers are approaching 8 years of continuous heavy usage. This fiscal year, from 7/1/2019 - 3/13/2020 (when the Library closed to the public) there were 2,487 logins, averaging 1 hour and 10 minutes each. The computers need to be upgraded and replaced.

With the change in the Adobe contract, the need for publicly available Mac computers will increase dramatically. Students who were trained in the applications contained in the Adobe Creative Cloud, including Photoshop, Illustrator and InDesign will no longer be able to access these applications from home, unless they personally purchase them. Students taking classes using Adobe tools who cannot afford personal software will be dependent on the College for providing access to the skills they have learned, once the semester is over.

- iMac replacement 21.5" inch - 12 @ \$1,499 ea. The total cost to upgrade \$17,988.

The entire student body (approx. 19,000 students) could benefit from this project. The Library is an important and popular student computing and work area.

Project 3: Support for evidence-based practice training in Communication Sciences & Disorders CSD - \$8,503

Description of Project: This proposal will fund technology that will contribute to students' evidence-based practice training in Communication Sciences and Disorders (CSD) education, specifically in clinical practice, classroom training, and labs at the undergraduate and graduate level in the Department of Communication Arts Sciences and Disorders. One of the goals with this project is to bridge the gap between theory and clinical application in the education of CSD students. The current proposal will extend our ongoing project that aimed to facilitate student participation in clinical laboratory and research activities by testing different theoretical models from courses, such as Literacy and language-based learning disabilities and applying that knowledge to clinical practicum. Awarded equipment will facilitate student participation in evidence-based practice during their clinical training and their research activities. Specifically, with our current project (paused during the pandemic because of no access to labs for CSD students) students may complete assignments on different language processes and performance in populations with communication disorders by measuring cognitive effort exertion to fulfill learner outcomes and departmental assessment standards. The existing eye-tracker allows us to measure physiological changes in pupil dilation that reflect the clients' effort exertion during the performance of different language tasks. Recent studies have shown, however, that in addition to cognitive effort, certain emotional processes also have a high impact on language processing, e.g., in clients with language disorders or in individuals who stutter. These emotional processes are also reflected in the physiological changes that are indicated by pupil dilation. Therefore, this proposal suggests to separate the cognitive and emotional effects that influence language processing and performance by combining the eye-tracker with a skin conductance equipment to allow us to measure cognitive effort exertion and emotional processing simultaneously but independently from each other. In addition to relevant implications for current theoretical models, this project will provide students with significant clinical experience by

allowing them to address clients' individual needs during intervention based on scientific evidence. A client who shows difficulties in language processing because of the lack of motivation and effort exertion has to be treated completely differently from other clients who are trying their best but showing great level of anxiety, fear, stress, etc. during task performance. The combination of these two projects (using the existing eye-tracker with the proposed skin conductance equipment) will allow students to apply evidence-based information to their clinical service, thus bridging the gap between theoretical knowledge from the classroom and experiential learning during their clinical practice. The proposed skin conductance equipment will be a new addition to our laboratory tools that allow the program to engage undergraduate and graduate students in more varied activities for laboratory/clinical/research assignments and to fulfill learner outcomes and departmental assessment standards.

- Various BioPac Systems Components - \$8,503

This request for the skin conductance equipment will allow us to add a new clinical and research tool to our existing technology to expand the clinical and research experiences of CSD students.

Project 4: TV Center Video Equipment Lending Upgrade - \$25,000

Description of Proposed Project: The New Media Center loans cameras, video & audio kits to classes, faculty & students. In the past, this equipment has been restricted to the students of the Radio and TV department. Although TREM classes have priority, equipment is now available to all Brooklyn College students who can demonstrate, through classes or workshop attendance, the ability to safely use it. Unfortunately, much of the equipment is old and in need of repair. Production classes need access to upgraded equipment. We are proposing to purchase 10 "kits" each kit containing a Sony camera with lens (\$1,898), a wireless microphone(\$499), a light video tripod(\$250), and a carrying bag(\$50). With competitive bidding, each package should cost \$2500 or less. Total cost of \$25,000

- Sony Alpha a7 III Mirrorless Digital Camera with 28-70mm Lens,
 - https://www.bhphotovideo.com/c/product/1394219-REG/sony_ilce_7m3k_b_alpha_a7_iii_mirrorless.html?sts=pi&pim=Y
- Sennheiser EW 112P G4 Camera-Mount Wireless Omni Lavalier Microphone System
 - https://www.bhphotovideo.com/c/product/1385595-REG/sennheiser_ew_112p_g4_a_ew_112p_g4_camera.html
- Manfrotto MVH500A Fluid Drag Video Head with MVT502AM Tripod
 - https://www.bhphotovideo.com/c/product/944776-REG/manfrotto_mvk500am_mvh500a_plus_mvt502am_plus.html

Project 5: Purchase the SAGE Research Methods Core - \$99,376

Description of Proposed Project: This proposal is to purchase perpetual access to the SAGE Research Methods (SRM) Core, including all current content as well as content to be added through 2026. SRM is a research methods tool created to help students, faculty and researchers with their research projects. SRM Core includes over 1,000 of the most important and influential books and reference works covering all topics of Research Methods with advanced search and discovery tools, as well as about 75 short videos to help define research concepts for students. Students and faculty can explore methods concepts to help them design research projects, understand particular methods or identify a new method, conduct their research, and write up their findings. We are not requesting funding for the annual hosting fee, which we can pay with other funds. Total cost is \$99,376.

In addition to the intellectual content, SRM also includes a number of tools to help students learn and conduct research:

- Project Planner - a step by step guide to understanding all stages of creating and finalizing a research project
- Reading Lists - a way for students and faculty to create and share customized lists of content
- Methods Map - a visual guide to understanding the relationship and inter-connectivity of the concepts in Research Methods
- Which Stats Test - a guide to help students understand the type of statistical tools that best suit their needs

Since SAGE Research Methods focuses on methodology rather than disciplines, it is helpful to students across the social sciences, health sciences, and more. SAGE Research Methods contains content from books, dictionaries, encyclopedias, and handbooks, including the entire Little Green Book (Quantitative Applications in the Social Sciences, totaling more than 170 titles), and Little Blue Book (Qualitative Research Methods Series, totaling more than 50 titles) series.

All Brooklyn College students will have access to these materials, the content of which spans our curriculum. The usage is unlimited so there will never be a turn away once purchased. Usage statistics are the best measure of assessment for online research material.

Project 6: Purchase Black Lives in America, Series 1 & 2 - \$24,000

Description of Proposed Project: This proposal is to purchase Black Lives in America, Series 1 and 2, a digital primary-source collection documenting the Black experience in the US from the early 18th century to the present day, published and hosted by Readex. Gathering documents from more than 400 current and historical Black publications and over 19,000 US and global news sources, this collection offers a rich collection of materials to support Brooklyn College's Anti-Racism Initiative and broad interdisciplinary curriculum. We are not requesting funding for the annual access fees, which we will pay from other funds. Total cost is \$24,000.

All Brooklyn College students will have access to these materials, the content of which spans our curriculum. The usage is unlimited so there will never be a turn away once purchased. Usage statistics are the best measure of assessment for online research material.

Project 7: TV Center Studio B Equipment Replacement - \$5,500

Description of Proposed Project: Some of the equipment in Studio B is failing and in need of replacement. The equipment specified allows for productions to take place and for students to train in a studio environment. Access to professional grade equipment improves student's experience.

- Blackmagic Design ATEM Television Studio Pro 4K Live Production \$3,000
 - https://www.bhphotovideo.com/c/product/1401680-REG/blackmagic_design_bmd_swatemtvtstu_pro4k_atem_television_studio_pro.html/?ap=y&gclid=EAAlaIQobChMI9bTOSfjD7QIVSrZACH1FeQl-EAQYASABEgLa_vD_BwE&lsft=BI%3A514&smp=y
 - This item is the replacement unit for the old ATEM unit that we use for small multi camera location shoots, as for example, GI-60, the three-night theatre event and other small multi camera location events.
- Audio Board replacement \$2,500

- <https://daleproaudio.com/products/yamaha-dugan-my16-dan-dugan-expansion-card-for-yamaha-digital-consoles>
- The Dugan-MY16 is an automatic mixing card for Yamaha digital mixers that employs advanced technology from Dan Dugan Sound Design. When multiple microphone inputs need to be mixed, the Dugan-MY16 can automatically optimize gain distribution over multiple faders so that the operator is free to concentrate on the quality of the mix. It's almost like having a talented audio assistant keeping track of fader levels.

The grant will allow us to keep the Studio operational and to provide an atmosphere where Brooklyn College students can learn and enhance their skills. Equipment usage will be tracked for assessment.

Project 8: TV Center Multi-Camera Pedestal Replacement - \$20,500

Description of Proposed Project: One of the multi-camera pedestals in the TV Center is no longer operational and cannot be repaired. This camera is necessary to support TREM multi-camera production classes for graduates & undergraduates and to support college-wide TV production. Total cost is \$20,500.

The TV Center supports both undergraduate and graduate TRAM Department production classes. Required by all majors. The studio and associated equipment are available to all certified and qualified BC students under special arrangements. In addition, the studio and associated equipment will be employed to support the College's proposed distance learning efforts. Equipment usage will be tracked for assessment.

Project 9: Student Interview and Digital Content Creation Room - \$12,374

Description of Proposed Project: Increasingly Library/AIT has been approached by students seeking a room in which they can be remotely interviewed by a potential employer or graduate school. Remote interviews are occurring more frequently than ever, taking place via telephone, Zoom WebEx, or other video conferencing tools. Total cost is \$12,374.

Although employers and graduate schools are increasingly utilizing remote interviews to efficiently screen applicants, the Library does not have a space technically equipped to serve this need. In the ideal form, this room should be quiet and distraction free, equipped with a land-line conference capable telephone, high speed internet access, webcam(s), a large monitor split-screen capable, and appropriate video conference software.

In addition, the room should have video and audio capture capabilities so that the interview can be reviewed by the student and/or College professional and serve as a platform for interview skill improvement.

Moreover, interviews can take forms other than question-and-answer. A student may be asked to present a sample lesson or informational talk to colleagues. Therefore, the room should contain the ability to broadcast a real-time PowerPoint, (or other software) presentations. A room, such as described above, will have usages and capabilities beyond student interviews. It is fitted with equipment for audio and video recording. It is ideal for students interested in creating digital content for use in class or in class-related or other academic activities. For example, students active in one of the College's Listening Projects can use the room to record their interview. The room will be reserved through the New Media Center and supervised from the Lower-Level Lab service desk directly adjacent. Additional support will be available from the New Media Center. Funding for the room will be provided yearly as part of the Library and New Media Center's annual budget. Room usage will be tracked for assessment.

SCHOOL OF NATURAL AND BEHAVIORAL SCIENCES - \$101,051 (3 PROJECTS)

Project 1: Enhancing Active Learning Environment in General Physics Courses - \$21,034

Description of Proposed Project: The Physics courses have historically been considered as being difficult, and many students have feared failing them. In order to improve the failing rate and to increase retention, the Physics department adapted the Student-Centered Active Learning Environment for undergraduate physics referred to as SCALE-UP. I was involved from the beginning and am leading to expand this teaching technique. This was first offered for a section of algebra-based general Physics 1 (Phys 1100) in Spring 2010. SCALE-UP is an integrated class with 'lecture', recitation and laboratory done in the same classroom. Unlike the conventional method of Physics teaching, SCALE-UP uses a specially designed classroom with round tables and white boards and projector screens around the classroom. Students are engaged in more hands-on activities and reduced 'lecture' time. Students work in groups and learn together. The classroom is also provided with technology-rich facilities with a laptop for each group, and instruments for activities and experiments. The former Dean of Research Prof. Louise Hainline, was instrumental for adapting this teaching environment. The redesign of the classroom, and all the materials and instruments were made possible from her grant. We also designed and developed all the teaching materials for the activities, group work, laboratory etc. The response of the students in the SCALE-UP classes has been very positive. We also found that the conceptual understanding of the subject by the students in SCALE-UP was better than that in the conventional classes. With the success in Phys 1100, we then planned to offer algebra-based general Physics II (Phys 2100) in the SCALE-UP format, and I taught for the first time in Spring 2012. These classes are also very popular with the students so that these sections are filled up within a few days of the onset of registration. Since we started SCALE-UP, I have co-taught with five other faculty in order to train them and for them to get experience of this new teaching environment and expand the SCALE-UP for more sections. From Spring 2018, we have also begun offering the Calculus-based General Physics courses (Phys 1100 and Phys 2100) in SCALE-UP. We are now offering two sections of General Physics SCALE-UP courses every semester. The SCALE-UP began 11 years ago at Brooklyn College, and has served more than 1200 students. Recently, we have begun to see technical problems with laptops and some instruments. We have been replacing small items and adding low budget instruments from the department OTPS budget. Please note that students do not pay a laboratory fee and the department does not receive any money for lab supplies in contrast to the laboratories in the other sciences. This proposal aims to update laptops and some of the instruments in the SCALE-UP class. Laptops and the Vernier interface devices are widely used in activities and laboratories exercises. This technology allows taking measurements using sensors and displays the data and graphs on computer for further analysis. Laptops are also used in group problem solving exercises. As these are old and overused, we started experiencing problems such as the difficulty of connecting with the interface devices and the malfunctioning of measuring devices. Hence, students can not complete their task on time, and the pace of the whole class is affected as it is an integrated class. Funding is requested to replace all the laptops and to purchase Vernier devices for upgrading the hands-on activities. Total cost is \$21,034.

Assessment of the student's outcomes will be made from both qualitative and quantitative measures of learning outcomes via questionnaires and short tests. The standard 'Force Concept Inventory' (FCI) will be used for quantitative assessment in general physics 1, whereas "Conceptual Survey on Electricity and Magnetism" (CSEM) will be used in general physics 2. These are standard assessment tests developed by Physics Education Research to assess conceptual understanding in general physics. Pre-tests will be administered to all students before the first class and post-test will be given on the last day of the semester. The gain will be determined based on the improvement during the semester. A qualitative measure will also be obtained via feedback from students at the end of semester. Feedback from instructors will also be collected from instructors for qualitative assessment.

Project 2: BC Academic Enrichment Program - \$65,000

Description of Proposed Project: It is a nationally recognized problem that fewer students from underrepresented minority groups (URMs) complete college degrees in STEM fields graduate from college compared to majority groups. While there are several issues that contribute to this problem, one contributing factor is their lack of basic background knowledge in science and mathematics. In addition to the lower numbers of STEM graduates, a lack of preparedness can lead to earning lower grades in higher level courses which can then contribute to increasing the college dropout rates. To address this problem, Mark Kobrak (Chemistry Department Chair), Annette Nesbit (SEEK Program), Jesus Perez (Director of Immigrant Student Success Office), Sophia Suarez (Faculty Associate to the Dean of School of Natural and Behavioral Science and Associate Professor of Physics) and David Wells (Director of the Black and Latino Male Initiative) propose the development of an Academic Enrichment Program (AEP). Through the AEP, students (incoming and enrolled) can have access to self-paced but guided resources to improve their basic Mathematics, English and Science knowledge and skills as well as being connected to a community of support. We will purchase and use the ALEKS software suite. ALEKS, which stands for Assessment and Learning in Knowledge Spaces is an online learning program that includes materials for a wide range of topics including mathematics, chemistry, and physics. The premise of ALEKS is that understanding a topic in one of these areas requires specific prerequisite skills, and if a student is struggling it may be because they do not understand the material that underlies it. The program creates a specific record for each student and tracks their progress as they proceed from topic to topic. When a student fails to correctly answer questions about a given topic, ALEKS asks a series of questions related to the prerequisite topics to determine whether the student has the necessary skills. If testing on the prerequisite topics reveals a gap, students are given a review of that topic and assigned additional problems until they have achieved mastery. Then they are assigned a new series of questions related to the new topic, and the process repeats. ALEKS also periodically reassesses material for which students have already demonstrated mastery as a way of improving retention of the material. The ALEKS interface is quite sophisticated, emphasizing free response questions rather than multiple choice where possible. Modules are also highly customizable, with instructors able to bundle multiple topics under a given heading. Focus for the modules will primarily be on algebra, geometry, and problem-solving, with some excursions into simple topics in chemistry and physics to help students understand the connection between mathematics and science. This initiative would be an open resource to all students, and it will be offered without credit. There will be an emphasis on promoting the program to those most in need including incoming and transfer and students who are struggling in first year STEM courses. Total cost is \$65,000.

When students are better prepared in their foundational knowledge, they are more confident in their scholastic abilities which shows in their academic performance. The main objective of the work proposed is to expand and solidify this foundational knowledge. In using the BC Academic Enrichment Program, students can self-study during the academic year as well as during the summers and the winter intersession. They will be unencumbered by the restrictions typically required during a for-credit course so they can focus on mastering basic ideas. Additional benefits of this program are the fact that it is free to all students and that there will be a connection to the BLMI and ISSO Communities of support.

Expected Outcomes:

1. ALEKS will help students master basic algebra and geometry topics.
2. Students will gain skills in problem-solving techniques.
3. Students will gain introductions to simple topics in chemistry and physics to help them understand the connection between mathematics and science.
4. Students will have greater confidence and be better prepared for their courses.

Assessment of individual students is built into the ALEKS system, with each student's performance tracked at all points through completion of the modules. This creates a record of student progress. Assessment of the program will consist of tracking outcomes of those students who completed the ALEKS program against those who chose not to do so. This will be most easily accomplished for incoming first-year students, though continuing students who repeat a course after completing the program will be compared against those who repeat without enrolling in the program. The program will also run an exit survey for students completing the program to assess their perceptions of the value of the program and their connections to the campus.

Project 3: User-friendly microscopy of normal and pathological tissues with digital imaging for in-person and online education - \$15,017

Description of Proposed Project: We propose purchasing a CX43 Olympus microscope with a DP27 color digital camera to incorporate digital imaging for (1) enhancing learning experiences in virtual and face-to-face classrooms, and (2) supporting research work by undergraduate and graduate students. Basic principles of microscopy and their applications are taught in various courses, including Biology (basic required courses, BIOL 1001/1002), Physiology Laboratory (HNSC 2301), Microbiology (BIOL 3003/3004), and Cancer Biology (BIOL 4024W). The teaching microscopes are not equipped for digital imaging, and when students were on campus, they always struggled to capture the 'aha moment of learning' with their phones without much success! On the other hand, most microscopes with imaging capabilities are high-end, complex, and expensive equipment not widely accessible for learning purposes. Moreover, currently, with online education, students have no access to any physical microscope. We intend to enhance the learning of microscopy by incorporating digital imaging, which is widely used in health professions, biology, and scientific research, and thus, a valuable skill for undergraduate and graduate students (Chen et al, 2011). This equipment will not only enrich face-to-face classes and spark the interest in biomedical research, but more importantly it is essential for online and hybrid courses. Total cost is \$15,017.

The three main objectives of these project will be evaluated independently. First, the use of real-time, remote (and in the future, in-classroom) microscopy to enhance lectures and laboratory instruction will be evaluated through assignments, exams and discussion forum and in the form of classroom presentations. Second, hands-on learning of skills related to digital image acquisition, processing, and interpretation will be evaluated by the instructor, both by direct observation of the students and quizzes. Third, instructors will evaluate the quality and interpretation of the final product, which include images incorporated into reports, theses, and publications (Andrea Weeks et al., 2013).

SCHOOL OF VISUAL, MEDIA, & PERFORMING ARTS – \$162,894 (13 PROJECTS)

Project 1: Work Stations for 3D modeling and Animation - \$40,000

Description of Proposed Project: The art department needs professional, state of the art workstation to support the new digital art minor, the new classes and the BA concentration in Digital Art. The MacPro currently in the lab 5207 are from 2013. On a technical level the objectives of this project are to upgrade our older Mac Pro computers in the 5207B Digital Art Lab which are starting to show signs of under-performance for their specific use in the classroom. As a video editing and 3D modeling production lab, it is critical to provide students and faculty access to industry standard, high-end performance workstations that allows our classes to smoothly work on projects without the downtime of obsolescent hardware.

The Digital Art Area of the Art Department presents the student work in "outcomes assessments shows" at the department's "Project Space" (5th floor Boylan). The Digital Art classes are accessed in standard art department forms by instructors and the reports are submitted by the Department.

Project 2: WEB LABS 237 & 239 Campus Network Integration - \$11,201

Description of Proposed Project: This Proposal will upgrade WEB Film Department computer labs (2nd floor WEB, rooms 237 & 239) by integrating them with the college LAN network for internet connectivity and to use Mosyle (Apple mobile device management MDM) for software installations and updates for our iMacs in those labs. Specialized Ethernet adapters will be purchased to upgrade our Avid server connectivity as well. The Film Department Computer Labs (WEB 237 & WEB 239) are used by students for film post-production, scriptwriting, film budgeting and scheduling software, audio post-production, web uploading and more. They are also used for instruction in all of these areas. The labs are used as both student serving labs and instructional labs. The computers are connected to a local Avid server for media file storage and access for film post-production workflows. Currently neither labs are connected to the Brooklyn College LAN network for internet connectivity other than via Wi-Fi at very low upload/download speeds. Lab computers use the ethernet ports for our local Avid Server. As the college is now able to use Mosyle for mobile device management (MDM) to install and update software, it's imperative that the lab computers gain network connectivity and maintain their connection to the Avid server. For this project ethernet wall jacks and wiring will need to be installed. These same wall jacks could also provide connectivity to our server if our existing Cat6 cables are run for this purpose.

In the past, Avid servers were not considered a secure for network access, so these labs were purposely left out of the college's network. Avid servers are now able to be accessed on broadband as cloud storage and as a result, the servers come with various options to create secure storage, including an embedded system director with California SB-327 compliant built-in measures for secure password protocols. The connections to the server via these wall jacks will provide 1gb network links. Our server will be accessed over this same network using security protocols for protection. The Avid network interface uses a 10 Gigabit Ethernet and supports 1Gb or 10Gb client connectivity. Finally, the Film Department requests to have all Film Department staff offices, classrooms and labs on the same closet network switch so that anyone in the Film Dept. will be able to access the local Avid server via the college network. At this point in time, not everyone is on the same switch.

Cost breakdown: Wiring, wall jacks for ethernet, ethernet adapters, a network switch to accommodate 50 computers, and any hubs that may be needed. As per ITS consult in December of 2020:

- \$2500 for new cable runs
- \$2000 for new network switch
 - Subtotal: \$4500
- Additional Ethernet cabling as needed for server ex: Cat6e Monoprice - \$103
- Cat6 Rj45 jack ends, and wall plates as needed - \$500
- Thunderbolt 3 type C to 10Gb ethernet for Cat 6 or 6e (LABS) x 40 (iMacs that don't have the 10Gig
- Connectivity – iMac Pro that we are slated to receive already have the ports needed to connect built in. \$132.29 X
- Kensington CA1100E USB Type-C to Ethernet Adapter = \$18.78x50 = \$939.00
 - Total estimate: \$11,201

Project 3: Hardware for Audio Recording and Music Classes - \$11,717

Description of Proposed Project: Variety of audio equipment for use in high end quality digital recording. Specifically, to help teach and give students exposure to a variety of real-world recording experience, necessary to help them develop skills in their field. Also, helping to obtain work post-graduation. Total cost is \$11,717.

This project will have a direct impact on student learning in the following ways:

- Support existing academic programs and develop new programs of exceptional quality informed by a rigorous review process.
- Achieve greater external recognition and success of academic programs.
- Enhance existing facilities, promote the efficient use of space, and ensure a well-maintained campus environment that supports teaching, research, learning & quality of life.

Assessment data will be collected via written student evaluations and feedback. Faculty will also meet to assess and determine projected outcomes bi-annually.

Project 4: STF Request for the PIMA MFA Program - \$5,068

Description of Proposed Project: This year we seek to upgrade and improve the remote learning experience of our students. Total cost is \$5,068.

Lab Projects with Arduino:

Students are becoming increasingly excited about working with interactive technology built around the Arduino micro computer platform. We are seeking to obtain 20 kits that can be distributed to students to work with at home along with the class remotely. Each kit contains 15 different Arduino projects that give students an introduction to current, voltage, and digital logic as well as the fundamentals of programming, sensors and actuators and how to understand both digital and analog signals.

Computers: We have experienced a growth in demand for support and assistance to students who work with Windows based computers for various uses and applications. We are seeking two ASUS laptops which will allow us to fulfill this need for our students.

Audio: We have also encountered an ever-increasing interest in high quality field and live recording. To this end we are seeking 20 Tascam DR-05X Portable Audio Recorders along with micro-SDHC memory cards for each. These are small recorders that can be distributed to students for remote learning applications. These recorders make very high-quality audio recordings in a variety of file formats to suit almost every application.

PIMA has a detailed outcomes assessment framework (it was the first program with fully-implemented OA at the College), and specific requirements of student work are clearly articulated course-by-course. Students in the PIMA courses present their performance works primarily in off-campus venues which have included such well-known venues as St. Mark's Church, Galapagos, the Clemente Soto Velez Cultural Center, and the Bushwick Starr, as well as many lesser-known venues throughout the five boroughs of New York City. In the first semester course PIMA 7010 Performances are presented in the New Workshop Theater in the Tow Performing Arts Center in December.

Students' learning is evaluated through these presentations: In addition to the artistic merit of their productions, they are assessed in the areas of:

- Technical and logistical planning for technology-rich performances, including equipment "pick lists," technical diagrams, division of personnel responsibilities, and research into the capabilities and limitations of each venue.
- Safe and careful transportation, setup, use, and breakdown of equipment, from the storeroom/lab, through system setup and testing, packing, transport, load-in, set-up, on-site testing and rehearsal, performance, strike, load-out, and return transport, and storage/re-setting of labs.
- Development of technological contingency plans to allow for failure of system components, unexpected conditions in a venue, and inevitable uncertainties caused by field technical setups.

- Abilities developed through practical production work to "think on their feet" with regard to quick changes in software and/or hardware configurations necessitated by last minute changes and/or unexpected situations in the field.

Project 5: Online Film Equipment Inventory and QR code per kit - \$0

Description of Proposed Project: This project will allow the Film Department to develop an online checkout system to track our Film Production equipment and provide students with an online catalog of gear for their classes. Several years ago, BC IT staff (Andrey Postoyanets) in collaboration with our staff (Michael Irgang) created an initial system to serve this purpose, however the Film Department identified the need to receive daily support, Monday through Friday, 9am to 5pm, in case of any problems. Any issues need to be resolved quickly or students are left stranded without gear access.

We would like to have full ITS personnel support to make the original template fully active. We also want to use a barcode scanner system for equipment check-outs and check-in and incorporate QR codes on many of our equipment cases that would link to an online resource for gear information that our students could access. This link would include manuals, technical videos, and any other pertinent info that we want them to know such as safety protocols. We need a designated part-time ITS staff to oversee this part of the project.

We have a complex paper-based gear checkout system that enables us to serve many students and many classes, and thus our online checkout system needs are also quite complex. We maintain over 1000 pieces of gear that need to be cataloged, and many of those items are cross-listed for use over several courses each semester.

We have researched purchasing this online checkout service outside of the college, however there are high annual costs involved. Having our own BC ITS staff working on this with us seems ideal, if guaranteed support staff can be assigned.

Estimated total cost: \$0 in funding.

Students will be able to view equipment reservations online rather than have to use a paper form. They will be able to access information and manuals online while off campus with their gear. The objectives of this project are to streamline our equipment inventory database, create an online checkout system with barcode scanning, and improve student's ease in reserving film gear.

Currently the Film Department reservation system is open to student only on paper and in-person. (During Covid we used online forms with very limited gear access that was pre-packaged.) This project will be a success if students are able to reserve equipment online, especially when we are back in person. It will be a success if they have quick access to tools to help them with their gear using the QR codes, while off campus.

Project 6: Conservatory of Music Replacement of Obsolete Equipment - \$30,587

Description of Proposed Project: We propose two projects, both of which are crucial to serving our students.

1. Replacement of obsolete equipment in our keyboard lab
2. Funding a few professional-quality recording tools to allow student work both during the pandemic and after.

#1: KEYBOARD LAB (\$27,890)

From Bach to Beethoven to Alicia Keys, composers and musicians in many styles of music rely on piano-style keyboards to compose and play their music. With that in mind, the Conservatory of Music at Brooklyn College teaches a range of classes in keyboard technique, which are required for most Music majors. These classes are all taught in one keyboard lab classroom in room 400-D of Roosevelt Hall Extension. Unfortunately, the keyboard instruments and supporting equipment in that lab are failing. Plus, they are now so old that replacement parts are impossible to find, or ridiculously expensive. Meanwhile, technology has improved much in the intervening years. With this in mind, we request funds to replace all the lab equipment with modern, functional instruments. This is a once-every-fifteen years expense, and so this investment will pay dividends for years to come-- Both in that the instruments will work properly, which is obviously crucial, but also because the more up-to-date instruments will facilitate more efficient teaching and learning.

#2: RECORDING EQUIPMENT (\$2,697)

The COVID-19 pandemic has made clear to us that we need to provide more flexible access to equipment for students. Given the new BA track in Music Technology which began in fall 2020, in addition to existing programs, we are requesting a set of equipment that would enable professional-quality recording either in an existing campus space or, if needed, an off-campus location. If students require use off campus, we will arrange safe lending and return. We are already doing this with lesser-quality equipment in fall 2020, and have the infrastructure to continue and expand.

This relatively small (\$2,697) request is to acquire a professional, multichannel audio interface, two microphones, and two direct injection (DI) boxes. Although we aren't requesting a major amount of funding, these items would be incredibly helpful to our students, especially when recording amplified music groups, such as rock bands, gospel musicians, or jazz bands, for instance.

Project 7: Virtual Reality Technology for Theater - \$7,800

Description of Proposed Project: Virtual reality, from the simplest phone-holder headsets to full motion capture technology, is the next frontier for theatre artists and creators. The ability to transport collaborators from a design meeting room to feel like they are standing on the set of the show MONTHS before it's built and ready is an exciting and innovative tool, we would like to explore with students here at Brooklyn College. At the Broadway scale of production, where production designs can cost several million dollars, the ability to get more visceral feedback from a director or producer using a headset system before this money has been spent can be incredibly powerful and a marketable concept for our students to bring to market. Additionally, these systems are being explored by artists and storytellers to integrate into performance - imagine a projection/video effect being controlled by an actor in a VR suit. We want to make that a reality on Buchwald stage. Equipment usage will be tracked for assessment. Total cost is \$7,800.

Project 8: JAMS Backpack Kits - \$31,915

Description of Proposed Project: "Backpack journalism" is THE current and future mode of news gathering in the converged media environment. The integration of video, audio and still photography in text-based news stories as well as the centerpiece of the sites of traditional television, radio and cablecasting news outlets require all employable journalism students to be comfortable working across platforms and to harness their reporting and writing skills in the service of multiplatform journalism. The gold standard of this equipment is an ultra-portable pack of high-end equipment including a DSLR with a zoom lens, external mics and adapters, a light and a shoulder mount and tripod -- the key is that it supports the work of the "MMJ" -- the "Multi-platform Mobile Journalist." Total cost is \$31,915.

JAMS was conceived in and for the digital, networked, mobile and converged world of contemporary journalistic storytelling and requires equipment that will enable faculty to train students to news gather

across platforms with the same equipment they will be tasked with knowing and being fluent in the use of on the job. These backpacks will serve a multiplicity of intermediate and advanced JAMS courses from Videography for Journalists to Digital News Laboratory and the Capstone in Journalism and Media Studies.

Project 9: Broadcast Video Equipment for Theater - \$10,845

Description of Proposed Project: This proposal is to address the lack of video capture, control and broadcast equipment for the Department of Theater: for theatrical productions, on-camera classes and departmental video production. As an artistic field, theater itself is increasingly utilizing live video to create incredible effects during live productions, allowing performers to be recorded and displayed in real-time and allowing amazing effects to tell stories in new and innovative ways. In 2019, the Department of Theater acquired the video/projections control software Watchout that allows routing to multiple outputs (projectors, monitors, etc.). This, and similar software have been amazing tools for student exploration so far - this proposal focuses on acquiring quality inputs (cameras, routing equipment, etc.) to match and extend the use of this system. Also, as the lines between live theater and recorded media continue to blur, the Theater Department is committed to preparing our students to remain on the cutting edge of the industry. Actors are encouraged to participate in independent video productions and take initiative to generate theater-practitioner-driven content. These activities not only prepare the students for the professional world, but also empower them to find their own unique artistic voice - perhaps the most important aspect in any artist's training. Additionally, the remote theater model has taught us that the department MUST have a resource of quality cameras and audio equipment to continue educational programming in any situation. Remote theatre is not likely going away, even after the Covid-19 situation resolves - we are anticipating that remote performance will become a new form and venue for students and artists to explore - this equipment will allow that to flourish. Total cost is \$10,845.

Our On-Camera Acting Sequence will also benefit directly from this equipment since it is composed of industry standard components and can be arranged to mimic the studio environment and the on-set experience. Furthermore, excellent production quality has become so accessible that with this modest investment, the Theater Department would be able to produce professional-grade independent films, short films, training videos, instructional materials and marketing and recruiting materials for all stakeholders in our community.

The success of this equipment will be assessed by the increased abilities and quality of video content created for productions, courses and departmental video materials. In this and any future remote learning/theatre model, this equipment's success would be the delivery of more robust productions to audiences through streaming platforms, allowing students more than a "ZOOM theater" education. For our outgoing students, the success of this investment in technology can be assessed by their increased employability as performers, designers and design assistants, and directors/producers for Broadway, Off-Broadway, TV & film and corporate productions.

Project 10: Student Mobile Self-Video Inventory - \$12,000

Description of Proposed Project: We are applying to the STF for an inventory of video and related equipment for theatre student use for self-taping and other creative use. The Covid situation has shown us that not all students have access to adequate technology for even simple class meetings, let alone the higher visual standards of performance and audition needs. This inventory of theater-department-managed equipment will ensure equitable access for all theater students. Total cost is \$12,000.

Video is quickly becoming an essential tool for all theatre practitioners, from performers creating impressive and successful audition self-tapes to designers crafting engaging presentations and show

projections content, and directors capturing proofs-of-concepts and materials to communicate complex creative ideas with their collaborators. This area of technology is one that students need to be engaging with as a part of their coursework.

A key component to students forging careers in today's professional arena is their ability to be self-starters, to generate material, to market themselves and to share their work with others. With the prominence of social media and other digital platforms, the ability for our students to film, edit and finish professional-looking materials, and to beam them around the globe is crucial.

For instance, our 2020/21 theatrical production season was entirely cast through student self-tape submissions: A process that reflects the trend that has been growing in our field for years and has become a standard practice in our industry (even outside of the Covid situation). The current remote learning model only emphasizes that need even more, requiring students to be nimble and knowledgeable with all aspects of the technology, from cameras, microphones and backgrounds to editing, distribution and dissemination.

This package is factored to create 12 kits, ideal for typical class sizes and common need levels. For budget realities/possibilities, this can be scaled up or down as applicable.

The success of this equipment will be assessed by the increased access and quality of video content created for productions, class projects, audition taping, and showcases of student work at large. For our outgoing students, the success of this investment in technology can be assessed by their increased employability as performers, designers and design assistants, and directors/producers for Broadway, Off-Broadway and TV/film productions and corporate clients.

Project 11: MDM licensing for smartphones for FilmicPro app - \$9,118

Description of Proposed Project: This project will enable the Film Department to purchase and push a film-making tool to Film Production student's smartphones. During remote classes, students in the Film Department have decreased regular access to our film equipment. As a result, the department used student materials fee funds to purchase what we called, "smartphone accessory kits" for students to keep. These allow students to use their smartphone cameras to make films using a steadying rig, mini-tripod, various special lenses and external microphones. One invaluable tool is an app called "FilmicPro." We worked hard to find a route to pay to give this app to our students, but the necessary MDM licensing that would enable us to purchase and push the app to their phones was not within our budget.

Cost breakdown in consultation with ITS staff:

- For 240 students for Spring 2021 & Fall 2021
 - Filmic Pro for iPhone users - Apple.edu discounted rate (quote attached) for 240 users.
 - IBM MaaS360 approx. \$3 per-user, per-month x 240 user for 2 semesters (ideally Spring 2021 and Fall 2021) or 10 months = \$7200
 - Apple.edu FilmicPro for iPhones - \$7.99. x 240 = \$1,918
 - Estimated total cost: \$9,118 total

Success will be determined by student achievement in introductory and intermediate production courses in alignment with their learning objectives. We will survey students on their experiences with FilmicPro at the end of the semester to assess the outcomes.

Project 12: TREM, BA entry professional 4k camera package - \$31,069

Description of Proposed Project: We, at the Department of Television, Radio & Emerging Media, lack the ability to teach students on a critical change of camera techniques and standards due to a lack of evolving our equipment standards. All modern footage, be it entry or professional, is shot and edited in 4K, which requires 4K capable cameras. We posit that remaining competitive in the field of video production requires us to meet that standard, and to do so in a manner that best suits the needs of the students. Several years ago, Camera Kits were purchased and created for JAMS Majors so that they would have instant and easy access to a pre-built package of all of the basic equipment needed to perform field interviews. Here, we would like to focus on more documentary and artistic projects by creating kits that match the function seen in these kits, to be used in the upcoming semesters as in-person sessions begin. Total cost is \$31,069.

BA students will learn the various techniques that have come about since the standards of 4K filming have developed (cropped shooting, 4K editing, etc.) while in Single Camera Production. Additional equipment such as the Wireless-Lav units requested will be paired with the kits, as matching the audio requirements of the medium are critical to both the production and post-production phases. The Telephoto Lens will be used to expand on the techniques inherent in teaching and shooting 4K production as an advancement on student learning and access facilitates an evolution of ability and craft.

The objective is to meet the demands of our graduate and undergraduate programs. Our program in the Department of TV, Radio & Emerging Media has already implemented HD into our entire curriculum. With the upcoming transition from HD to 4K video, the outcomes would be immensely beneficial to students. By upgrading technology, the curriculum of our faculty members would not be limited and they will have the teaching power to deal with 4K video, which has become the industry standard.

BROOKLYN COLLEGE – ADMINISTRATION - (11 PROJECTS)

Project 1: FT Staffing – Accessible Technology Support - \$66,425

Description of Proposed Project: Personnel for installation and maintenance of computer services

Full time staff to support accessible technology which provides technical support to students with disabilities for computer classrooms, open computer labs, and technology in smart classrooms. Is committed to ensuring that students with disabilities enjoy an equal opportunity to participate in the classrooms, programs, and services that the college has to offer by facilitating the necessary accommodations. Assessments are done by annual student surveys.

Project 2: FT Staffing – Installation and Maintenance of Computer Services - \$402,667

Description of Proposed Project: Full time staff to support instructional technology

Full time staff provides technical support for computer classrooms, open computer labs, laptops in carts for class use, the faculty development lab, laptops available for loan by students, short-term loan computers for faculty use in classrooms, and technology in technology enhanced classrooms. Assessments are done by annual student surveys.

Project 3: PT Staffing – Installation and Maintenance of Computer Services – \$339,000

Description of Proposed Project: Full and part time staff to support instructional technology.

The allocation will support part-time employment for technology support staff in 60+ student computing labs, 100+ laptop carts, 350+ technology enhanced areas, smart classrooms, as well as part-time technology assistants for the other student service areas. Assessment by annual student survey and employee appraisals. Assessments are done by annual student surveys.

Project 4: Smart Classroom Upgrades - \$200,000

Description of proposed project: Replacement of existing computers, peripherals and smart classroom equipment on a planned replacement schedule.

Maintenance and repair of existing computers, peripherals and smart classroom equipment. This includes equipment not under warranty that break such as keyboards and mice, A/V equipment and printer maintenance kits.

Brooklyn College offers technologically advanced classroom space across a number of academic buildings. We have a multitude of standard 30-45-person classrooms with movable seating, and several lecture halls ranging in capacity from 68 to 288. Most classrooms are SMART featuring:

- Built-in ceiling-mounted video projector
- Sound system
- Symposium interactive display tablet
- Projection screen (electric or manual)
- Separate dimmable high-hat lighting
- A lectern with built-in projection controls, flat-panel instructor computer display, PC, VHS/DVD player, amplifiers, and walk-up laptop video/sound connections
- Network connectivity to the lectern and projector
- Room-darkening window shades
- Wireless PowerPoint Remote Control

Some rooms have Digital Document camera to project documents, Symposium interactive display at podium to facilitate recording sessions, and annotating projected image. Assessments are done by annual student surveys.

Project 5: Computer Lab Upgrades - \$200,000

Description of Proposed Project: Replacement of existing computer lab equipment on a planned replacement schedule.

New equipment for instructional technology support such as a computer labs and classrooms, and student loan items. Includes scanners, drawing tablets, computers, projectors, A/V equipment, printers etc. not budgeted for in other allocations or projects. Some examples of past purchases include additional iPads, laptops and digital cameras for student loan, expendables such as toner, projector bulbs and batteries (wireless microphones and remotes) for instructional technology facilities. Assessments are done by annual student surveys.

Project 6: Academic Network Infrastructure - \$150,000

Description of Proposed Project: Upgrade, replace or renew network infrastructure and components.

In order to maintain network infrastructure to support academic and operational continuity, we need to purchase or replace components in our existing network infrastructure, including cabling, network switches, hubs, routers, UPS, and HVAC. Assessment will be conveyed in our operational continuity.

Project 7: Library Resources - \$350,000

Description of Proposed Project: Digital Subscriptions & Electronic Journals & renewal of latest digital subscriptions on a planned schedule.

The Brooklyn College Library will continue its subscriptions to digital collections and information services. Assessments are done by annual surveys.

Project 8: Software License Fees (Instructional) - \$80,000

Description of Proposed Project: Upgrade or renewal of classroom & lab software and renewal of latest software subscriptions on a planned schedule.

Funds are used to license software by students in their courses and/or in student computer labs, such as Microcase, Keyserver, MapleNet, Maple-TA, SONA, E-recruitment, etc. Assessments are done by annual surveys.

Project 9: Software License Fees (Student Services) - \$70,000

Description of Proposed Projects: Purchase, upgrade or renewal of student services software

Renewal of latest software subscriptions on a planned schedule to improve or implement student services
Assessments are done by annual surveys.

Project 10: University Wide Initiatives - \$1,200,000

Description of Proposed Project: Purchase of Enterprise Solutions

Funding of student serving university-wide initiatives. Assessment will be determined by University.

Project 11: Strategic Technology Initiatives - \$300,000

Description of Proposed Project: Purchase of Enterprise Solutions

Implementation of Brooklyn College strategic technology initiatives. Assessment will be determined by STI Committee.