

Department of Information Technology

Seton Hall University

2021-22 Annual Report

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Seton Hall University's Department of Information Technology (DoIT) was established in 1997 by the consolidation of the academic and administrative computing groups, formerly reporting to the provost and vice chancellor for finance, respectively. DoIT's mission is to support the University's strategic technology initiatives to enhance teaching and learning and improve the administration of the University.

Seton Hall University made a major commitment to Information Technology beginning with the University's 1996 strategic plan with the goal "to provide a technologically advanced learning environment for our students and faculty." Seton Hall subsequently developed a long-range technology plan and budget with the goal of "establishing a learner-centered, network-centric, mobile computing environment with a wide range of online teaching and learning resources as the core of our network services". What followed was a remarkable transformation: through the University's Mobile Computing Program, all undergraduate students and faculty are issued a laptop computer; the campus was extensively wired, and then became completely wireless; faculty innovation in the use of technology to improve teaching and learning, extensively supported by the University's Teaching, Learning, and Technology Center, propelled the University to national recognition as a "most wired" campus; and, a long-term assessment of the impact of technology on teaching and learning at the University demonstrated that the intelligent use of technology can improve student engagement and learning.

Over the years, Seton Hall's IT organization evolved to keep pace with the ever-increasing demands for services and support. Seton Hall's commitment to using Information Technology to enhance teaching, learning, and the University's business processes continued in the University's 2003 and 2010 strategic plans and most recently with the University's 2021 Strategic Plan, "Harvest Our Treasures." Over the course of the past twenty-five years, these plans resulted in launching new online programs, enabling blended learning in our classrooms, implementing a new administrative system (Banner), rewiring the campus network to provide redundant Internet connections and redundant network connections for most buildings, implementing a new Business Intelligence suite (Cognos) for Banner reports, implementing a Customer Relationship Management (CRM) system for Admissions, moving most of our data center to the cloud (primarily using Amazon Web Services), and a new emphasis on information security, including encrypting systems that contain our most sensitive data and requiring multifactor authentication (MFA) for off campus access to most of those systems.

In FY23, we will continue the momentum in continually improving IT support, services and infrastructure in ways informed by the University's 2021 strategic plan. An IT focus for FY24 will be modernizing our administrative computing systems in order to better support our students and improve operational efficiencies in both IT and in the business units we support. At the same time we are exploring new learning technologies to better support faculty, including plans for acquiring new learning management and content management systems. We are also continuing planned upgrades to our campus phone and network; this is a multi-year project that will continue into FY24, but many members of the University community will see new phone and network services in their areas by the end of the 2022-3 academic year.

Stephen. G. Landry, Ph.D. Chief Information Officer

Ubiquitous Computing refers to programs aimed at making a computer available to every member of a learning community so that everyone in that community is able to communicate and access learning materials "any time, any place." One of the most visible aspects of Seton Hall's technology plan is the University's Mobile Computing Program, Seton Hall's version of ubiquitous computing. This innovative academic program provides a computer to each undergraduate as part of their tuition and fees. More than just a laptop lease program, Mobile Computing provides a range of quality support and network services, including training, support, and incentives to faculty to integrate Information Technology into their courses to enhance teaching and learning.

In FY21-22, over 4,000 laptops were distributed to students, employees and faculty through the Mobile Computing Program. Student laptops accounted for 79% of the total laptop distribution. The breakdown of laptop model distribution for the year is displayed below.

Model	Student	Employee/Admin	Faculty
2 Gen 2 T14	423	151	45
2 Gen 2 x13	1124	18	104
Gen 2 T14	383	313	24
Gen 2 x13	1219	58	149

Managed Print Program

As part of the University's commitment to ensuring accessibility to technology, the Managed Print Program, or BluePrint, serves as a pivotal support component. The Department of Information Technology manages the University's fleet of printers, including funding, deployment, and responsible maintenance and disposal of all printing related devices. This centralized management strategy ensures that departments have reliable, secure, up-to-date, and supported printing, copying, and scanning resources while also ensuring the University is providing this service in a sustainable and cost-efficient manner. The major benefits of the Managed Print Program include:

- Predictable replacement of print devices and the ability to schedule deployments throughout the fiscal year.
- Adoption of standard printer configurations which will reduce support costs and improve service response times.
- A five-year warranty for all printers, which covers support and service.
- Enhanced security features with the requirement of Pharos Secure Release printing.
- An environmentally sustainable approach to print management, through the deployment of more energy efficient devices, and the reduction of consumable supplies.
- Reduction of the waste and cost associated with unused supplies through the automated delivery and replenishment of toner and maintenance kits to each department when designated thresholds are reached.
- Elimination of desktop printers replaced by shared printers having enhanced features and a lower per-page cost.
- Additional convenience for faculty and employees to "print anywhere". Faculty and employees will be able to release their print job on any device around the campus.

FY21-22 Printing Cost by Campus

IHS	\$16,540
SO	\$254,463
LAW	\$11,144.02

Student Pages Printed by Month

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Student Prints (2021-2022)													
Months	June	July	August	September	October	November	December	January	February	March	April	May	Totals
so	6092	5064	18508	137321	159118	160830	142879	13115	172342	122341	118067	148438	1,204,115.00
IHS	11219	44675	32015	40631	39967	85995	72446	30214	43990	62889	45540	59796	569,377.00
LAW	2772	18026	69655	117902	131531	101638	257138	50404	164774	104071	113428	303569	1,434,908.00
Total	20083	67765	120178	295854	330616	348463	472463	93733	381106	289301	277035	511803	3,208,400.00

^{*}Administration pages printed 2021-2022: 3,094,396 pages.

Equipment Per Campus

	Canon	Xerox
IHS	11	15
SO	17	115
LAW	0	18
	28	148

Printer Upgrades

- South Orange Campus: 17 Canon printers were upgraded to Xerox printers.
- Law School Campus: All 18 Cannon printers were upgraded to Xerox printers.

The TLT Center was created in 1997 through the merger of the former academic computing and media centers. One of the primary objectives of the TLT Center is to support the third component of the University's Mobile Computing Program by providing special support to faculty in their use of technology in their teaching. This is done through targeted services as well as internal grant programs administered by the TLT Center.

Seton Hall University's TLT Center consists of the following teams:

- The Instructional Design Team provides pedagogically sound support to faculty on the integration of technology into the curriculum. All of the TLT Center's six instructional designers hold master's degrees in instructional technology or a related field. Each instructional designer is matched with specific departments to be their principal liaison within the Department of Information Technology. In addition to the Instructional Designers, the ID team includes a Learning Systems Manager. Faculty are welcome to schedule appointments with their department's liaison to discuss uses of technology, new ideas, professional development needs and available software. The ID team also schedules training and informational meetings with departments to focus on specific needs.
- **PC Support Services Team** provides an all-inclusive technical support structure to all members of the University Community. PCSS is comprised of six areas that have a variety of different functions:
 - O **Technology Service Desk** provides technical phone and email support to our entire community consisting of students, faculty, administration and staff, support is available 24/7/365. There are full-time staff located at Seton Hall University and Blackboard (3rd party vendor) handles all of our telephone overflow, after hours, weekend and holiday support.
 - o **Remote Support** provides technical support using remote tools to our entire community allowing for second level, expert help, without requiring the community member to be present.
 - O **Technical Services** provides students, faculty, administrators, and staff computer hardware and software repairs and is staffed with seven full-time PC Support Specialists. These specialists are responsible for completing warranty and non-warranty hardware repairs for SHU issued laptop and desktop computers, troubleshooting software issues, testing and installing computer applications, and providing computer support for all Seton Hall University initiatives and events.
 - Asset Management manages and assures accurate Mobile Computing laptop inventories by tracking, monitoring and reporting on these assets regularly. Responsibilities include defining asset tracking policies, establishing audit processes to ensure data integrity, acting as single point of contact for management on all asset issues, assisting technology refresh, and life cycle planning of the Mobile Computing Program.
 - O Computer Labs Operations maintains, supports, and updates all computer labs and public printers on campus. Through the employment of 50 student technology assistants, the department is able to ensure that all lab devices, (computer desktops and adjoining peripherals, laptops and printers) are fully functional at all times as well as provide lab users with software and hardware support. The department also serves as a liaison between PCSS and other department managed computer labs.
 - O **Desktop Engineering** provides 3rd tier application support to our entire community. This team is responsible for image creation, patch management and software package creation.
- The **Digital Media & Web Development Team** supports faculty in the creation of digital materials for their courses, ranging from audio and video production, web development, programming, and digital and print media as well as being a cross-divisional team with Public Relations and Marketing, maintains, supports and updates the University's Web presence. The TLT Center has ten full time Digital Media & Web Development specialists.

- The Classroom Support Team supports the audio-visual technology used by faculty in the classroom and our community at its events outside the classroom. All ninety-two general purpose classrooms at Seton Hall University have built-in audio and video projection systems and other technologies. The TLT Center has six full time media support specialists.
- Computer Training Services provides training to faculty and students in the use of the University's standard suite of software, including Microsoft Windows, Microsoft Office, Blackboard, and other standard tools. Computer Training Services has one full-time technology trainer.

Assessment

Employee Training Initiative

The TLTC joined the project team created to address Goal 5.4 of the University's Strategic Plan, "Attract and retain high-caliber faculty and staff and provide opportunities for their growth and development." To gain perspective and a deeper understanding of what resources, information and training are lacking or missing, the project team developed and deployed a survey on April 21, 2022 to all faculty, staff and administrators. The survey garnered 559 responses. For further analysis, focus groups are planned for the summer and fall to identify training paths and justin-time resources.

Online/Hybrid Course Development

The Teaching, Learning, and Technology Center (TLTC) supports all online course development for the University. Courses are developed using the Quality Matters rubric which promotes and improves the quality of online education and student learning. In addition to course development, the TLT Center offers a variety of workshops focusing on best practices in course design, engagement strategies and tools.

Working with Academic Affairs and supporting the University's goal to increase graduate enrollment and geographic reach, the TLT Center has developed a long-term schedule to develop new online graduate courses and to redevelop existing online graduate programs to modernize and reinvigorate those programs.

College of Arts & Sciences

- Courses under development:
 - o BIOL 3212 Evolution (Retool)
 - o CAST/CORE 3251 The Science and the Church
 - o PSYC 2214 Abnormal Psychology
 - o PSYC 3217 Biological Psychology
 - o RELS 1102 Introduction to the Bible
 - o RELS 1202 Christian Belief and Thought
- Courses Completed:
 - o DASC 4011 Internship in Data Science
 - o DASC 8222 Data Engineering
 - o POLS 3696 Philanthropy and Christianity
 - o SOWK 2653 Substance Abuse Assessment and Intervention

Stillman School of Business

- Course under development:
 - o BFIN 7215 Capital and Money Markets
 - o BACC 7117 International Accounting (Retool)

- o BACC 7210 Forensic Accounting (Retool)
- o BACC 7136 Big Data (Retool)
- Courses completed:
 - o BFIN 7736 Corporate Finance
 - o BITM 3724 Business Information Modeling (Retool)
 - o BQUA 2811 Business Statistics

School of Diplomacy

- Courses under development:
 - o DIPL 6XXX Race, Religion, and International Relations
- Course completed:
 - O DIPL XXXX MA in Diplomacy and International Relations; Executive and Online MS
 - o DIPL 6181 Statecraft: Designing Foreign Policy
 - o DIPL 6405 Foreign Policy of Post-Soviet States
 - o DIPL 6601 United States-China Relations

School of Health and Medical Sciences

- Course completed:
 - o SMHS 6310 Topical Seminar Research III
 - o SHMS Promotion of Health and Wellness
 - o SHMS 3 Statistics and Research Methods in Health Sciences
 - o SHMS 4 Intro to Health Management/Administration

College of Education and Human Services

- Courses under development:
 - o CPSY 7001 Counselor Ethics in Practice
 - o CPSY 6301 Career Development and Counseling
 - o CPSY 6310 Etiology and Treatment of Addictions
 - o GMHS 6110 Health Services, Issues, and Trends
 - o GMHS 6210 Curriculum Development in Health Professions Education
 - o GMHS 6302 Topical Seminar, Research I
 - o GMHS 6311 Topical Seminar, Research II
 - o GMHS 6409 Styles of Teaching & Learning
 - o GMHS 7110 Strategic Planning for Health Care and Professions Education
 - o GMHS 7500 Intermediate Statistical Methods
 - o GMHS 7508 Intermediate Statistical Methods
 - o GMHS 7602 Research Seminar
 - o GMHS 7605 Qualitative Research Methods
 - o IPHS XXX1 Principles of Healthcare and Pharmaceutical Management
 - o IPHS XXX2 Promotion of Health and Wellness
 - o IPHS XXX3 Professionalism and Practices for Healthcare Workers
 - o IPHS XXX4 Care and Prevention of Athletic Injuries
 - o IPHS XXX5 Intro to Health Sciences/Careers
- Courses completed:
 - o CPSY 8100 Multicultural Counseling
 - o CPSY 7101 Etiology and Treatment of Addictions

- o GMHS 6230 Leadership: Theory & Practice
- o GMHS 7403 Philosophy of Science
- o GMHS 7501 Quantitative Research Methods
- o GMHS 7503 Scientific Inquiry/Writing
- o GMHS 8113 Principles of Motor Control & Learning
- o PELC xxxx Special Topics (Retool)
- o PELC xxx [EDST 7310] Ethical Policing (Retool)
- o PELC [ELMP] 7772 Police Executive Leadership (Retool)
- o PELC Essential Organizational Communication for Critical Incidents (New)
- o PELC Risk Management and Incident Command (New)
- o PELC Evidence Based Policing & Big Data (New)

College of Nursing

Courses under development:

- o NURS 6220 Advanced Practice PMH Nursing: Non Pharmacological Interventions
- o NURS 7242 Advanced Nursing Practice I: Younger Years
- o NURS 7244 Advanced Nursing Practice II: Younger Years
- o NURS 7245 Advanced Practice PMH Nursing: Child and Adolescent
- NURS 7346 Graduate Nursing Practicum II: PMHNP Advanced Practice PMH Nursing: Child and Adolescent
- o NURS 7364 Graduate Nursing Practicum IV: Younger Years

School of Theology

Courses under development:

o JCST 7036 - Peace and War in the Bible and Jewish Tradition

Course completed:

- o JCST 7554 Encountering Other Religions/Judaism and Other Religions
- o JCST 7047 Philosophic Reflections on the Holocaust
- o STHO 6020 Research Seminar

Continuing Education and Professional Services

• Market Research Certificate Courses Redesign: This project involves redesigning two existing Market Research courses to be offered through CEPS in collaboration with the Market Research Center and Stillman School of Business. The redesign involves updating textual content and multimedia, as well as some of the organization of the course content. The course opened to participants on February 1, 2022.

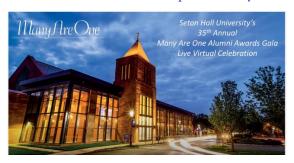
Online Teaching Certificate Level 1 and Level 2

• In support of online course development equity across faculty, the TLTC created a two-part, hands-on certificate program. Online Teaching Certificate (Level 1) focuses on the pedagogy and use of the University's approved Quality Matters (QM) Rubric. Online Course Development Certificate (Level 2) focuses on the actual development of the course in the University's learning management system. During the Summer 2021, Online Teaching Certificate Level 2 became available for the first time to address the development of an online course using the QM Rubric. Participants must complete the Level 1 certificate program before enrolling in the Level 2 program.

Engagement and Retention Projects

Many Are One 2021 Live Stream

The Digital Media Team at the Teaching, Learning and Technology Center worked with University Advancement to bring the annual Many Are One event to the digital world by producing and promoting video for the traditionally in-person event. The Live Stream archive can be found at: https://www.youtube.com/watch?v=XMtYzkm4CP8





Chapel Camera and Streaming System Our team worked with members of the TLT Center's Media Services team and the Office of Catholic Mission and Ministry to configure and troubleshoot the new automated recording and streaming setup for the chapel. Tasks for our team included producing help documentation and training to the staff in the chapel, on how to operate and stream live to YouTube from the new equipment.

New Student Convocation 2021

Working with Student Services and an outside production company, the Digital Media Team streamed this event for new students and their families. The archived video can be found at: https://youtu.be/MRnAV0N Rrg





New Faculty Convocation 2021

This traditional event returned to campus in the fall of 2021 and was produced and live streamed by the Digital Media Team on the University's YouTube channel: https://youtu.be/nVKQEbjhwOQ

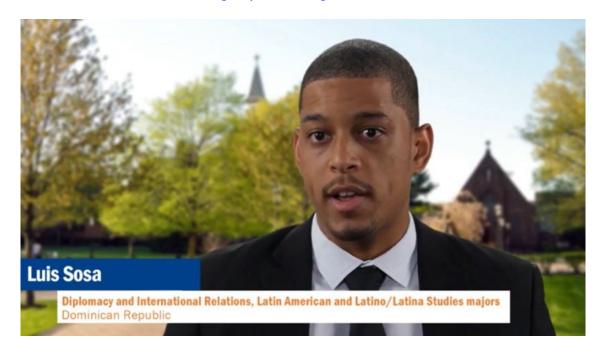
Center for Diaconal Formation at Seton Hall

The Center for Diaconal Formation is designed to provide graduate-level intellectual formation for permanent diaconate candidates. Our team worked with the Center to create this promotional video: https://youtu.be/lsmG_JFGjKg



Diplomacy Student Leader Highlight Video

In an effort to boost recruitment for the School of Diplomacy, our team reviewed and edited several previously recorded videos into a "supercut" of all of the Diplomacy students featured in the Meet Our Leaders series. This new video shares their stories, testimonials, and observations regarding their time and work at the School. https://youtu.be/XpZZkHea5JU



New Graduate Student Orientation 2021

In an effort to bring this important event to a virtual audience, the team created digital assets and produced a live event via Teams for new Graduate Students: https://www.youtube.com/watch?v=ijIhkdYpRh8



Entrepreneur Hall of Fame 2021

Working with the Stillman School of Business Center of Innovation and Entrepreneurship our team once again filmed and produced video celebrating the accomplishments of the 2021 inductees inro the Entrepreneur Hall of Fame, Frank T. Cannone, J.D. '91 and Bryan J. Jakovcic '09.



https://youtu.be/Uz2sVujyM38 | https://youtu.be/PWmxqjwODrw

University Video Christmas Card

Helping to continue our run as the nationally recognized Number 1 school or college for Christmas celebrations, our team again filmed and produced the 2021 Seton Hall University video Christmas Card. An absolute pleasure to work on every year, this video is sent out to the entire University Community, including alumni, to celebrate the Christmas season. You can find the 2021 video card on our YouTube channel at: https://youtu.be/JQJB7HyYaqo



Christmas at the Hall Tree Lighting Live

Working with the Office of Student Services and an outside vendor, our Digital Media Specialists were able to live stream the annual lighting of the University Christmas Tree from the Campus Green.

https://youtu.be/3YZsK2Prilc



Bryan Stevenson Honorary Degree



Bryan Stevenson, the author of Just Mercy and Director of the Equal Justice Initiative in Montgomery, Alabama, presented on social justice and personal involvement at Seton Hall University. At this event, Mr. Stevenson was awarded an honorary doctorate degree (Litterarum Humanarum Doctoris). Our team was able to live stream the event for those unable to attend. As a condition of being able to live stream the event, we are prohibited from further sharing and the video is not available for on-demand viewing.

State of the University Address 2021

President Joseph E. Nyre, Ph.D., delivers the 2021 State of the University Address. Live from

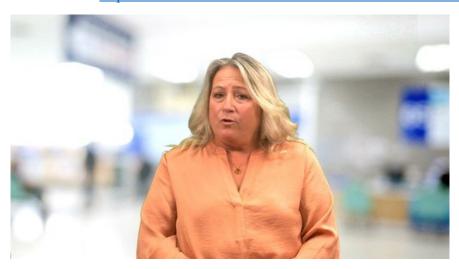
Jubilee Hall, November 12th, 2021. https://youtu.be/GVNE2vXOOdQ



Interprofessional Health Sciences (IHS): 3 Minutes with an Expert Series

A series of videos produced at the request of Dr. Genevieve Zipp for the IHS campus. The first two videos in the series detail the PhD program.

- Why PhD: https://vimeo.com/setonhall/review/659486278/b4641cce68
- Program Overview: https://vimeo.com/setonhall/review/659486489/a2c5579ff0



A: Total Direct Cost | \$66,000

B: Total Gift Aid | \$35,000

C: Out of Pocket Costs | \$31,000

Financial Aid Video Walkthrough

Working with the Office of Financial Aid, we produced walkthrough videos, to help incoming students and their families understand the cost of attending a four-year university.

- https://youtu.be/XXq-y2DM0RY
- https://youtu.be/LWop3LE iSo

Chemistry Faculty Highlight Videos

Beginning in the late fall of 2021, our team began filming a series of videos showcasing eight faculty members in the chemistry department. These videos will be used to highlight the faculty members on the university website and in planned social media campaigns. Six videos have been filmed during Q4 with two more slated to be filmed in 2022. Editing and Production will continue in 2022.



Parking Services Tutorial Video

A video to detail How to purchase your parking permit at Seton Hall University, through PirateNet and the NuPark app. https://youtu.be/gdgvgmLPFFY

What's Up Doc: Finding Therapy Off Campus

Staff from Counseling & Psychological Services (CAPS) discuss how to find therapy with off campus providers. Video filmed and produced at the TLTC.

https://youtu.be/A-IjEfMJW8w





2021 Fall Parents Leadership Council Meeting

In order to include as many parents serving on the Leadership Council as possible, our team produced a meeting via Teams, streamed live Oct 19th 2021. The purpose of the meeting was to share how the University is addressing the academic needs of our students this Fall semester. https://youtu.be/DxGBuGLEQ6Q

Guest Speaker: Warwick Fairfax

Live event with The Buccino Leadership Institute Presents Guest Speaker Warwick Fairfax, Thursday October 28th 2021. https://youtu.be/TrqQsIn6g1Q



Syrian Emergency Task Force Panel Discussion

Syrian Emergency Task Force Panel Discussion streamed live to Youtube from Jubilee hall, Thursday October 28th. https://youtu.be/GdmInDF2980



New Jersey Association for College Admission Counseling (NJACAC) - Fall Kick-Off 2021

Our team worked with Office of Admissions to film and stream this Fall Kick-Off event entitled: Crystal Ball World of College Admissions. The focus of the event was to ask the question "how did Covid influence the college admission journey for students and how did it impact college admission professionals?" https://www.youtube.com/watch?v=vZc-k7G5Pps

How Women Are Slowly But Importantly Playing Larger Roles in Sports Media Offered support to setup streaming from ZOOM straight to YouTube for this event featuring Bob Ley. https://youtu.be/8YzE3OOflHQ



The Economic and Social Impact of Seton Hall University

Our team created an animated video used to promote the economic and social impact of Seton Hall on the state of New Jersey. https://youtu.be/vZw6nCxHopQ



PA Class of 2023 White Coat Ceremony

Live stream PA Class of 2023 White Coat Ceremony, Dec 17 2021. https://youtu.be/R6ghASmFyaQ

Vaccine Declaration Login Process – Exemption Upgrade

In a continuing effort to capture the vaccination status of individuals from the Seton Hall Community, our web development team once again modified the login process to our PirateNet site, our SHU Portal and our Banner environment. Launched in August of 2021, this process was modified to require users who had previously reported that they were looking for an exemption to the vaccine to report the specific type of exemption they would request, on either religious or medical grounds.

Vaccine Documentation Upload Process

As the third phase of our continuing effort to gather information regarding the vaccination status of individuals from the Seton Hall Community, our web development team once again modified the login process to our PirateNet site, our SHU Portal and our Banner environment. The purpose of this modification was to ask users who had previously reported that they were vaccinated to upload documentation proof of their vaccination. Proof of vaccination included images of vaccination cards and pdf documents created from the Dockett app. Launched in December of 2021, users posted information about the type of vaccine they received and the dates of their vaccination along with the digital proof of vaccination. An outside vendor was engaged to review the uploaded documentation for accuracy and verification.

WSOU Infographic Page

The designers at the TLT Center were tasked with creating an infographic style page on the College of Communication and the Arts site which highlights the diversity of programming at WSOU. This page serves to highlight the diversity of programming WSOU offers. https://www.shu.edu/communication-arts/wsou-info.cfm



The Career Center – Career Outcomes site

At the request of The Career Center, our team redesigned and updated their statistics page to feature the career

outcomes. https://www.shu.edu/career-center/career-outcomes.cfm



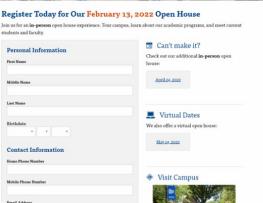
Explore Careers



The Career Center Toolkit - Page Design & Migration

The Career Center website had previously been hosted on platforms outside the University's main web site. These previous locations had a number of issues including accessibility issues. Our team worked with the Career Center to redesign and migrate the content while focusing on usability and accessibility. https://www.shu.edu/career-center/explore.cfm





Open House Landing Page Redesign

Looking for a fresh design to engage potential students, the Office of Admissions engaged our web content team to creating a new landing page for Undergraduate Open House. The page features the information for the latest open house as well as the ability for potential students to register as its call to action. https://www.shu.edu/undergraduate-admissions/open-house/

Accessible Web "Steps" Infographic for Office of the Provost

Our team developed an accessible web page that walks thru the process steps to create new undergraduate and graduate programs, dual and joint degrees, and certificate programs. Process steps for new undergraduate and graduate programs, dual and joint degrees, certificate programs



Step 1: Prepare Initial Concept

- Department completes the <u>New Program Initial Concept</u>. The Dean or their designee along with the School/College budget manager (with the assistance of the Provos's Office, as needed) begins discussion of the <u>New</u> <u>Program Proposal Financial Model</u>.
- Department submits the completed <u>New Program Initial Concept</u> to the Dean. The Dean then presents the <u>New Program Initial Concept</u> to the Dean's Council for feedback.
- The program sponsors are promptly notified of any initial feedback from the Dean's Council and/or the Provost's Office with respect to the initial concept.





Step 2: Develop the Proposal

- After receiving feedback, the program sponsors complete the <u>New Program Proposal Template</u> and, working with the School/College Budget Manager (with the assistance of the Provost's office, as needed), also finalizes the <u>New Program Proposal Financial Model</u>.
- The program proposal is then forwarded to be considered by the Department, EPC, the School/College, APC, and the Faculty Senate. These organizations may review the New Program Proposal Financial Model at their discretion, as well as receive feedback form the Dean or from other sources. The Dean should separately review the proposal in accordance with established school/college policy. At a minimum that review should be sent to both the APC and the Provost's Office. The EPC, APC and Faculty Senate may, but are not required, to consider the Dean's recommendation.
- Proposals that have been approved by the Faculty Senate are forwarded by the
 Faculty Senate to the Provost's Office. The Faculty Senate should forward all
 materials, including the New Program Initial Concept, New Program
 Proposal Template and the New Program Proposal Financial Model.



Division of Volunteer Efforts (DOVE) By the Numbers

At the request of DOVE, our team created an at-a-glance breakdown of working with community partners on various projects like painting, landscaping, tutoring, park and river clean-ups and assisting at the local food bank. Primarily highlighting the Service on Saturdays (SOS) program, this eye-catching design can be found at:

https://www.shu.edu/dove/service-onsaturdays-by-the-numbers-2.cfm





Web Browser Custom Color Options

Modern web browser have a feature to allow the browser frame be a custom color set by the site your visiting (example, visiting target.com makes your web browser UI red). We have changed the Seton Hall University site so that your browser color with change to SHU BLUE (#004488) if the browser supports the functionality.



Health Intervention and Communication Team (HICT) Covid Exposure Flow Chart

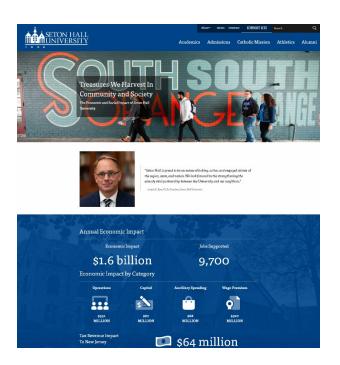
In an effort to help inform and keep our community safe, the team created a web page designed to walk community members through the steps they should take if exposed to covid-19.

https://www.shu.edu/health-intervention-communication/covid-exposure.cfm

2021 Laptop Setup Flyer

As students began to arrive on campus for the fall semester, we updated several laptop setup documents, to include flyers for in classroom QR codes, that link to support and help documents online.



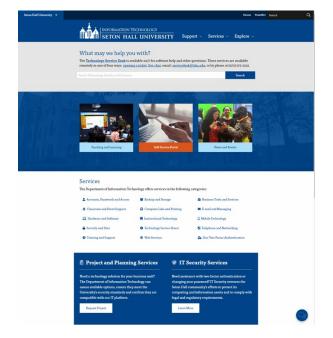


Economic Social Impact Landing Page

Along with animated video outlining Seton Hall University's economic and social impact our designers built a full landing page for the information.

Technology Landing Page Update

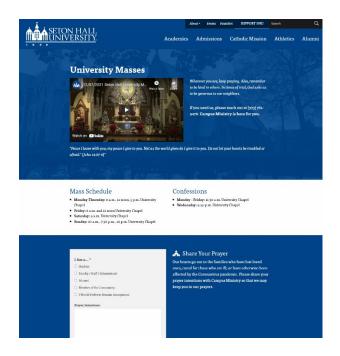
Update the Department of Information Technology landing page to include design enhancement and functionality changes to the search bar.





HomePage "Health and Safety Updates" button

Updated the style of the quick link for the HICT updates button on the university home page.



University Mass – Landing Page

Our team created a landing page to feature and promote Mass schedule and links to the live streams from the Chapel.

https://www.shu.edu/catholic-mission/mass-schedule.cfm

Digital Story Telling Class

Produced a lesson plan and instructed students in the Digital Media Class with Ruth Tsuria on how to properly plan, shoot, and produce their own digital story. Class ran for the fall semester with multiple instruction dates and open workshops held by the TLTC

DIGITAL STORY TELLING





Cybersecurity Month Posters and Digital Marketing

Cybersecurity month posters to create awareness of cybersecurity and keeping your passwords safe.

eSports Photoshoot – Lab and Headshots

Photography and graphic design, including traditional headshots and action shots, were captured in the gaming lab to promote the 2021 fall season for the esports team. Images were used as part of the web redesign for the esports landing page. https://www.shu.edu/esports/



eSports Template Update

Navigational and functional updates to the template for the eSports website.



Instructional Technology Projects

SAMHSA Grant

The United States Department of Health and Human Services, Substance Abuse and Mental Health Services Administration has awarded Seton Hall University's College of Nursing, School of Health and Medical Sciences, and the Hackensack Meridian School of Medicine at Seton Hall University an interprofessional training grant designed to expand patient access to medication-assisted treatment for opioid use disorder. The initial grant for \$404,905 commitment over three years was awarded Seton Hall University and Hackensack Meridian Health and led by Project Directors Kathleen Neville from the College of Nursing, Laura Goshko from the School of Health and Medical Sciences, and Stanley R. Terlecky from the School of Medicine. The training program's modules were ready for implementation in RN and PA programs. In addition, a "SAMHSA Interactive Event" designed for the next cohort of students has been scheduled for August 2022.

Academic Integrity Module

The Stillman School of Business, in a collaboration with the TLT Center, is developing an online Academic Integrity Module to address student plagiarism and dishonesty while completing coursework and to teach the ethical framework they will use in the business world after they graduate. This self-paced, 20-minute module will be added to every online business course. The Academic Integrity Module has been requested by additional departments, so a 'generic' module is being created to share with the University Community to use at their discretion.

Learning Management System Review

Seton Hall University has been using Blackboard as its learning management system (LMS) since 2000. In a continuous effort to evaluate and expand components of our learning environment, the TLTC in conjunction with the Teaching, Learning, and Technology Roundtable established a LMS Review Committee. This working group is comprised of key stakeholders and representatives from across the University and is charged with investigating both the University's needs and the available technology that best meets those needs. The review of the LMS products included four major criteria, including:

- Pedagogical: providing the tools needed for faculty and students.
- **Technology Management:** system architecture, scalability, security, development, quality assurance, etc.
- **Organizational Administration**: policy issues (academic and operational), data retention, user support, training, etc.
- Cost: hardware, software, lifecycle, operations and maintenance, staff, etc.

During the Fall 2021 semester, the LMS Review Committee participated in demos from Blackboard Ultra and Canvas. The Instructional Design team researched plagiarism, accessibility and photo roster tools that can integrate with these systems, as they are not currently built into either product. Eleven of the 28 committee members submitted scoring rubrics for each product. An analysis of the scoring rubrics and integration capabilities will determine which LMS the University will pilot in Fall 2022.

Faculty Development, Employee and Student Training

Faculty Innovation Grants AY2021-2022

Faculty Innovation Grant (FIG) projects are devoted to cultivating innovation through the creation or application of learning objects, resources, or innovative approaches and the infusion of technology by faculty into their courses. Awardees will present their projects at Teaching Learning and Technology Roundtable Best Practices event in the spring. https://www.shu.edu/technology/news/faculty-innovation-grant-awardees-2021-2022.cfm

Completed FIG Projects:

- Infusion of Age-Friendly Principles into Curricula Using Interactive Modules Sherry Greenberg, Associate Professor, College of Nursing
- Video Research Essay for Digital Media <u>Ruth Tsuria</u>, Assistant Professor, College of Communication and the Arts
- Visualizing Augmented Reality Interfaces in Web Design <u>Christine Lhowe</u>, Assistant Professor, College of Communication and the Arts
- Development of Online Training Module for Instrumentation in the Chemistry and Biochemistry Teaching Laboratories
 Cosimo Antonacci, Assistant Professor, Department of Chemistry and Biochemistry
- Building transparent supply chain maps using a layered approach
 Penina Orenstein, Associate Professor, Stillman School of Business

Winter Session Workshops

January 5-7, 2022

TLTC offered its annual <u>Winter Series workshops</u>. This year's focus took faculty through the course update process to prepare them for the spring semester. This three-day series included how to create a course copy, to implementing engagement tools and best practices, exam creation and facilitation. In total, the event yielded 73 attendees across the nine workshops offered.

Adobe Create Campus General Event

May 5, 2022

The TLTC hosted representatives from Adobe to discuss the possibility of Seton Hall University becoming an Adobe Creative Campus. The partnership would provide the full Adobe Creative application suite to all members of the University community, increasing digital literacy/fluency skills and making students more marketable. The event included members of the Adobe team, Stephen Hart, customer success manager; Todd Taylor, Adobe pedagogical evangelist and UNC Chapel Hill faculty member; and Danielle Yaag, Adobe representative. In addition to the TLTC, Seton Hall was represented by faculty, deans, and president and vice president of the Student Government Association. As a result of the event, eight faculty and administrators were invited to the annual Adobe Creative Cloud Institute to learn how to successfully infuse Adobe tools into course curricula.

Generation Z (Gen Z) Summer Institute

January 14-16, 2022

Together with Renee Robinson, Dean of Communications and the Arts, the TLT Center offered the Gen Z Summer Institute: Identifying Mechanisms that Engage Post-Millennial Learners. This three-day faculty development event was comprised of presentations, discussions, and hands-one workshops led by a diverse group of campus professionals and faculty. The series provided attendees with a better understanding of the Gen Z cohort overall as well as engagement strategies and best practices for interacting with Gen Z in teaching and learning environments. The Summer Institute had a total of 86 participants.

Classroom Technology and Event Support

- Academic Resource Center Upgrade Planning
- AirMedia 4.4.1.17 Application Deployment Planning
- Alex Rodriquez Event Support
- Ambassador Thomas-Greenfield Event Support
- Ante Room MTR Repair
- ARC Site Survey & Scope of Work Quote
- Arts & Sciences (AS 106) Amplifier Replacement
- Bayley Hall Upgrade Planning
- Bethany Hall 2nd Floor Conference Rooms Cable Television Installation Bethany Hall AEC Device Testing and Implementation
- Biamp Certification Completion for Chapel Sound System
- Board Teams Account Creation and Testing
- Chapel Camera/Recording Installation and Camera Power Supply Replacement
- Chapel Streaming Installation Start
- Corrigan Hall (CH 78) Lecture Capture Testing & Implementation
- Crestron AirMedia Wireless Display Replacement Proposal
- Duffy Hall (DH 80) Ceiling Microphone Replacement
- Fahy Hall (FH 245) Upgrade Planning
- Fahy Hall (FH 238) HDCP Correction
- Fahy Hall Communication and the Arts Requirements and Infrastructure Planning
- IHS Lab Equipment Upgrades
- Industry Weapon Tizen 5.0 Support Investigation
- Jira Pilot and Feature Update Testing
- Jubilee Hall Classroom Projector Upgrade Planning
- Jubilee Hall Esports Lab Game Server Installation
- McNulty Hall Amphitheatre Biamp Crowd Mic Test
- McNulty Hall (SC 115) TV Mount Replacement
- McNulty Hall (SC 116) Controller Replacement
- McNulty Hall Science Lab Installations
- MTR License Expiration and Investigation
- Muscarelle Hall Projector Replacement Proposal
- Office of International Programs Suite Planning
- Richie Regan Recreation and Athletic Center Weight Room Display Sharing Investigation
- Seton Hall Law Rodino Center Digital Sign Implementation
- Schwartz Hall 2nd Floor Temporary Space Planning (for UC Staff)

- Surface Hub Demo and Training
- Teams Meeting Rooms Break Out Room Issue Resolution and Implementation
- Teams Meeting Rooms Microphone Quality Upgrade Installation
- Teams Soft Phone Upgrade Testing
- Trading Room Upgrade Planning, Construction and Desktop PC Replacement and Implementation
- Transition of MTR devices to Azure Management and Policy Creation
- University Center Planning, Equipment Evaluation, and Theater/Event Room Approval Process
- University Chapel Streaming Capability Planning

Technology Support

Project Name	Project Description
Jira Service Management	The university is implementing Jira Service Management as a
System Implementation	replacement to ServiceNow
Lab Image 2021	Create a lab image for department and public labs for deployment summer 2021 (August). Image will need standard image with current public printer drivers and discipline specific software. will attach spreadsheet of each lab needs and expected hardware model.
Mobile Computing 2021	Set hardware and software standard for Mobile Computing 2021.
ServiceNow Upgrade	Upgrade to latest version (Quebec) of the technology services support system.

Esports

During this reporting period, the Esports program proposed several fundamental advances. A full-time esports manager position was created to manage the various esports teams, the gaming lounge, and student engagement efforts.

A budget was proposed and approved to acquire additional equipment, jerseys, and limited travel for in-person Big East tournaments. The program also received funding to provide \$10,000 in scholarships for the Fall 2022 semester, in coordination with Enrollment Services. Additional budget was secured to develop a co-curricular multimedia production space which will be used by students to broadcast and stream esports matches.

The program was also able to secure \$20,000 in donations and equipment from Lenovo and Dell via an Intel SEED Fund. The donated hardware included two broadcasting workstations and a state-of-the-art Alienware Aurora gaming PC. Addition highlights and achievements are listed below.

Collegiate Rocket League (CRL) Ranked 5th in the East and Top 10 in the Nation

The Rocket League team ranked 10th nationally and fourth in the East in the national Collegiate Rocket League (CRL) following an unexpected victory over favored winner Northwood Blue from Northwood University in late October.

In the first week of competition, the team scored 18 goals and allowed none in their first series. The Pirates capitalized on their momentum as they went on to qualify for the national CRL tournament. The highly selective competition only accepted 24 entries from over 1,242 participating teams. As the team climbed through the qualifying round, it faced The University of Akron, whose team finished second in the national tournament last fall. After a close best of five series against The University of Akron team, Seton Hall locked in its place to the qualifying match versus Valley Field, going on to win in game five.

Since the inception of CRL in 2017, only four New Jersey teams have ever qualified: Rowan University, Stockton University, Rutgers University, and now Seton Hall, the only Big East member to ever qualify for the national tournament. Playing on the national stage means streams are hosted on twitch.tv/RocketLeague, the official twitch stream for Rocket League, hosted by the game's developer, Psyonix.

Seton Hall has been on this stream twice and both have been wins in front of an average of 30,000 global viewers, including for the upset win over Northwood Blue.

Launch of Super Smash Brother's Ultimate Varsity Team

The popular game is a crossover fighting game, published by Nintendo, and played on the Nintendo Switch. The game features every character in Super Smash Brothers' history and the franchise has been a staple at Seton Hall since the founding of the Seton Hall Gaming Sector, Seton Hall's gaming club, back in 2013.

The team practices from the Seton Hall Esports Lab, with six wall-mounted TVs, dedicated lab chairs, and Nintendo Switch consoles available for practices in the 16-week season. With the continuation of the partnership agreement between the Big East Conference and the Electronic Gaming Federation (EGF), varsity esports teams from the 11 Big East schools are now able to bring their own elite teams together to compete in a year-long multigame season as official EGF Collegiate (EGFC) league members, concluding with the EGF Collegiate National Championships in April.

BIG EAST and MAAC to Face Off in Annual Esports Challenges

The BIG EAST and Metro Atlantic Athletic Conferences (MAAC) finalized broadcast and event plans for the 2021-22 EGFC MAAC-BIG EAST Challenge. The Challenge will host 14 schools from the two athletic conferences competing head-to-head, one conference against the other. The matches for both events will be produced by the Electronic Gaming Federation, the governing body for Division I collegiate esports.

The MAAC-BIG EAST Challenge follows the Fall 2021 Split of EGFC Season 3, hosting 35+ Division I colleges over 6 game titles. The season resumes in February with the start of the EGFC Season 3 Spring Split with an expected 50+ Division I colleges and universities will continue on the path to the national championship in April.

Seton Hall hosted the Annual BIG EAST and MAAC Esports Challenge

The BIG EAST and Metro Atlantic Athletic Conferences (MAAC) finalized broadcast and event plans for the 2021-22 EGFC MAAC-BIG EAST Challenge. The Challenge hosted 14 schools from the two athletic conferences competing head-to-head, one conference against the other. The matches for both events were produced by the Electronic Gaming Federation, the governing body for Division I collegiate esports. BIG EAST won, with Seton Hall beating out all MAAC and BIG EAST schools.

Following the event, Esports Manager Victor Gomez, was a guest on the <u>CheckpointXP podcast</u> to discuss the challenge.

Seton Hall Won BIG EAST Halftime Showcase at Prudential Center

In the first of its kind match-up, the Seton Hall Pirates challenged the Butler Bulldogs to a Rocket League game during the half-time of the BIG EAST men's basketball game. The match was streamed live, both in the Prudential Center to over 8,700 fans in attendance, and on the Official Big East Esports Twitch channel. The match was made possible in partnership with Dignitas, an international esports team that fields teams in many of esports' largest and most popular games. Dignitas provided the team with state-of-the-art gaming PCs and equipment necessary for the match to take place at the concourse level of the Prudential Center.



News Article:

https://www.shu.edu/esports/news/pirates-win-big-east-halftime-showcase.cfm

Video Recap:

https://www.youtube.com/watch?v=MQnimTypx Mo

Seton Hall Esports Partners with Lenovo to Film Promotion Video

Lenovo interviewed members of the Seton Hall community, including the provost, associate CIO, esports manager, and players to discuss the Lenovo partnership and how Esports gaming helps students develop discipline, teaching new skills and building engaged communities.

- **Video**: https://www.youtube.com/watch?v=FFKG8WkKqYc
- News Article: https://www.ecampusnews.com/resource-library/seton-hall-esports-wins-with-lenovo-legion/
- **Podcast:** https://www.thinkpadu.com/2022/09/27/trackpoint-talks-episode-5-seton-hall-esports-round-table/

Seton Hall Swept BIG EAST Esports Championships

Seton Hall's Rocket League and League of Legends teams won the Spring 2022 Big East Championships. The win earned the League of Legends team and automatic bid to the National College Championship. Both teams entered the tournament with undefeated BIG EAST conference records in the regular season and earned the first seed in their team's tournament brackets.

Seton Hall Won the National EGF Rocket League Championship

After being crowned the Big East Champions at the end of the 16-week regular season, the Pirates claimed the National EGFC title, played in person from Williamsburg, Virginia and hosted by William & Mary. https://www.shu.edu/esports/news/seton-hall-wins-national-egf-rocket-league-championship.cfm

Additional Program Highlights

- Established a Fall 2022 scholarship pool of \$10,000 for incoming students.
- The Rocket League team participated in LG UltraGear Rocket League Tournament which comprised of the top 16 teams in the country. Seton Hall ranked 5th.

- Seton Hall Esports finishes in third place at the LevelNext Rocket League Spring Showcase.
- The Rocket League team took second place in the UCGC Leagues Collegiate Spring Tournament.
- The League of Legends team finishes season top 28 in the nation.
- Seton Hall Esports took part in the New Jersey Devil's inaugural Esports night.
- In collaboration with Student Support Services, hosted a group of students from Paterson in the Esports Lab to highlight the benefits of Seton Hall's Rise Program.
- Members of the Esports program presented on collegiate and professional Esports at Hopatcong Middle School.
- Victor Gomez, esports manager, selected to EGF Board of Governors
- Victor Gomez became an adjunct professor in the Stillman School of Business, teaching BPSM 1500 EXP – Introduction to Esports. The first class had 15 enrolled students.
- Victor Gomez served as a speaker and judge for the Blackstone Launch Pad Esports Design Challenge.
- Victor Gomez participates in the BIG EAST Esports panel as part of the Esports Combine.
- Victor Gomez participates in an Esports panel for the 3rd Annual Gaming Law, Compliance and Integrity Bootcamp at Seton Hall Law.
- Joined the Higher Education Esports Advisory Council with Pearson
- DEI and Esports insight event with FLHS
- Hired three student managers to oversee day-to-day social media
- Seton Hall Esports receives two separate donations from Jon Strapp of Kinetic Group, totaling \$17,000. The donations were allotted for general program support and high school outreach.

IT Governance is the process by which the University endorses institutional decisions about IT systems, services, priorities, projects, and policies; the individuals who are assigned responsibility for endorsing those decisions; and, the organizations in which those individuals meet to discuss those decisions.

Through IT Governance we seek to align IT systems and services with the University's strategic vision; to manage the portfolio of IT services across the University by prioritizing IT requests, services, projects, and systems; to ensure legal and regulatory compliance across all IT systems and services; and to ensure the effective and efficient allocation of roles, responsibilities, and resources for IT systems and services across functional areas.

The IT Governance Structures at the University are:

- Banner and Admin Computing Steering Committee
- Teaching, Learning and Technology Roundtable

Administrative Computing Steering Committee

The Administrative Computing Steering Committee serves as the primary IT governance organization for the Banner Administrative Systems (Banner Finance, Banner Financial Aid, Banner HR/Payroll, Banner Student, and Banner Relationship Management), IT systems that support, feed or rely on those systems (e.g., the Banner Operational Data Store [ODS], the Banner Enterprise Data Warehouse [EDW], the Cognos reporting system, the Blackboard Commerce System, the various payment gateways, and the like) and those IT systems that affect the University's financial and business processes.

The Administrative Computing Committee consists of executives and decision makers. It includes the management team responsible for the direction of the Banner data stewards. Additional representatives may be appointed by the University's president and vice presidents.

The Administrative Computing Committee typically meets monthly, although it can meet more or less frequently depending on the committee's workload and other scheduling considerations. To facilitate scheduling, from September through June the committee usually meets bi-weekly. The work of the committee is supported by the committee's MS SharePoint site, which contains the committee's meeting agendas, documents, and decisions.

Other Banner IT Governance Structures:

Banner Production Meeting - The Banner data stewards and the IT units that support them
meet weekly in the Banner Production Meeting to coordinate their activities across the various
Banner systems. This is a tactical meeting intended to schedule work and troubleshoot issues
surrounding the various Banner systems. The work of this group is supported by their MS
SharePoint site, which includes detailed notes from each meeting. The members of the Banner
Steering Committee will also be given access to this SharePoint site to facilitate their
understanding and management of the Banner environment.

• Banner Reporting and Data Standards Group - The Banner data stewards, representatives from Institutional Research, and the IT units that support them meet regularly to develop and implement the rigorous data standards that are essential to the Banner interfaces, file feeds and reports. This group is currently co-chaired by the Director of Institutional Research and the CIO. This group has been meeting at least monthly since last fall, when the Banner Operational Reporting Improvement Project was launched, aimed at re-implementing all Banner institutional reports in the Cognos / ODS reporting environment. The work of this group is supported by their MS SharePoint site, which includes a lot of valuable information about the implementation of Cognos and ODS, as well as tools to support the development and enforcement of good data standards for the Banner systems. The members of the Banner Steering Committee will also be given access to this SharePoint site to facilitate their understanding and management of these important initiatives.

Teaching, Learning, and Technology Roundtable

Established in 1995, the Teaching, Learning and Technology Roundtable is composed of representatives from academic and administrative areas of the University. Sponsored by the Office of the Provost and the Department of Information Technology, the Teaching, Learning & Technology Roundtable (TLTR) is a consortium of faculty, administrators and students who, on behalf of the University, meet and discuss the interests of enlightened use of technology for teaching and learning. The Roundtable is comprised of action teams (subcommittees) which meet regularly to discuss institutional issues related to teaching, learning, and technology. The TLT Roundtable makes recommendations in support of the University's Strategic Plan as outlined by stakeholders such as the Faculty Senate, Academic Affairs, Student Affairs, Division of Administration, and other key organizations or groups.

The Provost's Charge to the TLTR

- To serve as a forum and meeting place for discussion of institutional issues related to teaching, learning, and technology.
- To create action teams to achieve essential short-term goals deemed necessary by the Executive Committee of the TLT Roundtable, and by their constituencies, advancing to the cabinet recommendations as they emerge from these teams.
- To provide a forum for discussion and recommendations to enhance the long-range technology goals through representative participation by various stakeholders such as the faculty, students, Faculty Senate, Academic Affairs, Student Services, Department of Information Technology, and other key organizations or groups.
- To communicate regularly with all segments of the campus on the TLT Roundtable's activities and progress.
- To stay informed of national trends in technology integration in higher education and introduce these trends to the University community.

Standing Committees of the TLTR:

• Mobile Computing Committee (chaired by Dawn Apgar and Kelly Goedert) – will make recommendations for the future of the mobile computing program. The working group will focus on evolving student and faculty needs and the emerging technologies that pose opportunities for meeting them.

• Ideas and Trends in Ed Tech (chaired by Greg Iannarella and Christine Lhowe) – will research and assess innovative uses of educational technology with Seton Hall, and map it to the external higher education tech trends. The working group will identify strengths and emerging opportunities as well as weaknesses and emerging threats.

Seton Hall's technology infrastructure has been a key element of the University's success in using technology to enhance and transform teaching and learning.

Seton Hall University's IT Services consists of the following teams:

Application Development

This eight-person team supports the University's administrative applications ERP system through integrations with third party vendors, workflows, and scheduled tasks, and creates interactive and static content for the university's portal, PirateNet.

IT Security

IT Security assists the University in protecting its computing and information assets and complying with legal and regulatory requirements.

Networking and Telecommunications

This eleven-person team supports the campus network and phone systems.

Production Control

This six-person team manages the University's production and test environments for the Banner administrative systems and its ancillary applications, Reporting Data Warehouse, and various reporting tools as well. It also manages University's test and production SQL Server databases.

Project Management

This two-person team helps gather requirements for IT service requests and supports the progress of projects from initiation through completion.

System Support

This eleven-person team supports the University's physical and virtual databases, email system, applications and web servers and enterprise storage.

Information Security

2021 Penetration Test Executive Summary

Novacoast's purpose at Seton Hall University was to assist in the valuation of the environment by attempting to scan, probe, and test the network outside and assess services found. Novacoast uses common hacking tools and little knowledge about the network itself in external situations. The questions this assessment can answer are:

- How quickly and completely can your key assets and resources be compromised?
- What level of risk is your critical information at for unauthorized access?
- How secure are the services and applications in use?

Based on the results of the security assessment, access to the organization was found to be at a **Low to Medium** risk level.

External Risk Assessment

Compared to prior year assessments, the external posture appears to be improving with no critical or high issue identified. It is worth noting that the PHP version in use was more up to date than the previous year's assessment, and as result, less severe vulnerabilities exist for the given host. This may point at a coverage gap in the patch and update management to ensure these services are updated as soon as newer versions are released. Based on the results of the security assessment, access to the external network and systems was found to be at a **Low to Medium** risk level.

Internal Risk Assessment

During the assessment, and within the given scope, the internal environment was found to have fewer issues than in prior years. The main issues being identified were the susceptibility to IPv6 DNS poisoning and the usage of deprecated SMB version 1 with signing not required. Note that these issues can be opportunistically used in conjunction to hijack user accounts, access SMB shares, or potentially gain remote code execution on hosts (if a privileged account is captured).

Because of COVID leading to an increase of remote work, very little activity was identified during attempts at DNS poisoning and hijacking sessions. However, if a return to a workplace environment leads to an increase of traffic between hosts, this can potentially be exploited to gain a deeper foothold in the internal network.

Based on the results of the security assessment, access to the internal network and systems was found to be at a **Medium** risk level.

Student Security Analyst Program

Since the Student Security Analyst Program began in 2017, more than 70% of the graduates have earned job offers within the field of cybersecurity, often before graduating. The student security analysts have responded to 20% of all security alerts during business hours during the academic year. They have been successfully piloting an advanced level of permissions, providing direct monitoring and alert response from all Seton Hall deployed security systems. Empowering them to function more independently after months of strenuous training will better prepare them for employment outside of the university. In FY22, the program employed four students, each working 12-20 hours per week.

Administrative Computing Project Portfolio

The Department of Information Technology implemented a Project Request Process that facilitates initiation of new technology initiatives and projects that enhance the administration of the University. All technology projects requiring IT Services resources must go through this Project Request Process to be approved by the CIO and IT Executive Management.

The following table provides a high-level overview of all the major IT projects that were in progress or completed between July 2021 – June 2022.

Projects (FY 2021-22)

Project Name	Project Description
AppStream and SharePoint	The AppStream and SharePoint Migration project has several
Migration	objectives that when completed will eliminate the need for department
	share drives, reduce the number of Amazon Web Services (AWS)
	accounts for only "power users", and move other Amazon Web
	Services (AWS) accounts to AppStream. The priority is to reduce the
	number of AWS accounts by March 31, 2021.
Automation of Onboarding	Automate new hire onboarding steps within SHU to improve
for New Employee System	experience for supervisors and employees. First focus will be for
Access	administrators and staff and the second focus will be for adjuncts and
	faculty.
Banner Oracle 19c	Ellucian Banner will no longer be supported on our current Oracle
Upgrade	version 12.20.1 after June 30th 2021. Target database version is
	therefore 19c
Beacon Cloud Print	The University is implementing a managed print program called
Services	BluePrint. To centralize print for all three campuses and realize the
	estimated University cost savings we must implement a cloud print
	solution. The University current print management vendor Pharos has
	a cloud print product called Beacon.
Compliance Training	Compliance Training will be required of all employees, within
	standard timeframes. There are some processes that are currently being
	done manually by Human Resources. The project will include data
	feeds, automated reminders, and reports.
Chrome River (Travel &	Based on a recommendation from the Huron study, the Board of
Expense) Implementation	Regents has directed management to streamline the Travel & Drawel
and Integrate with Ethos	Expense operations by automating currently processes.
Cayuse	Explore the use of Cayuse software for Pre-/Post-Award management
	of grant, and electronic IRB platform.
Course Leaf Catalogue	A system that automates the Catalogue process is needed to replace
Implementation	the current manual process. The system will need to have a workflow
	process and integrate with DegreeWorks. The project was expanded to
	include the module for Curriculum changes. This will allow for a year
	round process where curriculum changes are requested, reviewed and

	approved and then fed to the catalogue module for the next catalogue release.
Degree Works	Implementation of degree auditing system.
Implementation	
Management of Apple Computers	We currently lack an appropriate system to manage Apple computers in our environment. With Apple school manager and JAMF we would possess the tools necessary to make managing Apple computers possible
	In order to efficiently provide accurate technology information to answer questions and provide current information we are partnering with Ivy to create artificially intelligent "chatbot" available via multiple platforms at all hours. The goal is to produce a functional chatbots to be hosted on the University's website, accessible via Amazon's Alexa, SMS and Facebook Messenger. The chatbots will be able to answer questions based on the subject areas for which they were created. In the event they cannot answer a posed question, our staff will be notified and will work with the vendor to fix any issues. Our team will have access to a platform to assess the effectiveness of the chat bot and review analytics based on the bot's activities and metrics including, but not limited to, questions answered and unanswered.
Tuition Remission	Update Tuition Remission Application to handle policy updates and
	enhancements to the process.
Vaccination Declaration	The University announced that all community members must be vaccinated for the Fall semester unless they request an exception. A mechanism for the university community to declare their vaccination status or request a waiver needs to be developed and launched in a way so all members of the community will receive a forced pop-up to fill out the form before accessing university systems.
Voice System	The current NEC Voice solution is an aging system that is at EOL
Replacement	support, no new spare parts, high cost of Operation, and is unable to support the new requirements of the site. This project is meant to modernize the phone system, providing for significantly enhanced features and functionality, and positioning us for future integration into a desktop communication environment.
Front End application for new Workflow for	Using a newly created front-end web form, department chairs would be able to request updates
	to course sections housed within their department. The submitted
Schedule Changes	request would then go from the Department Chair to the Dean for approval, and then, if approved, from the Dean to the Office of Registrar for approval, and then upon approval by the Registrar, update the appropriate fields in SSASECT.
HMH file feeds to manage	This project is for the file feeds to/from HMH to manage the
the synchronization of	"synchronization" of university systems with students and employees.
	HMH needs a feed of all SHU students and employees who need access to the IHS Campus, as they are taking over the management of

students and employees	access controls for all external doors/turnstiles. SHU needs a feed
who need IHS access	from HMH of all SoM students and employees who need access to the
	IHS Campus, so we can provision their access to the library, SIM
	Center, classrooms, printing, and internal door access.
Cognos Upgrade	To ensure continued vendor support for Cognos from IBM, Seton Hall
	will need to upgrade our existing Cognos 11.0.13 to the next long term
	support version 11.1.7.
Engage	Student Engagement requires a system to manage the planning of
	events and programming, as well as tracking student participation and
	the overall performance of the Student Engagement team's efforts
	through pre-built reports and other assessment tools. The solution is
	Engage by Anthology (formerly Campus Labs), a hosted platform that
	offers integration through API with Banner.
Handshake (Career Center	Handshake platform replaces all the functionality of Symplicity CSM
replacement of Symplicity	(a.k.a. Navigator).
CSM)	
TRiO Programs Platform	TRiO Programs platform: Student Support Services (department in
	Student Services) is in process of reviewing vendors to support the
	TRiO program.

The Department of Information Technology at Seton Hall University is charged with ensuring that the University's vision, goals, and objectives for the use of information technology are achieved. It is the role of the Department of Information Technology to provide leadership, technical expertise, and technical support for all academic and administrative departments within the institution.

Annual Operating Budget:	\$1	19,514,000
Salaries and Wages:	\$	9,907,000
General Operating Budget		9,607,000
Full Time Employees:		91
Employee Breakdown by Functional Area:		
Office of CIO		6
IT Security and Project Management		3
University IT Services Administration		4
Systems Administration (Systems Support)		7
Network and Communications Support		6
Web Services & Development (Application Development) Production Control		7 5
Teaching, Learning, Technology Center		28
PC Support Services		16
Technology IHS Campus		9
Summary of FY'22 Expense Budget	Amount (\$000)	% of Budget
Salaries and Wages (with fringe)	9,907	51%
Major Subdivisions in the Office of IT		
Office of Information Technology		4%
IT Security and Project Management		2%
University IT Services Administration		3%
Systems Administration (Systems Support)		4%
Network and Communications Support		4%
Web Services & Development (Application Development)		3%
Production Control		3%
PC Support Services		8%
Service Desk		1%
Teaching, Learning, Technology Center		16%
Technology IHS Campus		3%
Operating	9,607	49%

Total 1	Expense Budget (with fringe)	19,514	100% 100%
	TLT Center (Contract Help Desk and Service Now Licensing)		2%
	TLT Center (Blackboard Software, Blackboard Help Desk)		2%
	IHS Campus (Level 3, Internet Connection, Audio-visual Equipment in Labs and Classrooms, Firewall Palo Alto and B- Line Maintenance, Printer Maintenance - Labs and Library)		5%
	Security, Compliance, Budgets, Project Management and Office of CIO		4%
	Central Equipment Purchases		6%
	Computing Operations (UITS Operating – AWS, Banner, Oracle, Microsoft Campus Agreement, Cisco System Computer Hardware Maintenance, Microsoft Premier Support Service, Single Sign-on etc.)		19%
	Telecommunications (Level 3, AT&T, Verizon, Internet Connection)		3%
	TLT Center (CDI, Media Eq., Digital Media & Web Dev., Instructional Design, PCSS, Service Desk, etc.)		7%
Major (Operating Expense Categories Computers and Software (Faculty, Admin/Staff, Public Labs)		1%

Summary FY'22 Major Operating Expenses	Amount (\$000)
Description	,
Computer Operations	
Amazon Web Services (Cloud-based Data Center)	985
Banner Software Maintenance	772
Microsoft Campus Agreement	392
Oracle Software Maintenance	265
Internet Service (Level 3)	240
Security Log Analysis Software (Novacoast/Splunk)	209
Active Directory Single Sign-On (OKTA) and Identity Mgmt	182
Information Security Endpoint Software	155
Cisco System Computer Hardware Maintenance	143
T-1, OSNA and Special circuits, POTS lines, E911 on & off campus	94
Firewall Palo Alto Maintenance (SHI)	85
Red Hat SW Maintenance	79
Microsoft Premier Support Service	77
CommonSpot SW for web site	67
SAAS compliance third party risk management	63
Answer net automate phone	60
Telephone Service – Local and Long Distance (Level 3)	56
Teaching, Learning, and Technology Center	
Blackboard Software	435
Service Now	203
Blackboard Help Desk (NJEdge Vale)	119
Printer Maintenance - Labs and Library	82
Faculty Support Initiatives (CDI, TLTC Faculty)	70
Temp staffing (Laptop distribution, beginning of Fall semester)	50
Linked-In Learning	48
IHS Campus	
Internet and Phone Service (Level 3)	275
Firewall Palo Alto Maintenance (SHI)	170
Cisco System Computer Hardware Maintenance	74
Voice Maintenance (Aspire)	70
Enterprise Security License Support (Guide pointe-Splunk)	50
B Line Medical Maintenance	50
Campus Maintenance Agreement	45
License Subscription - Mersive Technologies	28

Laptop and Desktop Support

	17-18	18-19	19-20	20-21	21-22*
Internal Service Desk Calls	6,486	3,662	5,041	9,291	5,871
External Service Desk Calls	7,872	9,419	6,568	10,183	8,124
Field Support Visits	367	650	378	615	117
Laptop Services	590	3,781	7,447	5,012	4,243
Remote Support Sessions	163	65	55	180	11
ServiceDesk User Satisfaction	n/a	92.0%	93.1%	95.3%	N/A

^{*}Does not reflect the full fiscal year, only July – December 2021.

Training Session Attendance

	17-18	18-19	19-20	20-21	21-22	YoY %
Faculty Development	207	228	1,202	1,433	854	-40%
Student Training	20	84	39	124	38	-69%
One-on-One Instruction	99	52	100	240	100	-58%
Special Group Training	489	728	569	497	1307	+163%

Instructional Technology Support

	18-19	19-20	20-21	21-22	YoY %
Lecture Capture Recordings Created	2,260	4,682	2,928	2,003	-32%
Blackboard Courses	68,538	68,271	66,447	63,770	-4%
Qualtrics Survey Responses	30,374	49,327	27,123	55,120	+103%
LinkedIn Learning Hours Viewed	1,675	3,125	2,796	1,938	-31%
LinkedIn Learning Active Users	2,769	4,764	5,668	5,518	-3%

Media Services Equipment and Classroom Support

	18-19	19-20	20-21	21-22	YoY %
Equipment Deliveries	3,666	2,270	604	1,464	+142%
Equipment Loans	610	593	209	407	+95%
Classroom Support	528	884	1,229	2,234	+82%
Classroom Equipment Maintenance	828	778	462	285	-38%

IT Managed Rooms and Labs

	17-18	18-19	19-20	20-21	21-22
IT Managed Rooms (Hours)	3,722	4,155	2,806	0*	40
Labs (Events)	13,012	990	364	0*	0*
Labs (Open Lab)	7,582	31,841	20,412	0*	0*
Mobile Carts (Events)	136	337	204	0*	0*

^{*}Suspended in 20-21 due to Covid-19

Esports

Esports 2021 – 2022 Lab Metrics									
Month	Active Users	New Users	Guest Sessions	Free Play Hours	Hours Spent	Average Time Spent by Users	Total Lab Hours		
July	1	N/A	49	78.45	N/A	N/A	78.45		
August	1	2	93	132.05	2.27	1.13	134.32		
September	58	58	275	4788.14	258.49	1.21	5046.63		
October	128	84	1	0.86	765.15	1.12	766.01		
November	119	76	0	0	793.25	1.12	793.25		
December	112	56	0	0	595.15	1.32	595.15		
January	31	4	0	0	54.18	0.36	54.18		
February	77	23	0	0	184.21	0.41	184.21		
March	64	21	0	0	285.18	0.55	285.18		
April	58	26	0	0	276.56	1.05	276.56		
May	34	10	0	0	78.48	1.02	78.48		
June	0	0	0	0	0	0	0		
Total:	683.00	360.00	418.00	4,999.50	3,292.92	0.84	8,292.42		

ESports Top 10 Games 2021 - 2022							
Game	Total Sessions						
League of Legends	1,524						
Valorant	1,462						
Rocket League	897						
Fortnite	547						
Overwatch	492						
CS:GO	326						
CoD: Warzone	263						
Apex Legends	219						
Genshin Impact	187						
Minecraft	102						

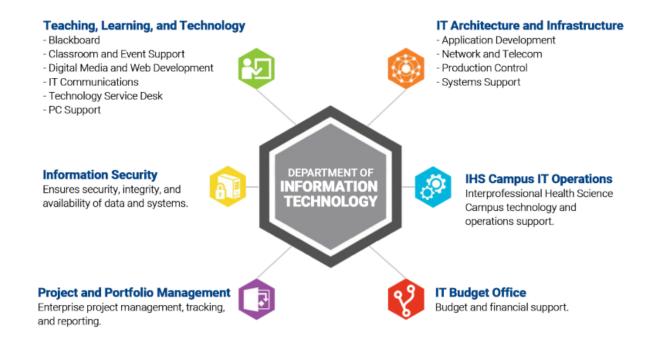
Information Security

	20-21	21-22	YoY%
Security Incidents Remediated	503	502	0%
Hacking Attempts	1,106	2,959	+168%
Microsoft Security Alerts	5,765	3,777	-34%
Splunk Alert	11,508	9,735	-15%
Phishing Emails	62,034	29,218	-53%
Hours Spent Investigating and Remediating	4,918	4,178	-15%

System Uptime and Maintenance

Monitored systems include: Amazon WorkSpaces, AppStream, Banner, Blackboard, Blueprint, Cognos, Compass, Duo Two Factor, Jira, Microsoft Office 365, Network and Internet, Okta Single Sign On, Phone and Voicemail, RPNow, Seton Hall Website, SHU Portal.

Product	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Banner	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Blackboard	100%	100%	100%	100%	99.85%	100%	100%	100%	100%	100%	100%	100%
BluePrint	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Cognos	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Compass	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Duo	100%	100%	100%	100%	100%	99.95%	100%	100%	100%	100%	100%	100%
Microsoft365	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Network & Internet	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Okta SSO	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Phones	100%	100%	100%	100%	100%	98.65%	100%	100%	100%	100%	100%	100%
RPNow	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Portal	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Website	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%



Governance and Committees

- Teaching, Learning, and Technology Roundtable
- Faculty IT Senate
- Administrative Computing Committee

Stephen G. Landry Chief Information Officer

• Project Management

Georgianna Maroulakos, Project Coordinator

Paul Fisher Associate CIO

• Instructional Design

Renee Cicchino, Director

Provides support to faculty in their use of technology in their courses.

• Blackboard System Administrator

Amy Phillips, System Administrator Provides Blackboard support to the SHU campus.

PC Support Services

John Fernandes, Director

Supports the University's laptop and desktop computers. Manages the University's public computer labs.

Technology Service Desk

Vivek Ajvalia, Associate Director

Provides phone support for IT-related questions and problems.

Digital Media and Web Development

Michael Soupios, Director

Supports the development and use of a wide variety of digital media.

• Media Services

Eva Rosmaninho, Director

Provides media services support for classes and events.

• Project Management

Lysa Martinelli

Provides Project Management supports to the TLT Center.

• IT Communications

Milan Stanic, Director

Develops and coordinates implementation of the Department of Information Technology's communications strategy.

Matthew Stevenson

Executive Director University IT Services

• Networking and Telecommunications

John Pannorfi, Director

Supports the campus network and phone systems.

• Application Development

Satish Reddy, Director

Supports the University's administrative applications ERP system through integrations with third party vendors, workflows, and scheduled tasks, and creates interactive and static content for the university's portal, PirateNet.

• Production Control

Robert Vignes, Director

Manages the University's production and test environments for the Banner administrative systems and its ancillary applications, Reporting Data Warehouse, and various reporting tools as well. It also manages University's test and production SQL Server databases.

System Support

Frank Sweigart, Director

Supports the university's physical and virtual database, email system, applications and web servers and enterprise storage.

Keith Barros

Senior Director IT Security & Service Management

Supports the University community in the planning and implementation of technology solutions to improve processes and services.

IT Security

Eric Lopez, Security Architect

IT Security oversees the SHU community's efforts to protect its computing and information assets and to comply with legal and regulatory requirements.

Frank Polansky

Director IT Budget Office

Provides budget support to all areas of DoIT

Frank Forte

Director of IT Operations for the IHS Campus