



Facilities Master Plan



October 2015



Facilities Master Plan

Middletown Campus
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Newburgh Campus
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- Appendix C: 2016 Six Year Capital Plan prepared by SUNY Orange

Executive Summary



Overview

Community colleges are playing an increasingly important role in the recovery and growth of this country. They have been recognized for their integral role in educating and training qualified individuals for the technology-based jobs of the future. At the same time, economic challenges they face have become more difficult to overcome. Community colleges are increasingly expected to do more with less. It is, therefore, essential for them to maximize limited resources, utilize space efficiently, and offer academic programs that provide the largest benefit to the communities they serve.

SUNY Orange was founded in 1950 as the first county-sponsored community college in the State University of New York (SUNY) system. For more than fifty years, the College has offered residents of the Hudson Valley Region quality academic degree programs, technical programs, and certificates.

SUNY Orange has continued to invest in its campuses and provide updated facilities to support existing and new academic programs. The branch campus in Newburgh was enhanced by the construction of Kaplan Hall in 2011 and renovations to the Tower Building the following year. In Middletown, a new Lab School was constructed in 2013 and the Rowley Center for Science and Engineering was completed in 2014. With so much investment in new construction since the 2006 Master Plan Update, the focus of this facilities master plan is the rehabilitation and renewal of older facilities on the Middletown Campus and maintenance of existing facilities on the Newburgh Campus.



Middletown Campus

Strategic Plan

SUNY Orange recently embarked on the process of updating the strategic plan. The new plan identifies the following four strategic priorities that will guide the College over the next five years. This facilities master plan recommends where and how capital investments should be made to support these priorities over the next ten years and beyond.

Awareness & Access

We will raise the visibility of the College and communicate the value of a SUNY Orange education through enhanced outreach efforts and educational opportunities.

Student Support & Success

We will support our students in achieving their educational and career goals.

Collaboration & Communication

We will develop connections between internal and external constituents and advance mutually beneficial partnerships. We will promote a culture of trust, respect, and collective responsibility.

Efficient & Effective Operations

We will anticipate and adapt to changing economic realities while maintaining the infrastructure and resources necessary to foster innovation and develop and deliver high quality programs and services.

Facilities Master Planning Process

The master planning process involved a variety of tasks. Each task, along with a list of associated objectives and outcomes, is shown in the chart below. During the preparation phase, a comprehensive environmental scan identified current and projected trends that may influence SUNY Orange in the next few years. It focused on factors surrounding the economic recovery, funding sources, population shifts, workforce trends, high school enrollment, and graduation projections for New York and Orange County.

The existing conditions assessment included a thorough analysis of the Middletown and Newburgh campuses to better understand site, infrastructure, and building issues. The planning team reviewed data provided by the College, interviewed facilities personnel, and visited each campus to assess the suitability and condition of major site and building components.

An instructional space utilization study was conducted as part of the master planning process to evaluate how efficiently classrooms and class labs were used during the fall 2014 semester. The study revealed that the majority of classrooms and class labs were underutilized in terms of hours scheduled and seats occupied.



Figure 1.1: Facilities Master Planning Process

Finally, to fully engage all members of the college community, the planning team engaged administrators, faculty, and staff in formal programming interviews to gain their insights on the condition of existing space, future space needs, and other campus issues. Student workshops were held in Middletown and Newburgh on February 17, 2015. In order to ensure that all students had the opportunity to participate, the planning team also collaborated with the College on an online student survey. The results of the interviews and students workshops are included in Section VI: Campus Input.

Master Plan Themes

The planning team met periodically with a Steering Committee formed by the College to review the progress of the work and ensure that master plan recommendations aligned with institutional priorities. Over the course of the nine-month planning process, the following themes emerged:

Students First!

Although the population of Orange County is expected to grow between 2015 and 2030, the number of public high school graduates is expected to decrease by more than five percent during that time. Enrollment at SUNY Orange is, therefore, projected to remain constant for the next ten years. In order to maintain or grow enrollment, the College will need to focus on recruitment, retention, and student success.

Removing barriers and streamlining the admissions process is extremely important to attract new students. An addition to the Shepard Student Center will provide a new front door to campus, enhance one of the primary campus intersections, and improve the connection between the student center and major buildings on the other side of South Street. Admissions and Recruitment will be located on the first floor. Once the addition is complete, the existing building will be renovated to provide additional space for student services and activities. This project was identified as a top priority for the College.



Student Workshop



Existing Shepard Student Center



Figure 1.2: Student Center Addition



Classrooms will be right-sized and updated to reflect current teaching modalities.



Harriman Hall will be renovated for the Business, English, and Math departments.



A Health Sciences Suite will be created in vacant space on the third floor of the Bio-Tech Building.

Reorganize functions and facilities to improve efficiency and increase collaboration.

During the programming interviews, administrators and faculty identified existing academic programs that will be expanded and new programs that will be introduced in the next few years. Faculty also indicated that additional space is required for developmental education and informal learning. At the Newburgh Campus Student Workshop, the highest ranked priority among students was to expand course offerings.

The results of the instructional space utilization study revealed capacity at both campuses to expand existing programs and provide space for new programs. The results also indicated that instructional space on the Middletown Campus could be utilized more efficiently by “right-sizing” classrooms to match course enrollments.

Invest in new facilities and upgrades to existing facilities to support new programs, learning modes, and technologies.

SUNY Orange has completed several major new building projects identified in the previous master plan. Although older facilities on both campuses have been well-maintained, many buildings on the Middletown Campus do not respond well to the needs of today’s students.

- The second and third floors of Harriman Hall will be renovated to provide updated space for Business and Mathematics. Classrooms will be “right-sized” and upgraded to better support current teaching modalities; faculty offices will be reconfigured to improve privacy; and student learning spaces will be created to encourage collaboration among faculty and students. A Center for Excellence in Mathematics will be created on the third floor.
- Several spaces in the Bio-Tech Building, including three large labs on the third floor, were vacated with the Architecture and Biology programs moved to the Rowley Center. A new Health Sciences Suite will be created in the vacant space on the third floor. It will include a multi-disciplinary simulation lab, rehabilitation clinic, testing center, student learning space, and faculty offices for Diagnostic Imaging, Medical Laboratory Technician, Occupational Therapy Assistant, and Physical Therapy Assistant. Instructional spaces for Diagnostic Imaging and Medical Laboratory Technician will also be reconfigured.
- Due to their configuration and type of construction, some buildings on the Middletown Campus would require substantial investment to meet the current and future needs of the College. Orange Hall, for example, does not have the performance, rehearsal, or support space required to meet the needs of the visual and performing arts programs. The building will serve as valuable swing space, however, to facilitate renovations elsewhere. Once it is no longer required for swing space, it will be demolished to provide space for a new Fine and Performing Arts Center. As part of the project, a new parking deck will be constructed behind the building. Before these steps are taken, an independent study should be completed to determine the feasibility, demand, and final scope of work.
- The standardization of classroom technology is a top priority for both faculty and students. As projects are implemented and buildings are renovated, wireless connectivity will be improved and instructional technology will be upgraded.
- Some signage does not comply with current ADA standards and some required signage, such as along South Street, is missing. To improve wayfinding, increase pedestrian safety, and ensure consistency across campus, all signage should be replaced and missing signs should be installed as part of a campus-wide signage project.

Strengthen the sense of community.

As existing programs grow and new programs are introduced, it is common for departments to utilize space available at the time. Eventually, the departments become fragmented. It is necessary to periodically reconfigure or relocate faculty office space to consolidate resources, improve student access, encourage collaboration, improve efficiency, and build a sense of community.

- The English department will be consolidated on the first floor of Harriman Hall.
- Education faculty will move from the second floor of the Library to existing office space adjacent to the Learning Lab in the Bio-Tech Building.
- Faculty office space for Applied Technologies, Dental Hygiene, and Nursing will be consolidated in the Bio-Tech Building.

Anticipate long-range capital projects.

Many community colleges are looking at student housing as a way to stabilize enrollment and attract students from outside their service area. There appears to be interest among current SUNY Orange students since 27 percent of participants in the Middletown Student Workshop indicated they would like the opportunity to live on campus. If the College eventually determines that student housing is the right choice for SUNY Orange, townhouse-style buildings should be organized along South Street to better define the edge of campus and to mediate the scale of the large campus buildings and surrounding residential community.

The Facilities department is currently located in the center of campus. Moving the department to a new 20,000 GSF Maintenance Building on the edge of campus would allow the spaces within historic Horton Hall to be used for student-focused activities, such as student clubs and organizations.

Master Plan Recommendations

The following recommendations address needs identified during the existing conditions assessment, issues discussed at the programming interviews, and master plan priorities established by the Steering Committee. The total estimated cost of this master plan is \$182,975,000, as indicated in the table below.

Project	Location	Area (GSF)	Cost	Notes
Site Projects				
South Street Improvements	Middletown Campus	N/A	\$3,360,000	
Close East Conkling Avenue	Middletown Campus	N/A	\$1,295,000	
Create Green Space Adjacent to PE Center	Middletown Campus	N/A	\$650,000	
Quad Improvements	Middletown Campus	N/A	\$3,895,000	
Campus-wide Signage Project	Middletown Campus	N/A	\$260,000	
Demolish Bennett House	Middletown Campus	N/A	\$110,000	
Demolish Christine Morrison House	Middletown Campus	4,250	\$235,000	
Building Projects				
Student Center Addition & Renovations	Student Center	69,945	\$31,645,000	Swing Space Required
Harriman Hall Renovations	Harriman Hall	46,050	\$20,070,000	Swing Space Required
Create Health Sciences Suite	Bio-Tech Building	20,055	\$8,485,000	Swing Space Required
Consolidate Faculty Offices	Bio-Tech Building	8,390	\$985,000	
Classroom Upgrades	Bio-Tech Building	15,885	\$3,000,000	
Renovate Data Center	Bio-Tech Building	3,120	\$1,685,000	Swing Space Required
Create Satellite Café	Bio-Tech Building	400	\$185,000	
Relocate Academic Testing Center	Library	1,680	\$430,000	
Library Renovations	Library	7,340	\$695,000	Swing Space Required
Classroom Upgrades	Library	2,935	\$500,000	
Create Satellite Café	Library	1,200	\$925,000	
Consolidate Administration	Morrison Hall	2,590	\$95,000	
Reconfigure Second Floor	Morrison Hall	3,025	\$185,000	
Relocate Copy Center/Mail Room	Horton Hall	2,615	\$975,000	
Hudson Hall Renovations	Hudson Hall	7,100	\$2,765,000	
Renovate Gymnasium	Physical Education Center	22,770	\$3,065,000	
Fine and Performing Arts Center	Middletown Campus	72,650	\$89,980,000	Swing Space Required
Facilities Maintenance Projects	Middletown Campus	N/A		
Facilities Maintenance Projects	Newburgh Campus	N/A	\$7,500,000	
Long-Term Projects				
Student Housing	Middletown Campus	N/A	N/A	
Maintenance Building	Middletown Campus	N/A	N/A	
Total:			\$182,975,000	

Figure 1.3: Master Plan Recommendations

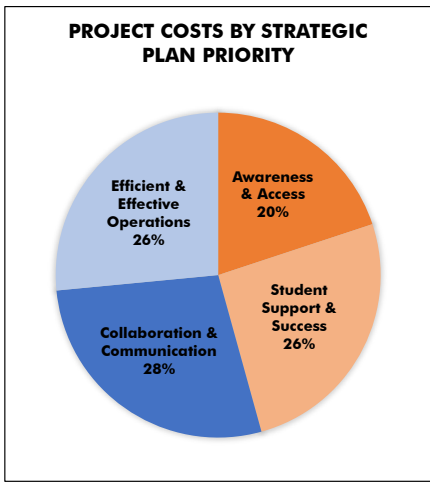


Figure 1.4: Master Plan Projects Costs by Strategic Plan Priority

Each master plan project aligns with one or more of the strategic priorities outlined in the strategic plan. As shown in Figure 1.4, project costs are distributed relatively evenly among the four strategic priorities identified by SUNY Orange.

Proposed Site Plan

Some of the major site concerns identified by students, faculty, and staff at the Middletown Campus include pedestrian safety, roads that bisect the campus, and no sense of arrival to the campus. Improvements to South Street and the closure of East Conkling Avenue will address all of these concerns. The closure of East Conkling Avenue will eliminate the staff parking lot behind the Library. Other site projects include the creation of a green space adjacent to the Diana Physical Education Center and improvements to the quad. The proposed site plan (below) shows the site recommendations for the Middletown Campus, as well as the proposed location for the Student Center Addition, Fine and Performing Arts Center, Student Housing, and a new Maintenance Building. Recommendations for the Newburgh Campus are detailed in Section VII: Master Plan Recommendations.



Figure 1.5: Proposed Middletown Campus Site Plan

Implementation Plan

This master plan identifies projects that will have the greatest impact and maximum benefit to the college community. These projects primarily focus on supporting academic programs and advancing the College's strategic efforts to recruit new students, retain existing students, and help all students complete their academic and career goals.

The timeframe for this facilities master plan is ten years. It is unusual, however, for any institution to complete all of the recommended projects within that period. A review of the 2006 Master Plan Update reveals that 22 percent of the projects identified for the Middletown Campus in that plan were completed. With that in mind, the implementation plan on the following page indicates the anticipated year of design and construction, enabling projects, related projects, and estimated costs for each project identified in this master plan. The actual sequence of projects will hinge on available funding, institutional priorities, and campus logistics.

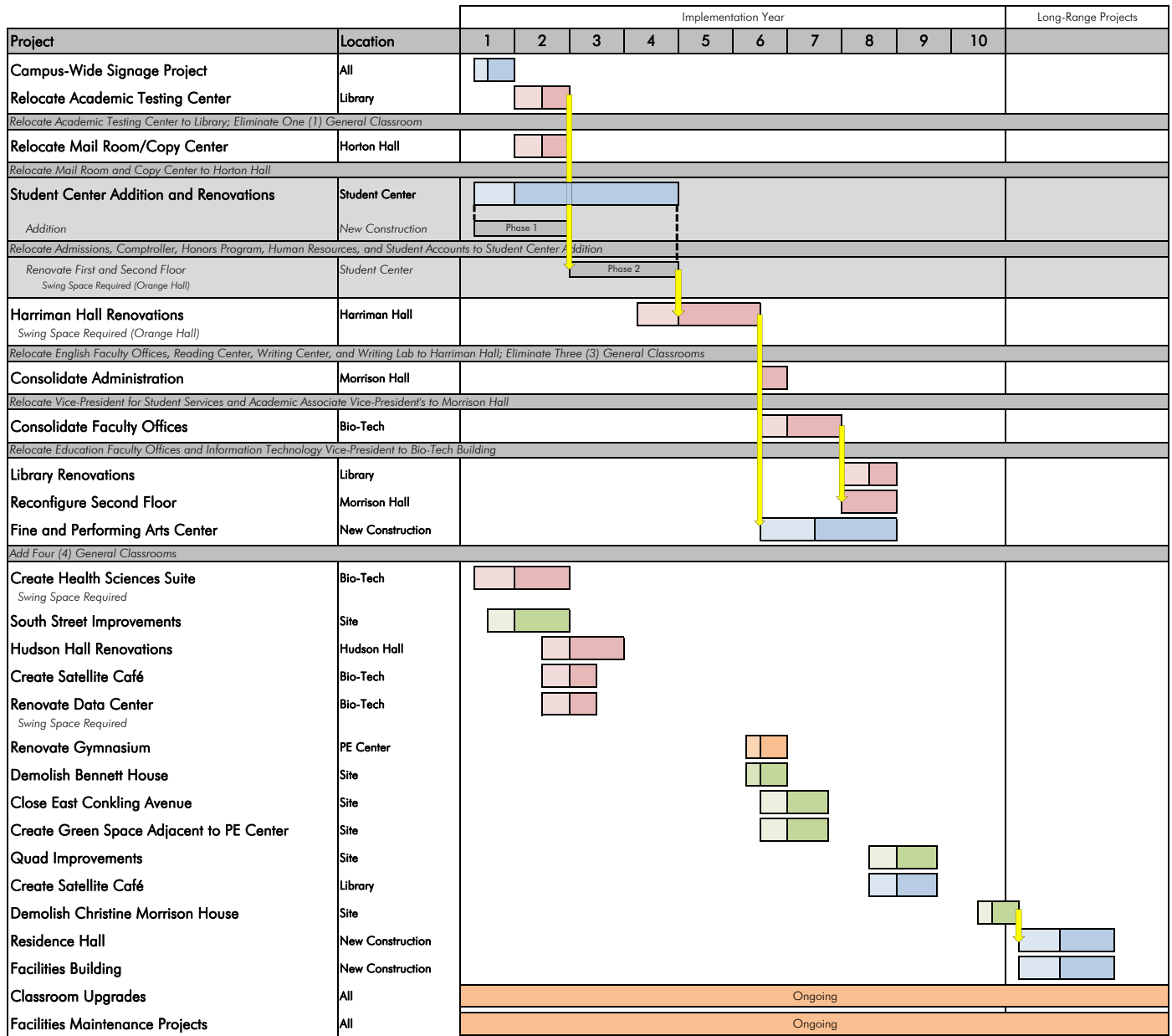
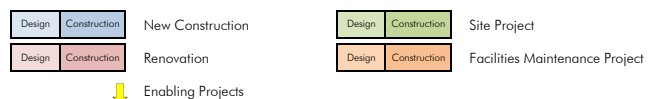


Figure 1.6: Implementation Plan





College History

In 1950, SUNY Orange became the first county-sponsored community college in the State University of New York (SUNY) system. The College operates two campuses: one in Middletown and one in Newburgh.

Morrison Hall, the focal point of the Middletown Campus, was originally the residence of retired industrialist Webb Horton. Upon his death, the house and property passed to his cousin John H. Morrison. The Morrison Estate, as it was known, remained with the family until 1950 when Christine Morrison donated the property to the College. At that time, it included five buildings.

The first academic building, Hudson Hall, was constructed in 1955. Three years later, Orange Hall was constructed to house the women’s gymnasium and dining hall. Over the next twenty years, the College added a library, student center, physical education center, and two academic buildings (Harriman Hall and Bio-Tech).

The College completed a comprehensive master plan in 1997 and an update in 2006. The Morrison Lab School and Rowley Center for Science and Engineering grew out of recommendations included in the master plan update. Today, the Middletown Campus includes 616,250 gross square feet (GSF) of academic and administrative space. The evolution of the campus is shown in Figure 2.1.

Located 22 miles east of Middletown, the Newburgh Campus sits on the banks of the Hudson River in the East End Historical District. Following the master plan update, the Newburgh Extension Center was expanded to become a branch campus. The construction of Kaplan Hall in 2011 included a new parking structure and campus green. The following year, the existing Key Bank Building (now known as the Tower Building) was renovated to include new program spaces, finishes, and lighting. Renovations to the building also included dramatic site improvements, giving the 8.2 acre site a true campus atmosphere. Altogether, the campus provides SUNY Orange with 177,000 GSF of space in the city of Newburgh.

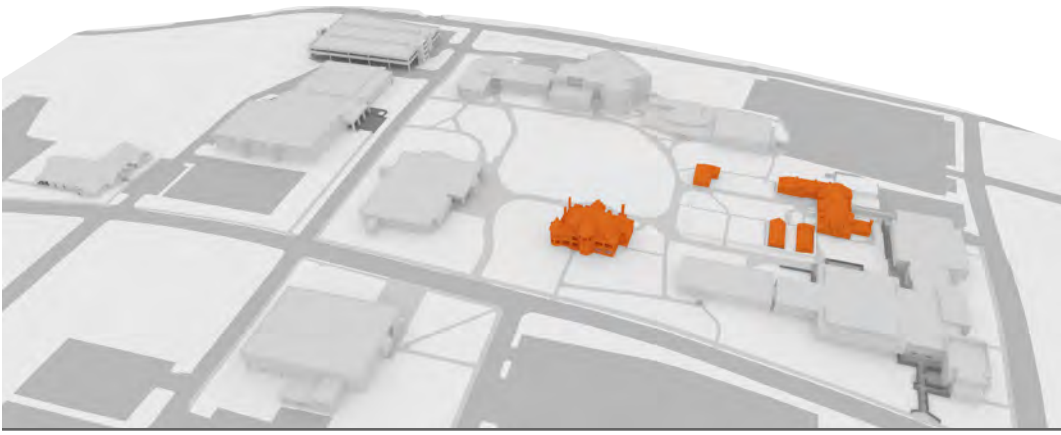
In December 2013, Orange County purchased three buildings along Grand Street for the sole purpose of expanding the Newburgh Campus. The College is currently evaluating one of the buildings (Masonic Lodge) for potential renovation and reuse.



Rowley Center for Science and Engineering

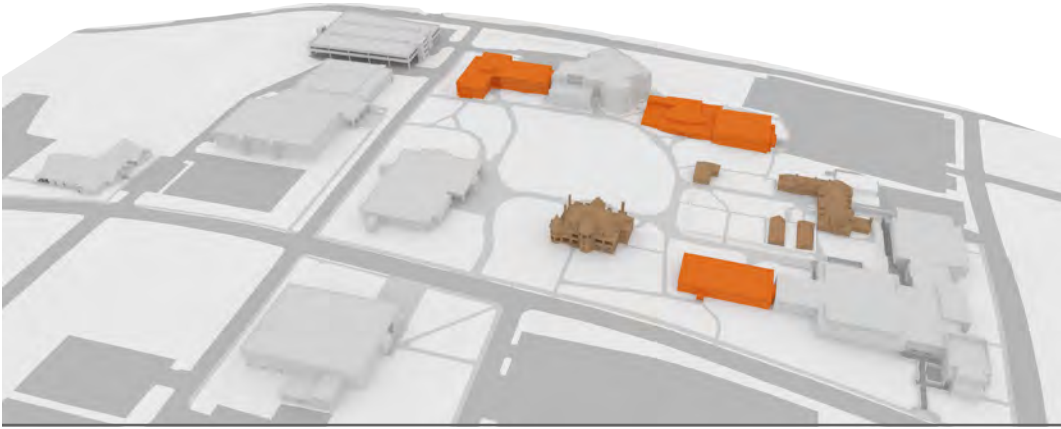


Kaplan Hall



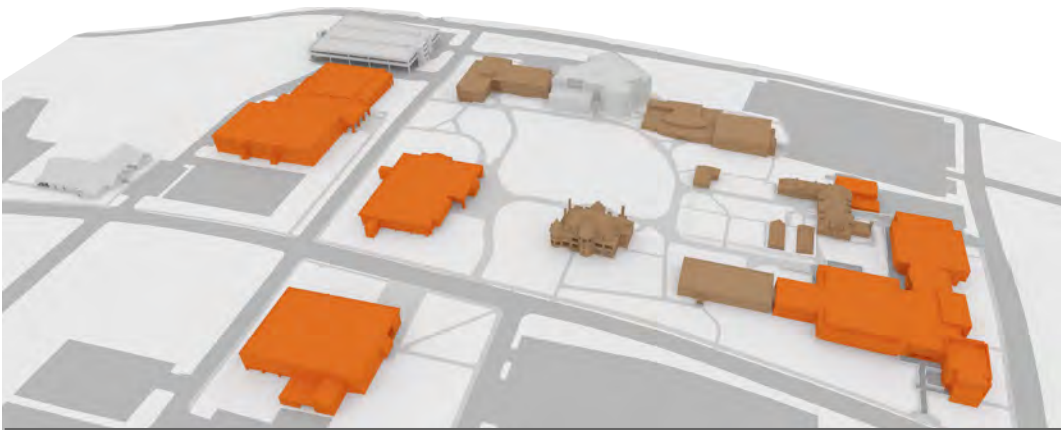
Original Estate

- Morrison Hall
- Horton Hall
- Greenhouses
- Ice House



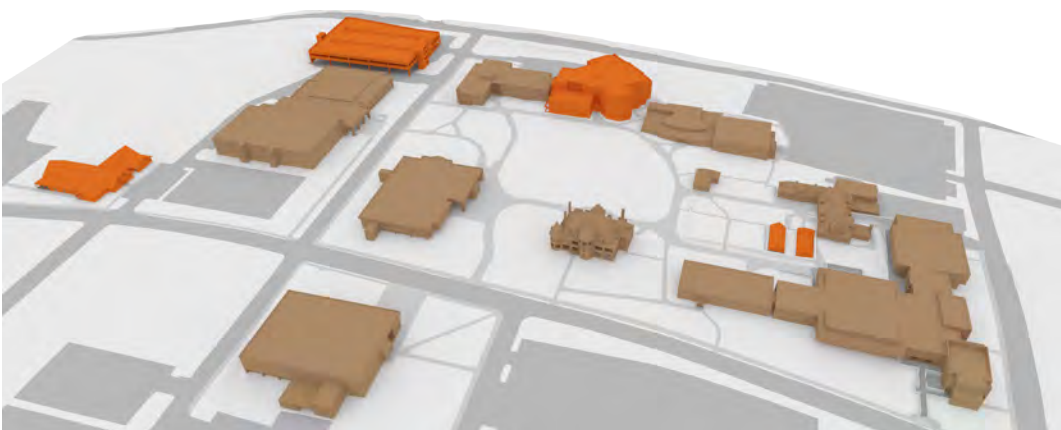
1950-1970

- Harriman Hall
- Hudson Hall
- Orange Hall



1971-2010

- Bio-Tech Building
- Diana Physical Education Center
- Library
- Shepard Student Center
- HVAC Shop



2011-Present

- Devitt Center (Greenhouses)
- Morrison Lab School
- Rowley Center for Science & Engineering
- Parking Garage

Figure 2.1: Evolution of the Middletown Campus

Strategic Plan

SUNY Orange just completed a thorough review of its strategic plan. Although not officially adopted by the Board of Trustees yet, the priorities and objectives outlined in the proposed plan are listed below. All proposed master plan projects will be linked to one or more of these strategic priorities.

1. Awareness & Access

We will raise the visibility of the College and communicate the value of a SUNY Orange education through enhanced outreach efforts and educational opportunities.

1.1 Increase **online offerings** as a means of expanding access, increasing enrollment, and promoting academic success.

1.2 Increase the number of faculty, staff, and students to reflect the diversity of Orange County through focused **recruitment** initiatives.

1.3 Expand the visibility of the College's excellent programs and services through strategic **marketing efforts**.

2. Student Support & Success

We will support our students in achieving their educational and career goals.

2.1 **Prepare students for college success** through academic planning and advising and comprehensive, ongoing support.

2.2 Accelerate students' completion of **developmental education** and ensure college readiness by refining processes, services, and course sequences.

2.3 Increase student **retention, completion, transfer, and employment readiness**.

2.4 Engage in comprehensive review of **program offerings, delivery formats, and course scheduling** to meet the needs of diverse populations.

3. Collaboration & Communication

We will develop connections between internal and external constituents and advance mutually beneficial partnerships. We will promote a culture of trust, respect, and collective responsibility.

3.1 Foster stronger **connections** among **academic programs, business, & industry** to increase applied learning opportunities for students.

3.2 Optimize **enrollment** through **partnerships** with area high schools, civic organizations, and businesses.

3.3 Improve **management of information** to increase transparency and centralize communication practices.

3.4 Strengthen the **sense of community** to improve the institutional climate and promote collegiality, civility, and mutual respect.

4. Efficient & Effective Operations

We will anticipate and adapt to changing economic realities while maintaining the infrastructure and resources necessary to foster innovation and develop and deliver high quality programs and services

4.1 Maximize existing funding streams and explore **alternative revenue opportunities** to ensure **financial stability**.

4.2 Develop, cultivate, and support **innovation** throughout the organization for continuous improvement.

4.3 Review and revise **allocation methods** to ensure appropriate investment in people, services, facilities, and technologies.

4.4 Foster a collective commitment to **comprehensive planning, assessment, and prioritization** to ensure **institutional effectiveness**.

Vision Statement

Orange County Community College will be an exemplary community college transforming lives through academic excellence, innovation and partnerships.

Mission Statement

We are a community of learners dedicated to providing high-quality and accessible educational and enrichment opportunities that foster lifelong learning.

Values Statement

To fulfill the mission and vision of the College, we are committed to:

- Excellence
- Integrity
- Inclusivity
- Inquiry
- Creativity
- Collaboration
- Stewardship

Academic Profile

SUNY Orange has a long history of academic excellence. Students that enroll in one of the 68 academic programs receive a quality education that prepares them to transfer to a four-year institution or enter the workforce. The College offers courses at the Middletown Campus, Newburgh Campus, and three satellite locations (Monroe-Woodbury High School, Warwick Valley High School, and Port Jervis High School). Most students take courses in Middletown, as shown in Figure 2.3 on the following page.

Enrollment

The population of Orange County grew faster than any other county in the Hudson Valley Region between 2000 and 2010 (9.2 percent). Since most students at SUNY Orange come from Orange County, enrollment at the College also increased during that time.

County	Full-Time Headcount	Part-Time Headcount
Orange	86.14%	87.33%
Sullivan	5.37%	3.95%
Ulster	3.76%	3.61%
Dutchess	1.18%	1.77%
Other NY	2.20%	1.98%
Out-of-State	1.36%	1.37%

Figure 2.2: SUNY Orange Enrollment by County

Both full-time and part-time enrollment has declined in the last four years. While it appears that full-time enrollment has started to level-off, part-time enrollment continues to decline. Total headcount in fall 2014 was 5,844 full-time and part-time students. Part-time headcount decreased from 3,637 in fall 2011 to 2,533 in fall 2014. See Figure 2.4 on the following page.

In addition to declining enrollment at the College, the number of students concurrently enrolled in high schools dropped drastically from 1,032 in fall 2011 to 141 in fall 2014, as shown in Figure 2.5.

Although the population of Orange County is expected to continue to grow between 2015 and 2030, the number of public high school graduates is projected to decrease by more than five percent during that time. SUNY Orange will need to compete with other higher education institutions for a smaller pool of high school graduates. Therefore, enrollment at SUNY Orange is projected to remain generally constant for the next ten years. Figure 2.6 shows the enrollment projections prepared by SUNY Orange, the projections prepared by JMZ, and the trendline.

Campus	2010	2011	2012	2012	2014
Middletown	1,772.20	1,707.60	1,591.68	1,532.26	1,496.25
Newburgh	354.50	396.30	417.87	430.50	426.12
CCHS	157.30	164.00	123.22	52.70	16.30
Satellite Centers	11.80	9.90	6.03	2.82	0.38
Distance Learning	54.20	53.00	56.90	68.02	78.35
AFTE Total	2,350.00	2,330.80	2,195.70	2,086.30	2,017.40

Figure 2.3: SUNY Orange Annual FTE by Campus

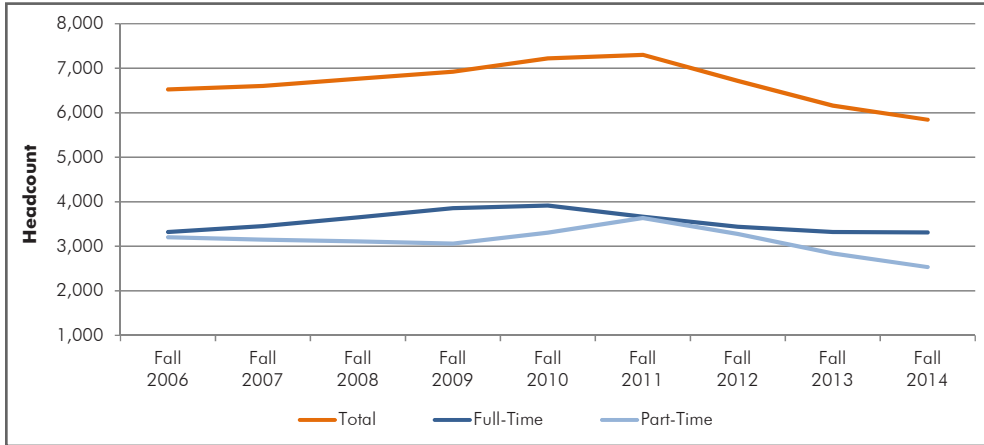


Figure 2.4: SUNY Orange Student Headcount

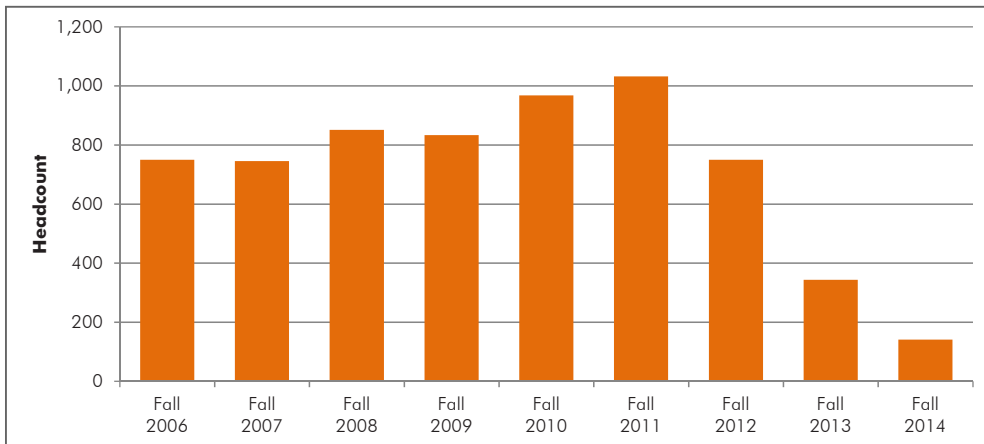


Figure 2.5: Number of SUNY Orange Students Concurrently Enrolled in High School

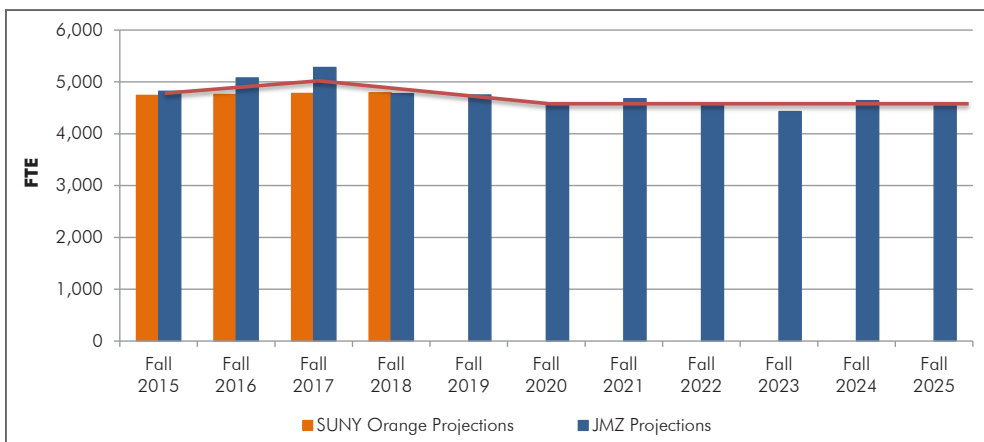


Figure 2.6: SUNY Orange Enrollment Projections

Academic Programs

Students at SUNY Orange have the opportunity to pursue an Associates degree or certificate in 68 academic programs. The vast majority of students that took classes during the fall 2014 semester were enrolled in Associate degree programs, as shown in Figure 2.7. These students typically transfer to other institutions to complete their four-year degrees. A very small percentage (4 percent) were enrolled in certificate programs, undeclared, or not seeking a degree.

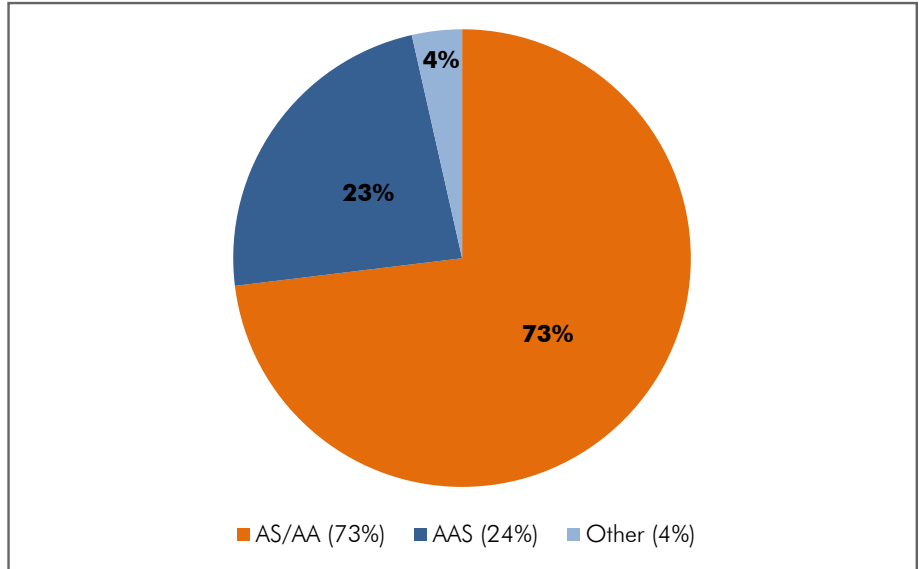


Figure 2.7: SUNY Orange Enrollment by Degree

The largest percentage of students were enrolled in the Liberal Arts division during the fall 2014 semester. Within Liberal Arts, the Criminal Justice and Humanities programs had the highest enrollments. Campus-wide, however, the Pre-Nursing program within the Health Sciences division had the largest number of students with 210 AFTE.

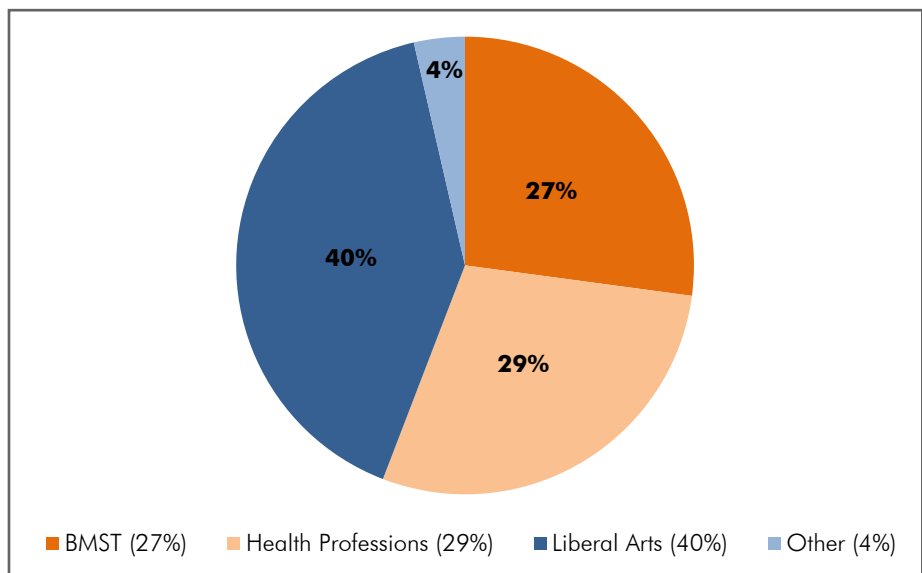


Figure 2.8: SUNY Orange Enrollment by Academic Division

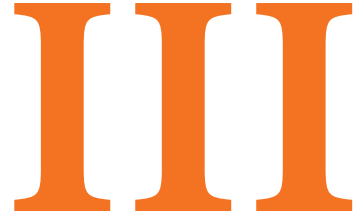
A complete list of academic programs offered at SUNY Orange during the fall 2014 semester is shown below. The list is organized by academic division and includes degree type, department, program, accreditation year, fall 2014 headcount, and 2014 AFTE.

Degree		Department	Program	Accreditation Year	Fall 2014 Headcount	AFTE		
Business, Math, Science & Technology Division	Associate in Science (AS)	Applied Technology	Computer Science	2010-11*	82	32.22		
		Biology	Liberal Arts - Biology	2010-11*	167	65.35		
		Business	Accounting	2004-05	115	46.98		
			Business Administration	2004-05	243	94.18		
		Mathematics	Liberal Arts - Mathematics	2010-11*	95	35.67		
			Engineering Science	2010-11*	132	55.22		
			Liberal Arts - Astronomy	2010-11*	3	1.02		
			Science, Engineering and Architecture	Liberal Arts - Chemistry	2010-11*	20	7.68	
				Liberal Arts - Geology	2010-11*	4	1.80	
				Liberal Arts - Physics	2010-11*	17	6.73	
		Associate in Applied Science (AAS)	Applied Technology	Liberal Arts - Physical Science	2010-11*	9	2.80	
				Computer Networking	2010-11	94	34.98	
				Cyber Security	N/A	56	20.48	
			Business	Electrical Technology	2011-12	1	0.20	
	Accounting			2004-05	48	15.15		
	Business Management			2004-05	230	80.18		
	Business Marketing			2004-05	30	11.25		
	Medical Office Assistant			2004-05	47	16.25		
	Office Technologies			2004-05	8	3.32		
	Science, Engineering and Architecture			Architectural Technology	2012-13	35	13.82	
				Accounting Procedures	2004-05	4	1.43	
	Certificate			Business	Clerical Office Assistant	2004-05	1	0.43
					Business, Math, Science & Technology Total:			1,441
	Health Professions Division	Associate in Science (AS)	Clinical Laboratory Science	Liberal Arts - Pre-Medical Lab Technology	2010-11*	17	5.28	
			Dental Hygiene	Liberal Arts - Pre-Dental	2010-11*	108	32.32	
			Diagnostic Imaging	Liberal Arts - Pre-Radiologic Technology	2010-11*	179	56.20	
			Movement Science	Exercise Studies	2011-12	59	22.47	
Liberal Arts - Physical Education				2010-11*	27	10.45		
Nursing			Liberal Arts - Pre-Medical	2010-11*	85	34.92		
			Liberal Arts - Pre-Nursing	2010-11*	683	209.93		
Occupational Therapy Assistant			Liberal Arts - Pre-Occupational Therapy	2010-11*	95	27.15		
Physical Therapy Assistant			Liberal Arts - Pre-Physical Therapy	2010-11*	121	37.87		
Associate in Applied Science (AAS)			Clinical Laboratory Science	Medical Laboratory Technician	N/A	28	9.63	
		Dental Hygiene	Dental Hygiene	2007-08	34	13.60		
		Diagnostic Imaging	Radiologic Technology	2006-07	42	14.75		
		Nursing	Nursing	2007-08	221	67.60		
		Occupational Therapy Assistant	Occupational Therapy Assistant	2003-04	53	19.33		
Physical Therapy Assistant		Physical Therapy Assistant	2010-11	47	18.27			
Health Professions Total:					1,799	579.77		
Liberal Arts Division	Associate in Arts (AA) Associate in Science (AS)	Arts and Communications	Liberal Arts - Art	N/A	94	35.23		
			Liberal Arts - Communication	N/A	121	47.40		
			Liberal Arts - Foreign Language	N/A	11	3.38		
			Liberal Arts - Music	N/A	40	15.47		
			Liberal Arts - Theater Arts	N/A	24	9.20		
		Behavioral Sciences	Human Services	2011-12	118	42.10		
			Liberal Arts - Anthropology	N/A	10	3.64		
			Liberal Arts - Humanities	N/A	313	115.74		
			Liberal Arts - Psychology	N/A	209	78.14		
			Liberal Arts - Sociology	N/A	30	10.47		
			Liberal Arts - Social Sciences	N/A	121	43.20		
			Criminal Justice	Criminal Justice	2011-12	318	121.95	
				Liberal Arts - Criminal Justice	N/A	44	17.37	
		Education	Liberal Arts - Pre Law	N/A	26	10.73		
			Teacher Preparation	2012-13*	87	34.45		
			Liberal Arts - Education	2010-11*	71	26.83		
		English	Liberal Arts - English	N/A	80	31.70		
			International Studies	2010-11	18	6.90		
	Liberal Arts - Economics		N/A	16	6.85			
	Liberal Arts - History		N/A	50	19.12			
	Global Studies	Liberal Arts - Political Science	N/A	17	6.62			
		Individual Studies	N/A	3	1.23			
		Associate in Applied Science (AAS)	Arts and Communications	Performing Arts - Music	2009-10	37	16.05	
	Visual Communications		2009-10	96	37.05			
	Criminal Justice		Criminal Justice - Police	2011-12	157	55.75		
	Education		Early Childhood Development and Care	2012-13*	49	19.13		
	Certificate		Criminal Justice	Law Enforcement/Security	2011-12	1	0.43	
Education		Early Childhood Development and Care	2012-13*	4	1.50			
Teaching Assistant		2012-13*	1	0.20				
Liberal Arts Total:					2,166	817.83		
Other	Associate in Applied Science (AAS)	Hudson Valley Educational Consortium	Fire Protection Technology	N/A	12	4.48		
		Green Building Maintenance & Management	N/A	3	0.83			
	Undeclared		N/A	6	1.42			
	Non-Degree Seeking Student		N/A	417	65.92			
Other Total:					438	72.65		
TOTAL:					5,844	2,017.39		

* Scheduled

Figure 2.9: Academic Programs

Comprehensive Environmental Scan



The purpose of an environmental scan is to review and assess current and projected trends that will influence an institution in the future. This environmental scan reports on factors surrounding the economic recovery; population trends, such as the graying of America and its impact on education; workforce issues influenced by employment growth or decline, both nationally and locally; education trends including high school enrollment and graduation projections for New York and Orange County; and funding sources. All of these factors will influence SUNY Orange's academic programs, which in turn will have an impact on facilities needs. This section of the Facilities Master Plan was issued in January, 2015 and reflects the best data available at that time.

Data Sources

The demographic data for this report was gathered from the American Fact Finder website, which is a searchable database of U.S. Census Bureau data. When figures are followed by (census) or (census, est.), the data were retrieved from American Fact Finder. The U.S. Census Bureau prepares estimates between census years. One-year estimates use twelve months of collected data. Three-year estimates are prepared with the previous three years of data. Five-year estimates are prepared with the previous five years of data and use the largest sample size, but they do not include the most current data.

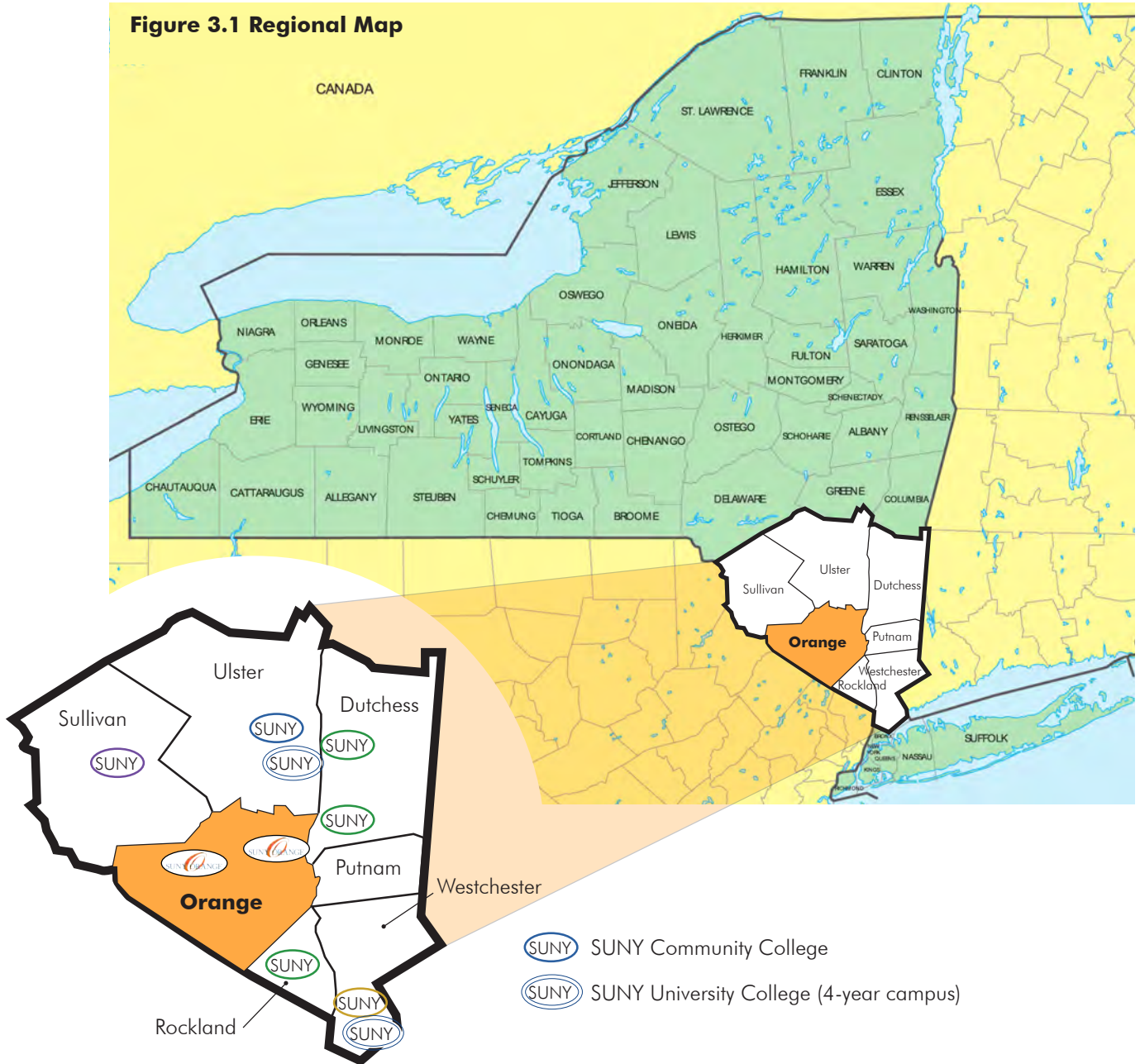
Information in this report was also gathered from the following sources:

- American Association of Community Colleges
- Bloomberg Businessweek
- Georgetown University Center on Education and the Workforce
- InsideHigherEd.com
- Kiplinger's Economic Outlooks
- National Center for Education Statistics
- Pew Research Social & Demographic Trends
- United States Bureau of Labor Statistics
- United States Department of Labor
- SUNY Institutional Research
- Empire State Development and Start-Up NY
- Cornell Program on Applied Demographics
- New York State Department of Labor

- New York State Education Department Public Data Access Site
- Orange County Citizens Foundation Quality of Life Report

In this Environmental Scan, “the Hudson Valley Region” refers to Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester counties. Orange County is the catchment area of SUNY Orange.

Figure 3.1 Regional Map



Economy

The Nation

The nation is slowly recovering after the deep recession of 2008.

- Kiplinger.com reports that households have paid off much of their debt; they now have money available for big-ticket items, such as cars and home appliances.
- After several years of stagnation, pay increases for non-management workers matched inflation in 2013. However, households would have had to make 37.5 percent more annually than they did in 2000 to have the same buying power in 2014¹. The national median income has not kept up with inflation.
- 2000 median household income: \$41,994 (census); 2013 median income: \$51,939 (census). This is a 23.7 percent increase; 11.6 percent less than inflation over the same period.

The Kiplinger's Economic Outlooks for 2015 give reason for cautious optimism²:

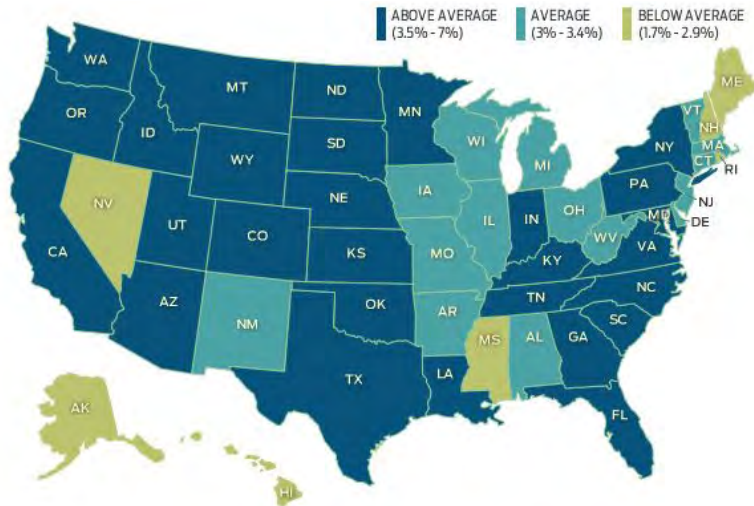
- After slowing in the fourth quarter of 2014, GDP growth will pick up in 2015:
 - Hiring is on the rise and layoffs are scarce.
 - Continued job growth and a feeling of more economic security may trigger robust income and spending increases. This could push growth over the 3% mark for 2015.
- Monthly job gains in 2015 are expected to be around 250,000 - about three million jobs for the year.
- In November 2014, companies hired 321,000 more workers, the largest one-month gain in nearly three years.
 - Job increases were widespread across nearly all industries.
 - Low-skill workers found jobs in the 212,000 food service and retail jobs that were added in the last quarter of 2014.
 - The number of part-time employees who would rather be working full-time fell for the fifth straight month in November 2014.
- Short-term interest rates will increase in 2015 but, to preserve growth, rate increases are likely to be gradual.
- Long-term interest rates will increase, possibly as much as half a percentage point, in 2015. A factor that could dampen this increase is the general slowdown in other nations' economies, a condition that discourages foreign investment in the U.S. economy.
- Inflation is likely to be about 1.8% in 2015. Over time, the stronger economy will boost the yearly inflation rate even higher, but that is unlikely to occur before 2016.

¹ Bureau of Labor Statistics Consumer Price Index Calculator (www.data.bls.gov)

² Kiplinger's Economic Outlooks: GDP by David Payne, updated December 1, 2014; Employment by David Payne, updated December 8, 2014; Interest Rates by David Payne, updated December 9, 2014; Inflation by David Payne, updated December 22, 2014; Business Spending by Glenn Somerville, updated December 1, 2014.

- The 2014 increase in food prices is expected to moderate in 2015, partially because of the recent drop in fuel prices.
- Low fuel prices, while good for consumers, threaten the success of energy-related industries and their stock values.
- A modest pickup in business spending is underway as manufacturing activity strengthens.

Figure 3.2 Forecasted Economic Growth by State in 2014



New York

Following the recession, New York’s economy rebounded and then suffered a loss of momentum. In the past year, the labor market is back on track. Growth in private sector employment was led by the leisure and hospitality sector and the construction sector. New York has enjoyed four consecutive years of above-average employment growth.

The state’s distinct regions - the Capital Region, Central New York, Finger Lakes, Long Island, Mid-Hudson, Mohawk Valley, New York City, North Country, Southern Tier, and Western New York - all contribute different strengths to the state economy.

The New York State FY2015 Economic and Revenue Outlook offers a comprehensive review of the State’s finances and revenue.³ The following key economic points were drawn from that report.

- The weak dollar helped support New York City as an international shopping destination, while a strong real estate market added construction jobs in and near the City.
- The state’s growth is led by the private sector, as government employment is expected to continue to fall.
- Looking ahead, factors that affect the national forecast will affect New York’s as well. As the Nation’s financial center, changes to credit markets pose a particularly large risk to New York.

Business Development

New York is known as one of the most expensive states in which to do business. High tax rates, challenging regulatory burdens, and labor policies contribute to New York’s ranking at the bottom of many economic outlook rankings. The State is addressing this with regionally focused programs designed to strengthen ties between communities, industries, small businesses, higher education, and labor. In 2011, ten Regional Councils were established to develop long-term strategic plans for growth. Local business and government leaders play important roles in the Regional Councils; their contributions are a key part of the “bottom up” design of these growth initiatives. Recent news from the Regional Councils includes:

- January 8, 2015 - Governor Cuomo announced that Creative Food Ingredients, a Canadian cookie manufacturer, will construct a 75,000 square foot addition to its Wyoming County facility in Western New York and add up to 56 employees.

New York GDP growth:

2013 - 3.5%

Projected 2014 - 4.2%

Statewide Jobless Rate by year end

Projected 2014: 7.2%

- *Actual Upstate November 2014:* 5.6%
- *Actual Downstate November 2014:* 5.9%

New York is projected to see growth in the financial sector and in professional services into 2015.

New York had the third-highest weekly wages in the nation during the second quarter of 2014 (\$1,146).

kiplinger.com, “Economic Outlooks by State,” Gillian B. White, updated October 11, 2013; New York State Department of Labor; www.businessinsider.com “Ranked: The 50 US State Economies from Worst to Best”

³ New York State FY 2015 Economic and Revenue Outlook, New York State Division of the Budget. Retrieved online 7 November 2014 <http://publications.budget.ny.gov/eBudget1415/economicRevenue- Outlook/economicRevenueOutlook.pdf>

- November 6, 2014 - Governor Cuomo announced \$500,000 in Upper Hudson Recreation Hub Grants for six Adirondack communities.
- October 30, 2014 - Eden Growers, a cooperative venture of 10 vegetable producing farms in Erie County, was awarded \$345,052 in State matching grants to buy new equipment.
- October 28, 2014 - A new \$29.8 million intermodal transit station will be built in Rochester to reduce regional delays and modernize travel across the state.

The Mid-Hudson Regional Economic Development Council has endorsed 25 priority projects to compete for State funding. Among them, many target growth in Orange County⁴:

- USAI Lighting factory expansion
- SUNY Manufacturing Alliance for Research and Technology Transfer (SMARTT) Lab improvements
- Tourism expansion by Mensch Grasmere, LLC
- A new clinical health facility in Middletown, NY
- Improvements to the Warwick Valley Office and Technology Corporate Park
- Support for small businesses, such as the Equilibrium Brewery in Middletown

New York Business First focuses on industries that provide the greatest degree of growth, innovation, and potential for future revenue and high value employment opportunities in the State. Together with Empire State Development, Business First provides a number of tax and incentive programs to support new business.

- Financial Assistance/Access to Capital
- Expertise/Technical Assistance
- Information about Permits & Licenses, Taxes & Mandated Filings
- Industry Resources
- Employee Hiring, Training, and Benefits Information
- Government Contracting & Procurement
- Local and Regional Government Coordination

Start-Up NY is an initiative that helps businesses in targeted industries establish themselves alongside SUNY campuses. Within designated development zones, businesses can operate 100% tax free for 10 years. In addition, individuals hired for certified net new jobs in a StartUp area will pay no state or local income taxes for the first five years, with reduced taxes for the next five years.⁵

Guidelines to determine which on- or off-campus spaces are eligible to be designated as Start-Up NY tax free zones include:

- Any vacant space in any building located on the campus
- Any vacant land on the campus
- A NYS Incubator with a bona fide affiliation to the college or university
- Up to a total of 200,000 square feet of additional vacant land or vacant building space within one mile of the campus



Business First and Empire State Development advance growth industries across the State. Because New York includes so many varied centers of commerce, not every targeted industry is a priority in each region.

Growing Industry Sectors in NY:

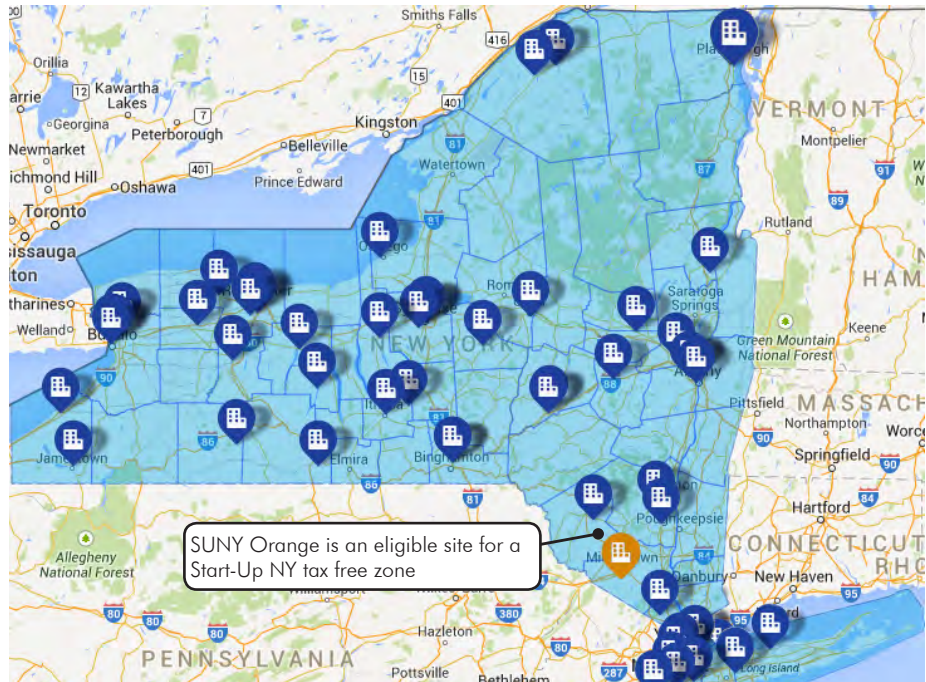
- Back Office and Outsourcing
- Biomedical
- Communications, Software, and Media Services
- Distribution
- Electronics and Imaging
- Fashion, Apparel and Textiles
- Financial Services
- Food Processing
- Forest Products
- Front Office and Producer Services
- Industrial Machinery and Services
- Information Technology Services
- Materials Processing
- Miscellaneous Manufacturing
- Transportation Equipment
- Travel and Tourism

New York State Department of Labor;
<http://labor.ny.gov/stats/PDFs/State-regional-industry-clusters-report-2013.pdf>

⁴ Mid-Hudson Regional Economic Development Council Endorses 25 Projects as Regional Priorities for 2014 Competition, Retrieved online 7 November 2014 <http://regionalcouncils.ny.gov/mid-hudson/081214/mhredc-2014-project-priorities>

⁵ Start-Up NY, <http://www.startup-ny.com/>

Figure 3.3 New York's Start-Up NY Tax-Free zones



The Excelsior Jobs Program provides incentives to firms in targeted industries such as biotechnology, pharmaceuticals, high-tech, clean technology, green technology, financial services, agriculture and manufacturing. Eligible companies must show creation of five to seventy-five jobs (depending on the type of company) or meet certain investment and employee thresholds.⁶

All New York businesses can take advantage of certain statewide tax incentives and workforce development programs, many of which are designed to assist disadvantaged workers and their employers:

- Work opportunity tax credit
- Workers with disabilities employment tax credit
- New York Youth Works
- Hire-a-Vet Credit
- Minimum Wage Reimbursement Credit
- Work for Success

The Role of High Tech in New York

While traditional manufacturing is on the decline, New York State is strong in the high tech manufacturing sector, including Clean Technology, Life Sciences, and Nanotechnology. The Cyberstates 2013 report called New York the third-largest tech state in the nation.⁷

- The sector employed 318,200 tech workers in 2012.
- 8,400 net jobs were added between 2011 and 2012, ranked third nationwide.
- Tech firms employed 4.5 percent of private sector workers in 2012, ranked 26th nationwide.
- Tech workers earned an average wage of \$96,900 (eighth ranked), 54 percent more than New York's average private sector wage.

⁶ Excelsior Jobs Program, <http://esd.ny.gov/BusinessPrograms/Excelsior.html>

⁷ Tech America Foundation Cyberstates 2013, <http://www.techamericafoundation.org/new-york-3rd-largest-tech-state-in-the-nation>

- New York had a tech payroll of \$30.8 billion in 2012, and ranked third nationwide.
- The state had 20,600 tech establishments in 2012 and ranked fifth nationwide.
- New York ranked third in Internet and telecommunication services employment (78,300 jobs) and in research and development/testing labs employment (45,400 jobs).
- The state ranked fourth in computer systems design and related services employment (92,800 jobs).

Advanced Manufacturing and Green Jobs

Advanced Manufacturing is a term that encompasses the changing set of industries that use technology sourced from fields such as biomanufacturing, supercomputing, photonics, and nanotechnology to manufacture products like aviation components, software and analytics tools, robotics, advanced materials, additives manufacturing (3D printing), and machining and casting technology.⁸

- Many types of businesses use advanced manufacturing, even if their end product is not considered high-tech. Middle market businesses - which are bigger than mom-and-pop shops but are smaller than corporate giants - are using advanced manufacturing techniques to streamline production.
- In addition to advanced manufacturing and high-tech, New York is promoting green technology through its ambitious Renewable Portfolio Standard, which includes a mandate that 30% of the State's energy be sourced from renewables by 2015.⁹ This has driven development of solar and wind installations and supporting industries across the state.
- A 2013 study by Ernst and Young rated states on their existing installed renewable energy capacity, natural potential to develop renewable energy sources, infrastructure, policies, and access to financing. New York ranked eighth in the nation.¹⁰

The Impact of Tech Valley

New York's Tech Valley - a region that encompasses the Capital Region, the Adirondacks and North County, the Hudson Valley, and the Mohawk Valley - is a district in which the cooperative efforts of local governments, state government, and chambers of commerce have resulted in a thriving business and cultural environment centered on high-tech research, development, and manufacturing.

Although traditional manufacturing in Upstate New York continues to decline, high-value technology industries are investing in the region and taking advantage of the outstanding location and wealth of human capital in the area.¹¹

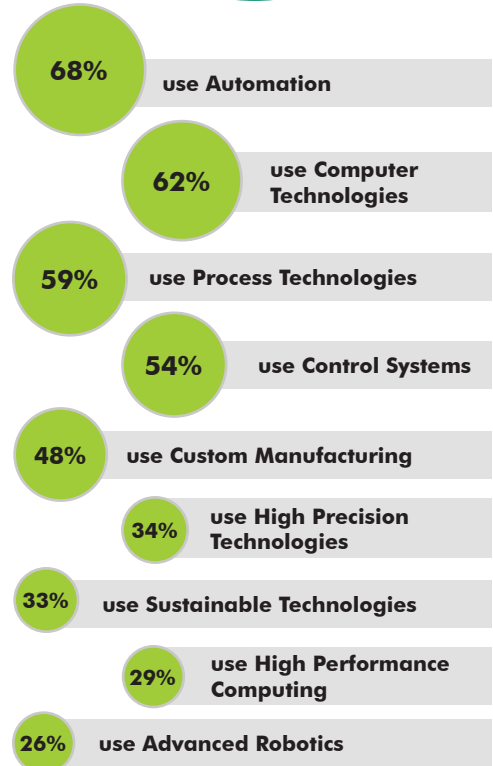
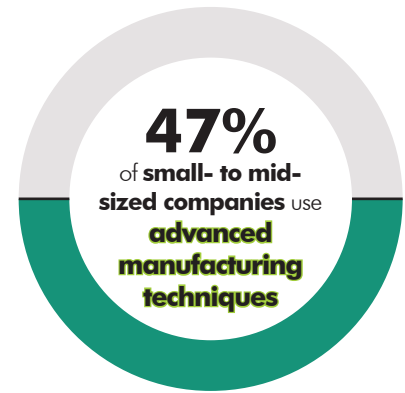
In 2013, New York was second only to Silicon Valley in the number and value of tech company acquisitions. In New York City and its surrounding counties, there were 74 acquisitions, the largest of which was Yahoo!'s purchase of Tumblr for \$1.1 billion in May 2013.

⁸ General Electric Ideas Lab

⁹ Renewable Energy Assessment, New York State Energy Plan 2009, energyplan.ny.gov

¹⁰ [http://www.ey.com/Publication/vwLUAssets/United_States_renewable_energy_attractiveness_indices/\\$FILE/United_States_renewable_energy_attractiveness_indices.pdf](http://www.ey.com/Publication/vwLUAssets/United_States_renewable_energy_attractiveness_indices/$FILE/United_States_renewable_energy_attractiveness_indices.pdf)

¹¹ "About Tech Valley" Center for Economic Growth, www.ceg.org

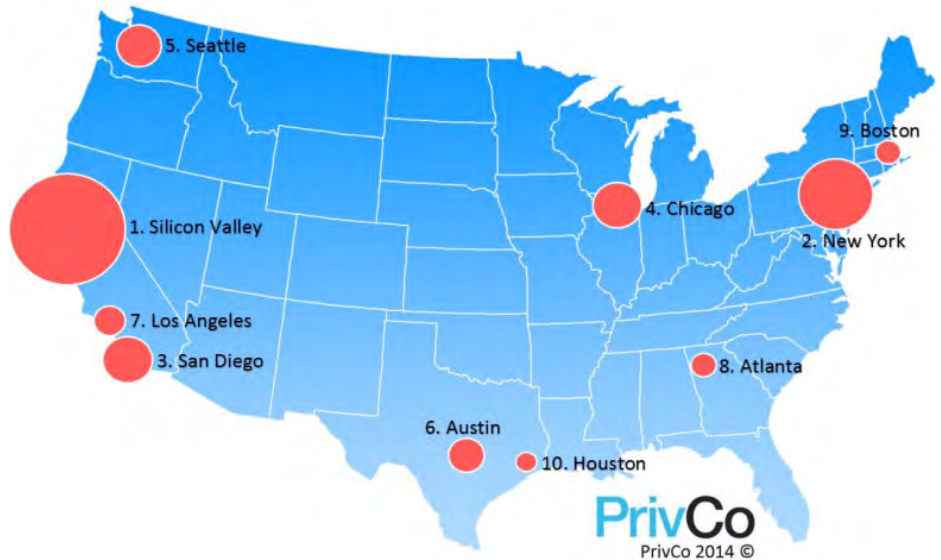


Of the small- to mid-sized companies that have implemented advanced manufacturing:



Source: www.roadshow.slate.com

Figure 3.4 Most Active Areas for Tech Company Acquisitions in 2013¹²



Hudson Valley Region and Orange County

Business Development

Local development organizations, such as the **Hudson Valley Economic Development Corporation** and the **Orange County Business Accelerator**, promote industry sectors that have a particularly strong presence in the Hudson Valley such as:

- 3D Printing
- Agri-Business
- Alternative Energy
- Biotechnology
- Clean Tech
- Communications
- Consumer Products
- Datacenters
- Distribution
- E-Commerce
- Finance
- Food & Beverage
- Life Sciences
- Medical Devices and Instruments
- Nano-Technology/Advanced Manufacturing
- Online Education
- Social Media
- Software
- Specialty Food and Beverage Products
- Tourism and Film Production

In Newburgh, NY, the **Hudson Valley Technology Development Center (HVTDC)** is a business development organization for manufacturers and technology companies that helps improve competitiveness and advances the development of new business opportunities. HVTDC was founded in 1988 and has staffmembers with

¹² PrivCo Top Ten Metro Areas for Private Tech Company Acquisition Targets, www.privco.com

engineering and project management expertise. Partners include:

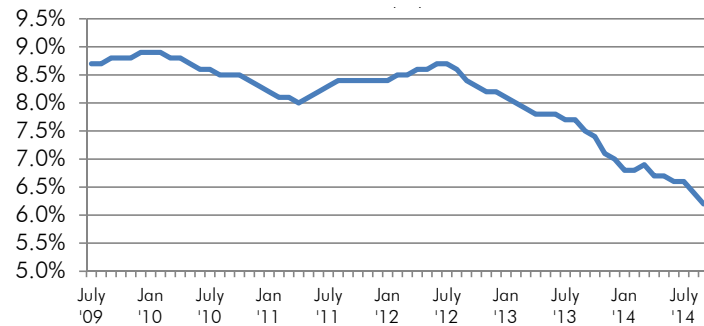
- NYSTAR - Empire State Development Division of Science and Technology
- National Institute of Standards and Technology (NIST)
- Workforce Development Institute
- Cornell Center for Materials Research
- Council of Industry
- NY Pollution Prevention Institute

Orange County offers time-limited tax credits to promote new construction and is a federally designated Foreign Trade Zone, which offers deferral, reduction or elimination of tariff duties paid on imported materials in exchange for increased jobs and investment in the U.S. The **Orange and Rockland Utilities, Inc.** offers an electric incentive rate to help ease the cost to businesses expanding or relocating to the area.

Income and Employment

The State’s efforts to create jobs and bolster business in New York have resulted in consistent decline in unemployment since June 2009, the official end of the recession. In September 2014, the NY unemployment rate had fallen to 6.2%, but was still higher than the pre-recession unemployment rate, which hovered around 4.6% for twenty-eight months prior to the recession. Unemployment rates in the Hudson Valley and in Orange County are lower than the New York average and the United States average.

Figure 3.5 New York Unemployment Rate



September 2014 Unemployment Rates

National Unemployment	5.9% ¹³
New York Unemployment	6.2% ¹⁴
Hudson Valley Unemployment ¹⁵	
Dutchess	5.1%
Orange	5.5%
Putnam	4.4%
Rockland	4.8%
Sullivan	6.3%
Ulster	5.8%
Westchester	5.5%

¹³ U.S. Department of Labor, Bureau of Labor Statistics, Labor Force Statistics (<http://data.bls.gov/timeseries/LNS14000000>)

¹⁴ NY State Department of Labor, State Labor Department Releases Preliminary September 2014 Area Unemployment Rates, 21 October 2014) <http://labor.ny.gov/stats/pressreleases/prlaus.shtm>

¹⁵ *ibid.*

Overall, Orange County and Hudson Valley Region households have higher incomes than households in the rest of the U.S. (based on annual median household income). However, the cost of living in the area is higher than the cost of living in average U.S. cities.¹⁶ There is a large difference between the highest and lowest incomes in the Hudson Valley Region and in Orange County.¹⁷

As stated previously, to keep up with inflation, households in the United States would need to make 37.5 percent more annually than they did in 2000 to have the same buying power in 2014. In Orange County, the median income in 2014 is 32.4 percent more than it was in 2000 (figure 3.6), which nearly matches inflation over the same time period.

Figure 3.5 Orange County Household Incomes 2013 (U.S. Census Bureau 3-year estimate)

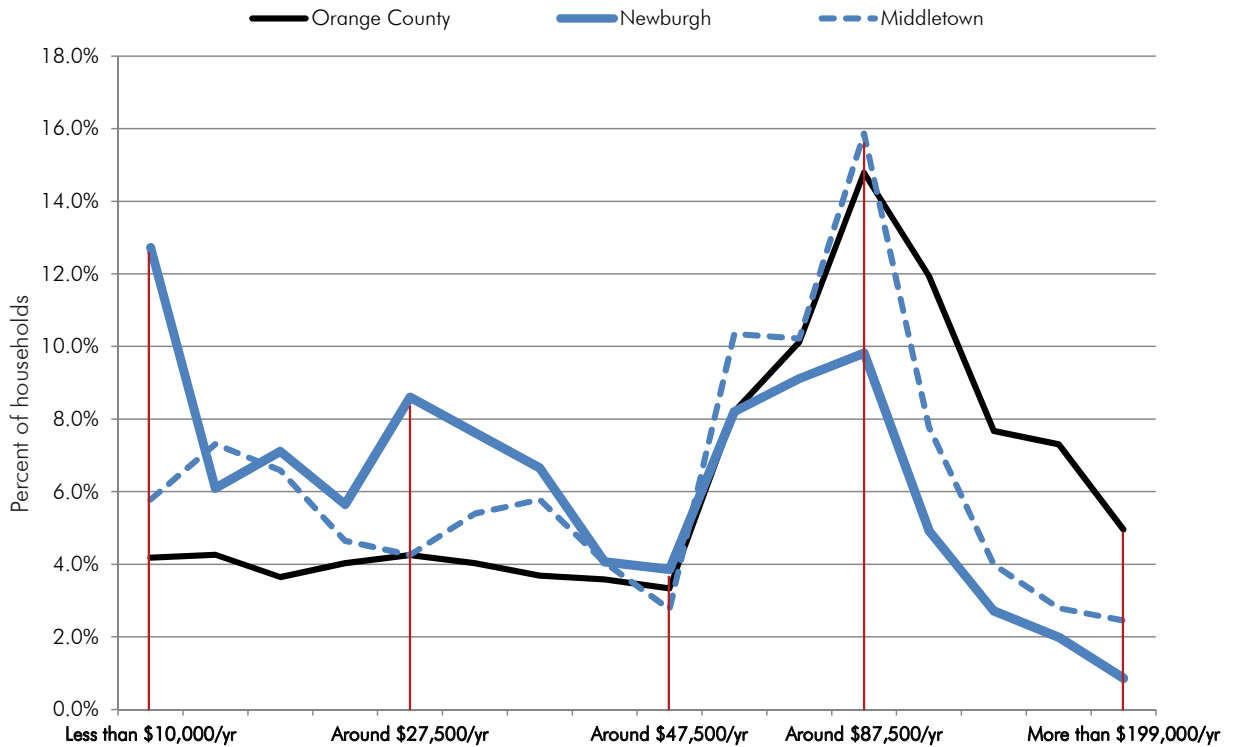


Figure 3.6 Median Household Incomes

	UNITED STATES	NEW YORK	HUDSON VALLEY	ORANGE COUNTY
2000 Median Annual Household Income (dollars)(census)	\$41,994	\$43,393	\$55,504	\$52,058
2013 Median Annual Household Income (dollars)(census, 2013 3-yr est.)	\$52,250	\$57,369	\$72,021	\$68,950
Ideal 2013 Median Annual Household Income to keep pace with the Consumer Price Index (2000-2013) (BLS CPI Calculator)	\$56,811	\$58,703	\$75,087	\$70,426
<i>Actual as Percentage of Ideal</i>	92.0%	97.7%	95.9%	97.9%

¹⁶ Cost of living figures range from 117% to 137% of U.S. average, based on sources such as City-data.com and Bestplaces.net

¹⁷ US Census, American Fact Finder 2013 3-year Estimate

Largest Employers

The list of the Hudson Valley Region’s largest employers emphasizes the importance of the health care industry in the regional economy. The major employers list (figure 3.7) does not necessarily reflect the diversity of the Region’s targeted industry clusters. Leaders in emerging industries may be small to mid-sized companies that are not tabulated among the largest employers.

Small companies represent many business types, from multi-generational family businesses to start-ups. Successful start-up companies have been responsible for nearly all net U.S. job growth since 1980, according to a study by the Kauffman Foundation. Small and mid-sized businesses serve as incubators for bigger companies, which often strategically acquire successful local companies.¹⁸ The region’s colleges and universities can support growth of these industries by helping to close the skills gap. Nationwide, seventy-five percent of middle market manufacturers are looking to hire skilled manufacturing labor immediately, yet 93% of these firms report a gap between the skills of incoming workers and the actual skills required.¹⁹ As shown below, healthcare makes up a large percentage of the total jobs in Orange County, indicating that SUNY Orange’s emphasis on the health professions is appropriate.

Figure 3.7 Major Employers^{20, 21}

County	Employer	Industry Category	City	Total Employees
Dutchess	Central Hudson Gas & Electric Corp.	Utilities	Poughkeepsie	840
Orange	Orange Regional Medical Center	Healthcare	Middletown	2,415
	105th Airlift Wing	Military	Newburgh	1,500
	St. Luke’s Cornwall Hospital	Healthcare	Newburgh	1,500
	Elant Inc.	Healthcare	Goshen	1,200
	C & S Wholesale Grocers Inc.	Warehousing and Distribution	Newburgh city	1,000
	Empire BlueCross BlueShield	Insurance	Middletown	790
	Orange AHRC	Social Services	Newburgh	750
	Occupations Inc.	Social Services	Middletown	600
	Time Warner Cable	Communications and Media	Middletown	600
	IBM Business Continuity & Resiliency Services	Business Support	Sterling Forest	550
	Mount Saint Mary College	Education	Newburgh	500
	Bon Secours Community Hospital	Healthcare	Port Jervis	490
	Staples Inc.	Warehousing and Distribution	Montgomery	460
	Kolmar Laboratories, Inc	Manufacturing	Port Jervis	450
	Verla International LTD	Manufacturing	New Windsor	445
	YRC Worldwide	Warehousing and Distribution	Maybrook	435
	Amscan Inc.	Warehousing and Distribution	Chester	425
	Milmar Food Group II	Manufacturing	Goshen	400
	Adecco	Business Support	Goshen	400
	Times Herald Record	Communications and Media	Middletown	395
	Crystal Run Healthcare	Healthcare	Middletown	391
	Cardinal Health	Healthcare	Montgomery	380
	St. Anthony Community Hospital	Healthcare	Warwick	370
	Mid-Hudson Processing and Distribution USPS	Warehousing and Distribution	Newburgh	359
	Precision Pipeline Solutions	Utilities	New Windsor	350
	Superior Pack Group	Warehousing and Distribution	Harriman	325
	SUNY Orange	Education	Middletown	300
	Newburgh Auto Auction	Wholesale Sales	Newburgh	300
President Container Inc	Manufacturing	Middletown	300	
Putnam	United States Military Academy at West Point	Military, Education	West Point	3,120
	The Thayer Hotel	Tourism	West Point	185
Rockland	Helen Hayes Hospital	Healthcare	West Haverstraw	750
Ulster	Ulster-Greene ARC	Social Services	Kingston	1,000
	Ceres Technologies Inc.	Manufacturing	Saugerties	70
Grand Total				25,809

18 Dave Maney, “Why the middle market matters - now more than ever,” CNBC.com, 26 September 2011; and, “The importance of Startups in Job Creation and Job Destruction,” Ewing Marion Kauffman Foundation, 9 September 2010.

19 “The New Face of Manufacturing,” Slate Roadshow for Growth, www.roadshow.slate.com

20 <http://www.nysed.org/wp-content/uploads/2014/04/indcluster-hvreg.jpg>

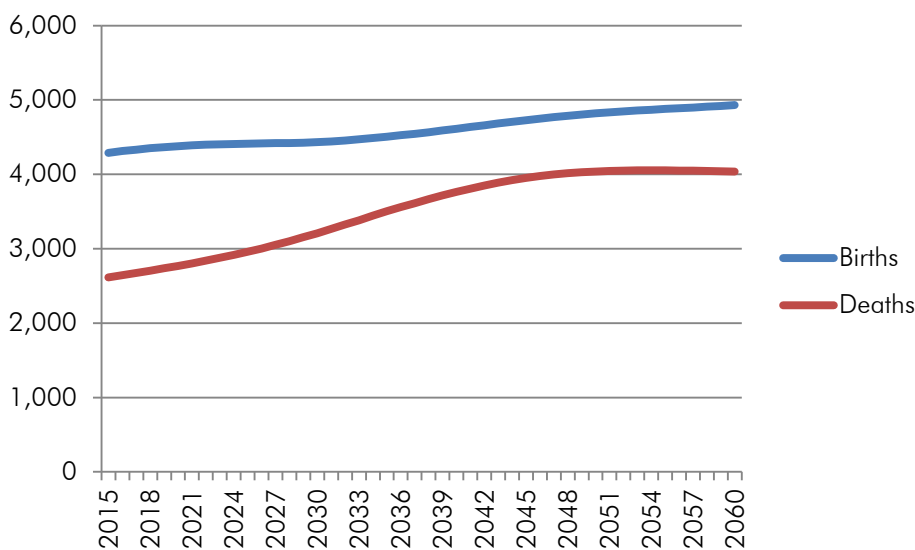
21 “Largest employers in Westchester, Rockland and Hudson Valley,” <http://data.newsday.com/new-york/database/?pid=478>; Orange County Partnership Directory of Major Employers.

Population

The Nation

In 2012, the U.S. Census Bureau projected that U.S. population will be 420,268,000 in 2060. That number is less than what was projected in 2008 (439,010,000 by 2050) as birth rates are expected to decline. The ratio of births to deaths is projected to reach nearly 5:4.²²

Figure 3.8 U.S. Population Projection 2015-2060²³



Baby Boomers had fewer children than their parents did. There are fewer Americans of child-bearing age and fewer Americans are having big families. As a result, the workforce will grow slowly and will have a larger percentage of older workers until Baby Boomers retire.

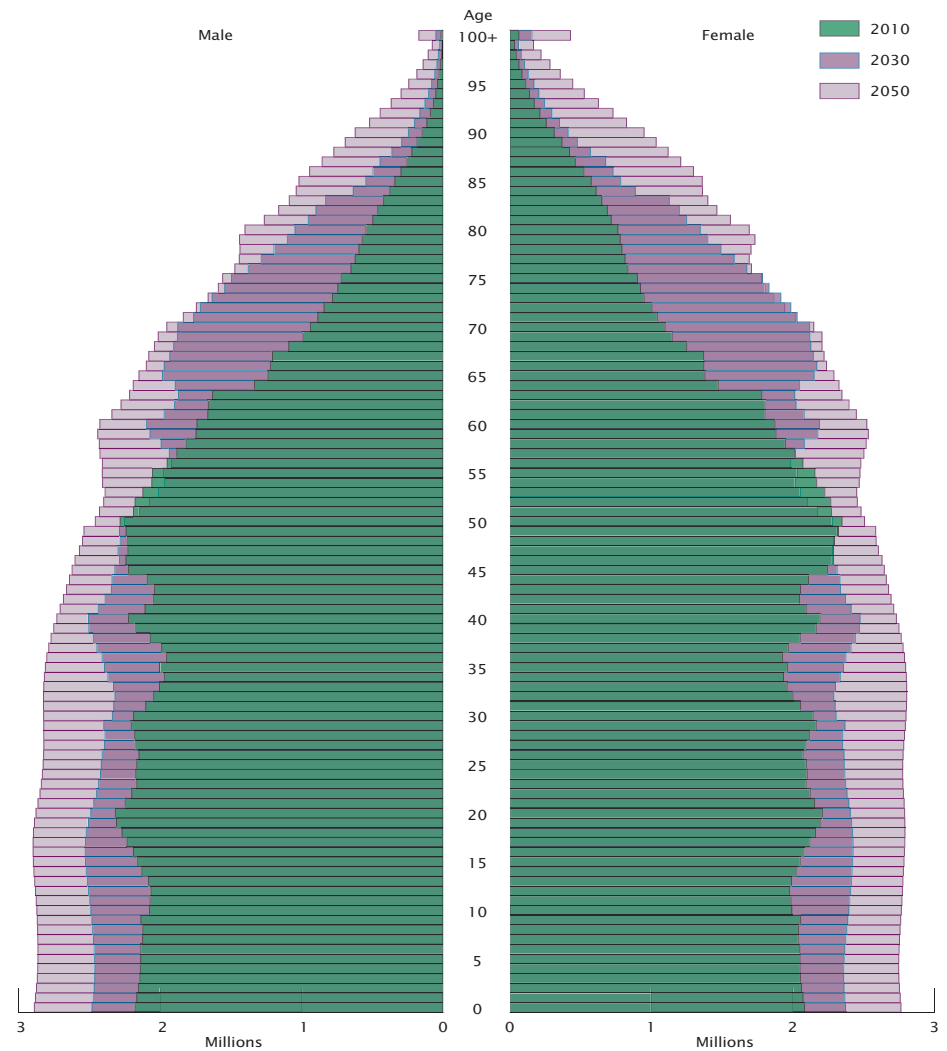
Immigration is important to the American labor force because incoming workers bolster slow natural population growth and help to offset the effect of the aging Baby Boom generation. Immigration rates are declining, however, which could lead to further challenges in the labor market.

19 D'Vera Cohn, *Census Bureau Lowers U.S. Growth Forecast*; 14 December 2012, Pew Research Social & Demographic Trends, Retrieved 16 June 2014. <http://www.pewsocialtrends.org/2012/12/14/census-bureau-lowers-u-s-growth-forecast-mainly-due-to-reduced-immigration-and-births/>

23 Table 1. Projections of the Population and Components of Change for the United States: 2015 to 2060 (NP2012-T1); Source: U.S. Census Bureau, Population Division; Release Date: December 2012

The U.S. Census Bureau reported in 2010 that the dependency ratio, or the number of people 65 and older to every 100 people of traditional working age, is projected to climb rapidly from 22:100 in 2010 to 35:100 in 2030.

Figure 3.9 Age and Sex Structure of the Population for the United States: 2010, 2030, and 2050²⁴



Source: U.S. Census Bureau, 2008.

After 2030, the dependency ratio is expected to continue to rise, but more slowly, to 37:100 in 2050. The number of Americans 85 and older will likely increase from about 14 percent in 2010 to 21 percent in 2050. These members of the population represent a potentially substantial burden on social resources. A rising dependency ratio affects SUNY Orange as an employer, since it is likely that more of its employees will be involved in the care of an aging relative. SUNY Orange students will also be caring for adult dependents in increasing numbers, which adds to the financial stress and scheduling challenges of attending college.²⁵

This challenge is summarized in a McKinsey & Company report, *Talkin' 'bout my generation: The economic impact of aging US Baby Boomers*, published in June

²⁴ The Next Four Decades, The Older Population in the United States: 2010 to 2050, Population Estimates and Projections . U.S. Census Bureau, May 2010.

²⁵ Aging Boomers Will Increase Dependency Ratio, Census Bureau Projects May 20, 2010, http://www.census.gov/newsroom/releases/archives/aging_population/cb10-72.html

2008. While the Baby Boomers earned record levels of income, generated great wealth for the nation, and spurred growth, they have also spent at record levels, failed to save, and accumulated unprecedented levels of debt. Nearly two-thirds of Boomer households are financially unprepared for retirement. They have not built-up enough savings to maintain their lifestyles as they age. The report suggests that one solution is for older people to work longer. That is the most economically attractive (in GDP-based models) of scenarios.²⁶ However, this adds costs to employers in terms of health insurance and re-training of their aging employees. On the other hand, experienced employees maintain the knowledge base in the workforce and can assist in training new employees.

Domestic Migration

During the recession, Americans moved less and took fewer risks with their careers. Reports that domestic migration within the U.S. is returning to pre-recession rates indicate that people feel more confident about relocating and changing jobs.

As domestic migration increases, a shift from pre-recession patterns has emerged. People are no longer moving to the nation's outer suburbs. Outer exurban (the ring of prosperous communities beyond the suburbs that are commuter towns for an urban area) counties are experiencing a net out-migration. In fact, people are headed back to cities. This reflects, in part, homebuyers' caution regarding fuel prices, future home values, and the economy in rural regions.²⁷

Population Diversity

Age, gender, and cultural diversity are important components of a dynamic community and workforce. In an October 2012 article on Forbes.com called *Diversity Drives Innovation*, author Jonathan Becher wrote that, "Diversity of the seen and unseen - culture, thought, style, skills, education, workplace flexibility, and perspectives - ensures that every member of the team is represented and valued."²⁸

Immigration and birth rates are important factors in the workforce. As birth rates have declined in the U.S., skilled immigrants have helped fill jobs made available by retiring Baby Boomers and the expansion of science and technology industries. High-tech companies absorb around 80 percent of H-1B visa applicants. (H-1B is the immigration option that businesses use to hire foreign nationals for positions that require at least a Bachelor's degree.)

Following the 1998 American Competitiveness and Workforce Improvement Act, which made visas easier to obtain, high-tech industries enjoyed 15 percent higher returns on stock investments (compared to investments in other sectors with similar levels of risk). This demonstrates the impact of immigration on high-tech businesses.²⁹

26 "Talkin' 'bout my generation: The economic impact of aging US Baby Boomers," by Diana Farrell, David Court, Eric Beinhocker, John Forsyth, Ezra Greenberg, Suruchi Shukla, Jonathan Ablett, Geoffrey Greene, et al. June 2008, http://www.mckinsey.com/insights/economic_studies/talkin_bout_my_generation

27 "Economic Improvement Nudges U.S. Migration to Normal," by William H. Frey. March 15, 2013. Brookings Research. <http://www.brookings.edu/research/opinions/2013/03/15-us-migration-economics-frey>; and "The Demographic Lull Continues, Especially in Exurbia," by William H. Frey. April 6, 2012. Brookings Blogs. <http://www.brookings.edu/blogs/up-front/posts/2012/04/06-census-exurbs-frey>

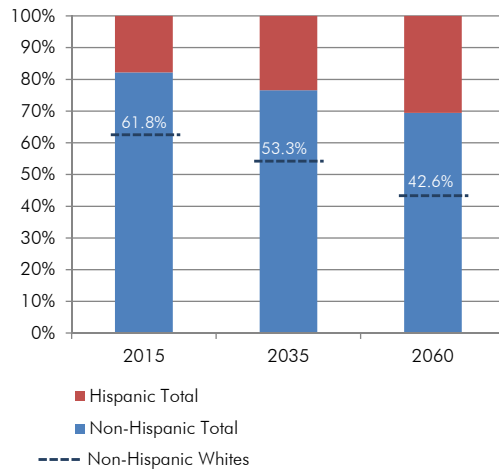
28 Jonathan Becher, SAP; Diversity Drives Innovation; October 2012; Web; 27 February 2013; <http://www.forbes.com/sites/sap/2012/10/10/diversity-drives-innovation/>

29 Charles Kenny; Why More Immigration, Not Less, Is Key to U.S. Economic Growth; Bloomberg Businessweek Global Economics; 28 October 2012; Web; 27 February 2013; <http://www.businessweek.com/articles/2012-10-28/why-more-immigration-not-less-is-key-to-u-dot-s-dot-economic-growth>

In 2012, Patricia Cortes and Jessica Pan of Boston University and the National University of Singapore reported that 20 percent or more of all those taking the U.S. nursing licensure exam were foreign-born, up from 6 percent in the mid-1980s.³⁰ As opportunities for good jobs in developing countries increase, many of these workers may choose to remain in their own countries. The U.S. will need to educate workers with comparable skills.

By 2045, for the first time non-Hispanic whites will comprise less than 50 percent of the United States population.³¹

Figure 3.10 U.S. Population by Race and Hispanic Origin 2015, 2035, and 2060 (percent)



The proportion of men to women in the workforce is not expected to change significantly, but it is anticipated that women will continue to take more leadership roles in companies.

New York

The State of New York experienced population growth of 401,645 residents between 2000 and 2010 (2.1 percent over ten years). During the same time, the national population increased by 9.7 percent. Projections suggest the New York population will increase from 19,378,102 in 2010 to 19,794,733 in 2030 (2.2 percent growth over twenty years)³².

Census Bureau’s 2013 3-year estimates suggest that New York suffered a net out-migration of residents between 2010 and 2013; 328,538 residents moved to other states. International in-migration helped offset losses; the Census Bureau estimated that 318,132 people moved to New York from other countries between 2010 and 2013. Combined, the result is an estimated net loss of 10,406 residents.

New York is more racially diverse (considering census-designated races) than the nation as a whole.

³⁰ *ibid.*

³¹ Table 6. Percent Distribution of the Projected Population by Race and Hispanic Origin for the United States: 2015 to 2060 (NP2012-T6). Source: U.S. Census Bureau, Population Division, Release Date December 2012

³² Cornell Program on Applied Demographics (Cornell PAD)

Hudson Valley Region and Orange County

The Hudson Valley Region experienced population growth of 111,662 residents between 2000 and 2010 (5.1 percent over ten years). Projections suggest the population of the seven counties within the region will increase from 2,290,851 in 2010 to 2,422,622 in 2030 (5.8 percent growth over twenty years).

Orange County grew faster than any other county in the Hudson Valley Region between 2000 and 2010, gaining 31,446 residents (9.2 percent). The county is projected to grow by 38,640 residents between 2015 and 2030, which represents a 10.0 percent population increase. Projections suggest the rate of population growth in Orange County and the Hudson Valley will surpass the state's rate of growth through 2030.³³

Figure 3.11 Population Projections

County	2015 Projection	2020 Projection	2025 Projection	2030 Projection	Percent Change
Dutchess County	303,374	309,985	316,091	320,734	5.7%
Orange County	386,318	400,195	413,327	424,958	10.0%
Putnam County	100,996	102,471	103,733	104,507	3.5%
Rockland County	320,536	329,246	337,392	344,540	7.5%
Sullivan County	78,623	79,322	79,470	79,082	0.6%
Ulster County	182,358	181,869	180,554	178,028	-2.4%
Westchester County	954,189	961,026	967,407	970,773	1.7%
TOTAL Hudson Valley Region	2,326,394	2,364,114	2,397,974	2,422,622	4.1%
New York State	19,546,904	19,697,021	19,786,848	19,794,733	1.3%

Regional Domestic Migration and Immigration

The Hudson Valley Region and Orange County lost net population to domestic out-migration between 2010 and 2013, but these losses were offset somewhat by gains in net international in-migration. More people moved out of the area to other states than moved in, yet more people moved into the area from abroad than moved to other countries.

Census Bureau estimates show that the Hudson Valley Region, like the state, suffered out-migration in excess of in-migration between 2010 and 2013 (27,662 net residents moved out). International in-migration helped offset losses (26,346 net residents moved in from abroad). Combined, the result is an estimated net loss of 1,316 residents.

Orange County suffered a bigger net loss of population due to domestic out-migration between 2010 and 2013 than other Hudson Valley counties; 7,329 net residents left Orange County (nearly two percent) during that time. Meanwhile, only 2,294 residents moved to Orange County from other countries. The net loss was 5,035 residents. Orange County is the second largest county in the Hudson Valley Region by population, yet its out-migration losses exceed those of the region's largest county, Westchester, which has more than twice as many residents.

Population

Residents over age 65 represent a smaller percentage of Orange County's population than they do in the region, the state, or the nation.

It is important to remember that the Hasidic community of Kiryas Joel in Orange County has a disproportionate number of children to adults. Kiryas Joel residents do not enroll in public schools or participate in the workforce at the same rates as

33 Cornell PAD

members of other communities. In the 2008-2012 American Community Survey, Kiryas Joel had the lowest median age of any municipality with 10,000 residents or greater in the nation (11.4 years).³⁴ In 2010, the village of Kiryas Joel comprised about 5.4 percent of the Orange County population (about 20,200 residents).³⁵ Because these residents do not participate in the workforce at the rate of those in other communities, the youth of Kiryas Joel might not help alleviate the challenges posed by a generally aging population.

Percentage of Residents over Age 65 - 2015 Projection

(Source: Cornell PAD)

Orange County (2015 Projection)	12.4%
Hudson Valley (2015 Projection)	14.8%
New York (2015 Projection)	14.6%
United States (2013 Census 3-year Estimate)	13.7%

Looking ahead, the percentage of older residents in Orange County will go up, but it will still be less than Hudson Valley as a whole.

Percentage of Residents over Age 65 - 2030 Projection

(Source: Cornell PAD)

Orange County (2030 Projection)	16.8%
Hudson Valley (2030 Projection)	18.5%
New York (2030 Projection)	18.3%

The age of residents has important implications for the future. As retirees leave the workforce, many communities across the nation will not have workers to replace them. Young people, age 0-19, comprise the largest share of the Orange County population.

Figure 3.12 Median Age

County	Median Age (2010 Census)
Dutchess County	40.20
Orange County	38.20
Putnam County	41.90
Rockland County	36.70
Sullivan County	41.70
Ulster County	42.00
Westchester County	40.00
TOTAL Hudson Valley Region	40.10
New York State	39.40
United States	35.80

Because it has a younger population overall, Orange County may fare better than neighboring counties when it comes to filling job vacancies resulting from retirement of the Baby Boom generation. To translate this statistic into workforce value, the County (as well as SUNY Orange) must focus on:

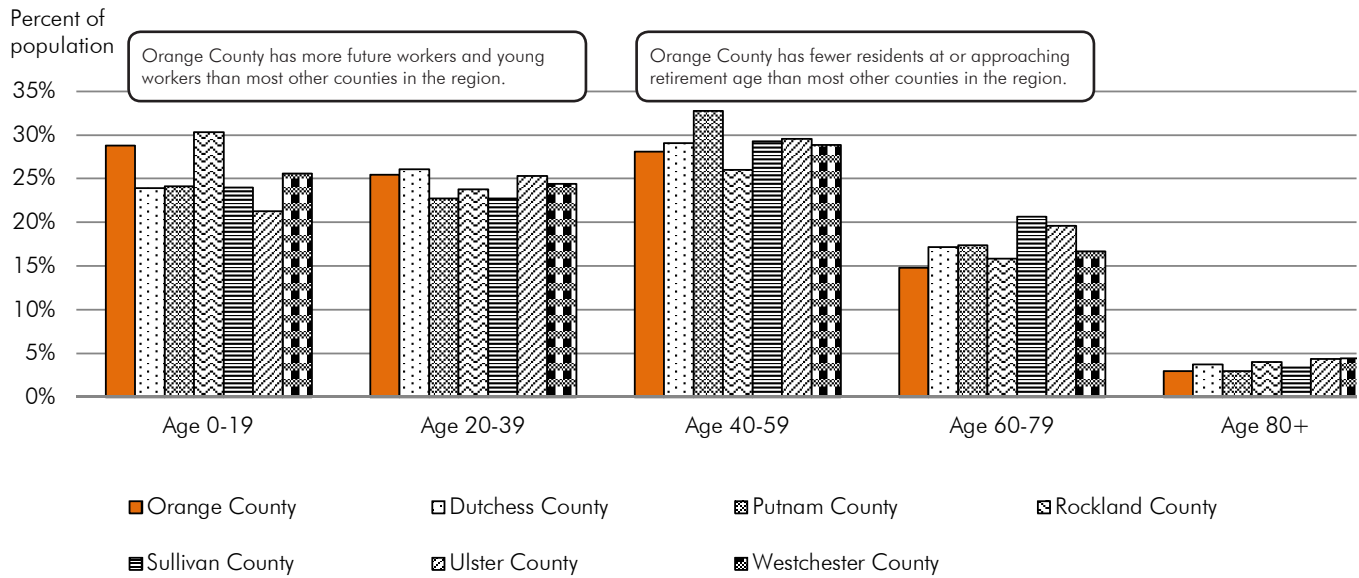
- Preparing K-12 students for career paths that benefit the local workforce and motivating them to attend local colleges.
- Keeping young people in Orange County as residents and workers.
- Engaging rural and culturally removed residents in workforce preparation efforts.

³⁴ Business Insider.com "Here's the Youngest Town in Every State," <http://www.businessinsider.com/youngest-place-map-2014-9>

³⁵ US Census Bureau Quick Facts; comparison of Orange County, NY and Village of Kiryas Joel.

Figure 3.13 Age Groups in Hudson Valley Region Counties

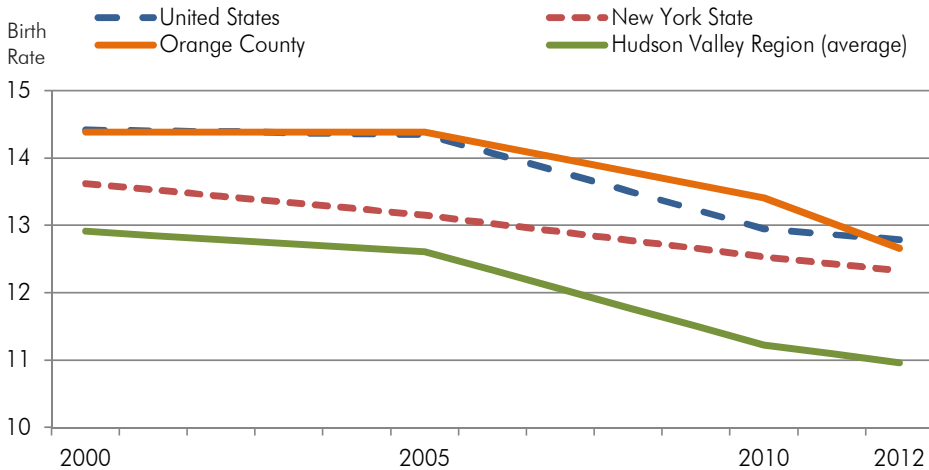
(2015 Projection, Cornell Program on Applied Demographics)



Birth Rates

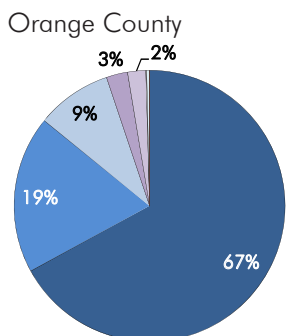
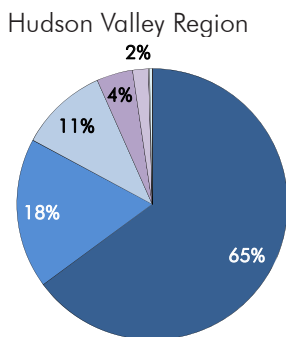
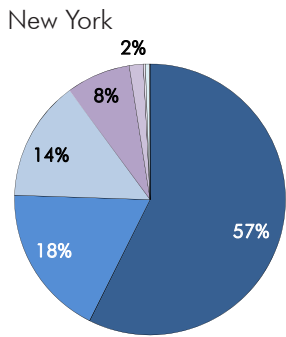
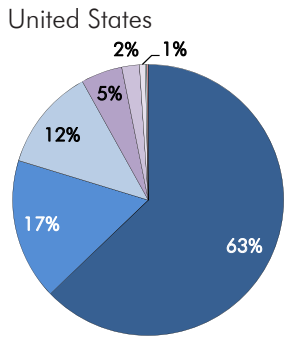
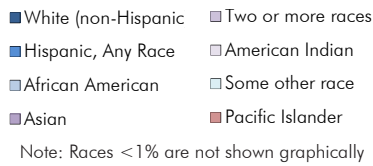
The birth rate (live births per 1000 residents) in Orange County exceeded the national, state, and regional birth rates between 2005 and 2011. The Kiryas Joel community has the highest birth rate in Orange County. The average birth rate of Hudson Valley region, which includes Orange County, is well below the national, state, and Orange County birth rates.³⁶

Figure 3.14 Birth Rates 2000-2012



³⁶ Sources: US Census data and estimates; National Vital Statistics System Homepage (cdc.gov); Cornell Program on Applied Demographics; New York State Vital Statistics (www.health.ny.gov)

Figure 3.15 Racial makeup of the population, U.S. Census 2013 3-year Estimate



Racial Diversity

While the Hudson Valley region racial makeup resembles that of the nation, it has a higher percentage of non-Hispanic whites, and fewer African Americans and Asians by percentage than New York State and the nation. When comparing Orange County to the nation, to New York State, and to the Hudson Valley region, Orange County has the highest percentage of non-Hispanic whites and Hispanics of any race. Orange County has fewer African Americans by percentage and fewer Asians by percentage than the region, state, and nation.

The Millennial generation - currently age 18 to 33 - is the most diverse generation. Many are the first U.S.-born children of immigrants who came to the U.S. in the late twentieth century. Future generations will be even more diverse. Millennials are known as independent optimists, despite the facts that they carry more debt and reached adulthood under the shadow of the recent recession. Many Millennials are tech-immersed digital natives, and these individuals will be the business leaders of the next few decades.

A University of Minnesota Law School Institute on Metropolitan Opportunity study, "America's Racially Diverse Suburbs: Opportunities and Challenges," released in July 2012 studied the effects of racial diversity on suburban communities.

- In 2012, 44 percent of suburban residents lived in racially diverse communities - municipalities ranging from 20-60 percent non-white - up from 38 percent in 2000.
- Racially diverse suburbs are growing faster than white suburbs, and the number of diverse neighborhoods in suburbs is now more than twice the number found in central cities.
- Racially diverse suburban communities have many attractive features, including relatively strong tax bases, low poverty rates, and strong local economies.
- Diverse communities are more walkable and energy efficient.
- Diverse communities have higher graduation rates for minority students, better access to college and middle-income jobs, better race relations, greater civic engagement by all, and enhanced ability to cope with America's increasingly diverse workplaces.

Workforce

The Nation

The United States Bureau of Labor Statistics (BLS) prepares projections for occupations and industries based on the overall economy and industry-specific data. Between 2012 and 2022, occupations and industries related to healthcare are projected to add the most new jobs. Occupations that typically require postsecondary education for entry are expected, on average, to grow faster than occupations that require a high school diploma or less. Total employment is projected to increase 10.8 percent, or 15.6 million jobs, during the decade.³⁷

Labor Force and the Aggregate Economy

- Slow population growth and decreasing overall labor force participation rate (due to an aging population and the recent recession) are expected to lead to slow civilian labor force growth through 2022 and beyond.
- In October 2014, the labor force participation rate was at its lowest rate since 1978 - 62.7% of the population age 15 and older are employed or are actively looking for work.³⁸
- While slow labor force growth often slows GDP growth, the percent change of GDP is increasing faster than expected. This could be due to import and export conditions, federal government spending, and personal spending.³⁹

Industry and Occupation Employment Projections⁴⁰

- Occupations and industries related to healthcare are projected to add the most new jobs between 2012 and 2022.
- Health care and social assistance are projected to grow at an annual rate of 2.6 percent, adding 5.0 million jobs between 2012 and 2022. This accounts for nearly one-third of the total projected increase in jobs.
- Employment in construction is expected to grow 2.6 percent annually. This equates to 1.6 million new jobs nationwide, the third-largest growth among all major industry sectors. However, construction is not expected to meet its previous peak level of employment (7.7 million in 2006).
- Five industry sectors are projected to have decreases in employment: manufacturing (-549,500); federal government (-407,500); agriculture, forestry,

37 Bureau of Labor Statistics Employment Projections: 2012-2022 Summary; <http://www.bls.gov/news.release/ecopro.nr0.htm>

38 "Labor Force Participation Falls To Its Lowest Rate Since 1978," Andy Kiersz, *Business Insider*, 3 October 2014. Retrieved online 6 January 2015.

39 "News Release: Gross Domestic Product: Third Quarter 2014 (Third Estimate)." *Bureau of Economic Analysis*. U.S. Department of Commerce, 23 Dec. 2014. Web. 12 Mar. 2015.

40 United States Bureau of Labor Statistics, Employment Projections: 2012-2022 Summary, 13 December 2013. www.bls.gov. Retrieved online 6 January 2015.

fishing, and hunting (-223,500); information (-65,200); and utilities (-56,400). In the manufacturing industry, there will be job openings due to replacement even though net job losses are predicted.

- Four major occupational groups are projected to grow more than 20 percent (nearly double the overall growth rate) from 2012 to 2022: health-care support occupations (28.1 percent); healthcare practitioners and technical occupations (21.5 percent); construction and extraction occupations (21.4 percent); and personal care and service occupations (20.9 percent).

Workforce Education and Training⁴¹

- Sixty-three percent of the occupations projected to grow fastest from 2012 to 2022 typically require some form of postsecondary education for entry. It is important to recognize that occupations that are growing the fastest do not always represent the greatest number of jobs available or the best opportunities for advancement.
- Service occupations such as personal care aides, home health aides, and medical assistants are among those projected to employ the most people through 2022, but salaries for these occupations are often low (figure D.5).
- Occupations typically requiring postsecondary education for entry generally had higher median wages (\$57,770) in 2012 and are projected to grow faster (14.0 percent) between 2012 and 2022 than occupations that typically require a high school diploma or less (\$27,670 and 9.1 percent).
- Occupations that typically require an apprenticeship are projected to grow 22.2 percent from 2012 to 2022, faster than any other on-the-job training assignment.

Job Openings due to Replacements and Retirements⁴²

- Over the 2012-22 decade, there will be an estimated 50.6 million job openings, but more than two-thirds (67.2 percent) are anticipated to be jobs available due to replacements and retirements.
- For most occupations, openings due to replacement are projected to exceed openings from growth.

Often employees that replace retirees are promoted from within a company. This means that businesses must be prepared to train their rising management and technical employees in preparation for increased retirements through 2022. As skilled employees advance, employers will value entry-level employees who are well prepared with education and soft skills.

Figure 3.17 shows the jobs gained or lost by industries in the past (2002-2012) and projections for the future (2012-2022). Many industries that were losing jobs between 2002 and 2012 are projected to gain jobs. Although manufacturing is still projected to lose jobs nationwide, it shows far fewer losses in the next decade than during the last ten years.

⁴¹ *ibid.*

⁴² *ibid.*

Figure 3.16 National Job Openings for Different Levels of Education Sorted by Number of Job Openings (2012-2022)

(U.S. Bureau of Labor Statistics)

Entry-level Education Required	Job Openings 2012-2022 (in thousands)	Annual Salary for jobs with this Education Requirement*	Occupations with this education requirement with the most job openings 2012-2022
High school diploma or equivalent	17,668	\$37,902	Customer service representatives Office clerks, general Secretaries and administrative assistants (except legal, medical, and executive) Childcare workers First-line supervisors of office and administrative support workers Retail salespersons
Less than high school	15,915	\$21,304	Combined food preparation and serving workers, including fast food Cashiers Waiters and waitresses Laborers and freight, stock, and material movers (by hand) General and operations managers
Bachelor's degree	8,618	\$70,270	Accountants and auditors Elementary school teachers (except special education) Secondary school teachers (except special and career/technical education) Management analysts Nursing assistants
Postsecondary non-degree award	3,067	\$34,630	Heavy and tractor-trailer truck drivers Licensed practical and licensed vocational nurses Medical assistants Hairdressers, hairstylists, and cosmetologists
Associate's degree	2,270	\$56,370	Registered nurses Preschool teachers (except special education) Dental hygienists Paralegals and legal assistants Medical and clinical laboratory technicians
Doctoral or professional degree	1,427	\$108,957	Lawyers Physicians and surgeons Physical therapists Pharmacists
Master's degree	951	\$65,996	Health specialties teachers, postsecondary Educational, guidance, school, and vocational counselors Education administrators, elementary and secondary school Healthcare social workers Education administrators, postsecondary Mental health counselors
Some college, no degree	643	\$32,040	Teacher assistants Computer user support specialists Computer, automated teller, and office machine repairers

* Weighted average based on 2012 median annual wage

Green Occupations

The emerging fields of clean energy production and environmental protection showed job growth from 2000-2006 at a far faster rate than any other occupations. The Bureau of Labor Statistics projected 52 percent growth rate of these jobs between 2000 and 2016. Unfortunately, due to budget cuts, the Bureau of Labor Statistics no longer tracks Green Jobs. However, O-Net (a part of the American Job Center network) lists the following occupational sectors as being key to the green economy:

- Renewable energy generation
- Transportation
- Energy efficiency
- Resource-efficient construction
- Energy trading
- Energy and carbon capture and storage
- Research, design, and consulting services
- Environment protection
- Agriculture and forestry
- Manufacturing
- Recycling and waste reduction
- Governmental and regulatory administration

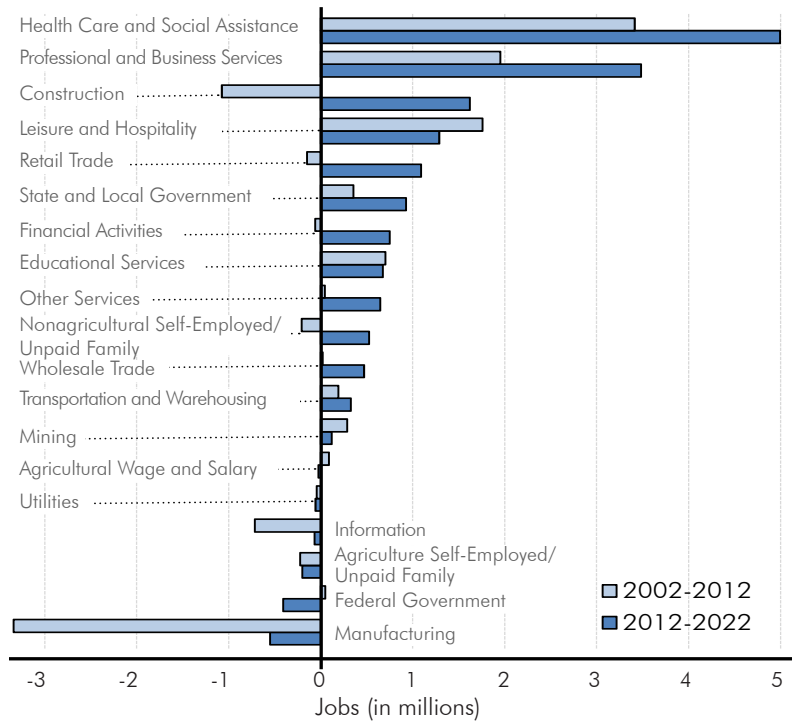
“Green” is becoming regular practice in many industries; green jobs are difficult to distinguish from other service providing or professional jobs. SUNY Orange can expect continued demand for graduates ready to work in these occupations as a matter of course, not necessarily as a consequence of increased “greenness”.



Figure 3.17 Historic and Projected Job Gains/Losses by Industry 2002-2022

(U.S. Bureau of Labor Statistics)

NOTE: Categories are determined by Bureau of Labor and Statistics North American Industry Classification System (NAICS)



New York

Across the nation, since the 1970s, employment in manufacturing has been declining while employment in professional services has increased. This trend is more pronounced in New York due to the high concentration of professional services jobs in the state. The globalization of production will continue to diminish demand for the state’s manufacturing labor. Only three regions in the state, the Capital Region, Western New York, and the North Country, reported growth in manufacturing between November 2013 and November 2014. Statewide labor market highlights include:⁴³

Sectors with job growth

- Professional and business services added the most jobs (+35,800) of any major industry sector between November 2013 and November 2014. Over the past year, sector job gains were mostly in professional, scientific and technical services (+18,100), and administrative and support services (+15,600).
- Private educational and health services had the second largest increase in jobs (+35,200) between November 2013 and November 2014. Sector employment gains were centered in health care and social assistance (+34,300), especially ambulatory health care services (+23,200).
- The third largest employment increase over the past year was registered in leisure and hospitality (+18,100), with most sector gains in accommodation and food services (+16,100), especially food services and drinking places (+13,900).

⁴³ New York State Department of Labor, Press Release 18 December 2014. <http://labor.ny.gov/stats/pressreleases/pruistat.shtm>

Sectors with job losses

- Over the past 12 months, New York State and local governments lost more jobs (-8,900) than any other major industry sector in the state, with job losses greatest at the local level (-8,200), especially local elementary and secondary schools (-2,600).
- Between November 2013 and November 2014, manufacturing job losses (-6,100) were split between nondurable goods (-3,100) and durable goods (-3,000).

Quality Workforce Attracts Business

Area Development Magazine’s 2013 Corporate Survey results communicate that *skilled labor is the most important factor for companies seeking to relocate*. In the online article “Skilled Labor Tops the List,” site selection professional Gary Yates wrote:

*Slightly more than 58 percent of survey participants say [skilled labor] is “very important” and nearly 37 say it is “important.” In contrast, only 14 percent say that availability of unskilled labor is “very important.” For advanced manufacturing concerns, skilled labor is particularly critical - and the regions that are aggressively investing in work force development are winning the competition for these companies. Seventy-one percent of respondents report that advanced skills, such as machine tool programming, are what unemployed workers lack.*⁴⁴

Another *Area Development* article describes the essential relationship between the private sector and workforce development efforts:

Creating a sustainable, flexible, evolving workforce requires a number of stakeholders to pull together — for the long run. It cannot be the responsibility of one entity, organization, or institution. Five pillars of the area economy need to come together with a common goal and vision to develop and maintain the modern workforce:

- The **private sector** must embrace its role in ongoing education and training.
- Local and State **governments** will need to become direct partners with business and educational institutions to develop policies that encourage and reward skills development, not simply rewarding job creation.
- **Educational institutions** — where the development of creativity and innovation, as well as soft and technical skills, should begin — need to become partners with business and government to create a continuum of education and training.
- The **workforce** itself must accept that prosperity requires lifetime learning to meet the needs of continually evolving skills requirements.
- **Social institutions** that are already dedicated to workforce development are more nimble than companies and governments. Philanthropic organizations must be creative in developing and funding strategies that invest in skills development for untrained members of communities that are not contributing to growth.⁴⁵

The *Area Development* survey also asked business leaders what factors prompt them to leave communities. High taxes, excessive government regulation, and

Figure 3.18 Most Valued Site Selection Factors among Executives Surveyed

(Area Development Magazine 2014 Corporate Executive Survey)

Combined Ratings CORPORATE SURVEY 2013*				
Ranking	Site selection factors	2012	2013	(2012 ranking)
1	Availability of skilled labor	95	89	(3)**
2	Highway accessibility	94	90	(2)
3	Labor costs	91	91	(1)
4	Occupancy or construction costs	87	83	(6)
5	Availability of advanced ICT services	85	85	(4)
6	Available buildings	83	78	(8)
7	Corporate tax rate	82	79	(7)
8	State and local incentives	82	71	(13)
9	Low union profile	81	74	(10)
10	Energy availability and costs	81	81	(6)
11	Tax exemptions	81	76	(9)
11T	Right-to-work state	81	73	(11)
13	Available land	80	59	(18)
14	Expedited or “fast-track” permitting	76	67	(15)
15	Proximity to major markets	76	72	(12)
16	Availability of long-term financing	75	83	(17)
17	Environmental regulations	72	71	(15T)
18	Inbound/outbound shipping costs	71	84	(16)
19	Proximity to suppliers	68	65	(19)
20	Raw materials availability	81	50	(23)
21	Accessibility to major airport	59	53	(21)
22	Proximity to technical college/training	54	50	(22)
23	Training programs	52	55	(20)
24	Availability of unskilled labor	49	43	(26)
25	Railroad service	29	44	(24)
26	Waterway or ocean port accessibility	20	20	(26)
Ranking	Quality of life factors	2012	2013	(2012 ranking)
1	Low crime rate	81	79	(1)**
2	Healthcare facilities	80	70	(2)
3	Housing costs	75	89	(4)
4	Ratings of public schools	73	83	(6)
6	Housing availability	72	70	(2T)
6	Recreational opportunities	88	63	(8)
7	Colleges and universities in area	70	62	(8)
7T	Climate	70	56	(7)
9	Cultural opportunities	55	49	(9)

* All figures are percentages and are the total of “very important” and “important” ratings of the Area Development Corporate Survey and are rounded to the nearest tenth of a percent.
** 2012 Ranking

44 <http://www.areadevelopment.com/Corporate-Consultants-Survey-Results/Q1-2014/corporate-exec-survey-analysis-Gary-Yates-JLL-023491.shtml>

45 <http://www.areadevelopment.com/laborEducation/Q4-2014/creating-sustainable-flexible-evolving-workforce-29928745.shtml>

labor costs led the list.⁴⁶ These are challenges that New York struggles with. Due to taxes, regulation, and the labor environment, New York often falls on the bottom of “business friendliness” rankings.

Hudson Valley Region and Orange County

While the “business friendliness” across New York is perceived to be lacking, regions can improve workforce quality independently to help attract business. Below, the brief summary of a case study prepared by Camoin Associates of Saratoga Springs, NY, illustrates how coordinated workforce development efforts can benefit the business stakeholders, the educators, and the workers.

GlobalFoundries, the international semiconductor company that recently bought I.B.M.’s chip manufacturing factory in Fishkill, NY (Dutchess County), found it had to fine-tune its hiring approach when it expanded in Saratoga County, NY. Initially, the company worked closely with Hudson Valley Community College to develop a two-year AAS in semiconductor fabrication.

Despite the incentives of near-certain employment in a well-paying job, about one-half of students were not succeeding in the program, reportedly due to lack of preparation in high school math and science. GlobalFoundries found that it needed to import mid-level workers from other areas because the local workforce was not meeting expectations within the company’s required timeframe. To improve the situation, HVCC and NYSERDA initiated a collaborative program to vertically integrate the college’s TEC-SMART program with local elementary, secondary, and post-secondary schools, in hopes that students would gain the knowledge required to follow solid career pathways to STEM careers. The program is called Clean Technologies & Sustainable Industries (CTSI). Since CTSI started in 2011, the Early College program has grown in enrollment each year and is offered in twenty school districts. Seventy-one percent of the 2011-2012 cohort enrolled at HVCC and 19 percent enrolled at four-year degree-granting institutions. As a consequence, GlobalFoundries is hiring local labor from a well-qualified pool of HVCC CTSI program graduates.⁴⁷

Key Industries

Families native to the Hudson Valley know how difficult it is to have key industries falter. In the 1980s and 1990s, I.B.M. reduced its Dutchess County staff by thousands over time, using retirements and financial incentives instead of layoffs. The effects were felt throughout the economy; real estate slowed down, charities suffered, retail sales fell. In the 1990s, Hudson Valley business leaders saw the I.B.M. contraction as a wake-up call urging counties to diversify business.⁴⁸

Today, with I.B.M.’s presence in the area further reduced, other industries such as food production and distribution, aircraft component manufacturing, real estate development, healthcare, energy, and manufacturing have contributed to a more diverse industry profile in the region.

Local governments work diligently to entice businesses to relocate or stay in the area. Property, mortgage, and sales tax incentives; grants; and infrastructure cost assistance were some of the measures used in 2014 to convince companies such as Pratt &

46 <http://www.areadevelopment.com/Corporate-Consultants-Survey-Results/Q1-2014/28th-Corporate-Executive-RE-survey-results-6574981.shtml>

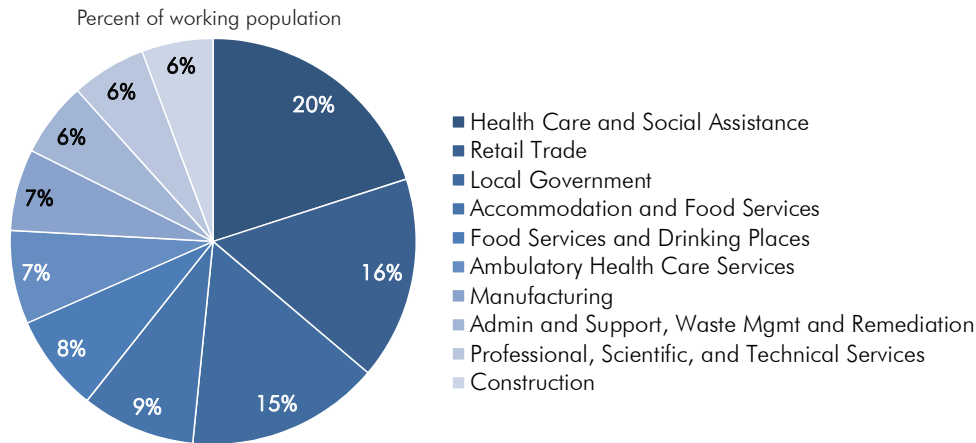
47 From “The curious case of GlobalFoundries and its workforce,” a series of articles published online by Camoin Associates in September, 2013. <http://www.camoinassociates.com/blog/post/THE-CURIOUS-CASE-OF-GLOBALFOUNDRIES-AND-ITS-WORKFORCE-7c-Ballson-Spa-Central-School-District.aspx>

48 <http://www.nytimes.com/1991/12/18/nyregion/hudson-valley-reels-under-impact-of-ibm-cuts.html?src=pm&pagewanted=2>

Whitney, Competitive Power Ventures, and Amy’s Kitchen to establish operations in Orange County.⁴⁹ In 2013, most of the workers in the region were employed in health care and social assistance, retail trade, or local government positions.

Figure 3.19 Industry Employment in the Hudson Valley, 2013

(NY Department of Labor)



The importance of the healthcare industry in the region is illustrated by the long-term occupational employment projections (2010-2020) for the Hudson Valley Region prepared by the New York Department of Labor. Occupations with the most openings and the highest salaries are found in health care, office and administrative, teachers, and sales. The broad categories listed in the Department of Labor Standard Occupational Classifications (SOC) include specific job descriptions. For example, the broad SOC category “maintenance and repair workers, general” includes workers that...

...perform work involving the skills of two or more maintenance or craft occupations to keep machines, mechanical equipment, or the structure of an establishment in repair. Duties may involve pipe fitting; boiler making; insulating; welding; machining; carpentry; repairing electrical or mechanical equipment; installing, aligning, and balancing new equipment; and repairing buildings, floors, or stairs.⁵⁰

In the Hudson Valley, there are many low-wage service and retail openings that do not offer good prospects for advancement. Yet, there are good opportunities in scientific fields, professional occupations, and medical occupations.

⁴⁹ <http://www.labor.ny.gov/stats/hud/>
⁵⁰ http://www.bls.gov/soc/soc_2010_definitions.pdf

The following table represents a combination of the fastest growing occupations and the occupations projected to have the most openings in the Hudson Valley through 2020. The top 25 occupations on each list were combined and sorted by median annual income. The number of job openings per year were scaled by color (green means fewer jobs, blue means more jobs).

Figure 3.20 Occupational Outlook 2010-2020 in the Hudson Valley
(NY Department of Labor and U.S. Bureau of Labor Statistics)

Title	Jobs/ Year	Annual Income	Education
Physician Assistants	21	\$92,970	Master's Degree
Anesthesiologists	15	\$92,290	Master's Degree
Physical Therapists	65	\$81,030	Doctoral or professional degree
Medical Scientists, Except Epidemiologists	23	\$79,840	Doctoral or professional degree
Personal Financial Advisors	42	\$75,320	Bachelor's Degree
Dental Hygienists	41	\$71,110	Associate's Degree
Diagnostic Medical Sonographers	16	\$66,410	Associate's Degree
Registered Nurses	660	\$66,220	Associate's Degree
Accountants and Auditors	320	\$65,080	Bachelor's Degree
Market Research Analysts and Marketing Specialists	70	\$60,800	Bachelor's Degree
Occupational Therapy Assistants	14	\$55,270	Associate's Degree
Sales Reps, Wholesale and Manuf, Except Tech and Science	280	\$54,410	HS or equivalent
Elementary School Teachers, Except Special Education	320	\$53,590	Bachelor's Degree
Healthcare Social Workers	41	\$50,820	Master's Degree
First-Line Supervisors of Office and Admin Support	380	\$50,190	HS or equivalent
Health Educators	13	\$49,210	Bachelor's Degree
Meeting, Convention, and Event Planners	31	\$46,260	Bachelor's Degree
Licensed Practical and Licensed Vocational Nurses	280	\$41,920	Postsecondary non-degree award
Mental Health Counselors	25	\$40,580	Master's Degree
Maintenance and Repair Workers, General	280	\$35,640	HS or equivalent
Secretaries & Admin Asst, Except Legal, Med. & Exec.	340	\$32,840	HS or equivalent
Medical Secretaries	44	\$31,890	HS or equivalent
Emergency Medical Technicians and Paramedics	46	\$31,270	Postsecondary non-degree award
Customer Service Representatives	370	\$30,870	HS or equivalent
Veterinary Technologists and Technicians	16	\$30,500	Associate's Degree

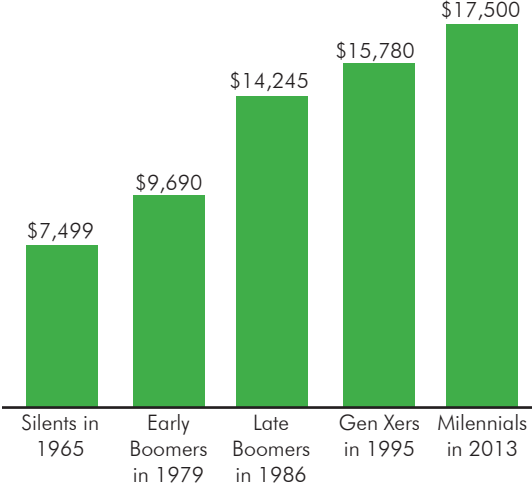
The number of good jobs available for candidates with Bachelor's or more advanced degrees shows the importance of career path planning in middle schools and high schools. Stackable certificates and two-year degrees are important credentials that help workers secure good entry level jobs in their chosen fields.

Student loan debt is perceived to be a large burden on graduates. However, student loan debt is often low-interest debt and could be considered "good debt" if students plan their career paths carefully. Students who complete degrees related to in-demand, good-paying occupations can have earning potential that offsets student loan burdens.

The income gap between workers with a Bachelor’s degree and those with only a high school diploma gets wider with every generation. Members of the millennial generation with college degrees will make \$17,500 more annually than high school graduate workers.⁵¹

Figure 3.21 Earnings Gap by Educational Attainment (2012 dollars)

The difference in median annual earnings of college and high school graduates when members of each generation were ages 25 to 32.



Source: Pew Research Center tabulations of 2013, 1995, 1986, 1979 and 1965 March Current Population Survey (CPS) Integrated Public Use Micro Samples
PEW RESEARCH CENTER

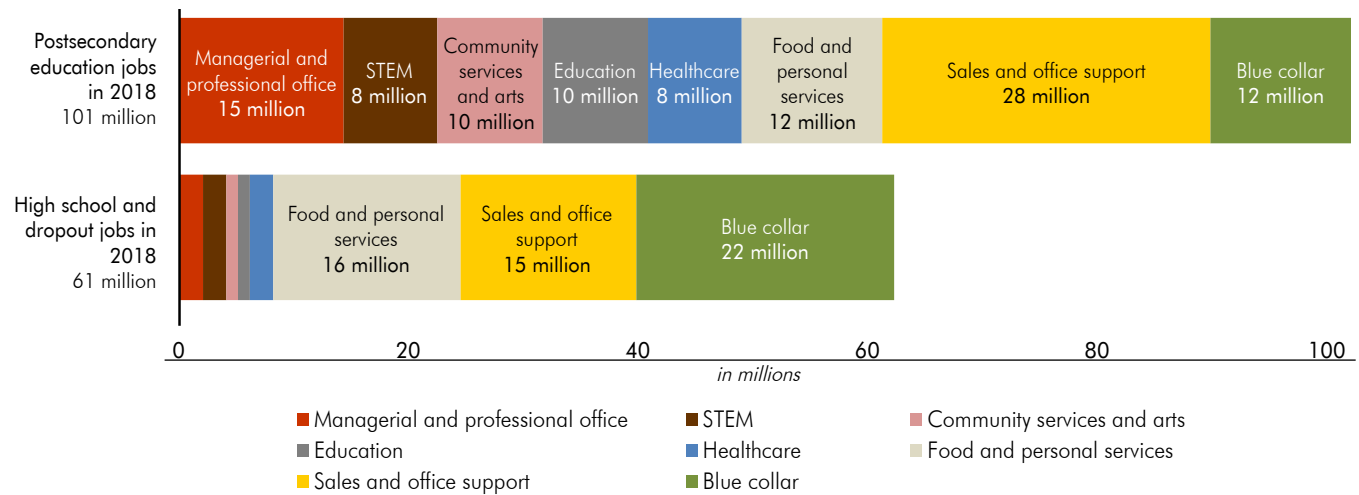
51 <http://www.usnews.com/news/articles/2014/02/11/study-income-gap-between-young-college-and-high-school-grads-widens>

Education

The Nation

Many occupations require first-time employees to have some post-secondary education and training, but not necessarily a degree. As shown in figure D.5, between 2012 and 2022 many job openings are projected for workers with no post-secondary education but their earning potential is very low. Savvy students can combine workplace experience and education to advance their careers or to begin work toward an advanced degree. Figure 3.22 illustrates the diminishing share of jobs for those with only a high school-education.

Figure 3.22 National Opportunities for Workers based on Education⁵²



According to the Chronicle of Higher Education, community college enrollments in for-credit programs continue to see increases due to: re-training of displaced workers; workforce demand for occupational training; increase in veteran enrollment due to the Post 9/11 G.I. Bill; and an influx of traditional-age students whose families cannot afford to send them to four-year institutions.

Many studies show that jobs of the future will require at least some post-secondary education. "Help Wanted: Projections of Jobs and Education Requirements Through 2018," published by the Georgetown University Center on Education and the Workforce, summarizes the trend:⁵³

⁵² Anthony P. Carnevale, Nicole Smith, Jeff Strohl; *Help Wanted: Projections of Jobs and Education Requirements Through 2018*; Georgetown University Center on Education and the Workforce; June 2010; Web; 27 February 2013.
⁵³ *ibid.*

By 2018, the U.S. will need 22 million new college graduates - but will fall short of that number by at least 3 million post-secondary degrees, Associate's or better. In addition, we will need at least 4.7 million new workers with postsecondary certificates. At a time when every job is precious, this shortfall will mean lost economic opportunity for millions of American workers.

One quarter of today's jobs were not listed among the Census Bureau's occupation codes in 2003 because the professions did not yet exist. Changes in technology have accelerated in the last decade making it even more difficult for educators to remain current.⁵⁴

Higher education today is challenged by:

- Innovative, rapidly developing classroom technology
- Student learning methods ("digital natives")
- Growing ubiquity of social media
- Integration of online, hybrid, and collaborative learning
- Competition for resources
- Pressure to close the skills gap
- Political pressure and reduced funding
- Perceived value vs. cost of higher education; student debt concerns
- Rise of data-driven student assessment
- Shift from students as consumers to students as creators
- Increased competition for fewer high school graduates due to steadily declining birth rates⁵⁵

"Institutional leaders are increasingly seeing their students as creators rather than consumers."

There is a growing trend on college campuses where students are engaged in more content creation and design, across the spectrum of disciplines.

More colleges, universities, and libraries are creating collaborative environments that facilitate activities that harness this creativity. Institutions are building physical spaces where students can learn and create together, integrating content- and product-centered activities as part of instruction.

This trend is gaining strength and should reach its full impact in the next several years.

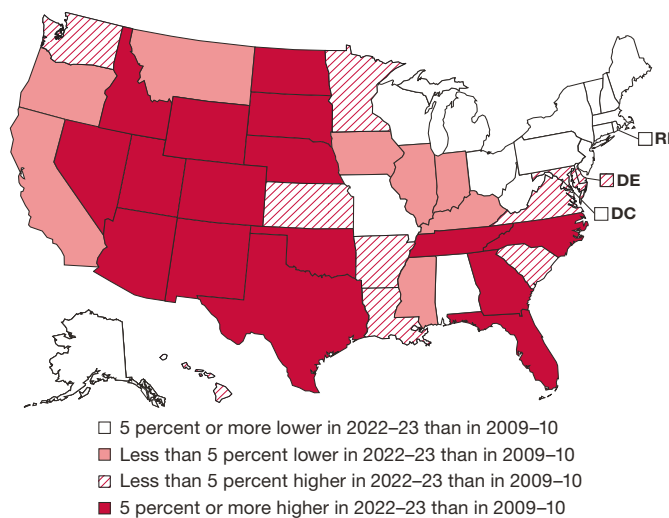
NMC New Horizon Report

<http://www.nmc.org/pdf/2014-nmc-horizon-report-he-EN.pdf>

Johnson, L., Adams Becker, S., Estrada, V., Freeman, A. (2014). NMC Horizon Report: 2014 Higher Education Edition. Austin, Texas: The New Media Consortium

The long-range effect of declining birth rates and diminished immigration is being felt in many school districts across the nation. There are fewer children in K-12 schools; therefore, colleges are competing for a smaller pool of graduates. In the map below, states that expect the most growth in the number of high school graduates (red) are states that benefit from net gains in domestic migration and immigration. States expecting the most decline (white) are losing residents to other states or nations.

Figure 3.23 Projected Percentage Change in Number of Public High School Graduates⁵⁶



54 "Preparing the Workers of Today for the Jobs of Tomorrow." www.whitehouse.gov. The White House, 1 July 2009. Web. 12 Mar. 2015.

55 Johnson, L., Adams Becker, S., Estrada, V., Freeman, A. (2014). NMC Horizon Report: 2014 Higher Education Edition. Austin, Texas: The New Media Consortium.

56 ibid.

Higher Education Trends

The following factors will have a significant impact on how colleges approach student recruitment and enrollment in the coming years⁵⁷:

- Key demographic projections indicate that the recruitment of traditional-age college students will become an even greater challenge. College enrollments will grow more slowly; a smaller proportion of college students will be traditional-age; and through 2019, the number of high school graduates will be flat or decrease in every region except the south.
- Students and their families will continue to look for value in a college education. In a Princeton Review survey, 79 percent of college applicants and their parents said the economy affected their decisions about applying to or choosing a college.
- The increasing demand for accountability from prospective students, as well as legislators and government officials, is requiring colleges to better track student outcomes.
- Increasing online access via mobile devices brings expectations of responsiveness by colleges in their communications with prospective students.
- Institutions compete for the best students, leading prospective students and their families to look at merit-based scholarship and grant offerings when selecting a college.

Stacked Certificates and Alternate Education Delivery Methods⁵⁸

Students are looking for more flexible pathways to achieve their academic goals and colleges are responding. Stackable certificates offer students an opportunity to earn credentials in small steps.

Industry and educators often work together to build curriculum for certification programs that directly relate to the acquisition of specific workplace skills.

- Certificates can build upon each other leading to third-party certificates, associate degrees, or workforce advancement.
- Instruction can include a flexible, blended combination of on-campus instruction, on-the-job training, and online education.

There is increased demand for certificate programs at two year colleges. Colleges and universities that embrace certificate programs can help students apply stacked certificates to advanced degrees, which could help students pursue higher education while keeping up with the demands of jobs and families. Ideally, colleges and universities will eventually all recognize certificates as credit-bearing.

Flipped Classrooms⁵⁹

New models for classroom-based instruction reserve face-to-face time for collaborative interaction. Lecture learning takes place outside the classroom.

- Instructors record and post video lectures on the Internet.
- Students view lectures and answer questions at their convenience on their

Active Learning Classrooms

Active Learning Classrooms are student-centered, integrated learning spaces using flexible design to facilitate a variety of instruction methods.

Active Learning classrooms:

- Help students exceed final grade expectations.
- Affect teaching-learning activities, even when the instructor attempts to hold these activities constant.
- Are not conducive to a lecture-based approach; student performance improves when instructors move to active, student-centered teaching methods.
- Are perceived in a largely positive light by students and instructors, but some adjustment of teaching techniques is necessary.

University of Minnesota Active Learning
General Purpose Classroom Initiative
<http://www.classroom.umn.edu/projects/alc.html>

57 "Trends for 2014: Five Factors Facing Private Higher Education." *Clients.thelawlogroup.com*. The Lawlor Group. Web. 12 Mar. 2015.

58 Fain, Paul. "Labor Department Grants May Be Paying off for Community Colleges and Students." *Insidehighered.com*. Inside Higher Ed, 14 May 2013. Web. 12 Mar. 2015.

59 Johnson, L. , Adams Becker, S. , Estrada, V. , Freeman, A. (2014). *NMC Horizon Report: 2014 Higher Education Edition*. Austin, Texas: The New Media Consortium.

computers or mobile devices.

- Students spend class time actively working with the instructor and collaborating with other students.
- Ownership of learning is shifted to the students.

Maker Spaces⁶⁰

Maker Spaces began to appear in the mid-2000s. They are collaborative environments in which students from all disciplines work side-by-side with a range of materials. They typically include traditional craft tools and digital equipment, such as laser cutters and 3D printers.

Incubator Spaces and Co-Working Spaces

These are spaces on campus that are available for public use. Such resources help institutions of higher education forge strong relationships with communities and businesses.

- “Co-Working” Spaces: Space for alumni to return to campus and work with one another and with current students.
- Incubator Spaces: Space and equipment that small, growing businesses can share for little or no cost.

An example of a Maker Space designed by Situ Studio at the New York Hall of Science



⁶⁰ ibid.

New York

New York ranks first in the nation in education according to the 2014 CNBC Top States for Business rankings (figure 3.24). Features that earned New York the education top spot are the quality and number of higher education institutions, partnerships between education and industry, funding, and traditional measures of K-12 success.

While education institutions achieved a high score in CNBC’s ranking, workforce did not. New York scored poorly in that category, but not necessarily due to workers’ overall education. Other factors considered in the rankings include the number of available workers, union membership, the states right-to-work laws, and the success of worker-training programs. While right-to-work laws are not causative agents of a good business environment, often organized labor is perceived as unfriendly to business.

New York has a well-established public higher education system to serve a range of populations and needs. The State University of New York (SUNY) has programs that act as catalysts for regional economic development and provide an affordable education. The 64 SUNY campuses are geographically dispersed (figure 3.25); educational opportunities are within commuting distance for virtually all New Yorkers, and many programs are also offered online. The SUNY system’s 64 institutions are divided into four categories, based on educational mission, types of academic opportunities available and degrees offered.

- University Centers
- University Colleges
- Technology Colleges
- Community Colleges

SUNY offers students short-term vocational/technical courses, certificate, Associate, and Baccalaureate degree programs, graduate degrees and post-doctoral studies.⁶¹

System-wide, SUNY captured 31 percent of New York high school graduates in 2013. SUNY Orange is mid-size among New York community colleges and is located in one of the most densely populated areas of the state.

Hudson Valley Region and Orange County

Residents of Orange County age 25 and older have not achieved the same levels of education as residents of other Hudson Valley Region counties. Sixty-two percent of Orange County adult residents have high school educations or less, compared to 53.9 percent in other Hudson Valley counties, 58.0 percent in New York State, and 63.0 percent in the nation. Looking ahead, if Orange County’s workforce of today were to compete for the jobs available in 2020, there would be an overabundance of high-school educated workers and a shortage of Associate’s degree and postsecondary certificate workers (figure 3.26).⁶²

⁶¹ www.suny.edu

⁶² US Census Bureau 2013 3-year estimates; New York State Department of Labor long-term employment projections 2010-2020.

Figure 3.24 Business Friendliness Ranking

CNBC’s annual ranking of states’ business friendliness uses tangible public data to gauge each state’s performance in ten broad categories. New York is one of the highest ranked in the innovation and education categories, but the cost of doing business is high. The number of possible points is shown in parenthesis.

- Cost of Doing Business (450)
- Economy (375)
- Infrastructure & Transportation (350)
- Workforce (300)
- Quality of Life (300)
- Technology & Innovation (300)
- Business Friendliness (200)
- Education (150)
- Cost of Living (50)
- Access to Capital (25)

New York State’s Ranking of Business Friendliness

Category	Score	2014 Rank	2013 Rank
Education	126	1	2
Technology & Innovation	249	3	1
Access to Capital	24	4	3
Quality of Life	176	21	22
Business Friendliness	93	29	30
Economy	189	34	14
Infrastructure & Transportation	141	38	42
Overall	1141	40	35
Workforce	105	43	45
Cost of Living	1	50	47
Cost of Doing Business	37	50	49

The whole report and methodology are available at:

<http://www.cnbc.com/id/101723185>

Scott Cohn, “America’s Top States for Business 2014: Our methodology,” 3 June 2014, CNBC.com

Figure 3.25 Sizes of SUNY Community Colleges and Population Density

(2010 Census Data; population map from www.andyarthur.org)

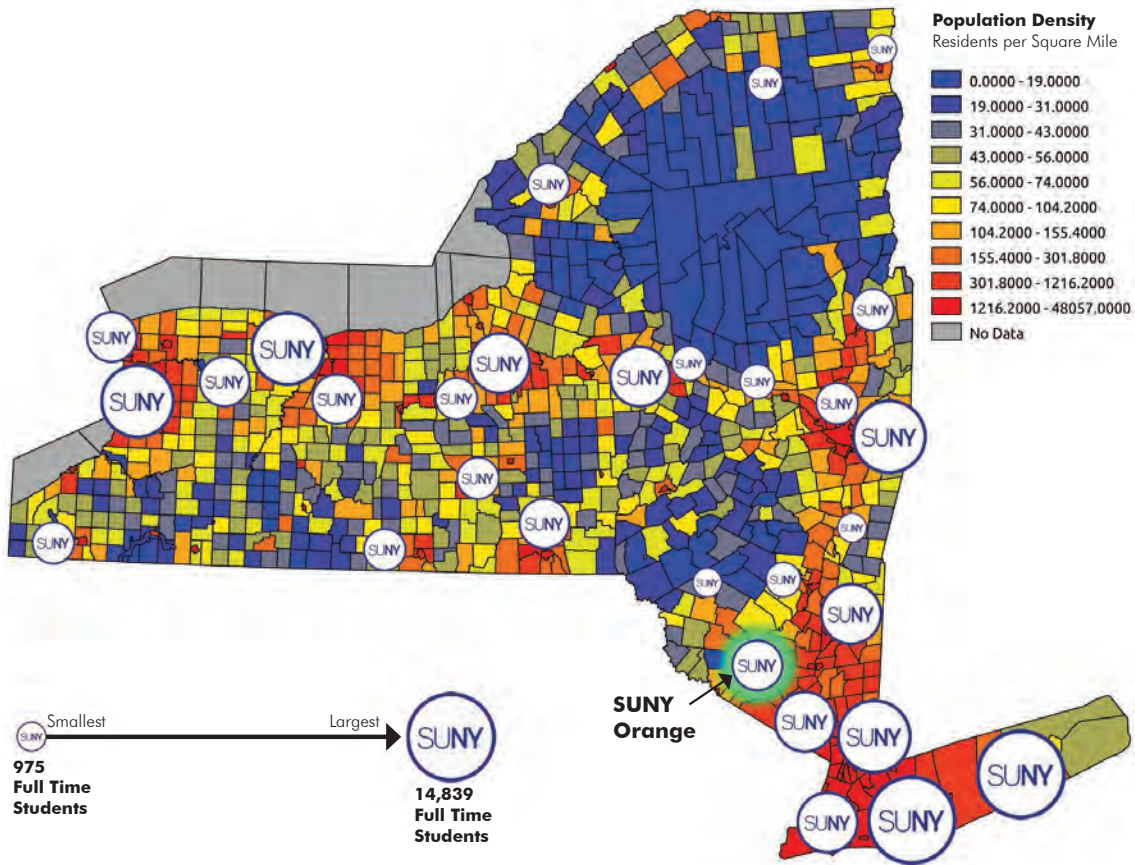
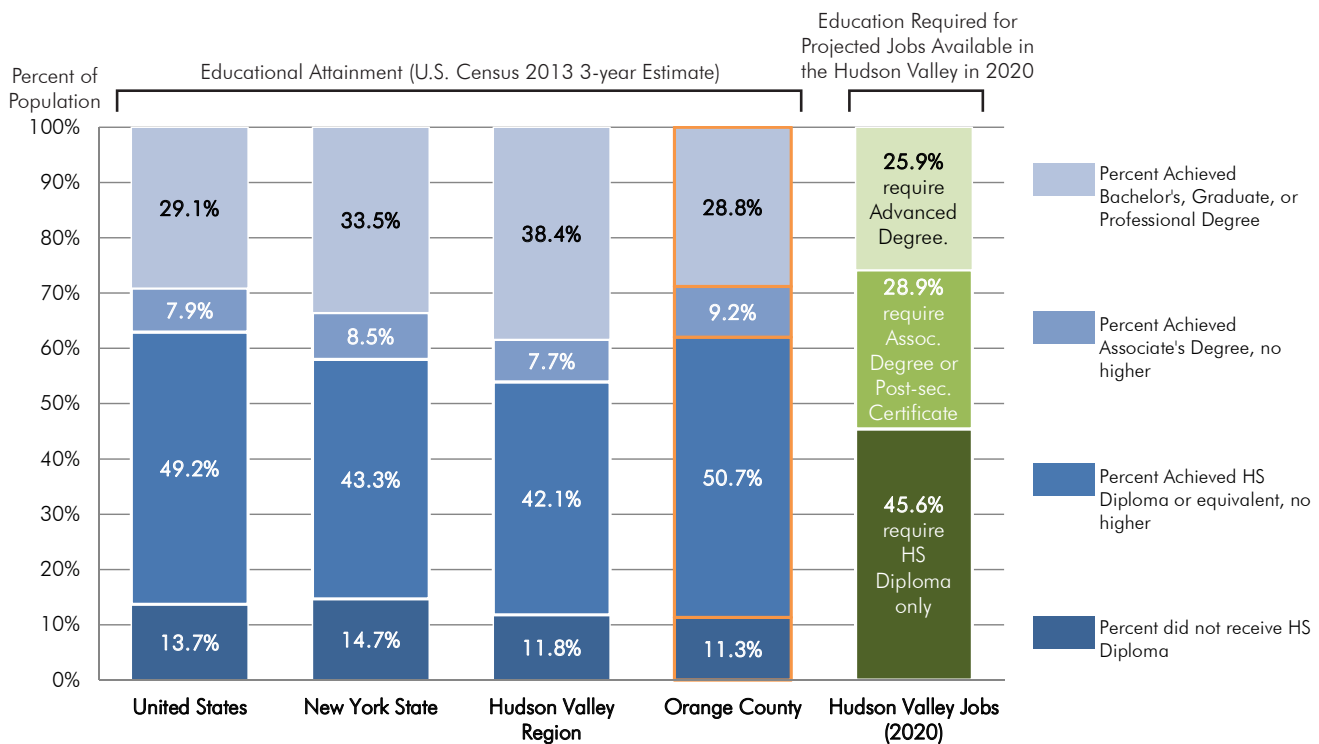


Figure 3.26 Education Attained by Residents Age 25 and Older Compared to Job Projections through 2020



Funding

The Nation

Community colleges have often been referred to as “the safety valve” for the neediest students: 2013-2014 average annual tuition and fees totaled about \$3,260, compared with the average annual tuition of \$8,890 for in-state public four-year colleges, according to the American Association of Community Colleges (AACC).⁶³ In recent years, community and technical colleges’ funding burden has shifted more heavily to the students from the states and other sources.

Figure 3.27 Revenue Sources of Two-year Colleges Nationwide

Revenue Source	2007-2008 percent contribution	2013-2014 percent contribution	Percent Change
Federal	14%	16.1%	+2.1%
State	36%	28.1%	-7.9%
Local	19%	17.3%	-1.7%
Tuition and Fees	16%	29.5%	+13.5%
Other	15%	9.0%	-6.0%

<http://www.aacc.nche.edu>

Figure 3.28 Sources of Student Aid Received Nationwide

NOTE: Students can receive aid from more than one source, so the totals per year may equal more than 100%.

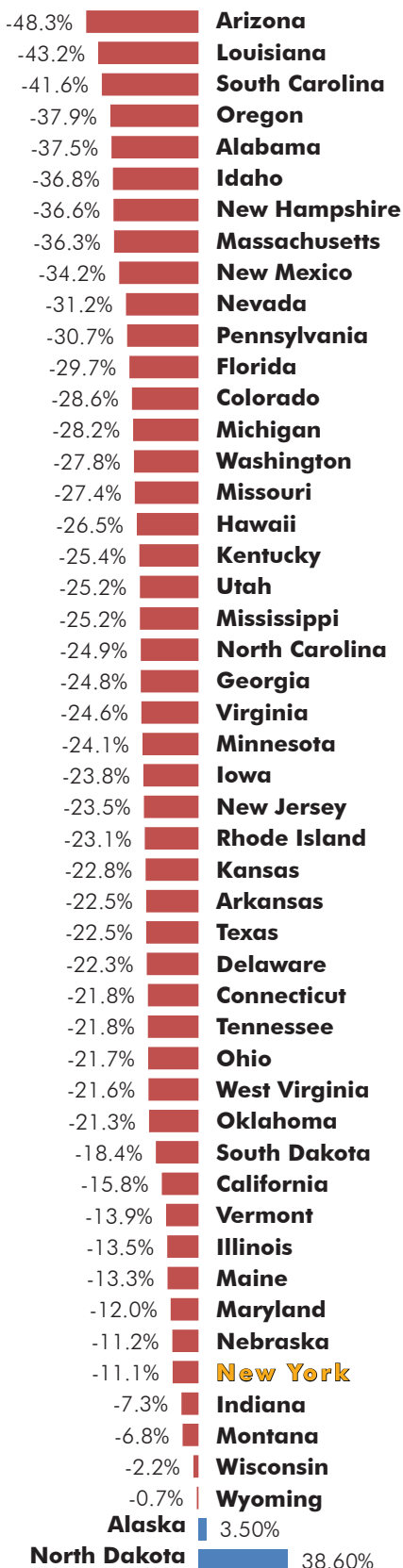
Revenue Source	2007-2008 percent of students receiving	2007-2008 percent of students receiving	Percent Change
No aid	54%	42%	-12%
Federal grants	21%	38%	+17%
Federal loans	10%	19%	+9%
State aid	13%	12%	-1%
Institutional aid	11%	13%	+2%

<http://www.aacc.nche.edu>

While there were expansions to Federal Student Aid programs that accompanied the Federal Stimulus and the 2010 Student Aid and Fiscal Responsibility Act, steep cuts to Pell grants, student loans, and research funding are proposed for 2015. The

63 American Association of Community Colleges fact sheet, <http://www.aacc.nche.edu/AboutCC/Pages/fastfactsfactsheet.aspx>

Figure 3.30 Percent change in state higher education spending per student, inflation adjusted (FY08-FY14)

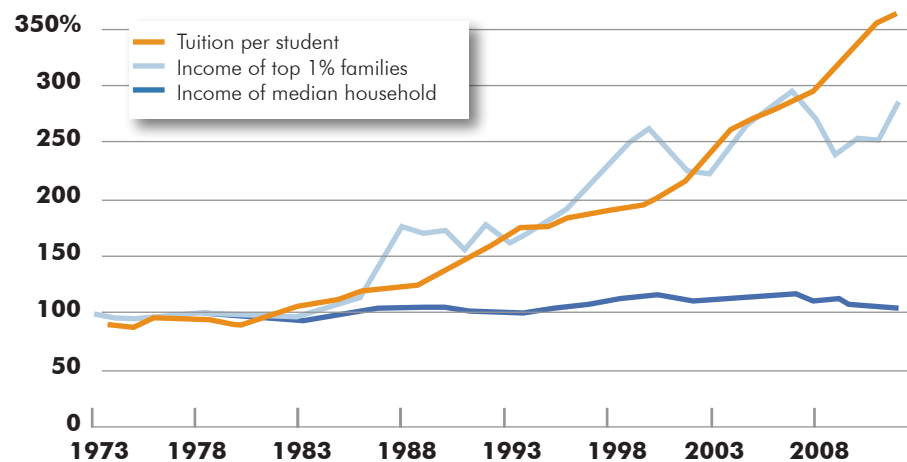


proposed cuts are indicative of an appetite to decrease federal spending. In addition, efforts are being made to improve the return on investment for higher education, for both students and prospective employers, such as:⁶⁴

- Expansion of apprenticeship training programs.
- Creation of manufacturing innovation institutes across the nation over the next ten years to accelerate the development and adoption of cutting-edge manufacturing technologies for making new, globally-competitive products.
- Realignment of training efforts between two-year colleges and industry to ensure students are prepared for existing jobs.
- Establishment of a new college rating system to encourage colleges to focus on affordability and value.

In May 2014, the Center on Budget and Policy Priorities issued a report on higher education funding. The report indicates that forty-eight states - all except Alaska and North Dakota - are spending less per student than they did during the recession (figure 3.30).⁶⁵ The average state spending per student is \$2,036, 23 percent, less than before the recession. Furthermore, tuition has increased far faster than household incomes in the past four decades.

Figure 3.29 Inflation-adjusted average tuition and fees at public 4-year institutions and income for select groups (1973=100%)⁶⁶



*Tuition per student and income levels, adjusted for inflation, as a percentage of 1973-74 price levels. Note: Years shown and income data are for the calendar year. Tuition data cover the school year beginning in the calendar year.

Source: Center on Budget and Policy Priorities based on the College Board and Census Bureau Center of Budget and Policy Priorities | cbpp.org

⁶⁴ State of the Union 2014 Fact Sheet, http://www.whitehouse.gov/sites/default/files/sotu_2014_main_fact_sheet.pdf

⁶⁵ ibid.

⁶⁶ Michael Mitchell, Vincent Palacios, and Michael Leachman, "States are still funding higher education below pre-recession levels," Center of Budget and Policy Priorities, May 1, 2014. <http://www.cbpp.org/files/5-1-14sfp.pdf>

New York

State funding for New York colleges has dropped since its most recent peak in 2007, but it is well above the national average spending per FTE.

- Overall, New York’s higher education funding fell from its peak of \$5.43 billion in 2007 to \$4.72 billion in 2011; a 13 percent decline.
- Funding per full-time equivalent (FTE) student has fallen 17 percent since 2007.
- Despite this significant decline, New York’s funding per FTE student (\$8,532 in 2011) remains the eighth highest level in the nation.

As more students meet income-based eligibility requirements for state grants, New York’s Tuition Assistance Program (TAP) grant funding has diminished.

- Total New York State TAP grant aid fell from its 2004 peak of \$1 billion by 12% to \$920 million in 2011.
- The average award fell to \$2,967 in 2011, 4% less than in 2004.
- TAP grants were awarded to just 54% of students in 2011; in the past decade, the average share of students receiving TAP grants was 65%.
- Today, the maximum TAP award per individual is \$5,165.

Despite tuition increases, New York tuition at public four-year colleges is less than the national average. New York’s average tuition at public two-year colleges is more than the national average, but the costs have risen more slowly than in other states. Nationwide, in the past twenty years, tuition has increased 87 percent at public two-year colleges. In New York, the increase was 70 percent over the same period.⁶⁷

Because tuitions are increasing faster than incomes, average families are spending more than 30 percent of their annual income to pay for tuition, room and board, and fees at New York’s public four-year colleges. Not surprisingly, the amount of student debt has increased. However, completion rates at New York’s four-year schools are above the national average.

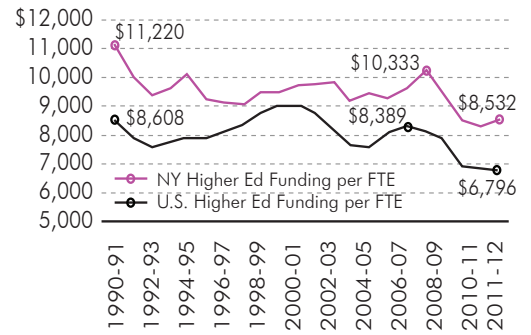
At New York two-year colleges, graduation rates are below the national average; 24.1 percent of community college students graduated on time (within 150 percent of two-years) in 2010.

In the following tables, ‘total in-district price’ is the cost of in-district tuition, fees, books, and supplies for off-campus students not living with family.

Figure 3.33 Costs, Financial Aid, and Graduation Rate Comparison⁶⁸

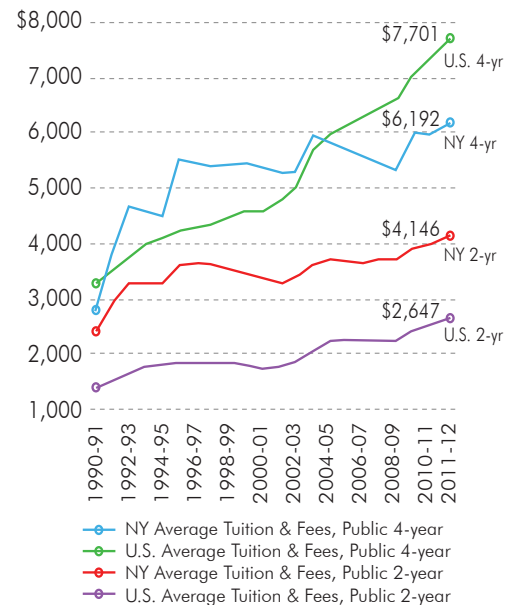
	Total in-district price 2011-2012	Average financial aid per student	Aid percent of total price	Graduation Rate 2012
SUNY Orange	\$15,652	\$4,793	30.6%	17.0%
Average of NY CCs	\$15,389	\$4,986	32.4%	22.8%
Average of US CCs	\$15,503	\$4,489	29.0%	27.1%

Figure 3.31 NY Spending per FTE



Graphic from “New York’s Great Cost Shift,” Author: Robert Hiltonsmith. Sources cited for graph data: Center for the Study of Education Policy, Grapevine, various years; National Center for Education Statistics, Digest of Education Statistics, various years; US Census Bureau; and US Bureau of Economic Analysis

Figure 3.32 NY Tuition Increases



Graphic from “New York’s Great Cost Shift,” Author: Robert Hiltonsmith. Sources cited for graph data: National Center for Education Statistics, Digest of Education Statistics, various years. Figures reflect in-state tuition

67 Robert Hiltonsmith, “New York’s Great Cost Shift,” Demos online (www.demos.org)

68 IPEDS Data Center, retrieved 14 November 2014.

Figure 3.34 NY Community College Costs, Financial Aid, and Graduation Rate Comparison⁶⁹

Institution Name	Total in-district price 2011-2012	Average financial aid per student	Aid percent of total price	Institution Name	2012 Graduation Rate (%)
Ulster County CC	\$13,083	\$5,826	44.5%	Herkimer County CC	30
Cayuga County CC	\$13,939	\$5,769	41.4%	Jamestown CC	30
Erie CC	\$12,930	\$5,070	39.2%	Fulton-Montgomery CC	28
Niagara County CC	\$12,833	\$5,027	39.2%	National Average	27.1
Sullivan County CC	\$16,428	\$6,384	38.9%	Columbia-Greene CC	27
SUNY Broome CC	\$12,349	\$4,731	38.3%	Finger Lakes CC	27
Jefferson CC	\$12,553	\$4,714	37.6%	Jefferson CC	27
Mohawk Valley CC	\$14,518	\$5,346	36.8%	Rockland CC	27
Genesee CC	\$14,132	\$5,174	36.6%	Cayuga County CC	26
Schenectady County CC	\$14,481	\$5,233	36.1%	Corning CC	26
Columbia-Greene CC	\$14,328	\$5,141	35.9%	Niagara County CC	26
Tompkins Cortland CC	\$15,865	\$5,681	35.8%	Hudson Valley CC	25
Corning CC	\$14,010	\$4,890	34.9%	Dutchess CC	24
SUNY Westchester CC	\$17,213	\$5,821	33.8%	Genesee CC	24
Dutchess CC	\$14,070	\$4,755	33.8%	SUNY Broome CC	24
Jamestown CC	\$15,890	\$5,340	33.6%	Ulster County CC	24
Clinton CC	\$15,132	\$5,013	33.1%	Mohawk Valley CC	23
Herkimer County CC	\$15,450	\$4,981	32.2%	Monroe CC	23
Monroe CC	\$16,089	\$5,167	32.1%	Tompkins Cortland CC	22
Fulton-Montgomery CC	\$16,708	\$5,160	30.9%	North Country CC	21
SUNY Orange	\$15,652	\$4,793	30.6%	Clinton CC	20
Adirondack CC	\$14,995	\$4,568	30.5%	Adirondack CC	19
National Average			29.0%	Suffolk County CC	19
Finger Lakes CC	\$16,728	\$4,740	28.3%	Erie CC	18
North Country CC	\$16,535	\$4,659	28.2%	Nassau CC	18
Rockland CC	\$16,645	\$4,346	26.1%	Onondaga CC	18
Suffolk County CC	\$15,888	\$3,893	24.5%	SUNY Orange	17
Hudson Valley CC	\$17,151	\$4,078	23.8%	Schenectady County CC	17
Nassau CC	\$23,307	\$5,331	22.9%	Sullivan County CC	16
Onondaga CC	\$17,376	\$2,967	17.1%	SUNY Westchester CC	10
Average of all NY CCs	\$15,389	\$4,986	32.4%	Average of all NY CCs	22.8

Hudson Valley Region and Orange County

In addition to State and federal financial aid, students at SUNY Orange can compete for twenty merit- and need-based scholarships offered to incoming freshmen. Regional businesses and professional organizations also offer scholarships, such as the Ulster Savings Charitable Foundation scholarship and the Business & Professional Women’s Club of Goshen scholarship.

Some students do not qualify for federal or state financial aid, but have demonstrated financial need. Such students may apply for SUNY Orange’s Grants-In-Aid program.

While the cost of living is higher in Orange County than the New York average and the national average, the rental occupancy rates in Orange County’s cities (2010 census) do not suggest that students would pay a premium for living in an apartment near campus.

⁶⁹ IPEDS Data Center, retrieved 14 November 2014.

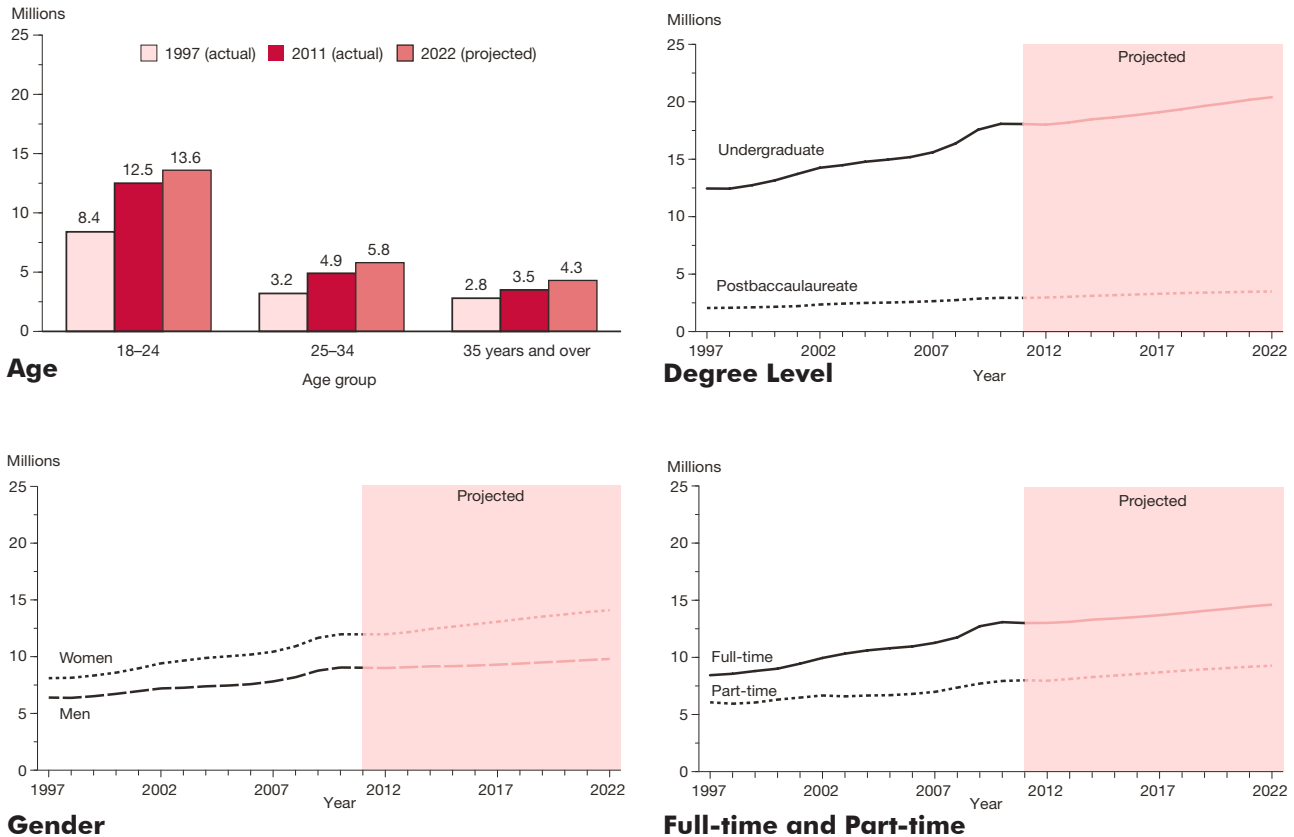
Enrollment and Demographics

The Nation

Despite the decline in the number of school-age children, more people than ever are pursuing higher education. While the rate of enrollment growth experienced during the recession was not sustained, the rate of higher education enrollment is projected to continue to grow moderately through the 2020s.

Much of the recent growth in higher education can be attributed to non-traditional students. Older students, with obligations such as jobs and families, represent forty percent of 2011 enrollment and are the fastest-growing group of higher education participants. Trends in gender, full-time vs. part-time, and undergraduate vs. graduate enrollment are expected to follow pre-recession patterns, as shown by the following graphs.

Figure 3.35 Projected Enrollment in Higher Education⁷⁰



⁷⁰ NCES Projections of Education Statistics to 2022, February 2014

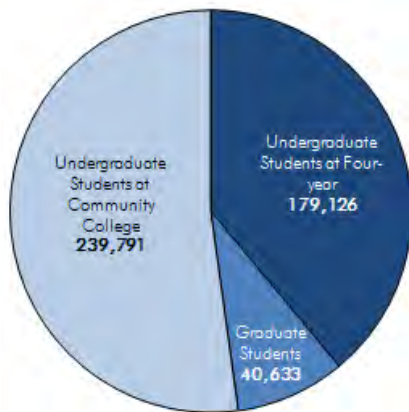
Community colleges deliver education to a variety of students through multiple modalities. Today, national enrollment in community colleges is consist of approximately 6,750,000 part-time and full-time students.⁷¹

In higher education as a whole, 49 percent of students were enrolled part-time in 2011. At community colleges in that same year, 59 percent of students were enrolled part-time.

New York

Figure 3.36 SUNY System 2014 Enrollment

(source: SUNY Fast Facts 2014)



More than half of all students enrolled in SUNY institutions in 2013 attended community colleges. FTE enrollment at SUNY community colleges rose through the recession, then fell 2.9% between 2009-2010 and 2012-2013.

The New York statewide on-time high school graduation rate increased to 74.9 percent in 2014 from 74.0 percent in 2013, but large achievement gaps remain for minority students in city districts. Regents Diplomas and Regents Diplomas with Advanced Designations are intended to be the primary diplomas issued for graduating high school students. Local diplomas are not typically issued in hopes that meeting the Regents standards will improve outcomes for graduates. Projections of the numbers of high school graduates in New York through 2019 show a projected loss of 16.5 percent from the most recent peak in 2008 due to fewer students enrolled in grades K-12.

Hudson Valley Region and Orange County

The SUNY Orange Academic Master Plan 2010-2015, prepared by the College’s Office of Academic Affairs in 2009, states that each year approximately 97 percent of SUNY Orange students are New York State residents and 83 percent are Orange County residents. Annually, about twenty-five percent of SUNY Orange students are registered as first-time college students.⁷²

SUNY Orange is mid-sized among SUNY community colleges. It is in one of the most densely populated areas of upstate New York, and the county population is growing faster than the rest of the state and region.

The New York State Education Department prepared projections in 2008 that suggested the number of graduates at Orange County high schools would increase by 1.95% between 2014 and 2019. Figure 3.37 shows the consultant’s projections of graduates through 2024 using headcounts of enrolled K-12 students in Orange County public schools in 2013 (NY State Education Department), population growth projections by age group (Cornell PAD), and 2014 Orange County high school on-time graduation rate of 84 percent (NY State Education Department).

The consultant’s projections suggest a 1.75% increase between 2014 and 2019. The projections suggest peak high school graduation numbers in 2016, and an overall percentage decrease of 2.7% between 2014 and 2024. A variable that would affect the outcome of this projection is a change in high school graduation rates. In 2013, the graduation rate at Orange County public high schools was 82 percent. A two-percent change in graduation rate would affect the number of projected graduates by around 100 students per year.

⁷¹ American Association of Community Colleges, Trends and Statistics, <http://www.aacc.nche.edu/AboutCC/Trends/Pages/enrollment.aspx>

⁷² SUNY Orange Academic Master Plan 2010-2015

Figure 3.37 Projections of Orange County Public HS Graduating Classes

GRADE	11	10	9	8	7	6	5	4	3	2	1
GRAD YEAR	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
2013 ENROLLMENT	4,627	4,985	5,278	4,807	4,666	4,612	4,448	4,553	4,433	4,254	4,408
2014	4,624	4,982	5,275	4,831	4,689	4,635	4,470	4,576	4,414	4,236	4,389
2015		4,979	5,271	4,828	4,713	4,659	4,493	4,599	4,436	4,217	4,370
2016			5,268	4,825	4,710	4,682	4,516	4,622	4,458	4,238	4,351
2017				4,822	4,707	4,679	4,538	4,645	4,481	4,260	4,373
2018					4,704	4,676	4,535	4,668	4,503	4,281	4,395
2019						4,673	4,532	4,665	4,525	4,302	4,416
2020							4,530	4,663	4,523	4,323	4,438
2021								4,687	4,547	4,346	4,427
2022									4,571	4,370	4,451
2023										4,393	4,474
2024											4,498
2025											
PROJECTED GRADUATES	3,884	4,182	4,425	4,051	3,952	3,925	3,805	3,937	3,839	3,690	3,778
Percent Change annual	-5.2%	7.7%	5.8%	-8.5%	-2.4%	-0.7%	-3.1%	3.5%	-2.5%	-3.9%	2.4%
Percent Change overall											-2.7%

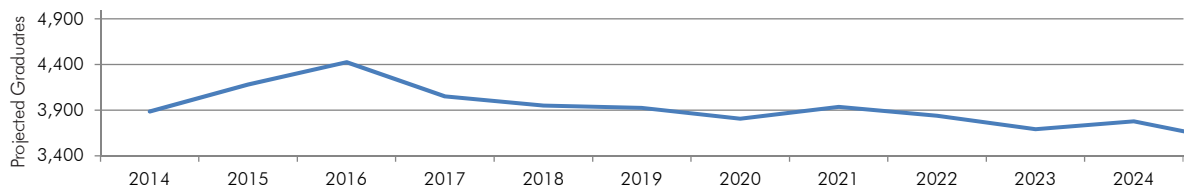


Figure 3.38 Incoming Freshman Class Sizes⁷³

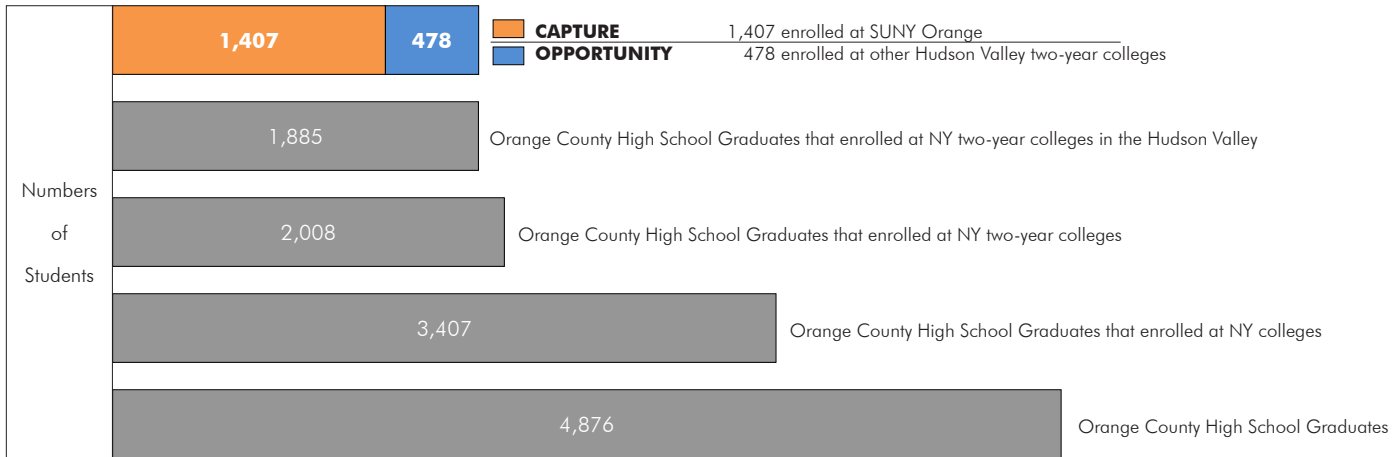
Institution	2006	2007	2008	2009	2010	2011	2012	2013	Enrollment Change 2006-2013
Dutchess Community College	1,455	1,539	1,646	2,012	1,981	1,933	2,043	1,941	486
Orange County Community College	1,186	1,324	1,364	1,263	1,277	1,272	1,210	1,193	7
Rockland Community College	1,124	1,285	1,321	1,326	1,516	1,486	1,484	1,452	328
Sullivan County Community College	392	405	460	478	471	423	375	367	-25
SUNY Westchester Community College	1,751	2,070	2,042	2,360	2,200	2,215	2,231	2,070	319
Ulster County Community College	580	537	515	571	604	598	561	583	3
Hudson Valley Region Total:	6,488	7,160	7,348	8,010	8,049	7,927	7,904	7,606	1,118
Annual Percent Change:		10.4%	2.6%	9.0%	0.5%	-1.5%	-0.3%	-3.8%	
2006-2013 Percent Change:								17.2%	
Orange County Community College	1,186	1,324	1,364	1,263	1,277	1,272	1,210	1,193	7
Annual Percent Change:		11.6%	3.0%	-7.4%	1.1%	-0.4%	-4.9%	-1.4%	
2006-2013 Percent Change:								0.6%	

Incoming freshmen class sizes at SUNY Orange have not increased at the same rate as most other 2-year public colleges in the Hudson Valley (Figure 3.38). Some graduates of Orange County high schools have chosen to attend other Hudson Valley two-year colleges instead of SUNY Orange. Figure 3.39 shows the potential opportunity for increasing SUNY Orange’s capture rate in the future.⁷⁴

73 IPEDS Data Center, retrieved 14 November 2014.

74 New York State Education Department Research and Information Systems (ORIS). Student Origin, New York State. www.highered.nysed.gov/oris/origin/home.html

Figure 3.39 2012 First Time Full-Time Freshmen from Orange County attending NY Colleges



Outreach and collaboration with schools and businesses are essential to increasing capture rates for locally-sourced colleges. The SUNY Orange Academic Master Plan 2010-2015 states that 83 percent of SUNY Orange students hail from Orange County.⁷⁵ For the purposes of outreach, it is helpful to examine what share of the county’s K-12 students live in which district. Figure 3.40 shows where most children were born in the county,⁷⁶ which offers a quick way to see which school districts could contribute the most future SUNY Orange students. Culturally isolated communities like Kiryas Joel pose challenges to outreach.

In the coming years, SUNY Orange will face challenges maintaining enrollment levels due to changing demographics and competition from peer institutions. By ensuring that the College’s academic programs remain relevant and tied to the region’s workforce needs, and by focusing on improving retention rates, SUNY Orange will continue to be a successful and significant institution serving the residents of Orange County and the region.

Figure 3.40 Births per Orange County School District

(Source: NY State Vital Statistics)

School District	2012 Births	Percent of 2012 Total
Kiryas Joel	962	20.1%
Newburgh	923	19.3%
Middletown	605	12.7%
Monroe-Woodbury	388	8.1%
Pine Bush	311	6.5%
Valley-Montgomery	289	6.1%
Port Jervis	228	4.8%
Minisink Valley	196	4.1%
Washingtonville	196	4.1%
Highland Falls	148	3.1%
Warwick Valley	137	2.9%
Cornwall	122	2.6%
Goshen	112	2.3%
Chester	53	1.1%
Florida	51	1.1%
Greenwood Lake	43	0.9%
Tuxedo	12	0.3%

⁷⁵ SUNY Orange Academic Master Plan 2010-2015, p. 4.

⁷⁶ New York State Vital Statistics

Existing Conditions Assessment

IV

Introduction

As part of the master planning process, the planning team conducted a thorough analysis of SUNY Orange’s campuses to better understand site, infrastructure, and building issues. This included reviewing data provided by the College, interviewing facilities personnel, and visiting each campus to review the suitability and condition of major site and building components.

The Middletown Campus is located on approximately 29 acres of landscaped grounds originally part of the Morrison Estate. The campus includes five original estate buildings: Morrison Hall, Horton Hall, Ice House, and two greenhouses that were recently renovated to create the new Devitt Center. With the addition of the Morrison Lab School and Rowley Center for Science and Engineering, the campus has 616,250 GSF of academic and administrative space.

The Newburgh Campus sits on an 8.2 acre site within the city’s East End Historic District. The design of Kaplan Hall and the surrounding site was reviewed by the State Historic Preservation Office to ensure that the building and site development fit seamlessly into the historic neighborhood. Together, Kaplan Hall and Tower Building provide 177,000 GSF of space.

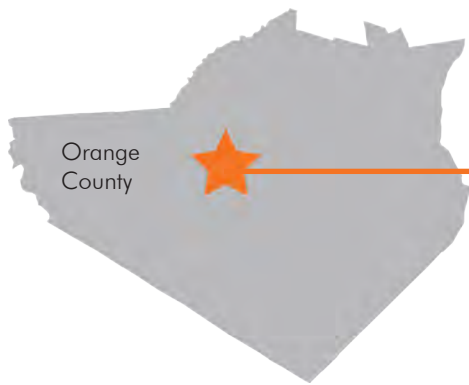


Middletown Campus

Completed Projects

Based on information from SUNY Orange, the following campus-wide projects have been completed since the 2006 Master Plan Update:

- Hands-free plumbing fixtures installed in various buildings
- Backflow preventers installed in various buildings
- Main water distribution lines replaced
- Occupancy sensors installed in various buildings
- Electrical distribution system upgraded
- Additional security cameras installed
- Fire alarm system updated
- Emergency notification system installed
- Master clock system installed
- Emergency towers installed
- ADA signage installed



Middletown Campus

29 Acres

SUNY Orange has made significant progress in implementing projects identified in the 2006 Master Plan Update. While the boundaries of the Middletown Campus have not changed, construction of several new buildings and improvements to parking lots have transformed the appearance of the campus and moved the College one step closer to accomplishing its academic mission and accommodating projected growth.

Vehicular Circulation

The existing vehicular network on the Middletown Campus includes Wawayanda Avenue, East Conkling Avenue, South Street, Bennett Street, Grandview Avenue, an interior loop road around the quad, and parking access roads around the Physical Education Center. Major concerns identified in the 2006 Master Plan Update included pedestrian and vehicle safety, a lack of connection between campus areas on both sides of South Street, poor definition of pedestrian versus vehicular areas, and a lack of a sense of arrival to the campus.

The vehicular circulation system has not changed significantly since 2006, but some measures have been taken to improve the pedestrian experience on campus. With the construction of the Rowley Center, steps have been taken to limit vehicular access on the loop road around the main quad. The reconstruction of the roadway in front of the Rowley Center included development of a pedestrian plaza and seating wall to identify the area as pedestrian-only, while accommodating fire and service vehicle access. Signage restricting vehicular traffic was also added.

The configuration of the Harriman and Orange Hall parking lots was modified with the addition of the Rowley Center. Access to the reconstructed Harriman Hall



Rowley Center for Science & Engineering



Vehicular traffic is now prohibited in front of the Rowley Center.

Completed Projects

Based on information from SUNY Orange, the following projects have been completed since the 2006 Master Plan Update:

- Rowley Center for Science & Engineering
- Morrison Lab School
- Gilman Center
- New parking garage constructed
- Improvements to walkways and parking lots
- Site walls and stairs replaced/repared
- Athletic scoreboard replaced

Site and Utilities Condition Assessment

Facilities Master Plan

Campus/Location: Middletown

Acres: 29

Site Component	Condition (%)				Site Component	Condition (%)			
	E	G	F	P		E	G	F	P
Central Systems/Site Utilities					Civil Site				
Central Systems					Hardscape				
Steam/HTHW Generator					Roadways	See Site Condition Assessment Diagram			
Chiller					Parking Lots		75	25	
Cooling Tower					Sidewalks	See Site Condition Assessment Diagram			
Electrical Substation	50	50			Plazas	See Site Condition Assessment Diagram			
Fuel Storage					Exterior Stairs	See Site Condition Assessment Diagram			
Water Storage					Site Amenities				
Site Distribution					Signage	100			
Tel/Data System		100			Benches		100		
Sanitary System	15	85			Receptacles		100		
Storm Water System	15	85			Fencing		75		25
Domestic Water System	15	85			Site Walls		80	10	10
Natural Gas & Fuel Oil System	15	85			Site Lighting		90	10	
Fire Hydrants		50	25	25	Athletic				
Chilled Water System					Softball Field		50	50	
Steam/HTHW System					Soccer Field		75	25	
Electrical Systems	100								



Not applicable

E - Excellent

Conditions generally at a "like new" level. Exemplary maintenance and appropriate funding required to maintain this level.

G - Good

Conditions generally at an acceptable level. Routine maintenance and appropriate funding required to maintain this level.

F - Fair

Conditions at a minimally acceptable level. Improvements, involving greater than routine maintenance and additional funding, required.

P - Poor

Conditions below minimally acceptable levels. Conditions require substantial funding and/or considerable maintenance effort to be improved.

parking lot was relocated to East Conkling Avenue from Wawayanda Avenue, addressing some of the traffic and bridge issues previously identified in the 2006 update. Through traffic connecting the two parking lots has been eliminated and vehicular traffic has been removed from the existing bridge crossing the creek.

The existing drop-off loop for Morrison Hall and associated accessible parking for both Morrison Hall and the Bio-Tech Building still bring unnecessary vehicular traffic onto the main quad, diminishing the pedestrian qualities of the campus.

South Street was identified as a hazard in the previous master plan update (2006) due to vehicle accident reports. Several students were reportedly hit by cars as they crossed the street. The cause of these accidents appears to be vehicle speed and poorly defined crosswalks. The crosswalks along South Street within the few blocks that run through campus have been restriped, but have poor visibility for pedestrians and motorists due to street side vegetation along the north edge of the parking lot. Many crosswalks are mid-block crossings, which are less preferred for pedestrian safety.

Throughout campus, crosswalks are poorly defined with inconsistent crossing signage and striping. Some crosswalks do not fully comply with the 2010 ADA Standards for accessible routes due to lack of ramped sections of walkway at the curb edge.

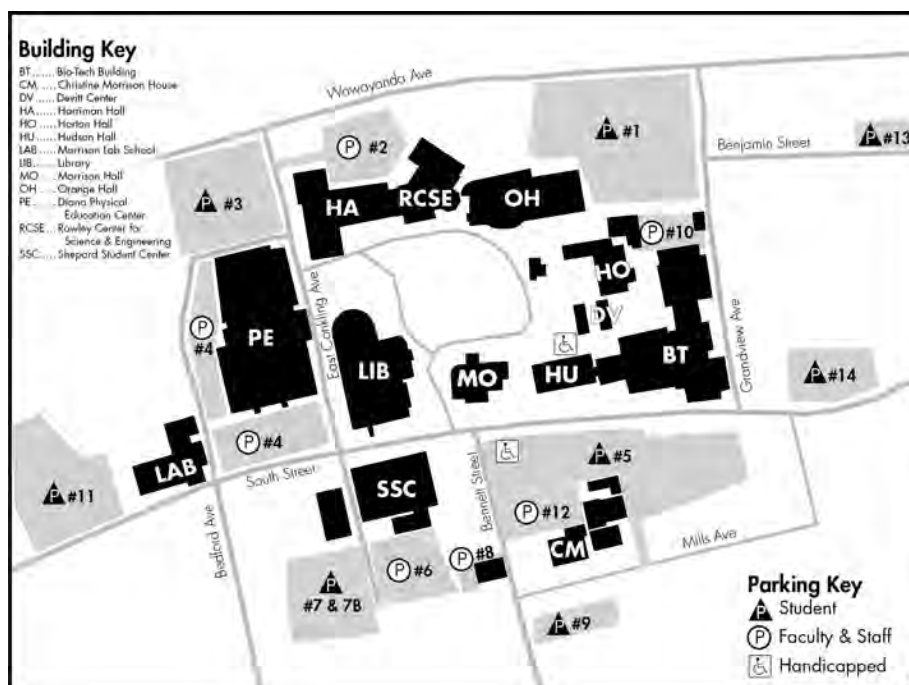
Since the previous master plan update, a traffic study was conducted to examine the potential of closing South Street from East Conkling Avenue to Grandview Avenue to create a pedestrian mall. The study was conducted by WSP-Sells during the design phase of the newly constructed Rowley Center in 2010. It concluded that closure of South Street would be possible if traffic were rerouted onto either Wawayanda Avenue or a new road between Bedford Avenue and Bennett Street. The closure of South Street, however, is a controversial topic. If the pedestrian mall idea cannot be accomplished, the campus should consider alternative means of traffic calming to make South Street a pedestrian-first zone.



Improved crosswalks with accessible curb ramps have recently been installed at this crossing. All crossings on campus should be brought to this level of accessibility.



There is an opportunity to minimize the road-like appearance of the drive in front of Morrison Hall.





The entrance to the Rowley Center is a new hub of activity on the quad.



The new parking garage provides sufficient parking capacity for the Middletown Campus.

The following actions are recommended:

- Make the Campus Pedestrian-First - Give pedestrians priority on campus by removing unnecessary vehicles from the quad, distinguishing vehicular areas from pedestrian areas, providing additional site amenities, and introducing traffic calming on South Street and East Conkling Avenue.
- Eliminate Non-Essential Vehicles from Quad - Review quantity and locations for handicapped accessible parking spaces, with the goal of removing them from the quad.
- Closure of South Street - Engage the city, county, and community to determine feasibility, cost, and possible timeline for implementation. If deemed unfeasible, investigate alternative treatments to improve pedestrian safety. Perform additional in-depth study of South Street traffic and pedestrian usage with the goal of introducing traffic calming measures and improved pedestrian crosswalks.
- Campus Arrival - Install monumental signage and markers indicating arrival on campus along South Street
- Alternative Improvements - May include additional traffic control devices and signage, raised crosswalks, bump-outs at pedestrian crossings, and wayfinding signage.

Parking

The 2006 Master Plan Update indicated that there was a parking shortage on the Middletown Campus. The College has completed the master plan recommendations to add parking spaces and reconfigure/improve existing parking lots. The tennis courts along the south side of the Physical Education Center were replaced with a new faculty parking lot (Lot #4). The parking lot along the edge of the old tennis courts was resurfaced during the construction of the Morrison Lab School. The Harriman Hall faculty parking lot (Lot #2) was reconfigured during the construction of the Rowley Center. The Orange Hall parking lot (Lot #1) was resurfaced and reconfigured to take advantage of some unused space, per the recommendations from the master plan update. In addition to the recommendations, the campus constructed a new parking garage on the corner of East Conkling Avenue and Wawayanda Avenue, with access from East Conkling Avenue. With the recent additions and improvements, as well as the leveling off of enrollment, there is currently sufficient parking on the campus.

Several of the lots on the south side of South Street are laid out inefficiently and do not allow for intuitive search patterns. Lots #7, #7B, #6, and #8 are disconnected and laid out with some perpendicular parking, some angled parking, both one-way and two-way circulation, no sidewalks, and minimal or insufficient signage.

The campus reported that parking lot lighting is insufficient. The parking lots should be studied for light levels, with additional lighting upgrades provided, to achieve standard safe light levels. Upgrading to LED lighting standards should be considered as part of a campus-wide lighting system renovation. Security camera upgrades should also be considered.

A number of the parking lots have insufficient sidewalks or poorly-defined sidewalks. In Lot #5, the pedestrian way is simply a striped "no parking" area and there is no sidewalk on the east side of Bennett Street. In order to improve safety for pedestrians, clearly-defined sidewalks with different paving and curbing should be provided.

The following actions are recommended:

- Improve Safety and Energy Efficiency in Existing Parking Lots - Provide additional site lighting and security cameras in parking areas to improve safety. New lighting fixtures should maintain the design aesthetic of existing fixtures. *A project to install site lighting in parking lots is included in the 2016 Six Year Capital Plan.*
- Provide Pedestrian Amenities in Parking Lots - Provide additional pedestrian facilities in parking lots to improve wayfinding and safety.
- Improve Parking Layout - Review and reconfigure existing layouts to improve efficiency, wayfinding, and circulation, particularly in Lots #5, #6, #7/7B & #12. *The College plans to repave parking lots in 2020 as part of their 2016 Six Year Capital Plan. If existing layouts have not been revised prior to repaving, they should be adjusted at that time.*
- Protect Stairs - The College reported that the stairs in the parking garage become hazardous in the winter when snow and ice enter through the large openings in the exterior walls. The College should take measures to protect the stairs from inclement weather.

Pedestrian Circulation

SUNY Orange has continued to replace and repair sidewalks and stairs that were noted in poor condition in the 2006 Master Plan Update. The College has also added curb cuts at crossings, as recommended. The sidewalk on the north side of campus along Wawayanda Avenue was recently reconstructed, improving pedestrian safety and campus aesthetics.

The construction of the Rowley Center transformed the pedestrian experience on the existing campus green by creating a prominent entrance and gathering space directly addressing the quad. The new pedestrian activity associated with the building required redevelopment of the existing roadway into a pedestrian plaza. Vehicular traffic in this area is limited to emergency and service vehicles. The following improvements to the pedestrian network were made in conjunction with the Rowley Center project:

- Concrete pavement was installed in front of the Rowley Center to create a pedestrian plaza.
- The existing road connecting Parking Lots #1 and #2 was converted into a wide asphalt walkway connecting the Rowley Center to the large Orange Hall student parking lot.
- A new accessible entrance with an access ramp, stairs, and patio was constructed at the north side of Orange Hall along the new walkway.
- A fully accessible walkway from the new parking garage to the lower entrance of the Rowley Center was constructed and includes access to the north entrance of Harriman Hall.
- A new landscaped staircase connecting the campus green to the lower entrance of the Rowley Center and the natural pond area was constructed.
- The existing vehicle entrance to the campus from Wawayanda Avenue over the Harriman Hall parking lot bridge was converted to a landscaped pedestrian space.

Delineation between pedestrian space and vehicular space is still unclear in a number of locations. The primary entrance to the campus, on South Street, presents itself as a vehicular entrance. Handicapped accessible parking near Morrison Hall and the Bio-Tech Building indicates that vehicular traffic is permitted on the quad, but the quad should be pedestrian-only. The lack of sidewalk in front of Parking Lot #11 makes the parking edge undefined. Additional sidewalk and wayfinding



Continuing the concrete sidewalk across the main campus entrance would help establish the hierarchy of pedestrians first.



Continuing the concrete sidewalk and curbing north from the Morrison Lab School across Parking Lot #11 driveways will increase pedestrian safety.



Pavement condition was identified as poor if there was significant cracking and spalling that pose a safety hazard.



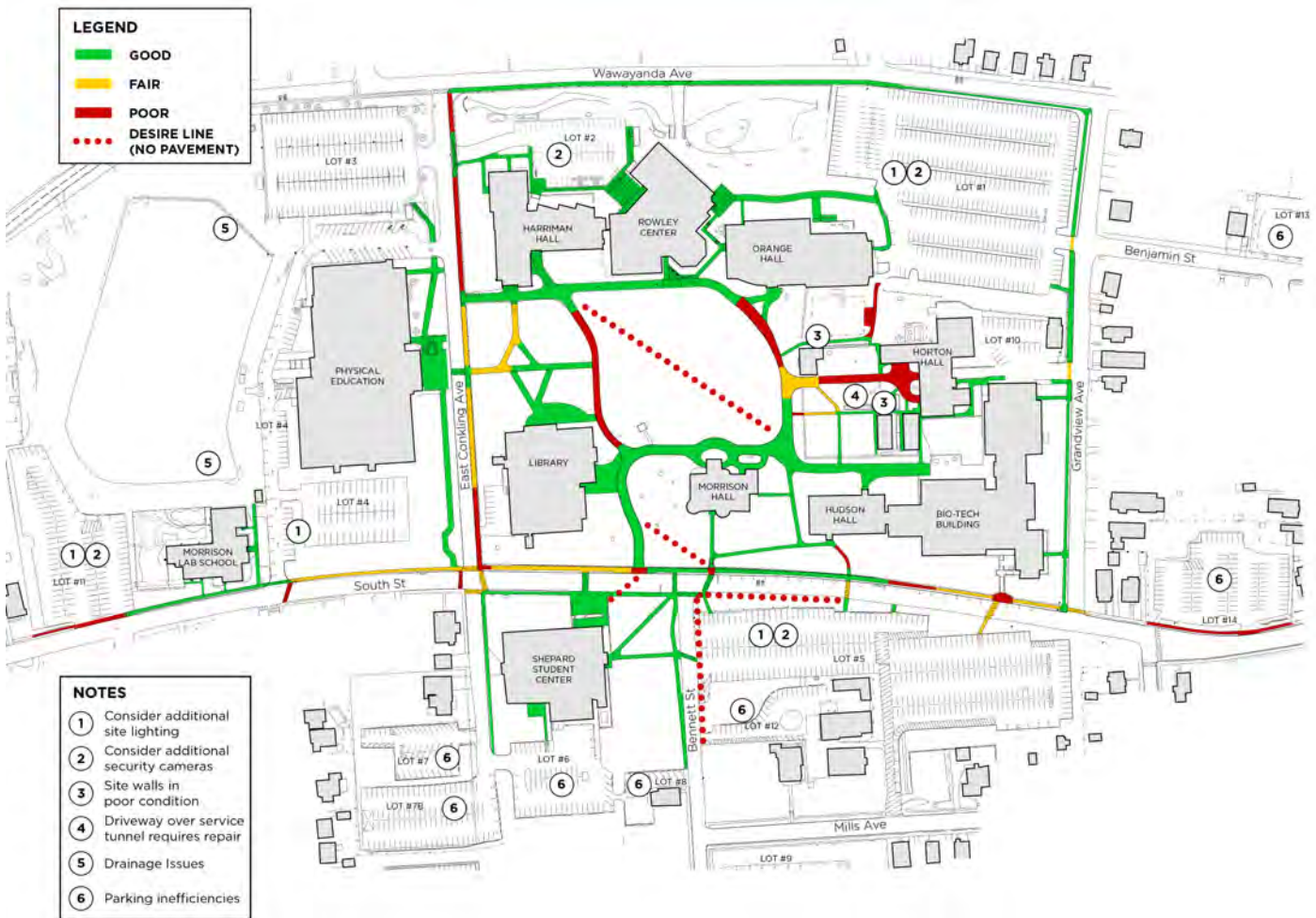
Differential settlement can present a tripping hazard. ADA standards limit vertical changes in walkways to 1/2" max. Faults exceeding this threshold hinder accessibility.

improvements could be added to the student parking lot (Lot #5), along the south side of South Street to improve pedestrian safety conditions.

A campus-wide condition assessment for pedestrian pavements was conducted to inform the College which sidewalks are in most need of repair or replacement. Walkways were also visually assessed for any issues that would cause them to not comply with ADA Standards, either due to excessive slopes, differential settlement greater than 1/2 inch, or an unstable surface. The accessibility assessment is not intended as a substitution for an in-depth analysis for accessibility, but rather a means of prioritizing repairs and replacements.

Most campus walkways were assessed to be in good condition. Walkways in good condition need no immediate attention and should be maintained as outlined below. Some walkways are in fair or poor condition. Many of the walkways rated fair or poor occur along South Street or East Conkling Avenue. Although some sidewalks on city streets may be a municipal responsibility, the campus would greatly benefit from a safety and aesthetic standpoint if they were replaced. *A project to replace sidewalks along South Street is included in the 2016 Six Year Capital Plan.* For condition assignment by location, see the accompanying diagram titled 'Site Condition Assessment' and the following description of each rating. The rating categories for the assessment are as follows:

Good: No improvements are required at this time. Follow preventative maintenance routines such as minor crack repair, recaulking joints, and sealing pavements.



Site Condition Assessment

Fair: Pavement is safe and universally accessible, but rehabilitation is recommended for aesthetic appearance or to prevent further deterioration. Minor reconstruction and rehabilitation could consist of the following:

- Patching or resurfacing of any unstable or cracked surfaces.
- Minor drainage repairs and grading modifications.
- Milling and overlaying asphalt walkway, or patching and minor repairing of concrete walkways without reconstruction of subbase.
- Grinding down excess lippage at joints on concrete or asphalt pavement to achieve ADA compliance.
- Resetting and/or replacing utility covers and grates to eliminate tripping hazards.
- Filling to grade and reseeding low spots at shoulders of paved areas to eliminate dropoffs at pavement edges.
- Handrail replacement for stairs and ramps with non-compliant or missing handrails.

Poor: Pavement was rated as poor if the surfaces were considered unsafe, if preventive maintenance or rehabilitation are no longer feasible due to advanced deterioration, or if conditions were present that pose an obstacle to campus-wide accessibility that are uncorrectable by minor alterations, such as excessive slopes. A rating of "Poor" generally means full pavement reconstruction is likely necessary including replacement of the entire pavement structure from the subbase to the wearing course.

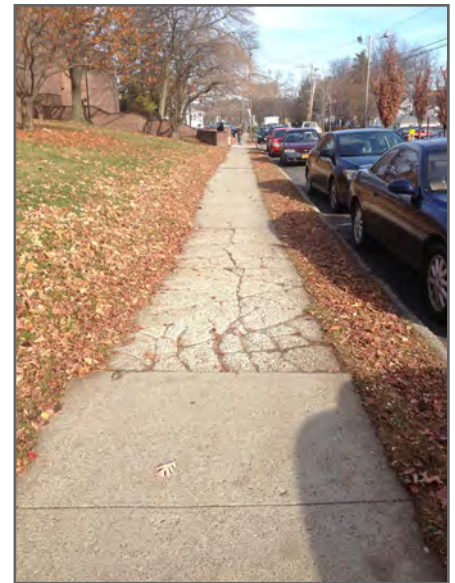
In general, repair priority should be given to areas of walkway that are rated in poor condition and those that were found to be non-compliant in terms of accessibility. It should be noted that the treatments recommended here are intended for use in planning, and specific remedies must be considered on a case-by-case basis when preparing to make repairs or perform maintenance. Pavement improvements should be planned to coincide with any underground utility improvements, site work that is part of the Facilities Master Plan, or other major projects that may affect the pedestrian network.

The following actions are recommended:

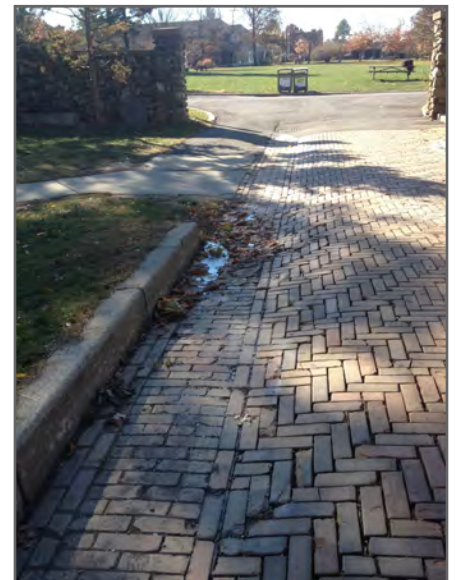
- Delineate Pedestrian and Vehicular Areas - Redesign South Street entrance to make it appear less like a driveway and more like a pedestrian gateway to the campus. Add sidewalks with curbing at Parking Lots #5 and #11. Relocate accessible parking in the quad, if possible.
- Prioritize Walkway Repairs & Improve Universal Accessibility - Replace or rebuild areas of walkway that are in poor condition, with a priority given to areas that provide an accessible route to campus facilities and services. Continue standard maintenance and repairs for walkway sections in good or fair condition. *A campus-wide project to replace blacktop is included in the 2016 Six Year Capital Plan and scheduled for begin in 2016.*
- Provide Pedestrian Walkway on South Street - Provide a sidewalk on the south side of South Street adjacent to Parking Lot #5.

Pedestrian Plazas

Since the 2006 Master Plan Update, two plazas have been added to the campus. One plaza was created in front of the Gilman Center and one at the main entrance to the new Rowley Center for Science and Engineering. Entrance plazas have been improved at Orange Hall, the Physical Education Center, the Bio-Tech Building, and the Library. The brick pavers over the service tunnel near Horton Hall were previously identified as needing repair, and have since deteriorated further. There



Sections of sidewalk on the north side of South Street are in poor condition.



Brick pavers at Horton Hall should be repaired where subsidence has occurred over service tunnel.



The many stone walls and ornamental fences contribute to the historic character and collegiate environment of the campus. These elements should continue to be maintained with a regular schedule of preventative maintenance and repair.



The wrought iron fencing along South Street is an iconic detail that distinguishes the campus and should be maintained.

are very few bicycle racks on the campus. Installation of campus-wide bicycle racks should be considered to promote health and physical activity.

The following actions are recommended:

- Repair Unit Paver Drive at Horton Hall - Remove and salvage brick unit pavers from plaza spaces near Horton Hall and reinstall over new subbase and rigid concrete or asphalt base.
- Provide More Bicycle Parking - Install bicycle racks in all plazas where none exist.

Site Walls and Fences

Two prominent site features on the Middletown Campus are the historic wrought iron fencing along South Street and the stone walls around Horton Hall and the greenhouses. Both of these elements require a lot of maintenance, however, they are historic and contribute to the aesthetic identity of the campus.

The black metal picket fences along East Conkling and Wawayanda Avenues have recently been replaced, but in several locations the associated stone walls require repair. Other recent improvements include the following:

- A new steel picket campus fence has been installed along East Conkling and Wawayanda Avenues.
- The retaining wall at Harriman Hall lower level was altered during construction of the Rowley Center and new landscape has been installed along the face of the wall.
- A new pre-cast concrete gravity retaining wall system was employed at the Harriman Hall parking lot (Lot #2) and bioretention areas north of the new Rowley Center.
- A new veneer stone seat wall with a bluestone cap was installed along the main campus loop/Carriage road across from the campus green entrance to the new Rowley Center.

The following actions are recommended:

- Repoint Horton Hall Stone Walls - The Horton Hall stone walls were identified in the last master plan as requiring repointing. If the repointing did occur since the previous study, it is nearing the end of its lifespan and needs to be redone. The campus should investigate whether there are more contemporary or improved mortar compounds that have more longevity.
- Repair Concrete Walls - Concrete walls at the base of the historic campus fence along South Street continue to weather and deteriorate and are still in need of the repairs recommended in the previous master plan update.
- Repoint Stone Walls Between Orange and Horton Halls - Stone walls between Orange and Horton Halls, and in the vicinity of the greenhouses, should be examined for deterioration of the mortar joints and re-pointed by a qualified mason where necessary.

Athletic Fields

Changes since the 2006 Master Plan Update include the elimination of the tennis courts and replacement of the scoreboard. The soccer field is reported to be taking on additional water, perhaps due to drainage modifications made during the construction of the Rowley Center or parking garage. The source of the issue should be further investigated and corrected with overland drainage, such as a grass lined swale, if possible. If the athletics fields are regularly inundated or consistently

wet, their use will be diminished. Minor drainage problems can typically be easily corrected.

There is a drainage issue on the infield of the softball field - water doesn't percolate. Annual topdressing and aeration may correct compacted soil conditions. Specialized aeration equipment with deep penetration may be employed.

The following actions are recommended:

- Address Source of Additional Water - Once the source is known, site grading may redirect water away from the field. Additional underdrainage may need to be added.
- Install Water Line - Install a water line to the softball field to provide potable water for student athletes.

Landscaping and Vegetation

The campus grounds are well-maintained and consist of an expansive lawn and deciduous canopy trees. There are a few specialized planting areas, such as the Horton Hall gardens, xeriscape garden near Hudson Hall, Lab School outdoor play area plantings, and bioretention areas/storm water planters associated with the Rowley Center.

It is universally understood that grounds maintenance budgets are strained. Lawn reduction, storm water plantings, and rain gardens will likely become prevalent in future designs given the current NYSDEC storm water regulations. The additional maintenance of these elements will need to be taken into consideration in future site designs and maintenance budgets. In new designs, maintenance requirements should be kept to a minimum of mowing, twice a year mulching, and pruning on an as-needed basis.

Landscape plantings should be thinned as they mature. Maintaining a closed canopy in landscape beds will reduce overall maintenance requirements. Over time, selective removal will maintain a healthy density of plantings and improve security by eliminating potential hiding places.

Campus Infrastructure

Electrical Systems

- A new medium voltage (13.2kV) electrical gear was installed throughout the Middletown Campus during the last few years. This new electrical distribution replaced outdated gear and significantly improved the reliability of the electrical backbone. There are no issues to report at this time.
- The Rowley Center for Science and Engineering and Morrison Lab School received new utility services and are fed separately from the rest of the campus.
- In general, much of the existing distribution equipment and wiring within buildings is original and nearing the end of its expected life. As renovations occur throughout buildings, the electrical distribution equipment and wiring should be replaced.
- There is concern related to the cabling within the underground tunnel. The cabling is reported to be in very rough shape, with missing conduit and exposed cabling at various locations.
- Site Lighting: It was reported that site lighting at both Middletown and Newburgh Campuses is insufficient. Specifically, additional lights are desired near the Tower and Maple Buildings in Newburgh and at the parking lot near the Morrison Lab School in Middletown.



The xeriscape garden is an example of SUNY Orange's commitment to sustainability.



Storm water planters, such as the recently installed ones at the Rowley Center, will be more commonplace as runoff reduction becomes more important.

Campus-Wide HVAC Issues:

- In general, there are reported control and comfort issues in many buildings throughout campus. This is due, in part, to aging HVAC equipment and the presence of pneumatic controls systems that have become unreliable over their lifetime. Specific details can be found in the building assessments, but campus-wide temperature control was reported to be an issue in the older buildings.
- In addition to temperature control issues, it was also reported that there is poor air quality/ventilation in many of the older buildings.
- As reported in the 2006 Master Plan Update, load calculations should be completed for any building when boilers, chillers, and/or air-handling units are replaced. Some of the units may have been sized for conditions that no longer exist in the buildings. The study should determine if the unit capacity is still appropriate.

Communications:

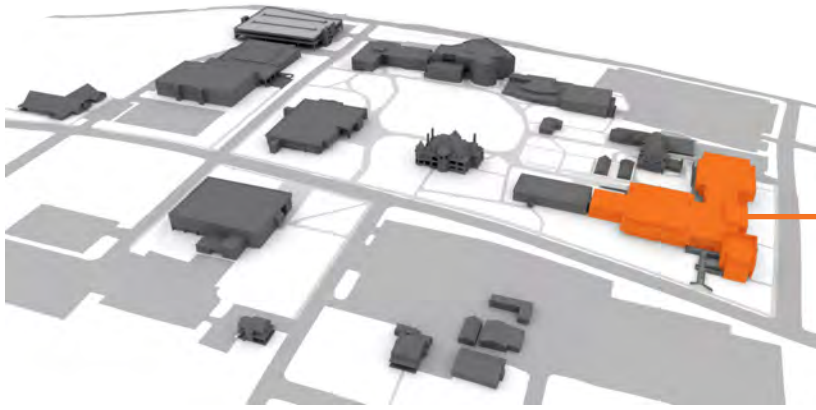
- It is understood that the main IT/fiber service is currently located near Bennett Street. There are discussions about possible future projects in this area. Impact to IT pathways should be evaluated when considering these projects.
- The fiber ring around campus is fifteen years old and should be upgraded. Upgrades should include redundancy in case of failure.

Video Surveillance:

- In general, additional cameras are desired at both Middletown and Newburgh Campuses. It was reported that there is an ever evolving security concern on campus and that additional cameras would provide additional peace of mind for students and faculty. Specifically, cameras are desired at the following locations:
 - Parking lots on Middletown Campus
 - Loading Dock at Tower Building
- The College requested that camera locations be coordinated with new and existing landscaping, as security has recently had issues with overgrown bushes blocking camera coverage areas.

Fire Alarm:

- All existing buildings have been updated within the last five years to contain a new addressable Simplex fire alarm panel. All fire alarm panels are connected to a main head end panel.
- All new or recently renovated buildings contain addressable smoke detectors. It is recommended that when renovations occur to older buildings, the renovation scope include the addition of addressable initiation devices throughout the building.



Bio-Tech Building

Constructed 1974
118,452 GSF

Building History and Use

The Bio-Tech Building was constructed at the same time as the Diana Physical Education Center, Shepard Student Center, and Library. At that time, an internal connection was made to the first and second floors of Hudson Hall to provide direct access to the existing science labs. The Bio-Tech Building houses a large percentage of general and specialized instructional space on the Middletown Campus.

Most of the first floor includes office and support space for Information Technology and Facilities. The second floor includes space for Dental Hygiene and Nursing, including a large dental clinic and several simulation labs. The third floor houses the Medical Laboratory Technician and Diagnostic Imaging Programs. There are two large and four small lecture halls on the second and third floors.

Functional Analysis

- The building is well-maintained and in good condition. Some instructional spaces, however, are beginning to show signs of their age and will need to be updated in the next ten years.
- Some offices have been converted from other uses, such as custodial closets, and do not have appropriate lighting and/or acoustic privacy.
- The College reported that Diagnostic Imaging Classroom 308 is not large enough to accommodate existing class sizes.
- Several spaces in the building were vacated when the Architecture and Biology Programs moved to the Rowley Center for Science and Engineering earlier this year. While some of the vacated space has been repurposed, three large labs on the third floor still remain vacant.

Completed Projects

Based on information from SUNY Orange, the following projects have been completed since the 2006 Master Plan Update:

- Roof recoated
- Cooling tower replaced
- Main entrance (inner campus) refurbished
- New elevator installed
- Lighting on first and third floors upgraded
- Tables and chairs in small lecture halls (201, 203, 301, 303) replaced
- Offices for Information Technology created on first floor
- ADA signage installed at restrooms



Main Entrance



Lecture Hall



Vacant Third Floor Lab

Building Condition Assessment

SUNY Orange Facilities Master Plan

Building Name: Bio-Tech Building
 Construction Year: 1974
 Occupancy Group: A-Assembly; B-Business

Floors Above/Below: 2/1
 GSF: 118,452
 NASF from PSI: 72,516

Building Component	Condition (%)				Building Component	Condition (%)			
	E	G	F	P		E	G	F	P
Building Exterior					Building Electrical				
Foundations		100			Fire Alarm System	50		50	
Exterior Walls		90	10		Emergency Power/Lighting Systems			50	50
Building Framing		90	10		Lighting Systems	25		75	
Windows/Louvers			80	20	Electrical Distribution			75	25
Doors/Frames/Hardware		100			Power Wiring		75	25	
Roof		80	20		Tel/Data Systems		50	50	
Building Interior					Specialty Systems				
Floors		80	10	10	Building Component	Compliance			
Walls		80	20			C	PC	NC	
Ceilings		60	40						
Doors/Frames/Hardware		100			NYS/ADA				
Built-In Furnishings		80	20		Exterior Doors	X			
Stairs		100			Interior Doors		X		
Elevators/Escalators		100			Horizontal Circulation (Corridors)	X			
Specialty Systems		80	20		Horizontal Circulation (Ramps)			X	
Building Mechanical					Vertical Circulation (Stairs)		X		
HVAC Distribution & Controls			75	25	Vertical Circulation (Elevators)	X			
AHU/Controls			50	50	Toilet Rooms		X		
Chiller/Controls		100			Locker Rooms				
Boiler/Heat Exchanger/Controls				100	Drinking Fountains		X		
Pumps/Motors/Compressors		50	50		Signage		X		
Fire Sprinkler/Standpipe Systems					Assembly Areas		X		
Plumbing Systems/Fixtures	25	25	50		Sales and Service Areas				
Specialty Systems					Dining Areas				



Not applicable

- E - Excellent Conditions generally at a "like new" level. Exemplary maintenance and appropriate funding required to maintain this level.
- G - Good Conditions generally at an acceptable level. Routine maintenance and appropriate funding required to maintain this level.
- F - Fair Conditions at a minimally acceptable level. Improvements, involving greater than routine maintenance and additional funding, is required.
- P - Poor Conditions below minimally acceptable levels. Conditions require substantial funding and/or considerable maintenance effort to be improved.
- C - Compliant Conforms with the most current version of the Building Code of New York State (NYS) and ADA Standards (ADA).
- PC - Partially Compliant Partially conforms with the most current version of the Building Code of New York State (NYS) or ADA Standards (ADA) due to modifications of the building component/space.

Exterior

In general, the exterior of the building is in good condition. The College reported that the curtainwall system on the third floor recently failed and now has to be strapped to the building structure. As a result, there have been leaks in third floor corridors. Exterior building projects that should be addressed in the next ten years include:

- Recoat/Replace Roof - The roof has been recoated in the last ten years, but is original to the building and showing signs of its age. Some areas are damaged and other areas have vegetation growing through the roof system. The College also reported that there is a leak above Dark Room 304. The roof should be recoated or replaced. *A project to recoat campus roofs is included in the 2016 Six Year Capital Plan. If these issues have not been addressed by 2017, the Bio-Tech Building should be included in the project.*
- Replace Curtainwall System - The failed curtainwall system and single-glazed window units should be replaced with a system that includes double-glazed, energy-efficient windows.
- Install Energy Efficient Windows - Single-glazed windows are in fair to poor condition and are not energy efficient. In addition, sealant between the windows and adjacent masonry walls has deteriorated resulting in air leakage around the units. All windows should be replaced with double-glazed, thermally-broken units to improve energy efficiency and occupant comfort. In offices and other areas where natural ventilation is desired, operable windows should be installed. *A project to replace windows in the Bio-Tech Building is included in the 2016 Six Year Capital Plan and scheduled for completion in 2017.*
- Repair Masonry - Cracks on the north end of the building may indicate building settlement. The cracks should be monitored and, if necessary, repaired to prevent further deterioration of exterior masonry walls.



The roof should be recoated or replaced.



The failed curtainwall on the third floor has to be strapped to the building structure.

Interior

Interior finishes appear to be in good or fair condition. The following projects are recommended to maintain the building in good condition:

- Renovate Lecture Halls 207 and 311 - While the tables and chairs in the small lecture halls were recently replaced, the large lecture halls remain in fair to poor condition. They should be updated with new finishes, furnishings, and technology. Renovations should also address the accessibility issues identified in this section.
- Update Science Labs - The lab tables and casework in the science labs are original to the building and do not support current teaching methods. Some existing labs (315, 317, and 319) should be updated with new lab tables, casework, and finishes. An accessible station should be provided in each lab. The vacant labs (316, 318, and 320) should be renovated and repurposed.
- Replace Ceiling Tiles - Ceiling tiles throughout the building have been periodically replaced, resulting in a patchwork of different tiles. All ceilings should be replaced in conjunction with renovation projects.
- Refinish Wood Stairs - The finish on the open wood stairs is worn. The stairs should be refinished.
- Replace Raised Floor System - The raised floor system in the Data Center is in poor condition and there are reports that the sewage leak in this area was not properly mediated. The floor system should be replaced.



Lecture Hall 207 should be updated.



Science labs should be updated.

Mechanical

The existing HVAC system consists of unit ventilators served by hot and chilled water systems. The existing 500-ton absorption chiller was replaced in 2005. The cooling tower was also recently replaced. *A project to replace the cooling tower is included in the 2016 Six Year Capital Plan.*

- Replace Boilers - The boilers were installed in the early 1990's and have passed their useful life. They are scheduled for replacement in 2015.
- Install New Rooftop Units - There are four (4) existing unit ventilators on the roof that contain HW coils. They are reportedly prone to freezing and have become a maintenance headache. It is recommended that these units are replaced with a new gas rooftop unit. *A project to replace the unit ventilators is included in the 2016 Six Year Capital Plan and scheduled for completion in 2016.*
- Replace Unit Ventilators - About half of the original unit ventilators have been replaced. The remaining units are still original and will continue to fail over time. It is recommended that they are replaced.
- Install Direct Digital Controls - The existing controls system is pneumatic and should be upgraded to a DDC system. There are reported temperature control issues throughout, but added emphasis on Computer Classroom 253, Computer Classroom 255, and Lecture Hall 301.



Main Electrical Distribution Equipment

Electrical

The existing electrical switchgear and panelboard distribution is original to the building.

- Inspect and Upgrade - Enlist a manufacturer's technician to extensively inspect, clean, and repair all electrical distribution equipment. At that time, the condition of the equipment should be identified as suitable to remain or recommended to be replaced.
- Increase Building's Electrical Capacity - Add new branch circuit panelboards in selected areas to increase the number of pole spaces and provide capacity for future growth. In addition to general capacity throughout the building, it was reported that the electrical system in the Physical Therapy Lab is insufficient.
- Upgrade Lighting Fixtures - Some light fixtures have been replaced. It is recommended that the remainder of the fixtures be replaced with new energy efficient fixtures and lamps (T8 fluorescent or LED).



Recessed corridor doors do not have the required clear space at the latch side of the door.

Other Systems

- The Bio-Tech Building is not equipped with a sprinkler system.
- The building contains an addressable fire alarm panel with zoned smoke detectors and manual pull stations.

Building Code/ADA

The College has made a significant effort to improve accessibility throughout the building. Accessible door hardware has been installed, toilet rooms have been updated, and automatic door openers have been installed at building entrances. The following items, however, do not conform to the 2010 Building Code of New York State or 2010 ADA Standards for Accessible Design. **While updates are not required at this time, these issues would have to be addressed if the building is renovated.**

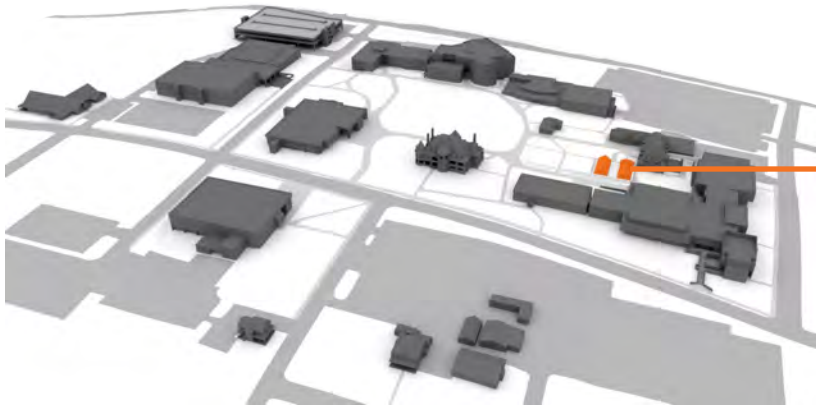
- Current ADA guidelines require doors to have at least 18 inches of clear space on the latch side of the door. Recessed corridor doors do not have the required clear space and, therefore, cannot be considered part of an accessible route.
- The ramp adjacent to Lecture Hall 207 does not have the required landing at the top of the ramp.
- Create Accessible Seating Areas - Accessible seating areas in existing lecture halls are located at either the front or rear of the space. ADA guidelines require both horizontal and vertical dispersion. Additional accessible seating areas should be provided in each lecture hall in accordance with Section 221 and Table 221.2.1.1 of the 2010 ADA Standards for Accessible Design.
- Install Assistive Listening System - An assistive listening system is required in all assembly areas where an amplification system is present. This type of system should, therefore, be installed in the large lecture halls when the spaces are renovated.
- Install Stair Nosings - Current ADA guidelines require the leading two inches of stair treads to contrast visually from the remainder of the treads. Stair nosings should be installed in the large lecture halls when the carpet is replaced.
- Install Cane Detection Railing- A cane detection railing should be installed at the underside of stairs where the vertical clearance is less than 80 inches to prevent visually impaired individuals from injury.
- Install Accessible Hardware - Accessible hardware has been installed at most interior doors. The College should continue to replace non-accessible hardware throughout the building.
- Replace Handrails - Handrails in lecture halls and stairs do not have the required extensions. They should be replaced with fully-compliant handrails.
- Modify Guardrails at Open Stair - Guardrails at the open stair are less than the code required height. They should be modified or replaced with fully-compliant guardrails.
- Modify Guardrails at Stair Towers - Guardrails at stair towers exceed the maximum baluster spacing permitted by the Building Code of New York. They should be modified or replaced with fully-compliant guardrails.
- Renovate Toilet Rooms - Toilet rooms have been updated, but require additional modifications to bring them into full compliance with current ADA requirements.
- Modify Kitchens/Work Areas - Employee kitchens and work areas should be modified to bring them into full compliance with current ADA guidelines.
- Replace Drinking Fountains - The College has installed some accessible drinking fountains in the building. All non-accessible drinking fountains should be replaced with fully-accessible units when the building is renovated.
- Campus-wide Signage Project - Some signage in the building does not comply with current ADA guidelines and some required signage is missing. All signage should be replaced and missing signs should be installed as part of a campus-wide signage project.



A cane detection railing is required where the vertical clearance is less than 80 inches.



The guardrail at the open stair is less than the code required height.



Devitt Center

Constructed 1908
Renovated 2011
2,928 GSF

Building History and Use

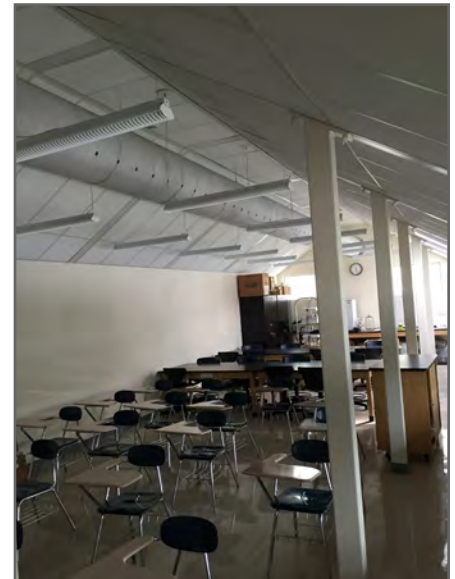
The Devitt Center is comprised of two greenhouses that were originally part of the Morrison Estate. One of the greenhouses served as a laboratory for a natural history course until the heating system failed in the early 1990's.

Originally built in 1908, both greenhouses were in poor condition and required major repairs. In 2011, a gift from the F.E. Devitt family allowed the College to renovate one of the greenhouses into a classroom and laboratory facility to support students in the Biology Department. The other greenhouse was renovated, as well, thanks to the generosity of the Middletown Garden Lovers and Fusco family. The new Devitt Center for Botany and Horticulture was dedicated in April 2012.



Functional Analysis

- The gardens around the Devitt Center are well-maintained and provide a great environment for outdoor relaxation during warmer months.
- All of the projects identified in the 2006 Master Plan Update were incorporated into the renovations. The greenhouses are in excellent condition.



Devitt Center

Completed Projects

Based on information from SUNY Orange, the following projects have been completed since the 2006 Master Plan Update:

- Roof restored
- Windows restored
- Radiant heating system replaced
- Water system upgraded
- Electrical system upgraded
- Building system connected to Horton Hall boiler

Building Condition Assessment

SUNY Orange Facilities Master Plan

Building Name: Devitt Center
 Construction Year: 1908
 Occupancy Group: B-Business

Floors Above/Below: 1/0
 GSF: 2,928
 NASF from PSI: 2,478

Building Component	Condition (%)				Building Component	Condition (%)			
	E	G	F	P		E	G	F	P
Building Exterior					Building Electrical				
Foundations		100			Fire Alarm System	100			
Exterior Walls	100				Emergency Power/Lighting Systems				
Building Framing	100				Lighting Systems	100			
Windows/Louvers	100				Electrical Distribution	100			
Doors/Frames/Hardware	100				Power Wiring	100			
Roof	100				Tel/Data Systems				
Building Interior					Specialty Systems				
Floors	100				Building Component	Compliance			
Walls	100								
Ceilings	100					C	PC	NC	
Doors/Frames/Hardware	100								
Built-In Furnishings	100				NYS/ADA				
Stairs					Exterior Doors	X			
Elevators/Escalators					Interior Doors	X			
Specialty Systems	100				Horizontal Circulation (Corridors)	X			
Building Mechanical					Horizontal Circulation (Ramps)				
HVAC Distribution & Controls	100				Vertical Circulation (Stairs)				
AHU/Controls					Vertical Circulation (Elevators)				
Chiller/Controls					Toilet Rooms				
Boiler/Heat Exchanger/Controls					Locker Rooms				
Pumps/Motors/Compressors					Drinking Fountains				
Fire Sprinkler/Standpipe Systems					Signage	X			
Plumbing Systems/Fixtures	100				Assembly Areas				
Specialty Systems					Sales and Service Areas				
					Dining Areas				

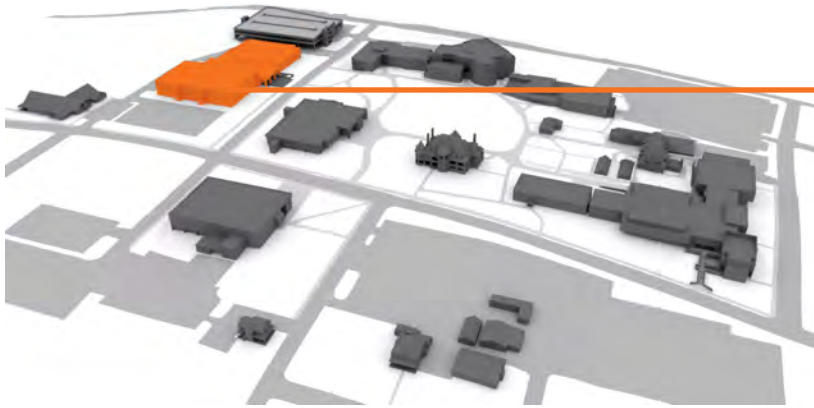


Not applicable

- E - Excellent Conditions generally at a "like new" level. Exemplary maintenance and appropriate funding required to maintain this level.
- G - Good Conditions generally at an acceptable level. Routine maintenance and appropriate funding required to maintain this level.
- F - Fair Conditions at a minimally acceptable level. Improvements, involving greater than routine maintenance and additional funding, is required.
- P - Poor Conditions below minimally acceptable levels. Conditions require substantial funding and/or considerable maintenance effort to be improved.
- C - Compliant Conforms with the most current version of the Building Code of New York State (NYS) and ADA Standards (ADA).
- PC - Partially Compliant Partially conforms with the most current version of the Building Code of New York State (NYS) or ADA Standards (ADA) due to modifications of the building component/space.

Diana Physical Education Center

Constructed 1974
89,295 NSF



Building History and Use

The Physical Education Center was constructed around the same time as the Bio-Tech Building, Library, and Shepard Student Center. The building is organized around a natatorium and large gymnasium that can be divided into three smaller spaces. It also includes a fitness center, dance studio, spin studio, classrooms, offices, six racquetball courts, and locker rooms for students, faculty, and officials. Offices for the Athletic Director, Movement Science faculty, and coaches are on the second floor.

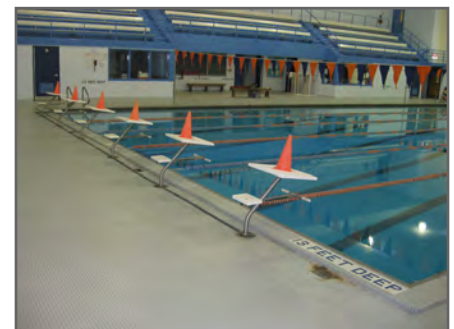
In June 2014, the building was renamed the Edward A. Diana Physical Education Center in honor of the former Orange County Executive and SUNY Orange alumnus.

Functional Analysis

- The building is well-maintained and in good condition. Some spaces, however, are beginning to show signs of their age and should to be updated in the next ten years.
- There is a large (2,600 SF) rifle range on the first floor that is no longer used. Much of the equipment for the range has been abandoned in place. The College reported that they have not been able to repurpose the space due to poor ventilation and concerns about contamination from lead bullets.
- One of the operable partitions in the gymnasium recently stopped working and was replaced with a mesh curtain. Staff reported that the mesh curtain is acceptable, but the College may want to consider new, high-quality, overhead operable partitions for the gymnasium.



Main Entrance



Natatorium



Locker Room

Completed Projects

Based on information from SUNY Orange, the following projects have been completed since the 2006 Master Plan Update:

- Roof repaired
- Main entrance refurbished
- Pool lift installed
- Pool boiler replaced
- Gymnasium floor replaced
- Racquetball court floors refinished
- New boiler installed

Building Condition Assessment

SUNY Orange Facilities Master Plan

Building Name: Edward A. Diana Physical Education Center
 Construction Year: 1974
 Occupancy Group: A-Assembly; B-Business

Floors Above/Below: 2/0
 GSF: 89,295
 NASF from PSI: 62,174

Building Component	Condition (%)				Building Component	Condition (%)			
	E	G	F	P		E	G	F	P
Building Exterior					Building Electrical				
Foundations		100			Fire Alarm System	50		50	
Exterior Walls		80	20		Emergency Power/Lighting Systems			50	50
Building Framing		100			Lighting Systems	25		75	
Windows/Louvers		90		10	Electrical Distribution			75	25
Doors/Frames/Hardware		90		10	Power Wiring		75	25	
Roof		90	10		Tel/Data Systems		50	50	
Building Interior					Specialty Systems				
Floors		100			Building Component	Compliance			
Walls		80	10	10		C	PC	NC	
Ceilings		80	10	10					
Doors/Frames/Hardware		90	10		NYS/ADA				
Built-In Furnishings		50	50		Exterior Doors	X			
Stairs		100			Interior Doors		X		
Elevators/Escalators					Horizontal Circulation (Corridors)	X			
Specialty Systems		80		20	Horizontal Circulation (Ramps)				
Building Mechanical					Vertical Circulation (Stairs)		X		
HVAC Distribution & Controls			75	25	Vertical Circulation (Elevators)				
AHU/Controls		50		50	Toilet Rooms		X		
Chiller/Controls					Locker Rooms		X		
Boiler/Heat Exchanger/Controls	75		25		Drinking Fountains		X		
Pumps/Motors/Compressors	25	50	25		Signage		X		
Fire Sprinkler/Standpipe Systems					Assembly Areas			X	
Plumbing Systems/Fixtures	25		50	25	Sales and Service Areas			X	
Specialty Systems					Dining Areas				



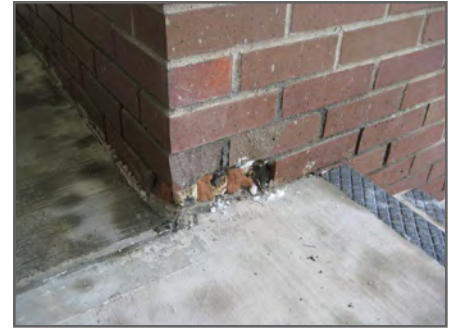
Not applicable

- E - Excellent Conditions generally at a "like new" level. Exemplary maintenance and appropriate funding required to maintain this level.
- G - Good Conditions generally at an acceptable level. Routine maintenance and appropriate funding required to maintain this level.
- F - Fair Conditions at a minimally acceptable level. Improvements, involving greater than routine maintenance and additional funding, is required.
- P - Poor Conditions below minimally acceptable levels. Conditions require substantial funding and/or considerable maintenance effort to be improved.
- C - Compliant Conforms with the most current version of the Building Code of New York State (NYS) and ADA Standards (ADA).
- PC - Partially Compliant Partially conforms with the most current version of the Building Code of New York State (NYS) or ADA Standards (ADA) due to modifications of the building component/space.

Exterior

The exterior of the building is in relatively good condition. The roof was replaced in 1999 and repaired within the last ten years. Exterior masonry walls, however, need to be repaired and repointed. The following exterior projects are recommended:

- Repair Masonry Walls - Masonry at the base of some exterior walls is in poor condition and, in many cases, the face of the bricks have broken off. The masonry should be repaired.
- Repoint Mortar Joints - Mortar joints are in disrepair at several locations around the building, particularly at sloped sills beneath windows. All deteriorating joints should be raked and repointed to prevent further deterioration of the exterior wall system.
- Replace Door Frame - The rusted door frame and failed weatherstripping at the overhead door into Storage Room 202 should be replaced.
- Replace Windows - The second floor windows at Human Performance Lab 224 are in poor condition and should be replaced.



Masonry at the base of some exterior walls is in poor condition.

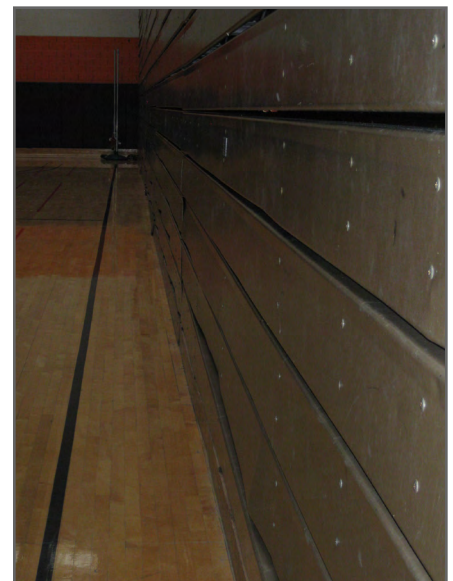
Interior

The College has undertaken several major projects since the 2006 Master Plan Update. The gymnasium floor has been replaced, the racquetball courts have been refinished, and a lift has been installed in the pool. The College should refinish the gymnasium floor every two years to maintain it in good condition. In addition, the following projects are recommended:

- Replace Gymnasium Bleachers - Bleachers in the gymnasium are in poor condition and do not have code required handrails. *The College plans to replace the bleachers in 2018 as part of their 2016 Six Year Capital Plan.*
- Replace Natatorium Ceiling - The ceiling in the Natatorium appears to be in poor condition. It should be removed to eliminate the possibility of it falling into the pool. The floor structure above should be exposed, cleaned, and coated with an epoxy finish to prevent deterioration. Acoustic panels should be installed to control noise. New light fixtures designed for high humidity environments should be installed.
- RegROUT Natatorium Tiles - Tiles in the Natatorium are in good condition, but rust is beginning to show through. The tiles should be cleaned and regROUTed.
- Refinish Racquetball Courts - Floors in the racquetball courts have recently been replaced, but walls and ceilings are in fair to poor condition. The walls should be resurfaced and ceilings replaced.
- Replace Storefront System - The interior storefront system between the Gymnasium and lobby is in fair to poor condition.
- Paint Gymnasium Walls - Walls in the gymnasium should be scraped, primed, and repainted.
- Investigate Leak in Women's Locker Room - There is a ceiling leak in Womens Locker Room 102. The cause of the leak should be investigated and appropriate action should be taken. Once the leak is resolved, all damaged interior finishes should be replaced.
- Install Wall Base - Missing wall base in second floor corridors should be installed.



Mortar joints at sloped walls beneath windows are in poor condition.



Bleachers in the gymnasium are in poor condition and do not have code required handrails.



New Boiler Plant

Mechanical

A new boiler plant was installed in 2014. Much of the original piping remains. Rooftop air-conditioning units serve classrooms and offices, but some classrooms do not have adequate ventilation. There is no air-conditioning system in the gymnasium and the space is reportedly very warm during summer months. *A project to replace the rooftop units is included in the 2016 Six Year Capital Plan and scheduled for completion in 2018.*

- Install Air-Conditioning System in Gymnasium - This space becomes very warm during summer months and the installation of an air-conditioning system should be investigated. The College has inquired about installing large ceiling mounted fan(s) - this will help with circulation, but likely will not solve space temperature issues.
- Install Direct Digital Controls - The existing controls system is pneumatic and should be upgraded to a DDC system. There are reported control issues with new low-voltage controls installed for the new boilers and existing pneumatic controls. There is no HW reset control at the new boiler.

Electrical

- Increase the Building's Electrical Capacity - Add new branch circuit panelboards in selected areas to increase the number of pole spaces and provide capacity for future growth.
- Upgrade Lighting Fixtures - Some light fixtures have been replaced in the building, including approximately half of the fixtures in the Gymnasium. It is recommended that the remainder of the fixtures be replaced with new energy efficient fixtures and lamps (T8 fluorescent or LED). New lighting is needed in the pool area.



Existing lighting in the pool area should be replaced.

Other Systems

- The Physical Education Center is not equipped with a sprinkler system.
- The building contains an addressable fire alarm panel with manual pull stations.
- Replace Deteriorating Pipes - There have been reported leaks and deterioration in the domestic and drainage piping. It is recommended that this piping be replaced, as needed.



Existing handrails should be replaced with fully-compliant handrails.

Building Code/ADA

SUNY Orange has completed several projects to improve accessibility in the building, such as renovating locker rooms and installing accessible water fountains. The following items, however, do not conform to the 2010 Building Code of New York State or 2010 ADA Standards for Accessible Design. **While updates are not required at this time, these issues would have to be addressed if the building is renovated.**

- Install Elevator - There is currently no accessible route from the lower to the upper level. This is a major concern, since the locker rooms are on the lower level and the gymnasium is on the upper level. An elevator should be installed to provide an accessible route between floors.
- Modify Concessions Counter - The counter at the concessions area is not at an accessible height. A portion of the counter should be lowered to 38 inches maximum above the floor.

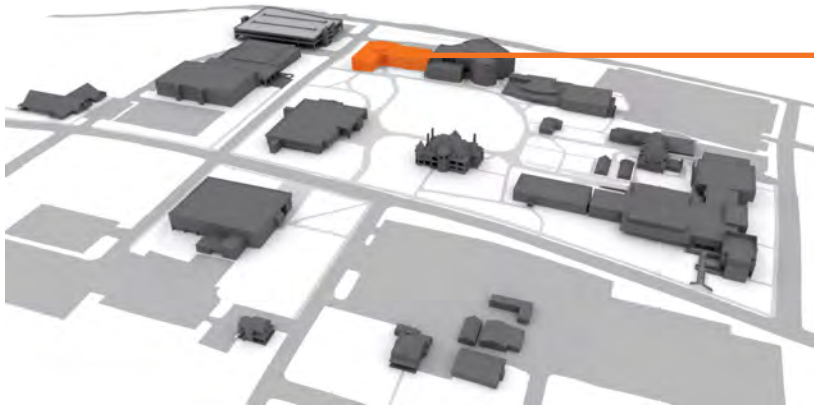
- Install Accessible Hardware - Accessible hardware has been installed at most interior doors. The College should continue to replace non-accessible hardware throughout the building.
- Replace Handrails - Existing handrails in stairs should be replaced with fully-compliant handrails.
- Modify Locker Rooms - Faculty and official locker rooms should be modified to bring them into full compliance with current ADA guidelines.
- Renovate Toilet Rooms - Toilets rooms have been updated, but require additional modifications to bring them into full compliance with current ADA requirements.
- Replace Drinking Fountains - All non-accessible drinking fountains should be replaced with fully-accessible units when the building is renovated.
- Campus-wide Signage Project - Some signage in the building does not comply with current ADA guidelines. All signage should be replaced as part of a campus-wide signage project.



Toilet rooms require additional modifications to bring them into full compliance.

Harriman Hall

Constructed 1963
55,000 GSF



Building History and Use

Harriman Hall houses many of the classrooms and faculty offices on the Middletown Campus. An internal connection to the Rowley Center for Science and Engineering was established when that building was constructed in 2014.

The first floor of Harriman Hall includes three large art classrooms, the student art gallery, general classrooms, and a large tiered lecture hall. A television studio was recently created at the north end of the building. The second floor is dedicated to the Business Program. Classrooms and offices for the Math Program, as well as the Math Tutorial Lab, are located on the third floor.

Functional Analysis

- Harriman Hall is one of the oldest academic buildings on campus. It has been well-maintained, but is beginning to show signs of its age. All finishes and lighting in the building will need to be updated in the next ten years.
- CAPE Classroom 114A is adjacent to the mechanical room. Noise from mechanical equipment is evident in the room and could be distracting to students and other individuals using the room.
- The College reported that expensive equipment in the TV Studio could be damaged in the summer months because there is no dedicated air-conditioning system for the space.
- Three large science labs on the third floor were vacated when the Rowley Center for Science and Engineering was completed. They have not been renovated, but are currently being used as general classroom space. They should be renovated and repurposed.
- The sound system in Lecture Hall 111 is, reportedly, inadequate and should be replaced with a more robust system.



Main Entrance



Classroom



Vacant science labs on the third floor are being used for general instruction.

Completed Projects

Based on information from SUNY Orange, the following projects have been completed since the 2006 Master Plan Update:

- Roof recoated
- Univents replaced
- ADA signage installed at restrooms

Building Condition Assessment

SUNY Orange Facilities Master Plan

Building Name: Harriman Hall
 Construction Year: 1963
 Occupancy Group: A-Assembly; B-Business

Floors Above/Below: 3/0
 GSF: 55,000
 NASF from PSI: 36,661

Building Component	Condition (%)				Building Component	Condition (%)			
	E	G	F	P		E	G	F	P
Building Exterior					Building Electrical				
Foundations		100			Fire Alarm System	50		50	
Exterior Walls		100			Emergency Power/Lighting Systems			50	50
Building Framing		100			Lighting Systems	25		75	
Windows/Louvers		10		90	Electrical Distribution			75	25
Doors/Frames/Hardware		100			Power Wiring		75	25	
Roof		80	20		Tel/Data Systems		50	50	
Building Interior					Specialty Systems				
Floors		40	30	30	Building Component	Compliance			
Walls		80	20			C	PC	NC	
Ceilings		40	30	30					
Doors/Frames/Hardware	50	50			NYS/ADA				
Built-In Furnishings		50	50		Exterior Doors	X			
Stairs		100			Interior Doors		X		
Elevators/Escalators		100			Horizontal Circulation (Corridors)		X		
Specialty Systems		100			Horizontal Circulation (Ramps)	X			
Building Mechanical					Vertical Circulation (Stairs)		X		
HVAC Distribution & Controls			75	25	Vertical Circulation (Elevators)	X			
AHU/Controls		50		50	Toilet Rooms		X		
Chiller/Controls					Locker Rooms				
Boiler/Heat Exchanger/Controls			100		Drinking Fountains	X			
Pumps/Motors/Compressors		50	50		Signage		X		
Fire Sprinkler/Standpipe Systems					Assembly Areas		X		
Plumbing Systems/Fixtures	25		50	25	Sales and Service Areas				
Specialty Systems					Dining Areas				



Not applicable

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Exterior

In general, the exterior of the building is in good condition. The curtainwall, however, is composed of single-pane windows and infill panels that are in fair condition and poorly insulated. *A project to replace the windows is included in the 2016 Six Year Capital Plan.* The following projects should be completed in the next ten years:

- Patch Roof - The roof was recoated since the 2006 Master Plan Update, but some patching is required. The College reported roof leaks in Office 120, as well as other areas of the building.
- Replace Curtainwall System - The curtainwall system consists of single-pane windows and poorly insulated infill panels in an anodized aluminum frame. Sealant between the windows and aluminum frame, as well as between the aluminum frame and adjacent masonry walls, has deteriorated to the point that occupants can see outside through the sealant joints. The entire curtainwall system should be replaced with a system that includes double-glazed, energy-efficient window units that will improve energy efficiency and occupant comfort.
- Install Metal Fascia - Exposed blocking at the perimeter of the roof should be covered with break metal that matches the existing metal fascia.



The exterior curtainwall system is poorly insulated and in poor condition.

Interior

Interior finishes are worn and should be replaced to improve the appearance of the building. Asbestos has been removed from areas that have been renovated, but remains in some floor tile and pipe joints. Asbestos abatement will need to be considered for all renovation projects. The following interior building projects are recommended to improve the appearance and function of the building:

- Repurpose Science Labs - The vacant science labs (312, 314, and 316) are currently being used as classrooms. The lab tables and casework are original to the building, in poor condition, and do not support current teaching methods. The labs should be renovated and repurposed.
- Upgrade Interior Finishes - Floor tile, carpet, and ceiling tile throughout the building are in fair to poor condition and should be replaced. The carpet in Computer Lab 215 is in particularly poor condition.



Interior finishes should be replaced to improve the appearance of the building.

Mechanical

The existing HVAC system consists of unit ventilators, as well as rooftop and penthouse air-handlers.

- Replace Unit Ventilators and Exhaust Fans - Unit ventilators and exhaust fans are original and past their useful life. It is recommended that they be replaced. *A project to replace the unit ventilators is included in the 2016 Six Year Capital Plan and scheduled for completion in 2016.*
- Install Direct Digital Controls - The majority of the existing controls system is pneumatic. It was reported that the system is very unreliable and requires a complete overhaul. Energy saving measures, like updated controls and VFDs for HW pumps, have been overridden by facilities staff due to maintenance concerns. Temperature control issues in classrooms (specifically first floor art classrooms) are present.
- Install Air-Conditioning System in TV Studio - This newly renovated space contains temperature sensitive equipment and space temperature exceeds local demand. If the College would like to keep the TV Studio in Harriman Hall, a dedicated air-conditioning system will be required.
- Install Air-Conditioning System in Art Studios - An air-conditioning system should be installed in Art Studios HH113, HH115, and HH117.



Existing Harriman Hall Boilers



Existing Electrical Distribution Equipment

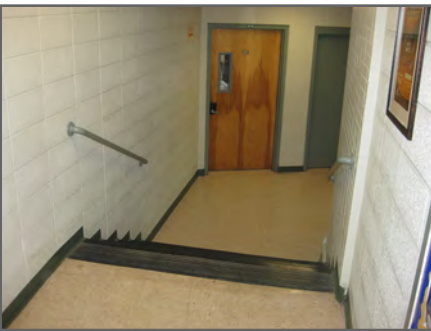
Electrical

The existing electrical switchgear and panelboard distribution is original to the building.

- Inspect and Upgrade - Enlist a manufacturer's technician to extensively inspect, clean, and repair all electrical distribution equipment. At that time, the condition of the equipment should be identified as suitable to remain or recommended to be replaced.
- Upgrade Lighting Fixtures - Some light fixtures have been replaced. It is recommended that the remainder of the fixtures be replaced with new energy efficient fixtures and lamps (T8 fluorescent or LED).

Other Systems

- Harriman Hall is not equipped with a sprinkler system.
- The building contains an addressable fire alarm panel with manual pull stations.
- Investigate Flooding - It was reported that the boiler room floods when a large storm occurs; further investigation is required.
- Replace Deteriorating Pipes - There have been reported leaks and deterioration in the domestic and drainage piping. It is recommended that this piping be replaced, as needed.



There is no accessible route between the Media Lab/TV Studio and Control Room.

Building Code/ADA

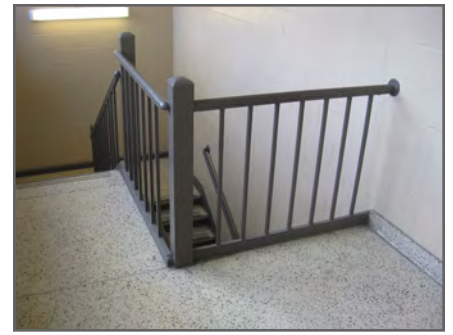
Harriman Hall has undergone many changes in the last twenty years to improve accessibility. An elevator addition was constructed on the east side of the building, accessible door hardware has been installed, toilet rooms have been updated, and automatic door openers have been installed at building entrances. The following items, however, do not conform to the 2010 Building Code of New York State or 2010 ADA Standards for Accessible Design. **While updates are not required at this time, these issues would have to be addressed if the building is renovated.**



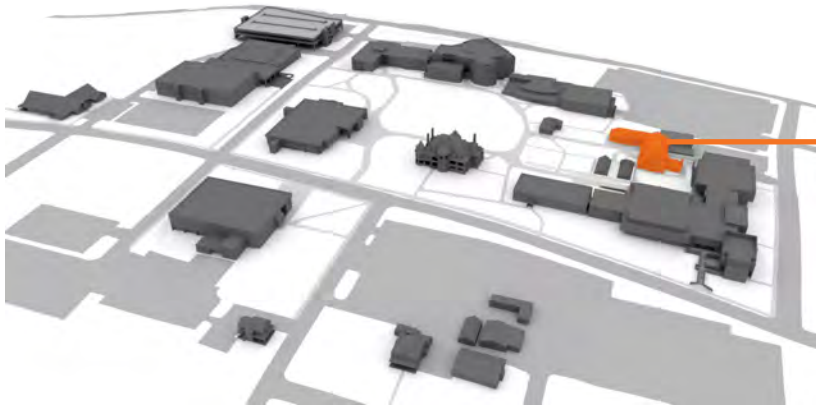
Art Classrooms 113 and 115 have stairs at the entrance door and are only accessible by traveling through Art Classroom 117.

- There are several areas of the building that are not accessible without traveling through an intervening space. Art Classrooms 113, 115, and the adjacent offices are not accessible without traveling through Art Classroom 117. This is problematic, particularly when classes are in session. The College also reported that older individuals have fallen down the stairs in Art Classroom 115. A lift, ramp, or raised floor system should be installed in each of the non-accessible classrooms.
- There is no accessible route between Media Lab 111D and Control Room 111B. Faculty indicated that students often travel between these spaces during class and the only accessible route is outside the building.
- Create Accessible Seating Areas - Accessible seating areas in Lecture Hall 111 are located at rear of the space. ADA guidelines require both horizontal and vertical dispersion. Additional accessible seating areas should be provided at the front of the lecture hall in accordance with Section 221 and Table 221.2.1.1 of the 2010 ADA Standards for Accessible Design.
- Install Assistive Listening System - An assistive listening system is required in all assembly areas where an amplification system is present. This type of system should, therefore, be installed in Lecture Hall 111.
- Install Accessible Hardware - Accessible hardware has been installed at most interior doors. The College should continue to replace non-accessible hardware throughout the building.

- Replace Handrails - Handrails in stairs do not have the required extensions. They should be replaced with fully-compliant handrails.
- Modify Guardrails - Guardrails in stairs are less than the code required height. They should be modified or replaced with fully-compliant guardrails.
- Modify Kitchens/Work Areas - Employee kitchens and work areas should be modified to bring them into full compliance with current ADA guidelines.
- Renovate Toilet Rooms - Toilets rooms have been updated, but require additional modifications to bring them into full compliance with current ADA requirements.
- Campus-wide Signage Project - Some signage in the building does not comply with current ADA guidelines and some required signage is missing. All signage should be replaced and missing signs should be installed as part of a campus-wide signage project.



Guardrails in the stairs are less than the code required height.



Horton Hall

**Constructed 1906
24,410 GSF**

Building History and Use

Horton Hall was part of the original estate and served as the carriage house prior to the formation of the College in 1950. It is connected to the Ice House and Morrison Hall by an underground tunnel that was originally used by estate employees. The central location, historic character, and beautiful garden setting make Horton Hall an ideal candidate for renovation. The layout, type of construction, and presence of asbestos, however, limit work that can be done to repurpose space in the building.

The College recently completed renovations on the first floor to create a new security office and workroom. The remainder of the first floor was vacated when the Rowley Center was constructed in 2014. The second floor includes office and support space for the Facilities Department, as well as a large conference room. A portion of the basement is dedicated to campus storage.



Horton Hall

Functional Analysis

- The building was originally part of the Morrison Estate and is, therefore, showing signs of its age. Interior finishes and building systems should be updated.
- At one time, the building housed classrooms, labs, and faculty offices for the Chemistry Department. All academic space was relocated to the Rowley Center for Science and Engineering in 2014. The vacated space is in poor condition and would require substantial renovation to be used as instructional space. It is currently being used by the Facilities Department.



Service Entrance

Completed Projects

Based on information from SUNY Orange, the following projects have been completed since the 2006 Master Plan Update:

- Roof repaired
- Fire escape refurbished
- Exterior stairs replaced
- Security offices created on first floor
- Accessible lift installed
- Greenhouses connected to Horton Hall boiler

Building Condition Assessment

SUNY Orange Facilities Master Plan

Building Name: Horton Hall
 Construction Year: 1906
 Occupancy Group: A-Assembly; B-Business

Floors Above/Below: 3/1
 GSF: 24,410
 NASF from PSI: 17,198

Building Component	Condition (%)				Building Component	Condition (%)			
	E	G	F	P		E	G	F	P
Building Exterior					Building Electrical				
Foundations		100			Fire Alarm System	50		50	
Exterior Walls		100			Emergency Power/Lighting Systems			50	50
Building Framing		100			Lighting Systems			50	50
Windows/Louvers			80	20	Electrical Distribution	10		40	50
Doors/Frames/Hardware		100			Power Wiring	10		40	50
Roof		90	10		Tel/Data Systems		50	50	
Building Interior					Building Electrical				
Floors		40	30	30	Specialty Systems				
Walls		40	40	20	Building Component	Compliance			
Ceilings		40	30	30		C	PC	NC	
Doors/Frames/Hardware		90	10		NYS/ADA				
Built-In Furnishings		25		75	Exterior Doors	X			
Stairs		50	50		Interior Doors		X		
Elevators/Escalators		100			Horizontal Circulation (Corridors)		X		
Specialty Systems		100			Horizontal Circulation (Ramps)				
Building Mechanical					Vertical Circulation (Stairs)		X		
HVAC Distribution & Controls			25	75	Vertical Circulation (Elevators)	X			
AHU/Controls					Toilet Rooms			X	
Chiller/Controls					Locker Rooms				
Boiler/Heat Exchanger/Controls	75		25		Drinking Fountains			X	
Pumps/Motors/Compressors		50	50		Signage			X	
Fire Sprinkler/Standpipe Systems					Assembly Areas			X	
Plumbing Systems/Fixtures	25		50	25	Sales and Service Areas				
Specialty Systems					Dining Areas				



Not applicable

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Exterior

The exterior of the building is in good condition. In 1995, the tile roof was replaced and masonry walls were repointed. The operable wood windows, however, are in fair to poor condition and not energy efficient. Exterior building projects that should be addressed in the next ten years include:

- Repair Roof - Damaged roof tiles should be replaced.
- Investigate Drainage Issues - Although some of the drainage issues have been resolved, drainage is still an issue around the building. Further investigation may be required to obtain information about subsurface conditions. The investigation will help the College determine if a site drainage system is required.
- Install Energy Efficient Windows - The wood, single-glazed windows are in fair to poor condition and should be replaced with double-glazed, thermally-broken units to improve energy efficiency and occupant comfort. Custom windows should be designed to maintain the historic character of the building.



Damaged roof tiles should be replaced.



Double-glazed, energy-efficient windows should be installed.

Interior

Given its current condition, it will be difficult to use the building for academic purposes. The size and condition of the spaces, narrow corridors, and lack of accessible toilet rooms do not provide an appropriate environment for learning. Vacant spaces on the first floor should be renovated and repurposed.

Many of the original finishes remain, including 9" x 9" asbestos floor tile. Asbestos abatement will need to be considered for all renovation projects. The following projects are recommended:

- Repurpose Science Labs - The three first floor science labs (102, 107, and 108) should be renovated and repurposed. The fixed casework should be removed, lighting fixtures upgraded, and interior finishes restored or replaced.
- Renovate Tiered Classroom 101 - Tiered Classroom 101 should be renovated with new finishes, furnishings, lighting, and technology. Since the Classroom Utilization Study revealed that there is a sufficient amount of general classroom space on the Middletown Campus and there is currently no academic space in Horton Hall, a new use should be found for the space. All vacated space on the first floor is currently being used by the Facilities Department.
- Replace Interior Finishes - Interior finishes in vacant spaces on the first floor are in fair to poor condition and should be restored or replaced.

Mechanical

Building systems consist of low pressure steam boilers that serve radiators. The boilers were replaced within the last five years. *A project to replace the boiler is included in the 2016 Six Year Capital Plan.*

- Update HVAC System - The existing system has very poor temperature control and contains no ventilation air, as required by the NYS Building Code. It is recommended that the system be replaced or modified in its entirety. Facilities staff suggested that new packaged rooftop equipment should be installed on the Shipping and Receiving Building's roof. Further investigation is required.

Electrical

A large portion of the new medium voltage (MV) campus electrical distribution was recently installed within the Horton Hall basement. New power panels were installed in the recently renovated security area.

- Increase the Building's Electrical Capacity - Add new branch circuit panelboards in selected areas to increase the number of pole spaces and provide capacity for future growth.
- Upgrade Lighting Fixtures - It is recommended that all fixtures be replaced with new energy efficient fixtures and lamps (T8 fluorescent or LED).

Other Systems

- Horton Hall is not equipped with a sprinkler system.
- The building contains an addressable fire alarm panel with zoned smoke detectors and manual pull stations.
- Replace Deteriorating Pipes - There have been reported leaks and deterioration in the domestic and drainage piping. It is recommended that this piping be replaced, as needed.



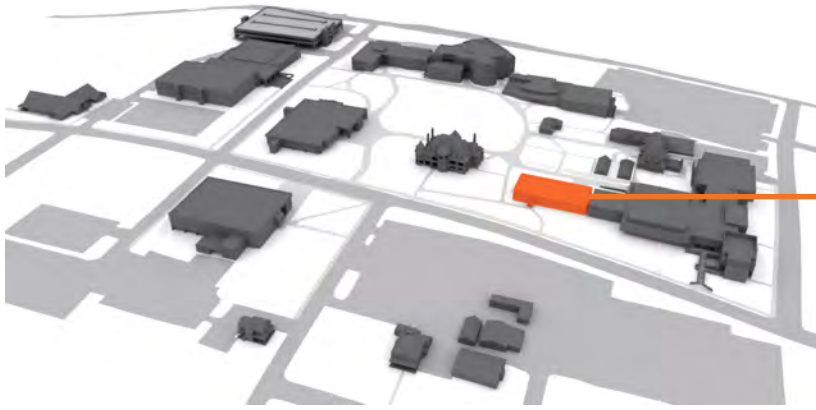
There is no accessible route to the large conference room on the second floor.

Building Code/ADA

Limited work has been done in the building to improve accessibility. A lift has been installed to provide an accessible route to the second floor and accessible door hardware has been installed. The following items do not conform to the 2010 Building Code of New York State or 2010 ADA Standards for Accessible Design.

While updates are not required at this time, these issues would have to be addressed if the building is renovated.

- Many spaces in the building do not have the required clearance or turning space. Future renovations should address all accessibility issues.
- Install Ramp - There is no accessible route to the large conference room on the second floor. A ramp should be installed in place of the stairs.
- Replace Handrails - Handrails at the stairs are not compliant with current ADA guidelines and should be replaced.
- Modify Kitchens/Work Areas - Employee kitchens and work areas should be modified to bring them into full compliance with current ADA guidelines.
- Renovate Toilet Rooms - Toilet rooms should be renovated to bring them into full compliance with current ADA requirements.
- Replace Drinking Fountains - All non-accessible drinking fountains should be replaced with fully-accessible units when the building is renovated.
- Campus-wide Signage Project - All signage should be replaced and missing signs should be installed as part of a campus-wide signage project.



Hudson Hall

Constructed 1955
15,918 GSF

Building History and Use

Hudson Hall was the first building constructed for SUNY Orange on the Middletown Campus. It sits next to Morrison Hall and is connected to the Bio-Tech Building on the first and second floors. Many of the interior spaces have not been updated since the building was first occupied in 1955.

The first floor originally contained science labs and lecture halls. All of those spaces are currently vacant due to the recent completion of the Rowley Center for Science and Engineering. The second floor houses nine general instruction classrooms and an office for Nursing faculty.

Functional Analysis

- Functions located on the first floor were moved to the new Rowley Center for Science & Engineering in 2014. The College plans to renovate the vacant lecture halls and science labs to create office space for faculty currently located in the Christine Morrison House, which will enable demolition of the Christine Morrison House. The departments that will be moving to Hudson Hall include Behavioral Sciences, Criminal Justice, and Global Studies. This project will enable demolition of the Christine Morrison House.
- The building has been well-maintained and is in good condition. The second floor classrooms, however, are beginning to show signs of their age and do not support current teaching modalities. They should be updated as part of this master plan.



Main Entrance

Completed Projects

No projects have been completed in Hudson Hall since the 2006 Master Plan Update.

Building Condition Assessment

SUNY Orange Facilities Master Plan

Building Name: Hudson Hall
 Construction Year: 1955
 Occupancy Group: B-Business

Floors Above/Below: 2/0
 GSF: 15,918
 NASF from PSI: 10,997

Building Component	Condition (%)				Building Component	Condition (%)			
	E	G	F	P		E	G	F	P
Building Exterior					Building Electrical				
Foundations		100			Fire Alarm System	50		50	
Exterior Walls		100			Emergency Power/Lighting Systems			50	50
Building Framing		100			Lighting Systems			50	50
Windows/Louvers		50		50	Electrical Distribution			50	50
Doors/Frames/Hardware		100			Power Wiring		50	50	
Roof		80	20		Tel/Data Systems		50	50	
Building Interior					Specialty Systems				
Floors		40	60		Building Component	Compliance			
Walls		40	60			C	PC	NC	
Ceilings		40	60						
Doors/Frames/Hardware		100							
Building Mechanical					NYS/ADA				
Built-In Furnishings		30	70		Exterior Doors	X			
Stairs		100			Interior Doors	X			
Elevators/Escalators					Horizontal Circulation (Corridors)	X			
Specialty Systems		100			Horizontal Circulation (Ramps)			X	
HVAC Distribution & Controls			50	50	Vertical Circulation (Stairs)		X		
AHU/Controls					Vertical Circulation (Elevators)				
Chiller/Controls					Toilet Rooms		X		
Boiler/Heat Exchanger/Controls		50	50		Locker Rooms				
Pumps/Motors/Compressors		50	50		Drinking Fountains			X	
Fire Sprinkler/Standpipe Systems					Signage		X		
Plumbing Systems/Fixtures	25		50	25	Assembly Areas		X		
Specialty Systems					Sales and Service Areas				
					Dining Areas				



Not applicable

- E - Excellent Conditions generally at a "like new" level. Exemplary maintenance and appropriate funding required to maintain this level.
- G - Good Conditions generally at an acceptable level. Routine maintenance and appropriate funding required to maintain this level.
- F - Fair Conditions at a minimally acceptable level. Improvements, involving greater than routine maintenance and additional funding, is required.
- P - Poor Conditions below minimally acceptable levels. Conditions require substantial funding and/or considerable maintenance effort to be improved.
- C - Compliant Conforms with the most current version of the Building Code of New York State (NYS) and ADA Standards (ADA).
- PC - Partially Compliant Partially conforms with the most current version of the Building Code of New York State (NYS) or ADA Standards (ADA) due to modifications of the building component/space.

Exterior

In general, the exterior of the building is in good condition. The original windows were replaced in 1997 to improve energy efficiency. The curtainwall infill panels, however, were not replaced and remain in poor condition. The following projects should be completed in the next ten years:

- Recoat/Replace Roof - The roof was recoated in 2005 and carries a ten-year warranty. It will need to be recoated or replaced during the life of this master plan.
- Replace Infill Panels - The curtainwall infill panels are poorly insulated and in poor condition. They should be replaced to improve energy efficiency and occupant comfort.
- Replace Sealant - Sealant between the curtainwall and adjacent masonry walls is beginning to deteriorate. The joints should be raked and recaulked.
- Install Missing Soffit Panels - Missing soffit panels should be installed around the perimeter of the building.

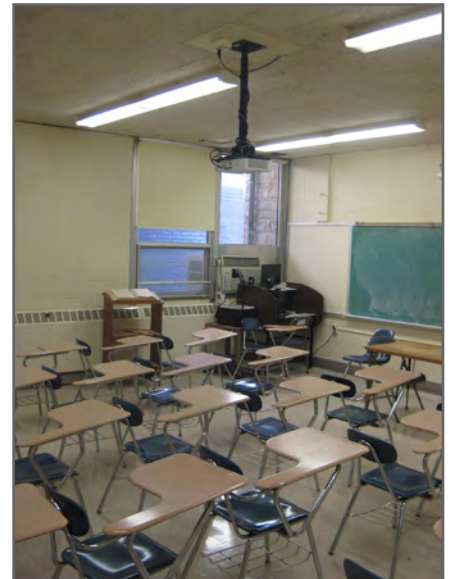


Missing soffit panels should be installed.

Interior

Lecture halls, classrooms, and science labs are outdated and should be renovated with new finishes, furnishings, lighting, and technology. The following interior building projects are recommended to improve the appearance and function of the building:

- Repurpose First Floor - First floor science labs (101, 104, 105, and 108) and lecture halls (107 and 111) should be renovated and repurposed. The fixed casework in the labs should be removed, lighting fixtures should be upgraded, and interior finishes should be restored or replaced as part of the renovations.
- Update Classrooms - All second floor classrooms should be updated. Renovations should include new finishes, furnishings, lighting, and technology.
- Renovate Toilet Rooms - Toilet rooms should be updated to improve their appearance and bring them into full compliance with current NYS Building Code requirements and ADA guidelines.



Classrooms should be updated.

Mechanical

Building systems consist of HW boilers serving HW baseboard heaters. Window air-conditioning units are installed in select locations. Boilers were replaced around 2005 and are approximately 10 years old. *A project to replace the boiler is included in the 2016 Six Year Capital Plan.*

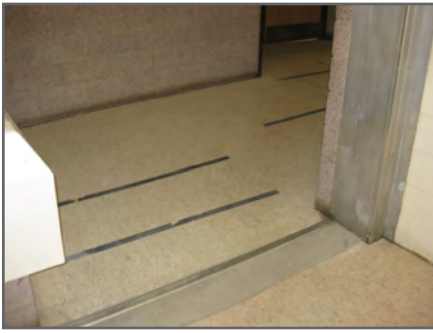
- Install New Air-Conditioning System - There is currently no air-conditioning and ventilation system in place. It is recommended that a new system is installed to address occupant needs.
- Update Direct Digital Controls - A DDC controls system is installed, but improper zoning remains an issue and, as a result, space temperatures suffer. It is recommended that the controls system be updated to match space needs.

Electrical

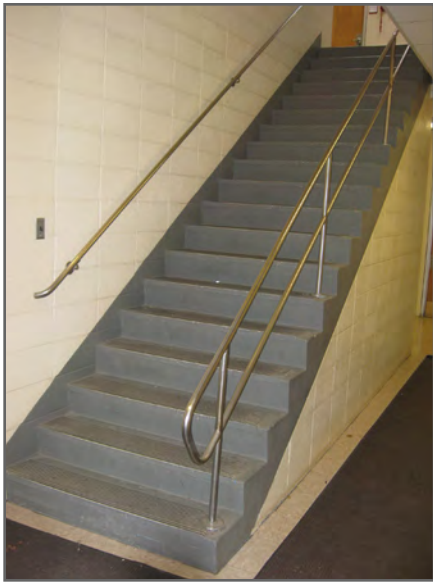
- Install New Electrical Distribution Equipment - As previously recommended in the 2006 Master Plan Update, new electrical distribution equipment is recommended to be installed.
- Upgrade Lighting Fixtures - It is recommended that all fixtures be replaced with new energy efficient fixtures and lamps (T8 fluorescent or LED).



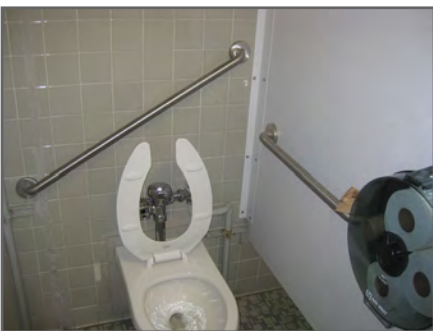
Existing Boiler Plant



The ramp that connects Hudson Hall to the Bio-Technology Building slopes in two directions and is, therefore, not accessible.



Handrails do not have the required extensions and railings exceed the maximum permitted baluster spacing.



Toilet rooms require additional modifications to bring them into full compliance.

Other Systems

- Hudson Hall is not equipped with a sprinkler system.
- The building contains an addressable fire alarm panel with manual pull stations only.
- Replace Deteriorating Pipes - There have been reported leaks and deterioration in the domestic and drainage piping. It is recommended that this piping be replaced, as needed.

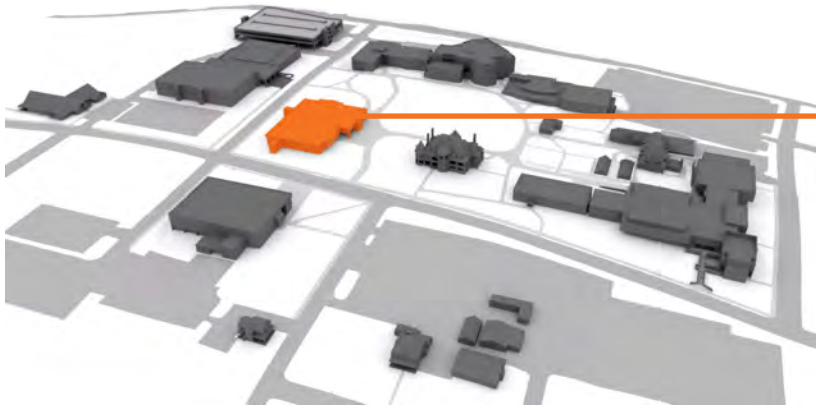
Building Code/ADA

The College has worked diligently to improve accessibility in Hudson Hall. Accessible door hardware has been installed, toilet rooms have been updated, and automatic door openers have been installed at building entrances. The following items, however, do not conform to the 2010 Building Code of New York State or 2010 ADA Standards for Accessible Design. **While updates are not required at this time, these issues would have to be addressed if the building is renovated.**

- Create Accessible Seating Areas - There are no accessible seating areas in the first floor lecture halls. If the College continues to use the lecture halls for instruction, additional accessible seating areas should be provided in accordance with Section 221 and Table 221.2.1.1 of the 2010 ADA Standards for Accessible Design.
- Install Ramp - The first and second floor connections to the Bio-Tech Building consist of ramps that slope in two directions. ADA guidelines prohibit a cross slope steeper than 1:48. A new ramp should be installed when the building is renovated to address this issue. A portion of Science Lab 105 may need to be used to accommodate the new ramp.
- Replace Handrails - Handrails at stairs do not have the required extensions. They should be replaced with fully-compliant handrails.
- Modify Railings - Railings at stairs exceed the maximum baluster spacing permitted by the Building Code of New York. They should be modified or replaced with fully-compliant guardrails.
- Renovate Toilet Rooms - Toilets rooms have been updated, but require additional modifications to bring them into full compliance with current ADA requirements.
- Replace Drinking Fountains - All non-accessible drinking fountains should be replaced with fully-accessible units when the building is renovated.
- Campus-wide Signage Project - Some signage in the building does not comply with current ADA guidelines and some required signage is missing. All signage should be replaced and missing signs should be installed as part of a campus-wide signage project.

Library

Constructed 1973
Renovated 2006
48,797 GSF



Building History and Use

The Library is located at the corner of South Street and East Conkling Avenue. It houses the library collection, seating areas, classrooms, offices, an open computer lab, and Academic Support Services. The library collection includes approximately 100,000 volumes and access to 67 periodical databases. Recent renovations to the Library include construction of the Gilman Center and reconfiguration of the second floor to provide space for administrative and faculty offices.

Functional Analysis

- The building was originally designed as a library, but the concept of library has evolved since 1973. The “modern” library is not a place where students quietly study, it is a vibrant learning community where collaboration and conversation are encouraged. While it is still important to maintain an appropriate amount of stack and quiet study space, it is equally important to provide space for groups of students to work together. It is also important that the library is equipped with the latest technology to fully engage today’s students. The College should consider additional soft seating areas with flexible furniture and access to power and data for students who bring their own devices to campus.
- Only 68 percent of the space in the building is dedicated to library services. The second floor includes space for Academic Support Services, administrative offices, and faculty offices. These types of spaces have different requirements, often resulting in acoustic issues, security concerns, and poor circulation. Moving some of these functions out of the library would provide much needed space for group study rooms and soft seating areas.
- Students have indicated that the reference desk is unwelcoming. When it is replaced, an accessible station should be provided.
- Faculty and staff reported that the kitchen adjacent to the Gilman Center is not adequate for events.



Gilman Center



Academic Support Services

Completed Projects

Based on information from SUNY Orange, the following projects have been completed since the 2006 Master Plan Update:

- Roof repaired
- Main entrance refurbished
- Interior renovations
- New elevator installed
- Offices for Education Department created on second floor

Building Condition Assessment

SUNY Orange Facilities Master Plan

Building Name: Library
 Construction Year: 1973
 Occupancy Group: B-Business

Floors Above/Below: 2/1
 GSF: 48,797
 NASF from PSI: 37,124

Building Component	Condition (%)				Building Component	Condition (%)			
	E	G	F	P		E	G	F	P
Building Exterior				Building Electrical					
Foundations		100			Fire Alarm System	50		50	
Exterior Walls		100			Emergency Power/Lighting Systems			50	50
Building Framing		100			Lighting Systems			50	50
Windows/Louvers			100		Electrical Distribution			50	50
Doors/Frames/Hardware		100			Power Wiring		50	50	
Roof		100			Tel/Data Systems		50	50	
Building Interior				Building Electrical					
Floors		100			Specialty Systems				
Walls		100			Building Component	Compliance			
Ceilings		100				C	PC	NC	
Doors/Frames/Hardware		100			NYS/ADA				
Built-In Furnishings		100			Exterior Doors	X			
Stairs		100			Interior Doors	X			
Elevators/Escalators		100			Horizontal Circulation (Corridors)	X			
Specialty Systems		100			Horizontal Circulation (Ramps)				
Building Mechanical				Building Mechanical					
HVAC Distribution & Controls			25	75	Vertical Circulation (Stairs)		X		
AHU/Controls			25	75	Vertical Circulation (Elevators)	X			
Chiller/Controls		50	50		Toilet Rooms	X			
Boiler/Heat Exchanger/Controls			25	75	Locker Rooms				
Pumps/Motors/Compressors		50	50		Drinking Fountains	X			
Fire Sprinkler/Standpipe Systems					Signage		X		
Plumbing Systems/Fixtures	25		50	25	Assembly Areas				
Specialty Systems					Sales and Service Areas		X		
					Dining Areas				



Not applicable

- E - Excellent Conditions generally at a "like new" level. Exemplary maintenance and appropriate funding required to maintain this level.
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- PC - Partially Compliant Partially conforms with the most current version of the Building Code of New York State (NYS) or ADA Standards (ADA) due to modifications of the building component/space.

Exterior

In general, the exterior of the building is in good condition. Solar heat transmitted through single-pane windows on the west side of the building, however, makes spaces inside too warm during spring and summer months.

- Install Energy-Efficient Windows - The original, single-pane windows should be replaced with double-glazed, thermally-broken units to improve energy efficiency and occupant comfort.

Interior

Interior renovations were completed in 2006 and included new finishes and lighting on both floors of the building. All interior spaces are in good condition.

Mechanical

A single air-handling unit serves the entire building, with HW reheat coils at terminal units. HW is served by the original (1974) boilers and CHW is served by the recently replaced (2005) chiller. Boilers reportedly need to run all summer to provide additional load to the chiller, which is significantly oversized. Many spaces have temperature control issues due to the installation of partitions over the years without modifications to HVAC zoning. Faculty report using space heaters in many offices. *The chiller is scheduled to be replaced in 2017 as part of the 2016 Six Year Capital Plan. The plan also includes a project to replace cooling tower piping in 2019.*

- Install New HVAC System - Installation of a new HVAC system should include air handling equipment, cooling tower, investigation into sizing of existing chiller, new ventilation system, and proper zoning.
- Install New HVAC System for Archive Storage - Basement space has been converted to archive storage and humidity levels are too high for the space to continue to serve this function. A new system is recommended, which may be combined or independent to the new building system recommended above.
- Install Direct Digital Controls - The existing controls system is pneumatic and should be upgraded to a DDC system.

Electrical

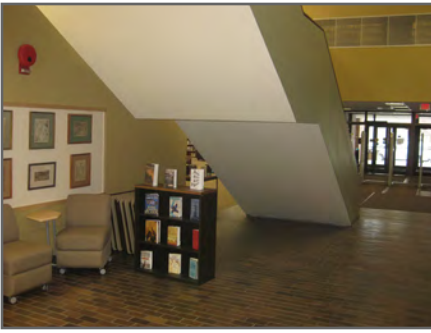
- Install New Electrical Distribution Equipment - As previously recommended in the 2006 Master Plan, new electrical distribution equipment is recommended to be installed.
- Upgrade Lighting Fixtures - It is recommended that all fixtures be replaced with new energy efficient fixtures and lamps (T8 fluorescent or LED).

Other Systems

- The Library is not equipped with a sprinkler system.
- The building contains an addressable fire alarm panel with manual pull stations.



Existing HVAC Equipment

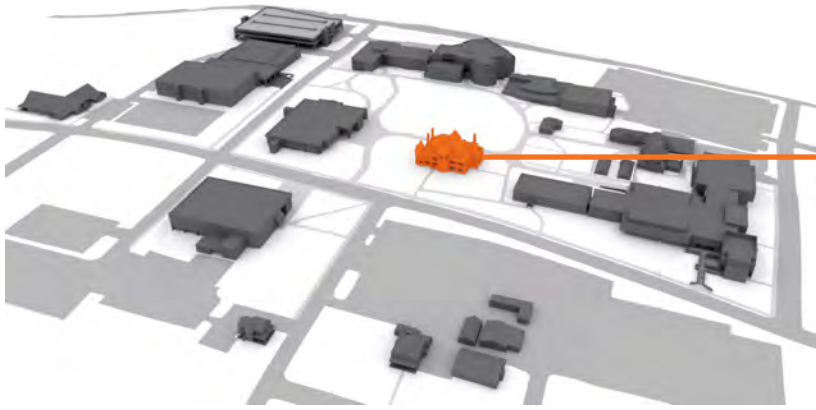


A cane detection railing is required where the vertical clearance is less than 80 inches.

Building Code/ADA

Toilet rooms have been renovated and are fully compliant. The College has also installed accessible door hardware and water fountains. The following items, however, do not conform to the 2010 Building Code of New York State or 2010 ADA Standards for Accessible Design. **While updates are not required at this time, these issues would have to be addressed if the building is renovated.**

- Modify Circulation and Reference Desks - Provide an accessible station at the circulation and reference desks.
- Install Cane Detection Railing- A cane detection railing should be installed at the underside of the main stair where the vertical clearance is less than 80 inches to prevent visually impaired individuals from injury.
- Modify Guardrails - Guardrails in stairs are less than the code required height. They should be modified or replaced with fully-compliant guardrails.
- Campus-wide Signage Project - Some signage in the building does not comply with current ADA guidelines. All signage should be replaced as part of a campus-wide signage project.



Morrison Hall

Constructed 1910
Renovated 1990
31,330 GSF

Building History and Use

Morrison Hall was originally built as the primary residence of Webb Horton, a retired industrialist, and his family. Upon his death, the house and property was given to his cousin, John H. Morrison. The property remained with John Morrison and his wife until it was donated to the College by Christine Morrison in 1950. The interior of the building features exquisite woodwork, Tiffany light fixtures, and C.W. Dodge ceiling murals.

The former mansion houses administration and faculty offices. Space for the Honors Program, including a dedicated classroom, is located in the basement. The Office of the President, as well as space for the Vice-Presidents, is on the second floor. The third floor is dedicated to the English Department.

Functional Analysis

- Morrison Hall was renovated in 1990, but still retains many of its historic features. Any future renovations should be completed in such a way that the historic character of the building is maintained.
- The Honors Program is currently located in the basement. The space is too small and does not have access to natural light. Some spaces do not have doors for acoustic separation and privacy. The structure and layout of the historic building does not provide the flexibility for the program to grow.
- The English Department is located on the third floor of the building. The College reported that students are often reticent to enter the building and/or do not know where the offices are located. The College should consider using this building for administrative functions only.



Morrison Hall



Each year, the first floor of Morrison Hall is elaborately decorated for the holidays.

Completed Projects

Based on information from SUNY Orange, the following projects have been completed since the 2006 Master Plan Update:

- Roof repaired

Building Condition Assessment

SUNY Orange Facilities Master Plan

Building Name: Morrison Hall
 Construction Year: 1910
 Occupancy Group: B-Business

Floors Above/Below: 4/1
 GSF: 31,330
 NASF from PSI: 14,476

Building Component	Condition (%)				Building Component	Condition (%)			
	E	G	F	P		E	G	F	P
Building Exterior					Building Electrical				
Foundations		100			Fire Alarm System	50		50	
Exterior Walls		80	20		Emergency Power/Lighting Systems			50	50
Building Framing		100			Lighting Systems			50	50
Windows/Louvers		40	40	20	Electrical Distribution	25		50	25
Doors/Frames/Hardware		40	40	20	Power Wiring		50	50	
Roof		80	20		Tel/Data Systems		50	50	
Building Interior					Specialty Systems				
Floors		80	20		Building Component	Compliance			
Walls		80	20			C	PC	NC	
Ceilings		80	20		NYS/ADA				
Doors/Frames/Hardware		100			Exterior Doors			X	
Built-In Furnishings		100			Interior Doors			X	
Stairs		100			Horizontal Circulation (Corridors)	X			
Elevators/Escalators		100			Horizontal Circulation (Ramps)				
Specialty Systems		100			Vertical Circulation (Stairs)		X		
Building Mechanical					Vertical Circulation (Elevators)	X			
HVAC Distribution & Controls			50	50	Toilet Rooms		X		
AHU/Controls					Locker Rooms				
Chiller/Controls			50	50	Drinking Fountains			X	
Boiler/Heat Exchanger/Controls		50	50		Signage			X	
Pumps/Motors/Compressors		50	50		Assembly Areas				
Fire Sprinkler/Standpipe Systems					Sales and Service Areas				
Plumbing Systems/Fixtures	25		50	25	Dining Areas				
Specialty Systems									



Not applicable

- E - Excellent Conditions generally at a "like new" level. Exemplary maintenance and appropriate funding required to maintain this level.
- G - Good Conditions generally at an acceptable level. Routine maintenance and appropriate funding required to maintain this level.
- F - Fair Conditions at a minimally acceptable level. Improvements, involving greater than routine maintenance and additional funding, is required.
- P - Poor Conditions below minimally acceptable levels. Conditions require substantial funding and/or considerable maintenance effort to be improved.
- C - Compliant Conforms with the most current version of the Building Code of New York State (NYS) and ADA Standards (ADA).
- PC - Partially Compliant Partially conforms with the most current version of the Building Code of New York State (NYS) or ADA Standards (ADA) due to modifications of the building component/space.

Exterior

When the building was renovated in 1990, a new clay tile roof was installed. The original steam gutters, however, were not included in the renovations. As a result, snow and ice sometimes fall from the steeply sloped roofs presenting a potential hazard to pedestrians below. A snow melt system, possibly in conjunction with snow diverters, should be installed at strategic locations. The following projects should be completed in the next ten years:

- Install Snow Melt System - Install a snow melt system in select areas on the roof to prevent snow and ice from falling on pedestrians below.
- Repair Exterior Ceilings - The plaster ceilings below the flat roofs are in poor condition and should be repaired.
- Replace/Repair Exterior Doors - Many of the ornate, metal doors are rusted and in poor condition. Rust from the doors is staining the stone walkways around the building. The doors should be repaired or replaced.
- Install Energy-Efficient Windows - The original, single-pane windows should be replaced with double-glazed, thermally-broken units to improve energy efficiency and occupant comfort. To maintain the historic character of the building, the replacement units should be carefully designed and historically accurate. While the cost to replace these units will be high, the College may be able to pursue grant or fundraising opportunities for this work.
- Repair Concrete Ramp - The concrete access ramp on the east side of the building is spalling and should be repaired.



Exterior plaster ceilings are in poor condition



The exterior concrete ramp is spalling

Interior

The interior of the building is beautifully appointed and well-maintained. The historic character of the mansion makes it challenging to upgrade building systems and bring the building into compliance with current codes. However, the following projects should be included in this master plan.

- Asbestos is reportedly present in the building. All interior projects should include an allowance for abatement.
- Improve Lighting in Offices - Occupants have complained that lighting is poor throughout the building. Additional lighting fixtures should be installed in offices.
- Investigate Leak in Office 307- There is evidence of a ceiling leak in Office 307. The cause of the leak should be investigated and appropriate action should be taken. Once the leak is resolved, all damaged interior finishes should be replaced.
- Investigate Leak in Mens Toilet Room - Water damage on the wall in the men's toilet room may indicate that the urinals are leaking.

Mechanical

The building is served by a water source heat pump (WSHP) system consisting of approximately 50 terminal units, all installed in early 1990. *A project to replace the cooling tower is included in the 2016 Six Year Capital Plan.*

- Replace Heat Pumps - Units are beyond expected life and becoming difficult to maintain as replacement parts become less available. Replace existing R22 WSHPs with new R410 heat pumps. Units can be replaced as needed, or throughout.



Many of the ornate, metal doors are rusted

- Reroute Cooling Tower Piping - As recommended in the 2006 Master Plan Update, the piping serving the cooling tower travels through the tunnel to Horton Hall. This piping is deteriorating and should be replaced.

Electrical

- Inspect and Upgrade - Enlist a manufacturer's technician to extensively inspect, clean, and repair all electrical distribution equipment. At that time, the condition of the equipment should be identified as suitable to remain or recommended to be replaced.
- Upgrade Lighting Fixtures - It is recommended that all fixtures be replaced with new energy efficient fixtures and lamps (T8 fluorescent or LED).

Other Systems

- Morrison Hall is not equipped with a sprinkler system.
- The building contains an addressable fire alarm panel with smoke detectors and manual pull stations.

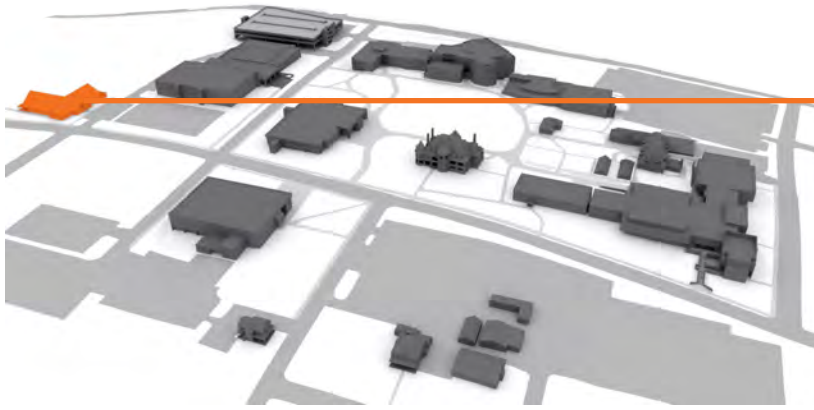
Building Code/ADA

The following projects are recommended to improve compliance with the 2010 ADA Standards for Accessible Design:

- Renovate Toilet Rooms - Toilets rooms have been updated, but require additional modifications to bring them into full compliance with current ADA requirements.
- Replace Drinking Fountains - All non-accessible drinking fountains should be replaced with fully-accessible units when the building is renovated.
- Campus-wide Signage Project - Some signage in the building does not comply with current ADA guidelines and some required signage is missing. All signage should be replaced and missing signs should be installed as part of a campus-wide signage project.

Morrison Lab School

Constructed 2013
11,590 GSF



Building History and Use

This one-story building was constructed in 2013 to provide space for the expansion of day care services at the Middletown Campus. The building creates a safe, comfortable environment that is welcoming to children and parents. It includes facilities for infant care and universal pre-kindergarten for children of the Enlarged City School District of Middletown.

All of the childcare rooms open onto a secure, landscaped play area that includes a hands-on garden for learning about growing food. Some of the “crops” from the garden are used in the kitchen, which has an observation window for children to learn about food preparation and nutrition. The design for the building incorporates requirements identified by the user groups during design, such as bus drop-offs for the universal pre-kindergarten program.



Morrison Lab School

Functional Analysis

- Faculty and staff reported that classrooms in the building are very loud. The College should consider installing sound control devices, such as acoustic wall panels.
- The Morrison Lab School was constructed in 2013. All exterior and interior components are in good or excellent condition.

Mechanical

High-efficiency natural gas furnaces that contain DX coil serve classroom and office spaces throughout the building. A condensing unit is located on the roof. Ventilation air is provided through an energy recovery unit and serves furnaces for distribution. DDC controls via web based building automatic systems are provided.

Electrical

The building is served by a separate 208V utility feed. Selective loads are backed up with 45kW natural gas generator. The Lab School contains fully addressable smoke detection, mass notification, access control, and video surveillance systems.

Other Systems

The building is protected by wet and dry sprinkler systems.



Enclosed Play Area



Main Corridor

Building Condition Assessment

SUNY Orange Facilities Master Plan

Building Name: Morrison Lab School
 Construction Year: 2013
 Occupancy Group: B-Business

Floors Above/Below: 1/0
 GSF: 11,590
 NASF from PSI: 7,813

Building Component	Condition (%)				Building Component	Condition (%)			
	E	G	F	P		E	G	F	P
Building Exterior					Building Electrical				
Foundations	100				Fire Alarm System	100			
Exterior Walls	100				Emergency Power/Lighting Systems	100			
Building Framing	100				Lighting Systems	100			
Windows/Louvers	100				Electrical Distribution	100			
Doors/Frames/Hardware	100				Power Wiring	100			
Roof	100				Tel/Data Systems	100			
Building Interior					Specialty Systems	100			
Floors	100				Building Component	Compliance			
Walls		100				C	PC	NC	
Ceilings	100				NYS/ADA				
Doors/Frames/Hardware	100				Exterior Doors	X			
Built-In Furnishings	100				Interior Doors	X			
Stairs					Horizontal Circulation (Corridors)	X			
Elevators/Escalators					Horizontal Circulation (Ramps)				
Specialty Systems	100				Vertical Circulation (Stairs)				
Building Mechanical					Vertical Circulation (Elevators)				
HVAC Distribution & Controls	100				Toilet Rooms	X			
AHU/Controls	100				Locker Rooms	X			
Chiller/Controls					Drinking Fountains	X			
Boiler/Heat Exchanger/Controls					Signage	X			
Pumps/Motors/Compressors					Assembly Areas				
Fire Sprinkler/Standpipe Systems	100				Sales and Service Areas				
Plumbing Systems/Fixtures	100				Dining Areas	X			
Specialty Systems									

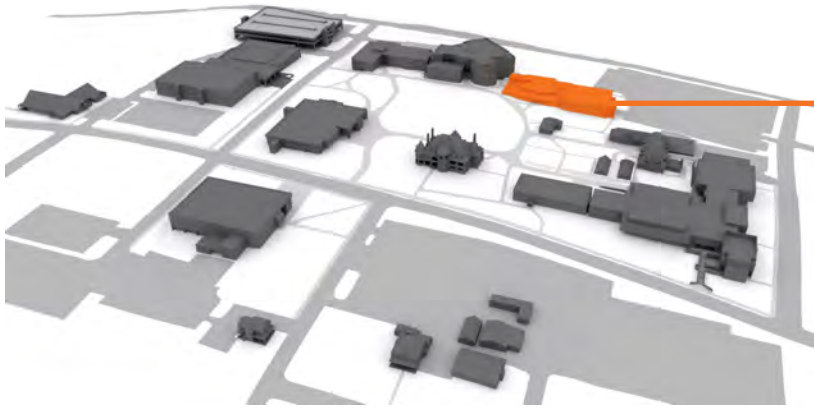


Not applicable

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Orange Hall

Constructed 1958
Renovated 1993
47,478 GSF



Building History and Use

Orange Hall was constructed in 1958. Originally, the building housed the women's gymnasium and dining hall. The gymnasium was renovated in 1993 to provide space for the Business Office. The facility is now home to Arts and Communications, Comptroller, Cultural Affairs, Financial Aid, Human Resources, Payroll, and Student Affairs.

The basement includes an art classroom, music rehearsal room, and photography studio. The primary spaces on the first floor are a 388-seat theater and large art gallery. The first floor piano labs have recently been updated to electronic labs. The second floor (formerly the upper portion of the gymnasium) includes one general classroom, office space, and support space.

Functional Analysis

- The Symphonic Band is comprised of students and members of the community. The College reported that all of the instruments cannot fit on the stage and the band uses the Paramount Theater for both rehearsal and performances.
- The theater does not have the necessary backstage support spaces, such as a scene shop and green room, to support a robust theater program or professional performances.
- There are significant acoustic separation issues throughout the building. It is reported that music students practicing on the west end of the building can be heard by faculty and staff in the office areas on the east end.
- The gallery is the largest exhibit space in Orange County. It works well for a variety of media, but Cultural Affairs indicated that lighting along the perimeter is not adequate for display of artwork. In addition, the College expressed interest in replacing the carpet with a more durable surface, like hardwood.
- The art classroom in the basement does not have running water for cleaning or material requirements.

Completed Projects

Based on information from SUNY Orange, the following projects have been completed since the 2006 Master Plan Update:

- Upper and lower patios refurbished
- Walkway repaved
- New stairs and railings installed at loading dock
- New boiler installed
- ADA signage installed at restrooms



Main Entrance



Theater



Gallery

Building Condition Assessment

SUNY Orange Facilities Master Plan

Building Name: Orange Hall
 Construction Year: 1958
 Occupancy Group: A-Assembly; B-Business

Floors Above/Below: 2/1
 GSF: 47,478
 NASF from PSI: 30,419

Building Component	Condition (%)				Building Component	Condition (%)			
	E	G	F	P		E	G	F	P
Building Exterior					Building Electrical				
Foundations		100			Fire Alarm System	50		50	
Exterior Walls		100			Emergency Power/Lighting Systems			50	50
Building Framing		100			Lighting Systems			50	50
Windows/Louvers			60	40	Electrical Distribution	50		50	
Doors/Frames/Hardware		90		10	Power Wiring		50	50	
Roof		80	20		Tel/Data Systems		50	50	
Building Interior					Building Electrical				
Floors		40	30	30	Specialty Systems				
Walls		80	20		Building Component	Compliance			
Ceilings		40	30	30		C	PC	NC	
Doors/Frames/Hardware		100			NYS/ADA				
Built-In Furnishings		50	50		Exterior Doors	X			
Stairs		100			Interior Doors	X			
Elevators/Escalators		100			Horizontal Circulation (Corridors)		X		
Specialty Systems		100			Horizontal Circulation (Ramps)				
Building Mechanical					Vertical Circulation (Stairs)		X		
HVAC Distribution & Controls			50	50	Vertical Circulation (Elevators)	X			
AHU/Controls			50	50	Toilet Rooms		X		
Chiller/Controls					Locker Rooms				
Boiler/Heat Exchanger/Controls	50	50			Drinking Fountains		X		
Pumps/Motors/Compressors		50	50		Signage		X		
Fire Sprinkler/Standpipe Systems					Assembly Areas		X		
Plumbing Systems/Fixtures	25		50	25	Sales and Service Areas				
Specialty Systems					Dining Areas				



Not applicable

- E - Excellent Conditions generally at a "like new" level. Exemplary maintenance and appropriate funding required to maintain this level.
- G - Good Conditions generally at an acceptable level. Routine maintenance and appropriate funding required to maintain this level.
- F - Fair Conditions at a minimally acceptable level. Improvements, involving greater than routine maintenance and additional funding, is required.
- P - Poor Conditions below minimally acceptable levels. Conditions require substantial funding and/or considerable maintenance effort to be improved.
- C - Compliant Conforms with the most current version of the Building Code of New York State (NYS) and ADA Standards (ADA).
- PC - Partially Compliant Partially conforms with the most current version of the Building Code of New York State (NYS) or ADA Standards (ADA) due to modifications of the building component/space.

Exterior

The roof and exterior walls are in good condition. The curtainwall and windows, however, are in fair to poor condition. The following exterior building projects should be completed in the next ten years:

- Recoat/Replace Roof - The roof was recoated in 2005-06 and carries a ten-year warranty. It will need to be recoated or replaced during the life of this master plan.
- Repair Skylights - One of the skylights above the main lobby leaks and should be repaired.
- Replace Curtainwall System - The curtainwall system and single-pane windows are in fair to poor condition. Sealant between the curtainwall and adjacent masonry walls has deteriorated. The entire curtainwall system should be replaced with a system that includes double-glazed, energy-efficient window units to improve energy efficiency and occupant comfort. *A project to replace windows in Orange Hall is included in the 2016 Six Year Capital Plan and scheduled for completion in 2019.*
- Install Energy-Efficient Windows - Double-glazed, energy-efficient, operable windows should be installed in the offices located in the former gymnasium to provide building occupants with natural light and ventilation.
- Repair ADA Operator - The ADA door operator at the main entrance does not work and should be repaired.



The curtainwall system is in poor condition and, in some places, being held together with clamps.

Interior

The College has worked diligently to maintain this 56 year old building in good condition, but interior finishes are worn and showing signs of their age. The following projects are recommended to maintain the building in good condition:

- Repair Accessible Lift - College staff indicated that the lift does not work properly. Necessary repairs should be completed to ensure that the lift is available to individuals who may need it.
- Upgrade Interior Finishes - Interior finishes throughout the building are in fair to poor condition and should be replaced.

Mechanical

The original central air-handling unit was recently replaced with new HW boilers. *A project to replace the rooftop units is included in the 2016 Six Year Capital Plan and scheduled for 2021.*

- Update HVAC System - As indicated in the 2006 Master Plan Update, occupants report temperature control and ventilation issues. In addition, air-conditioning should be installed in all areas that do not currently have cooling.



Existing electrical distribution equipment is nearing the end of its useful life.

Electrical

- Install New Electrical Distribution Equipment - As previously recommended in the 2006 Master Plan Update, new electrical distribution equipment should be installed.
- Upgrade Lighting Fixtures - It is recommended that all fixtures be replaced with new energy efficient fixtures and lamps (T8 fluorescent or LED).



Existing handrails should be replaced with fully-compliant handrails.

Other Systems

- Orange Hall is not equipped with a sprinkler system.
- The building contains an addressable fire alarm panel with manual pull stations.

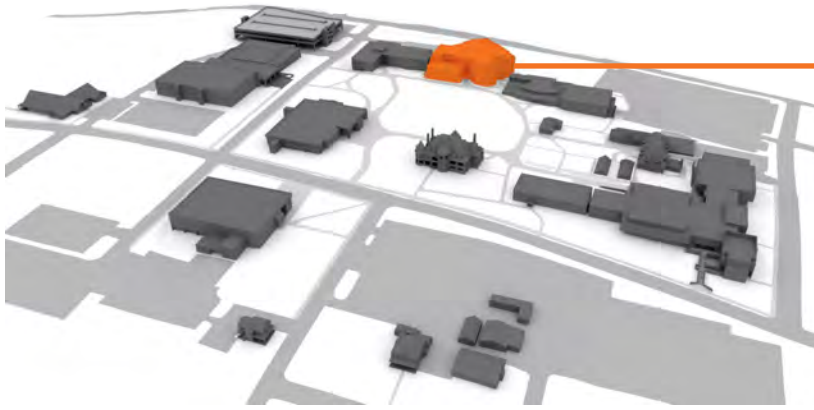
Building Code/ADA

The College has completed a significant amount of work to improve accessibility in Orange Hall. Two accessible lifts have been incorporated into the building, accessible door hardware has been installed, toilet rooms have been updated, and automatic door openers have been installed at building entrances. The following items, however, do not conform to the 2010 Building Code of New York State or 2010 ADA Standards for Accessible Design. **While updates are not required at this time, these issues would have to be addressed if the building is renovated.**

- Visual Communications Lab 139, Computer Lab 133, and the music practice rooms are not on an accessible route. Stairs adjacent to Keyboard Classroom 132 prevent access to these spaces. Due to the width of the corridor, it would be difficult to improve access, so the programs should be moved to an accessible location.
- Create Accessible Seating Areas - Additional accessible seating areas should be provided in the theater in accordance with Section 221 and Table 221.2.1.1 of the 2010 ADA Standards for Accessible Design.
- Install Assistive Listening System - An assistive listening system is required in all assembly areas where an amplification system is present. The theater is not equipped with the required assistive listening devices.
- Replace Handrails - Handrails at stairs do not have the required extensions. They should be replaced with fully-compliant handrails.
- Modify Kitchens/Work Areas - Employee kitchens and work areas should be modified to bring them into full compliance with current ADA guidelines.
- Renovate Toilet Rooms - Toilet rooms have been updated, but require additional modifications to bring them into full compliance with current ADA requirements.
- Replace Drinking Fountains - All non-accessible drinking fountains should be replaced with fully-accessible units.
- Campus-wide Signage Project - Some signage in the building does not comply with current ADA guidelines and some required signage is missing. All signage should be replaced and missing signs should be installed as part of a campus-wide signage project.

Rowley Center

Constructed 2014
95,010 GSF



Building History and Use

The Rowley Center for Science and Engineering is the most recent addition to the Middletown Campus. It houses labs for anatomy and physiology, architecture, biology, chemistry, engineering, physics, and general science, as well as general classrooms, lecture spaces, computer labs, faculty offices, and building support spaces. The Sarah Wells Cafe, located on the first floor, serves daily soups, sandwiches, artisan salads, pizza, burgers, gourmet hot dogs, and includes a make-your-own waffle bar. It is a very popular space for both faculty and students. Sustainable strategies are incorporated into the building and the College anticipates LEED Certification.

Functional Analysis

- During the design of the new facility, science faculty and College representatives engaged in a comprehensive programming and planning process that addressed changes in pedagogy, technology, enrollment, and student support.
- The Rowley Center for Science and Engineering was completed in 2014. All exterior and interior components are in excellent condition.

Mechanical

A water cooled chiller plant, high-efficiency gas boiler plant, and central air-handling equipment serve terminal VAV boxes with reheat. Laboratory ventilation systems include fume hoods and laboratory exhaust fans on the roof. DDC controls via web based building automatic systems are provided.

Electrical

The Rowley Center is served by a separate 480V utility feed. The entire building is provided with standby generator backup, via a 1000kW diesel generator. The generator also provides code-required emergency power. The building contains fully addressable smoke detection, mass notification, access control, and video surveillance systems. A 10kW photovoltaic system is installed on the roof. High efficiency lighting and lighting controls are installed throughout.

Other Systems

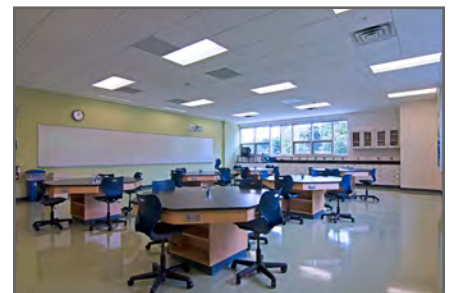
The building is protected by a wet sprinkler system.



Rowley Center for Science and Engineering



Sarah Wells Cafe



Science Lab

Building Condition Assessment

SUNY Orange Facilities Master Plan

Building Name: Rowley Center for Science and Engineering
 Construction Year: 2014
 Occupancy Group: A-Assembly; B-Business

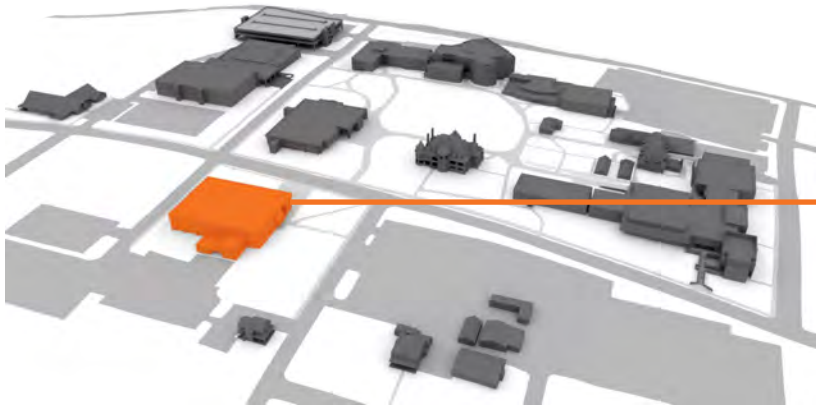
Floors Above/Below: 4/0
 GSF: 95,010
 NASF from PSI: 60,213

Building Component	Condition (%)				Building Component	Condition (%)			
	E	G	F	P		E	G	F	P
Building Exterior					Building Electrical				
Foundations	100				Fire Alarm System	100			
Exterior Walls	100				Emergency Power/Lighting Systems	100			
Building Framing	100				Lighting Systems	100			
Windows/Louvers	100				Electrical Distribution	100			
Doors/Frames/Hardware	100				Power Wiring	100			
Roof	100				Tel/Data Systems	100			
Building Interior					Specialty Systems				
Floors	100				Building Component	Compliance			
Walls	100					C	PC	NC	
Ceilings	100								
Doors/Frames/Hardware	100								
Building Mechanical					NYS/ADA				
HVAC Distribution & Controls	100				Exterior Doors	X			
AHU/Controls	100				Interior Doors	X			
Chiller/Controls	100				Horizontal Circulation (Corridors)	X			
Boiler/Heat Exchanger/Controls	100				Horizontal Circulation (Ramps)	X			
Pumps/Motors/Compressors	100				Vertical Circulation (Stairs)	X			
Fire Sprinkler/Standpipe Systems	100				Vertical Circulation (Elevators)	X			
Plumbing Systems/Fixtures	100				Toilet Rooms	X			
Specialty Systems	100				Locker Rooms				
					Drinking Fountains	X			
					Signage	X			
					Assembly Areas	X			
					Sales and Service Areas	X			
					Dining Areas	X			



Not applicable

- E - Excellent Conditions generally at a "like new" level. Exemplary maintenance and appropriate funding required to maintain this level.
- G - Good Conditions generally at an acceptable level. Routine maintenance and appropriate funding required to maintain this level.
- F - Fair Conditions at a minimally acceptable level. Improvements, involving greater than routine maintenance and additional funding, is required.
- P - Poor Conditions below minimally acceptable levels. Conditions require substantial funding and/or considerable maintenance effort to be improved.
- C - Compliant Conforms with the most current version of the Building Code of New York State (NYS) and ADA Standards (ADA).
- PC - Partially Compliant Partially conforms with the most current version of the Building Code of New York State (NYS) or ADA Standards (ADA) due to modifications of the building component/space.



Shepard Student Center

**Constructed 1974
66,720 GSF**

Building History and Use

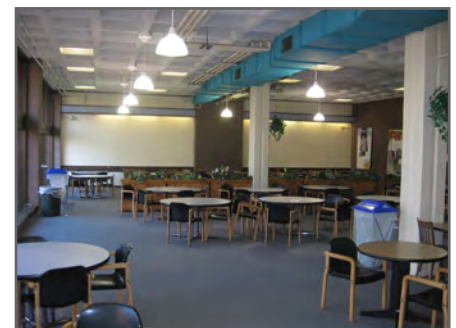
The Shepard Student Center is located across South Street from the main campus. Academic Advising, Admissions, Bursar, Career Services, Financial Aid, Registrar, and Student Activities are housed in this 66,720 GSF building. A large cafeteria, on the first floor, provides food services to students, faculty, and staff. Portions of the cafeteria have been partitioned off to create space for Student Government and a game room. The College Bookstore is located on the second floor, across from the main entrance.

Functional Analysis

- While students frequently cross South Street to access the services located in the building, the Shepard Student Center remains somewhat isolated from the main campus.
- Some offices have been converted from other uses, such as custodial closets, and do not have appropriate lighting and/or acoustic privacy.
- The Wellness Center is located on the second floor. The size and layout of the space does not provide appropriate privacy for patients.
- A One-Stop Center was recently created on the third floor. The College reports that work was limited due to funding limitations. The One-Stop Center is functional, but there are reportedly circulation, space, and noise issues.
- Admissions staff is located within the One-Stop Center on the third floor. New and potential students must sit in the common waiting area and, once called, walk through an open office area to speak with Admissions staff. The Admissions Office should have dedicated space near the main entrance or elsewhere on campus.
- The College has an interest in installing a Nanowall system on the south side of the cafeteria to allow access to the patio during warmer months.



Main entrance across South Street



Cafeteria

Completed Projects

Based on information from SUNY Orange, the following projects have been completed since the 2006 Master Plan Update:

- Exterior patio and ramp refurbished
- Wellness Center created on second floor
- Testing Center constructed on second floor
- "One Stop Center" created on third floor
- Space renovated for Drinking Driver Program and other relocated staff
- New boiler installed
- Lighting on third floor upgraded

Building Condition Assessment

SUNY Orange Facilities Master Plan

Building Name: Shepard Student Center
 Construction Year: 1974
 Occupancy Group: B-Business

Floors Above/Below: 3/0
 GSF: 66,720
 NASF from PSI: 47,952

Building Component	Condition (%)				Building Component	Condition (%)			
	E	G	F	P		E	G	F	P
Building Exterior					Building Electrical				
Foundations		100			Fire Alarm System	50		50	
Exterior Walls		100			Emergency Power/Lighting Systems			50	50
Building Framing		100			Lighting Systems			50	50
Windows/Louvers			80	20	Electrical Distribution			50	50
Doors/Frames/Hardware		100			Power Wiring		50	50	
Roof		100			Tel/Data Systems		50	50	
Building Interior					Specialty Systems				
Floors		40	30	30	Building Component	Compliance			
Walls		80	20			C	PC	NC	
Ceilings		40	30	30	NYS/ADA				
Doors/Frames/Hardware		100			Exterior Doors	X			
Built-In Furnishings		50	50		Interior Doors		X		
Stairs		100			Horizontal Circulation (Corridors)		X		
Elevators/Escalators		100			Horizontal Circulation (Ramps)				
Specialty Systems		100			Vertical Circulation (Stairs)		X		
Building Mechanical					Vertical Circulation (Elevators)	X			
HVAC Distribution & Controls			25	75	Toilet Rooms		X		
AHU/Controls			25	75	Locker Rooms				
Chiller/Controls					Drinking Fountains	X			
Boiler/Heat Exchanger/Controls	75		25		Signage		X		
Pumps/Motors/Compressors		50	50		Assembly Areas				
Fire Sprinkler/Standpipe Systems					Sales and Service Areas		X		
Plumbing Systems/Fixtures	25		50	25	Dining Areas	X			
Specialty Systems									



Not applicable

- E - Excellent Conditions generally at a "like new" level. Exemplary maintenance and appropriate funding required to maintain this level.
- G - Good Conditions generally at an acceptable level. Routine maintenance and appropriate funding required to maintain this level.
- F - Fair Conditions at a minimally acceptable level. Improvements, involving greater than routine maintenance and additional funding, is required.
- P - Poor Conditions below minimally acceptable levels. Conditions require substantial funding and/or considerable maintenance effort to be improved.
- C - Compliant Conforms with the most current version of the Building Code of New York State (NYS) and ADA Standards (ADA).
- PC - Partially Compliant Partially conforms with the most current version of the Building Code of New York State (NYS) or ADA Standards (ADA) due to modifications of the building component/space.

Exterior

The exterior of this 40-year old building is in good condition. A new roof coating was installed in 2005 and has recently been repaired. The exterior patio and ramp have also been repaired since the 2006 Master Plan Update. The following exterior building projects should be completed in the next ten years:

- Install Energy-Efficient Windows - Double-glazed, energy-efficient windows should be installed to provide building occupants with natural light and to improve ventilation.

Interior

While the interior of the building is in good condition, finishes are beginning to show signs of their age. The College has recently renovated areas on the second and third floors, but the building still looks tired and worn. The following projects are recommended to maintain the building in good condition:

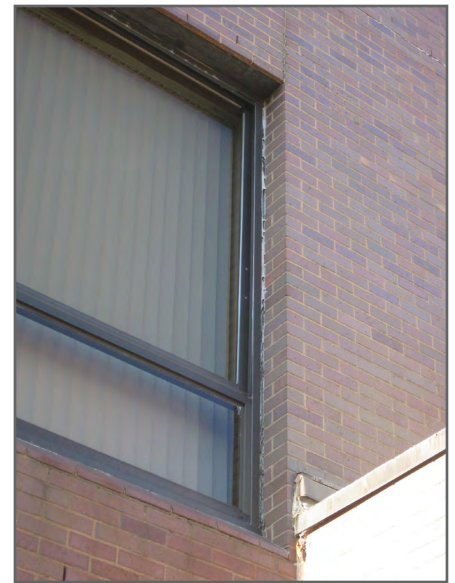
- Replace Interior Finishes - The Shepard Student Center is often the first stop for prospective students and first impressions can have a significant impact on their college plans. Updating interior finishes and lighting throughout the building would improve the appearance of the building and make it more inviting.
- Update Cafeteria - Finishes and furnishings in the cafeteria are showing signs of heavy use. Flooring is half carpet and half tile, which is reportedly problematic for maintenance staff. Some kitchen equipment is original to the building and should be replaced. Finally, the type of food service provided is similar to what students experience in high-school. The cafeteria and kitchen should be renovated to improve the appearance, update the equipment, comply with current ADA standards, and create a type of food service that will be more appealing to students, such as a food court. Additional seating options, such as banquettes, should be provided as part of the renovations to create a more welcoming, user-friendly environment.
- Renovate One-Stop Center - SUNY Orange was one of the first community college to create a One-Stop Center. The model has served students well for many years, but offices have become over-crowded and noisy as departments have grown.
- Renovate Bookstore - The bookstore is in need of renovation. Ceilings and carpet should be replaced and the space should be reconfigured.

Mechanical

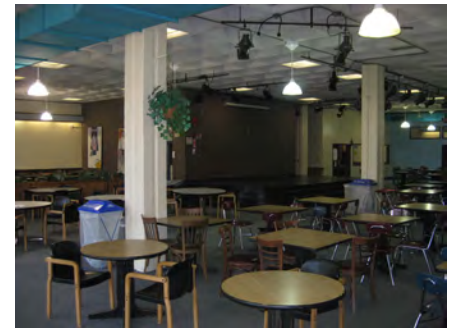
- Replace Air Handling Units - As recommended in the 2006 Master Plan Update, new air-handling units with economizers should be installed and the building should be re-zoned based on the current configuration. There is currently no HVAC in corridors and the College reported that the building loses a lot of heat to the perimeter stairways. Current air-handling equipment is original to the building (1974) and beyond its useful life.
- Install Direct Digital Controls - The existing controls system is pneumatic and should be upgraded to a DDC system.

Electrical

- Inspect and Upgrade - Enlist a manufacturer's technician to extensively inspect, clean, and repair all electrical distribution equipment. At that time, the condition of the equipment should be identified as suitable to remain or recommended to be replaced.



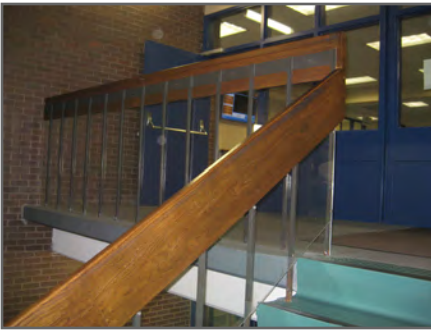
Single-glazed windows should be replaced with double-glazed, energy-efficient units.



The cafeteria should be renovated and additional seating options, such as banquettes, should be provided.



Recently Replaced Boiler Plant



Existing handrails should be replaced with fully-compliant handrails.



Signage should be replaced as part of a campus-wide project.

- Install New Electrical Distribution Equipment - As previously recommended in the 2006 Master Plan Update, new electrical distribution equipment is recommended to be installed. Occupants report problems with tripped circuit breakers. New branch panelboards are needed in selected areas.
- Upgrade Lighting Fixtures - It is recommended that all fixtures be replaced with new energy efficient fixtures and lamps (T8 fluorescent or LED).

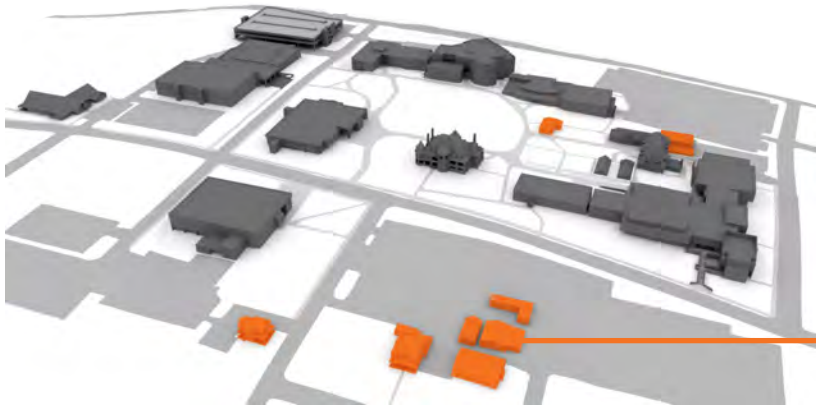
Other Systems

- The Shepard Student Center is not equipped with a sprinkler system.
- The building contains an addressable fire alarm panel with zoned smoke detectors and manual pull stations.
- Replace Ejector Pump - The building currently contains an ejector pump that is approximately 10 years old. Although there are no reported issues to date, the pump is nearing the end of its useful life and is recommended to be replaced within the next 5 years.

Building Code/ADA

The College has worked diligently to improve accessibility on the campus. Accessible door hardware has been installed in the building, toilet rooms have been updated, and water fountains have been replaced with fully-compliant units. The following items, however, do not conform to the 2010 Building Code of New York State or 2010 ADA Standards for Accessible Design. **While updates are not required at this time, these issues would have to be addressed if the building is renovated.**

- Relocate Accessibility Services - The Office for Accessibility Services does not have the required clearances. A new, fully-compliant space for Accessibility Services should be created when the building is renovated.
- Modify Locker Rooms - Staff locker rooms should be modified to bring them into full compliance with current ADA guidelines.
- Replace Handrails - Existing handrails in stairs should be replaced with fully-compliant handrails.
- Renovate Toilet Rooms - Toilets rooms have been updated, but require additional modifications to bring them into full compliance with current ADA requirements.
- Campus-wide Signage Project - Some signage in the building does not comply with current ADA guidelines and some required signage is missing. All signage should be replaced and missing signs should be installed as part of a campus-wide signage project.



Other Buildings

Bennett House

This former private residence was constructed in 1945. It housed Information Technology until the department moved to the first floor of the Bio-Tech Building. It currently sits vacant and is slated for demolition in 2015.

Christine Morrison House

The Christine Morrison House was also a residence prior to being purchased by SUNY Orange. It currently houses offices for the Behavioral Sciences, Criminal Justice, and Global Studies departments. These departments are scheduled to move to the first floor of Hudson Hall, which was vacated when the Rowley Center for Science and Engineering was completed. The College plans to demolish the Christine Morrison House.

Grounds Shop

The 1,350 SF concrete block Grounds Shop was constructed in 1950. An enclosed walkway connects it to the adjacent metal pole barn that is used as a workshop and storage area. A small addition was added to the pole barn in 2005 to provide additional storage space.

HVAC Shop

The HVAC Shop is located in the former Carpenter Shop behind Horton Hall. Constructed in 1982, this small concrete block building reportedly works well for the Facilities Department.

Ice House

Constructed around 1900 as an ice storage facility, this building stands on the east edge of the campus quad. The College recently removed the electrical switchgear equipment that was once housed in the building. The location, history, and character of the Ice House make it an ideal candidate for repurposing.



Ice House



Shipping and Receiving

Maintenance Shop

The Maintenance Shop was constructed in 2000 adjacent to the Grounds Shop. It is a simple metal building with two garage bays and serves as home base for carpenter and building maintenance personnel.

Shipping and Receiving

The Shipping and Receiving Department moved into the former Heating Plant Building adjacent and connected to Horton Hall. At the time of the move, the large chimney was removed.

Storage Shed

The Storage Shed is located adjacent to the Grounds Shop. It is used to store college vehicles, grounds equipment, and road salt.



Newburgh Campus

8.2 Acres

As recommended in the 2006 Master Plan Update, the Newburgh Campus was significantly expanded between 2006 and 2011. The campus consists of the renovated Tower Building, Kaplan Hall, and an associated parking garage. The site infrastructure includes new concrete sidewalks on Grand and First Streets, a campus green that sits atop the parking garage and frames the view toward the Hudson River, and the wide concrete walkway from Kaplan Hall to the Tower Building.

The County owns two additional buildings in close proximity to Kaplan Hall and the Tower Building. A former Masonic Temple on Grand Street and the Maple Building on Colden Street. The future use of these buildings by SUNY Orange is anticipated, but not imminent.

The Lab School has a fenced outdoor play area consisting of play structures, poured in place surfacing, benches, pavers, and concrete sidewalks sited around a small open lawn area. The entrance to the play area is gated with a pergola.

Conditions Assessment

Site improvements are less than five years old and primarily in excellent condition. There are very minor defects in pavements, such as minimal cracking, differential settlement, and weed growth in unit paver joints. The concrete paving connecting Kaplan Hall, the Maple Building, and the Tower Building is in excellent condition. The width of the paving was designed to accommodate emergency vehicles, but the area is intended to favor pedestrians. Use by non-permitted vehicles has necessitated the addition of cones at the bollards and chain across the Broadway access point.

Other deficiencies reported by campus staff include insufficient exterior lighting at stairs and the parking lot, as well as the need for additional security cameras.

The following actions are recommended:

- Improve Safety - Assess light levels at parking lots, stairs and along the pedestrian path between buildings. Add additional lighting, as needed. Install additional security cameras.
- Repair Site Stair - Stairs treads on the large concrete stair outside Kaplan Hall are spalling and should be repaired.



The campus green provides expansive views to the Hudson River.



Bollards, chains, and cones are being used to limit vehicular traffic on the walkway.



The Lab School outdoor play area.

Site and Utilities Condition Assessment

Facilities Master Plan

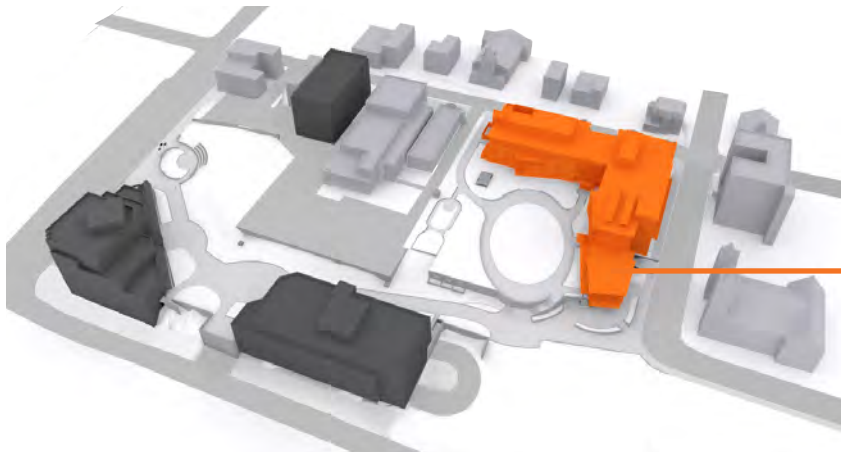
Campus/Location: Newburgh

Acres: 8.2

Site Component	Condition (%)				Site Component	Condition (%)			
	E	G	F	P		E	G	F	P
Central Systems/Site Utilities					Civil Site				
Central Systems					Hardscape				
Steam/HTHW Generator					Roadways				
Chiller					Parking Lots				
Cooling Tower					Sidewalks	100			
Electrical Substation					Plazas	100			
Fuel Storage					Exterior Stairs	95			5
Water Storage					Site Amenities				
Site Distribution					Signage	100			
Tel/Data System	75	25			Benches	100			
Sanitary System	75	25			Receptacles	100			
Storm Water System	75	25			Fencing	100			
Domestic Water System	75	25			Site Walls	100			
Natural Gas & Fuel Oil System	75	25			Site Lighting		90	10	
Fire Hydrants					Athletic				
Chilled Water System					Softball Field				
Steam/HTHW System					Soccer Field				
Electrical Systems	40	60							

 Not applicable

- E - Excellent Conditions generally at a "like new" level. Exemplary maintenance and appropriate funding required to maintain this level.
- G - Good Conditions generally at an acceptable level. Routine maintenance and appropriate funding required to maintain this level.
- F - Fair Conditions at a minimally acceptable level. Improvements, involving greater than routine maintenance and additional funding, required.
- P - Poor Conditions below minimally acceptable levels. Conditions require substantial funding and/or considerable maintenance effort to be improved.



Kaplan Hall

Constructed 2011
90,000 GSF

Building History and Use

Kaplan Hall, completed in 2011, is named for William Kaplan and his family's foundation for their unwavering support for SUNY Orange and the Newburgh Campus. It is a comprehensive academic and student services building that includes a library, learning center, art gallery, student services center, specialized laboratories, general classrooms, and faculty offices. A large community room, at the east end of the building, is well used by both the college and outside groups.

In response to much needed commuter parking, the building includes a three-story, 440-car, below-grade parking garage. The upper level of the garage mediates a full story grade change across the site and supports a live vegetative roof that serves as a campus green and public park with commanding views of the Hudson River. This LEED Gold building brought usable greenspace into the heart of the campus and includes sustainable design features, such as photovoltaic power, daylighting, and captured rain water for irrigation.



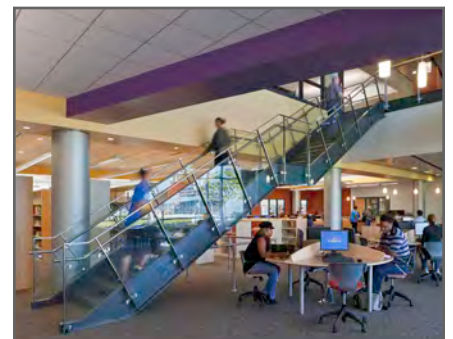
Kaplan Hall and Campus Green

Functional Analysis

- Kaplan Hall is arranged to maximize natural light, exterior views, and functional adjacencies. Informal learning spaces are distributed throughout the building to promote collaboration among students and faculty.
- Staff reported that the glass wall between the art gallery and corridor exposes the artwork to harmful natural light. Some type of screening should be applied to the windows to protect the artwork. In addition, the College expressed interest in replacing the carpet with a more durable surface, like hardwood.
- There is no dedicated performance space on the Newburgh Campus, so Cultural Affairs uses the Community Room. The College has a need for a formal performance space with an elevated stage, theater lighting, a performance-quality sound system, and support spaces (such as a dressing room and waiting area for performers).
- Information Technology is currently using one of the group study rooms and one of the offices in the library. Moving Information Technology out of the library would help to alleviate some of the space shortages reported by the College.
- Library staff indicated that the group study rooms should be equipped with marker boards and SMART boards, instead of the chalk boards that are currently in place.



Community Room



Library

Building Condition Assessment

SUNY Orange Facilities Master Plan

Building Name: Kaplan Hall
 Construction Year: 2011
 Occupancy Group: A-Assembly; B-Business

Floors Above/Below: 3/0
 GSF: 90,000
 NASF from PSI: 54,715

Building Component	Condition (%)				Building Component	Condition (%)			
	E	G	F	P		E	G	F	P
Building Exterior					Building Electrical				
Foundations	100				Fire Alarm System	100			
Exterior Walls	80		20		Emergency Power/Lighting Systems	100			
Building Framing	100				Lighting Systems	100			
Windows/Louvers	90			10	Electrical Distribution	100			
Doors/Frames/Hardware	90			10	Power Wiring	100			
Roof	100				Tel/Data Systems	100			
Building Interior					Specialty Systems				
Floors	100				Building Component	Compliance			
Walls	100			C		PC	NC		
Ceilings	100								
Doors/Frames/Hardware	100								
Building Mechanical					NYS/ADA				
Built-In Furnishings	100				Exterior Doors	X			
Stairs	100				Interior Doors	X			
Elevators/Escalators	100				Horizontal Circulation (Corridors)	X			
Specialty Systems	100				Horizontal Circulation (Ramps)				
HVAC Distribution & Controls	100				Vertical Circulation (Stairs)	X			
AHU/Controls	100				Vertical Circulation (Elevators)	X			
Chiller/Controls	100				Toilet Rooms	X			
Boiler/Heat Exchanger/Controls	100				Locker Rooms				
Pumps/Motors/Compressors	100				Drinking Fountains	X			
Fire Sprinkler/Standpipe Systems	90			10	Signage	X			
Plumbing Systems/Fixtures	100				Assembly Areas	X			
Specialty Systems	100				Sales and Service Areas	X			
					Dining Areas				



Not applicable

- E - Excellent Conditions generally at a "like new" level. Exemplary maintenance and appropriate funding required to maintain this level.
- G - Good Conditions generally at an acceptable level. Routine maintenance and appropriate funding required to maintain this level.
- F - Fair Conditions at a minimally acceptable level. Improvements, involving greater than routine maintenance and additional funding, is required.
- P - Poor Conditions below minimally acceptable levels. Conditions require substantial funding and/or considerable maintenance effort to be improved.
- C - Compliant Conforms with the most current version of the Building Code of New York State (NYS) and ADA Standards (ADA).
- PC - Partially Compliant Partially conforms with the most current version of the Building Code of New York State (NYS) or ADA Standards (ADA) due to modifications of the building component/space.
- NC - Non-Compliant Does not conform with the most current version of the Building Code of New York State (NYS) or ADA Standards (ADA).

Exterior

In general, the exterior of the building is in good condition. This master plan recommends that the College complete the following projects:

- Repair ADA Door Operators - ADA door operators at some exterior doors do not work. They should be repaired or replaced.
- Replace Exterior Doors - The doors to the stair tower adjacent to the main entrance have rusted and should be replaced.
- Repoint Mortar Joints - Mortar joints have started to deteriorate at several locations around the building. All deteriorating joints should be raked and repointed to prevent deterioration of the exterior wall system.
- Replace Sealant - Sealant between the building and sidewalk has detached in some locations, possibly due to sidewalk settlement. The joints should be raked and recaulked in those areas.



Sealant between the building and sidewalk has detached in some areas.

Interior

Kaplan Hall was completed in 2011. Interior finishes are in excellent condition. The following projects, however, should be addressed in the next ten years:

- Investigate Leak - There is evidence of a leak in the second floor corridor adjacent to the Learning Center. The source of the leak appears to be the head or jamb of the curtainwall system. It should be investigated and appropriate action should be taken. Once the leak is resolved, all damaged interior finishes should be replaced.
- Install Doors in Open Study Area - College staff reported that noise from the Reading, Writing, and Math Centers within the Learning Center disrupts students in the adjacent open study area. Glass doors should be installed to control sound, maintain visibility between the spaces, and give staff a means to indicate when the tutoring centers are open.
- Install Control Joints - Repair drywall cracks in the enclosed stairs and install control joints.
- Replace Floor Tile - Replace cracked floor tile near the café and install new vinyl transition strip.



There is evidence of a leak in the second floor corridor adjacent to the Learning Center.

Mechanical

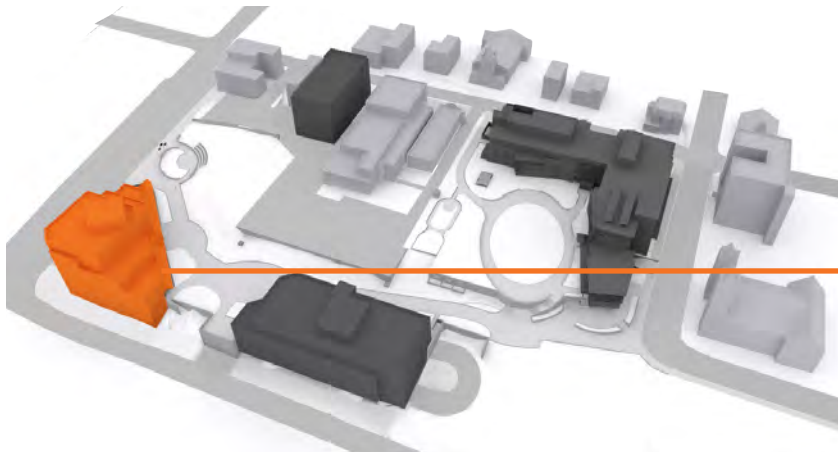
A water cooled chiller plant, high-efficiency gas boiler plant, and central air-handling equipment serve terminal VAV boxes with reheat. Laboratory ventilation systems include fume hoods and laboratory exhaust fans on the roof. DDC controls via web based building automatic systems are provided.

Electrical

The building is served by a separate 480V utility feed. Selective loads are backed up with a 150kW natural gas generator. The generator also provides legally required emergency power. The building contains fully addressable smoke detection, mass notification, access control, and video surveillance systems. A 15kW Photovoltaic system is installed on the roof. High efficiency lighting and controls are installed throughout.

Other Systems

- Kaplan Hall is protected by a wet sprinkler in the building and a dry system in the garage.
- The building has a 15,000 gallon sub-grade storm water storage tank for irrigation.



Tower Building

**Constructed 2012
87,000 GSF**

Building History and Use

The Tower Building, located south of Kaplan Hall, was originally a Key Bank headquarters. Renovations in 2012 included a new criminal justice and forensics laboratory, new bookstore, new fitness center, updated childcare lab school, general classrooms, and faculty offices. As part of the renovations, the 87,000 gross square foot building received new finishes and lighting throughout.

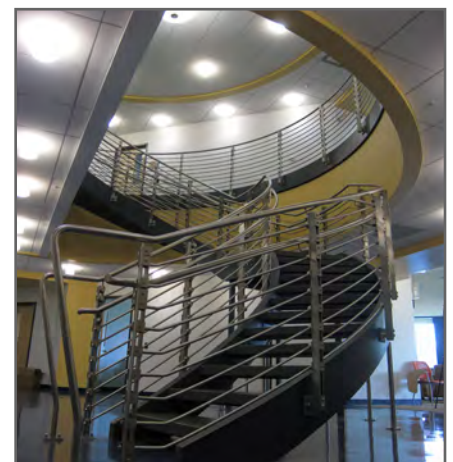
Campus improvements, such as the new pedestrian boulevard and plaza, were also included in the project.

Functional Analysis

- The College reported that the drawing studio on the second floor needs additional sinks and counters to accommodate art classes that require wet materials.
- SUNY Orange would like to expand the art program to include three-dimensional art, such as sculpture.
- The lack of food on the Newburgh Campus is, reportedly, a major issue. The College indicated that the grill in the kitchen is not used due to fire code issues and maintenance costs. Further investigation is required.
- Faculty and students do not use the shower adjacent to the Weight Room/ Fitness Center because of sight lines from the corridor into the locker room. A vestibule could be added to provide additional privacy.



Tower Building



Lobby and Stair



Classroom

Building Condition Assessment

SUNY Orange Facilities Master Plan

Building Name: Tower Building
 Construction Year: 2012
 Occupancy Group: B-Business

Floors Above/Below: 6/2
 GSF: 87,000
 NASF from PSI: 42,017

Building Component	Condition (%)				Building Component	Condition (%)			
	E	G	F	P		E	G	F	P
Building Exterior					Building Electrical				
Foundations		100			Fire Alarm System	100			
Exterior Walls		100			Emergency Power/Lighting Systems	100			
Building Framing		100			Lighting Systems	100			
Windows/Louvers		100			Electrical Distribution	75	25		
Doors/Frames/Hardware		90		10	Power Wiring	75	25		
Roof			80	20	Tel/Data Systems	100			
Building Interior					Building Electrical				
Floors	100				Building Component	Compliance			
Walls	60		40			C	PC	NC	
Ceilings	100								
Doors/Frames/Hardware	100								
Building Mechanical					NYS/ADA				
Built-In Furnishings	100				Exterior Doors	X			
Stairs	100				Interior Doors	X			
Elevators/Escalators	100				Horizontal Circulation (Corridors)	X			
Specialty Systems	100				Horizontal Circulation (Ramps)				
Building Mechanical					NYS/ADA				
HVAC Distribution & Controls	100				Vertical Circulation (Stairs)	X			
AHU/Controls	100				Vertical Circulation (Elevators)	X			
Chiller/Controls	100				Toilet Rooms	X			
Boiler/Heat Exchanger/Controls	100				Locker Rooms	X			
Pumps/Motors/Compressors	100				Drinking Fountains	X			
Fire Sprinkler/Standpipe Systems	100				Signage	X			
Plumbing Systems/Fixtures	100				Assembly Areas				
Specialty Systems	100				Sales and Service Areas	X			
					Dining Areas	X			



Not applicable

- E - Excellent Conditions generally at a "like new" level. Exemplary maintenance and appropriate funding required to maintain this level.
- G - Good Conditions generally at an acceptable level. Routine maintenance and appropriate funding required to maintain this level.
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- NC - Non-Compliant Does not conform with the most current version of the Building Code of New York State (NYS) or ADA Standards (ADA).

Exterior

In general, the exterior of the building is in good condition. Several exterior components, including the roof, were not included in the recent renovations.

- Investigate Leak - There is evidence of roof leaks in several fifth floor offices. A project to replace the roof is underway. Once the roof has been replaced and it has been confirmed that the leaks have stopped, all damaged interior finishes should be replaced.
- Repair ADA Door Operators - ADA door operators at some exterior doors do not work. They should be repaired or replaced.

Interior

Renovations to the Tower Building were completed in 2012. All interior components are in good or excellent condition.

- Install Security Cameras - The College reported that additional security cameras are required on the fourth and fifth floors.
- Repair Walls - Many of the walls have been scuffed or damaged since the 2012 renovations, particularly in the student lounges. All damaged walls should be repaired.

Mechanical

The building includes a water source heat pump (WSHP) system with a high-efficiency natural gas boiler plant and two (2) cooling towers for heat rejection. A central air-handling unit and energy recovery unit provide ventilation air. DDC controls via web based Building Automatic Systems are provided.

Electrical

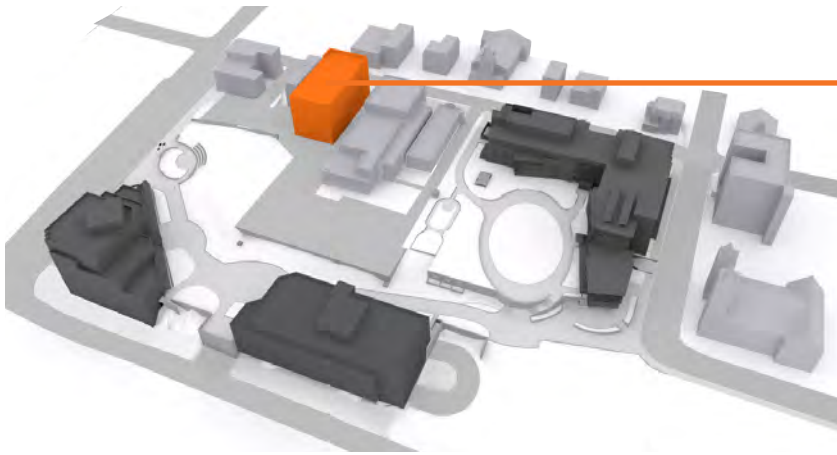
The Tower Building is served by a separate 480V utility feed to the original (~1985) switchgear and distribution panelboards. All branch wiring was replaced in 2012. Selective loads are backed up with 175kW diesel generator. The building contains fully addressable smoke detection, mass notification, access control, and video surveillance systems. High efficiency lighting and controls are installed throughout.

Other Systems

- The Tower Building is protected by a wet sprinkler system diesel powered automatic fire pump.



There is evidence of several roof leaks in fifth floor offices.



Building History and Use

The Masonic Temple, located north of the Tower Building and west of Kaplan Hall, was constructed in 1914 as the headquarters for the Hudson River Lodge Chapter of the Free and Accepted Masons. It saw sporadic commercial use following the sale of the building by the Masonic Fellowship of Newburgh in 1999. The building was purchased by Orange County in December 2013 as part of a \$3.5 million deal that included two additional buildings between the Masonic Temple and Kaplan Hall. The purchase was made with the intent to expand SUNY Orange's Newburgh Campus. Since then, the building has remained unoccupied.

Functional Analysis

- The first floor has a number of spaces that would be suitable for faculty and staff offices, but would need to be updated.
- There are large assembly spaces on the second and third floors of the building. Both spaces are in good condition, but would need renovations to make them suitable for College use. Functionally, the spaces are too large for classrooms. They span almost the entire width of the building, have very high ceilings, and would be difficult to subdivide into smaller spaces.
- Each large assembly space has a stage and some production capabilities. The spaces could be renovated to accommodate performances and events.
- Accessory spaces are located to the rear of the building. The finishes and equipment in the kitchen, however, will need to be investigated to further understand their condition.



Main Entrance



Large Assembly Space

Building Condition Assessment

SUNY Orange Facilities Master Plan

Building Name: Masonic Temple
 Construction Year: 1914
 Occupancy Group: B-Business

Floors Above/Below: 3/1
 GSF: N/A
 NASF from PSI: N/A

Building Component	Condition (%)				Building Component	Condition (%)			
	E	G	F	P		E	G	F	P
Building Exterior					Building Electrical				
Foundations		100			Fire Alarm System				100
Exterior Walls		80	20		Emergency Power/Lighting Systems				100
Building Framing		90	10		Lighting Systems				100
Windows/Louvers		10	20	70	Electrical Distribution				100
Doors/Frames/Hardware		90		10	Power Wiring				100
Roof					Tel/Data Systems				100
Building Interior					Specialty Systems				100
Floors		40	40	20	Building Component	Compliance			
Walls		30	30	40		C	PC	NC	
Ceilings		30	30	40	NYS/ADA				
Doors/Frames/Hardware		60	20	20	Exterior Doors			X	
Built-In Furnishings		60	40		Interior Doors			X	
Stairs		50		50	Horizontal Circulation (Corridors)		X		
Elevators/Escalators				100	Horizontal Circulation (Ramps)				
Specialty Systems					Vertical Circulation (Stairs)			X	
Building Mechanical					Vertical Circulation (Elevators)			X	
HVAC Distribution & Controls				100	Toilet Rooms			X	
AHU/Controls				100	Locker Rooms				
Chiller/Controls				100	Drinking Fountains				
Boiler/Heat Exchanger/Controls				100	Signage				
Pumps/Motors/Compressors				100	Assembly Areas		X		
Fire Sprinkler/Standpipe Systems				100	Sales and Service Areas				
Plumbing Systems/Fixtures				100	Dining Areas				
Specialty Systems				100					



Not applicable

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Exterior

The building exterior is in generally good condition. The windows facing Grand Street were recently replaced with double-glazed, energy efficient units. The remainder of the windows, however, are in poor condition. Cracks on the southeast corner may indicate building settlement. The cracks should be monitored and, if necessary, repaired to prevent further deterioration of exterior masonry walls.

- Install Energy-Efficient Windows - All single-glazed or damaged window units should be replaced with double-glazed, energy-efficient units. To maintain the historic character of the building, some of the replacement units should be carefully designed and historically accurate. While the cost to replace these units will be high, the College may be able to pursue grant or fundraising opportunities for this work.
- Clear Plants from Exterior - In its unoccupied state, a number of vines have started growing up the south side of the building. These vines have overgrown at least one window and have likely grown into the building. They should be cleared and maintained once the building is occupied.



Cracks on the southeast corner may indicate building settlement.

Interior

The Masonic Temple has been unoccupied for several years, which is evident in the degradation of interior spaces and finishes. While the floors and ceilings are in generally good condition, most wall finishes are in need of repair and should be addressed before the building is used by the College.

- Asbestos may be present. A hazardous materials survey should be conducted prior to any work in the building.
- Repair/Replace Finishes - There are numerous locations in the building where interior finishes should be repaired. Some walls and ceilings are showing signs of water damage and others need to be repainted. Sills that house first floor radiators are damaged and should be replaced.
- Update/Repair Toilet Rooms - There are multiple toilet rooms in the building that do not function. The College will need to update or repair them before occupying the building.
- Repair Elevator - The elevator in the building is indicated as “out of order.” It will need to be repaired to provide an accessible route to the upper floors of the building.
- Remove Materials - There are a number of areas full of materials from the original Masonic Lodge, as well as the various commercial occupants that have occupied the building during the past fifteen years. All materials should be removed and disposed of properly.



Damaged windows should be replaced.



First floor sills should be replaced.

Mechanical

The building was originally heated with a steam boiler and steam radiators. The top floor theater is also served by an exhaust system with a roof-mounted fan. Although much of this equipment still remains, it is beyond its useful life and not suitable for future occupancy. An entirely new HVAC system will be required.

Electrical

The existing electrical service still remains live to this day, although much of the distribution equipment and wiring is beyond its useful life and should be replaced. A new utility electrical service will also be required.



At the time of the site visit, there were large puddles of water throughout the building.



The main entrance is not accessible.

Other Systems

At the time of the site visit, there were large puddles of water on multiple levels of the building. It is assumed that water is leaking through the roof and the storm drainage system will need to be replaced. The existing water meter has been cut out by the utility and there is no longer an active water service in the building.

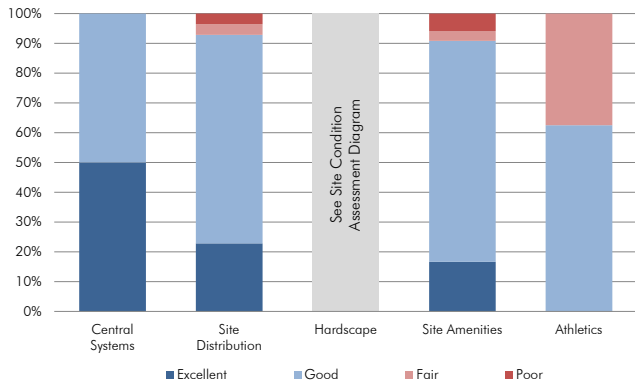
Building Code/ADA

Currently, the building has a number of code and accessibility issues that will need to be addressed before it can be occupied by the College.

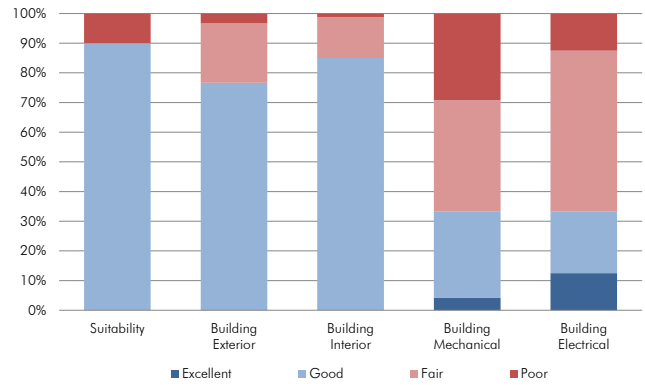
- Provide Multiple Means of Egress - The entrance on Grand Street is the only means of egress from the building. There is a fire escape on the south side, but it will need to be investigated to determine its structural integrity. Based on occupancy, the building will need multiple means of egress.
- Install Ramp at Front Entrance - The entrance on Grand Street is above grade. In order for the building to be accessible, a ramp will need to be installed at this entrance or another entrance will need to be provided on an accessible route.
- Install Compliant Handrail - The handrails and guardrails at the front stair are not at a compliant height and will need to be replaced. To maintain the historic character of the stair, the new handrails should be carefully designed and historically accurate.
- Update Stair - While there are two stairs that provide access to the upper floors of the building, the back stair requires significant repairs in order to consider it a means of egress. It does not have the proper handrail height, guardrail protection, and is in fair to poor condition.
- Install Accessible Hardware - The College should replace all non-accessible door hardware in the building.
- Renovate Toilet Rooms - When toilet rooms are updated, they should be made fully accessible.
- Install ADA Compliant Elevator - The elevator is out of order and could not be fully investigated. The push buttons on the adjacent wall, however, are not at an accessible height. After a thorough investigation of the elevator, the College may need to replace it with a new, fully-compliant unit.
- Install Signage - All code required signage should be installed when the building is renovated.

Graphic Summary of Conditions

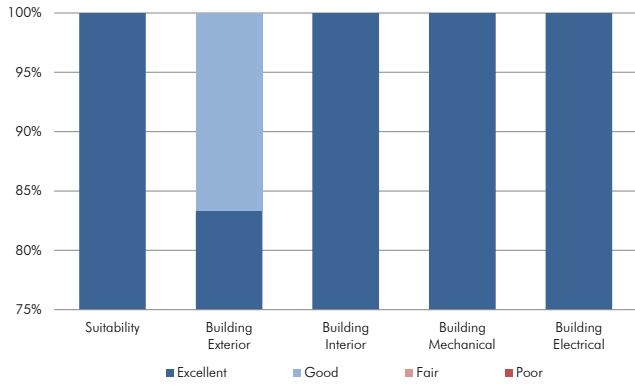
The diagrams below are a graphic illustration of the condition of each building on the Middletown and Newburgh Campuses. The percentages are based on the components listed in the building report cards. All components are weighted equally in their respective categories. Foundations, exterior walls, building framing, windows/louvers, doors/frames/hardware, and roof, for example, each represent 16.7 percent of the Building Exterior category. However, the difficulty and cost to repair foundations vs. doors/frames/hardware are not equivalent. Additional information about components that are in fair or poor condition can be found in the narrative of the report.



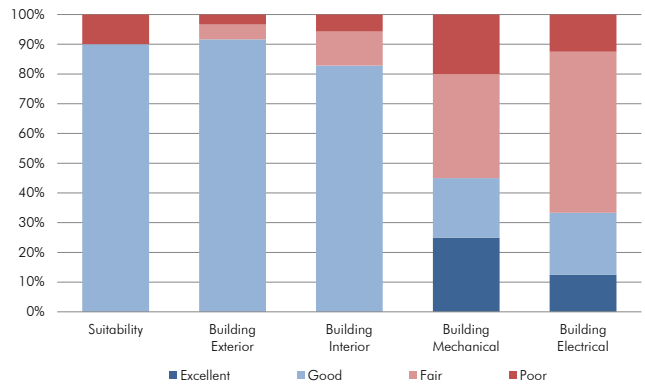
Middletown Campus



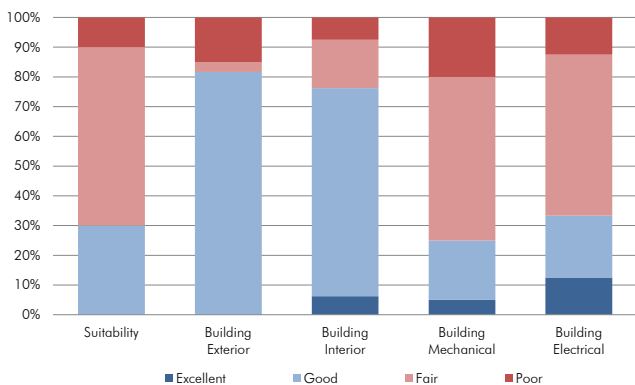
Bio-Tech Building



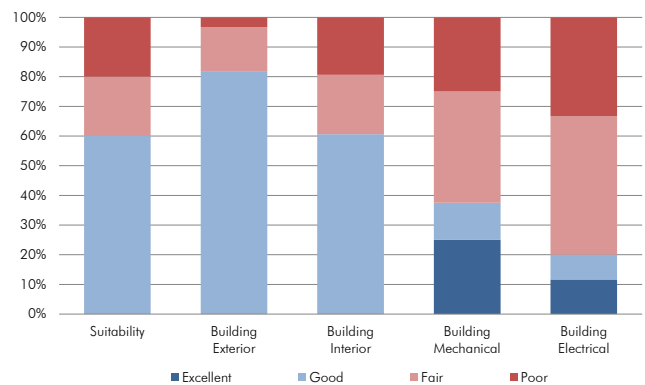
Devitt Center



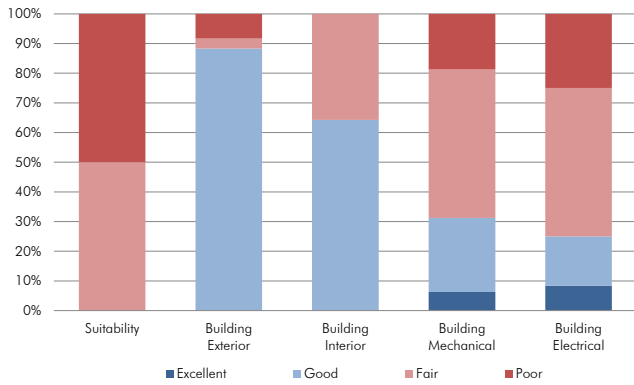
Diana Physical Education Center



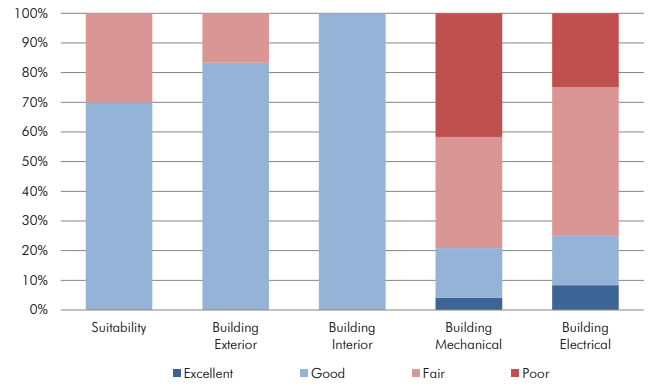
Harriman Hall



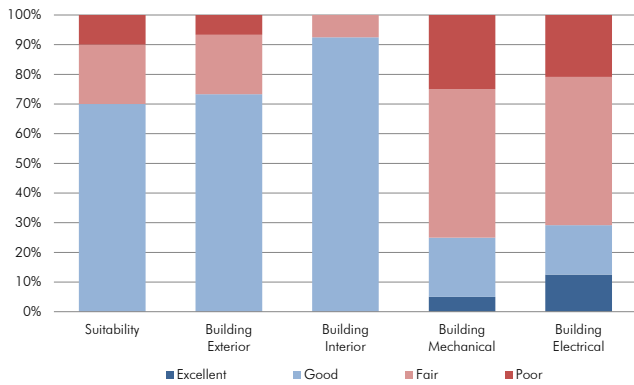
Horton Hall



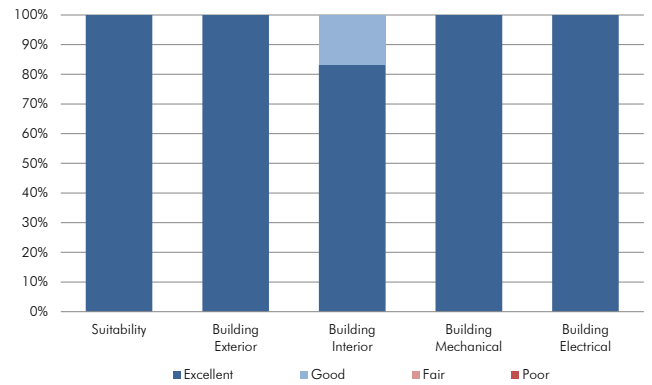
Hudson Hall



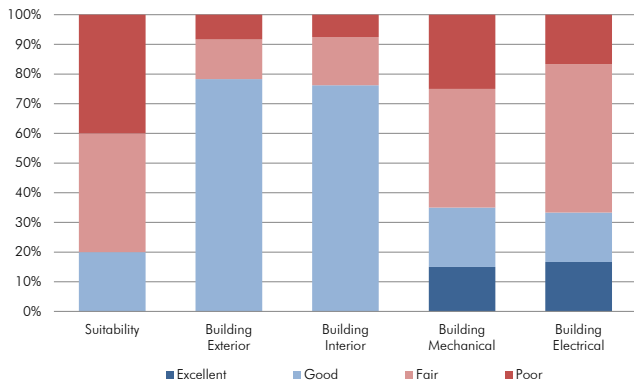
Library



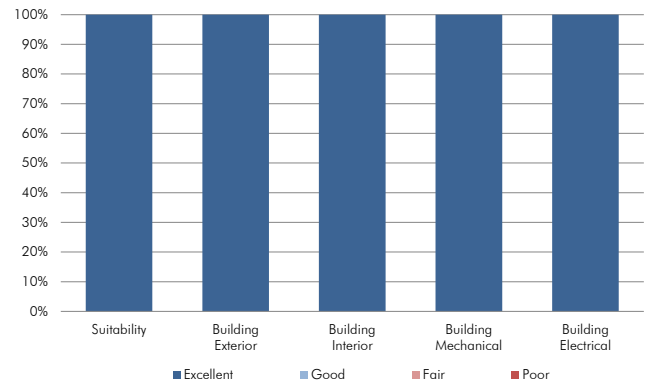
Morrison Hall



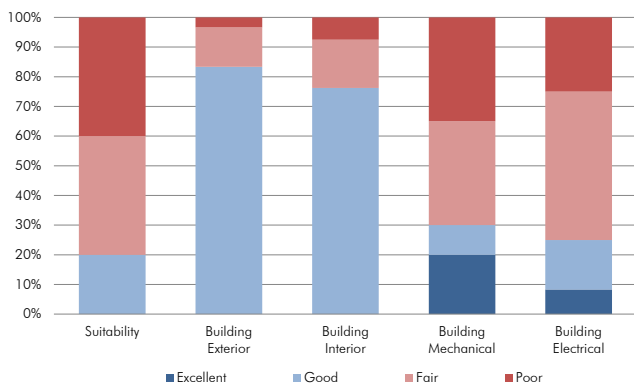
Morrison Lab School



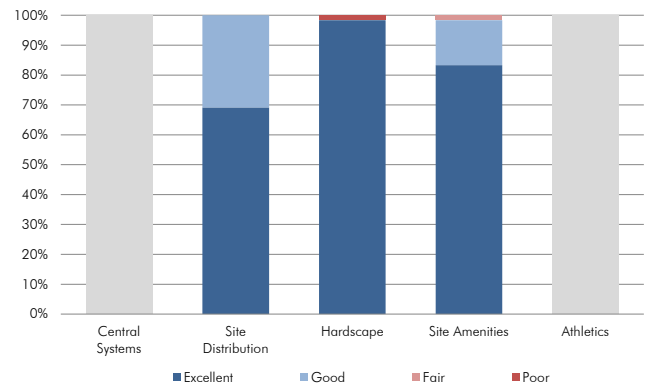
Orange Hall



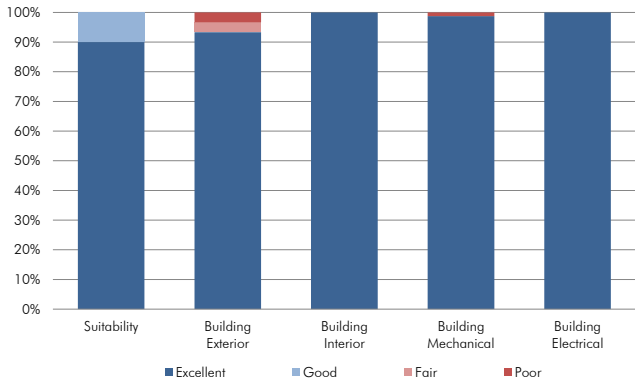
Rowley Center for Science and Engineering



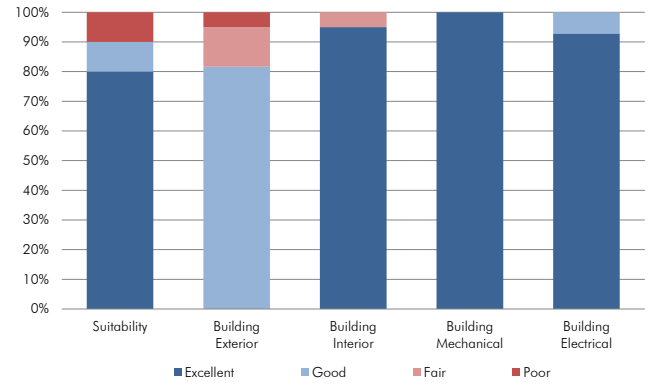
Student Center



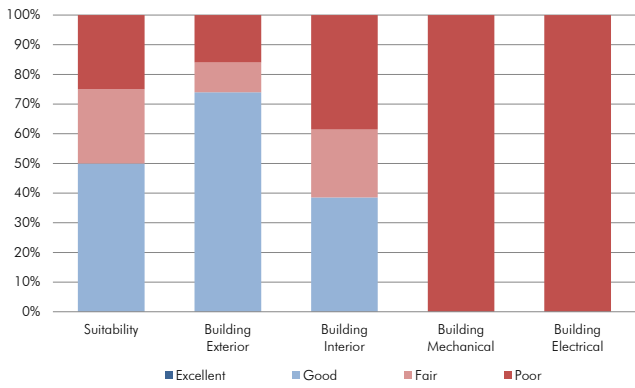
Newburgh Campus



Kaplan Hall



Tower Building



Masonic Temple



Instructional Space Utilization

Introduction

The efficient use of instructional space is an essential factor in today's world. As funding for capital expenditures is reduced, space shortages arise, and the need for new types of space develop, it becomes even more important for colleges to focus on the efficient use of current resources. With this in mind, a study of the current use of all classrooms and class labs was conducted as a part of this Facilities Master Plan.

For the purposes of this analysis, a classroom is defined as a room used for classes that is not tied to a specific subject or discipline by equipment in the room or the configuration of the space. Such rooms include classrooms equipped with computer workstations, as long as the computer software is not dedicated to a single academic discipline.

A class lab is a room primarily used for formally or regularly scheduled classes that require special purpose equipment or a specific room configuration for student participation, experimentation, observation, or practice in an academic discipline.¹ Spaces classified as class labs include science laboratories, group studios, nursing laboratories, and vocational laboratories. Computer rooms used primarily to instruct students in the use of computers are classified as class labs if that instruction is conducted primarily in formally or regularly scheduled classes.

The following summary provides an overview of instructional spaces on the Middletown and Newburgh campuses, their distribution, and their use patterns during the fall 2014 semester.

Study Methodology

Scheduling data for the fall 2014 semester for credit and non-credit courses was used for this study. The scheduling database, provided by the College, contained information such as the name of the course, course location, meeting days and times, portion of the semester in which the course was taught, and number of students enrolled in the course. Information contained in the College's Physical



Lecture Hall in Bio-Tech

¹ "Postsecondary Education Facilities Inventory and Classification Manual," July 1992, by the National Center for Education Statistics.

Space Inventory (PSI) was merged with the scheduling database to provide information about the number of student stations (seats) in each room, the area of the room, and the space classification, i.e. classroom or class lab.

Target Criteria

There are three variables in the space utilization equation: the square footage per student station in each room; the percentage of available hours a room is scheduled; and the percentage of seats filled when a room is in use. A change in any one of these variables has an effect on the utilization of the space. The following target criteria, which are based on SUNY Space Planning Guidelines, were used for this study to determine whether a room was being used efficiently.

Square Footage per Student Station

- Ideally, 20-25 square feet should be provided for each student workstation in a classroom.
- Computer labs should have a minimum of 35 square feet per station.
- In science labs, student stations should be 40 to 50 square feet. Student stations in vocational labs and art studios can be up to 115 square feet or more, depending on what is being taught in the space.

Hourly Utilization

- Based on SUNY Space Planning Guidelines, each classroom should be scheduled 30 hours over the course of a five-day, 40-hour week. During evening hours, each space should be scheduled 15 hours Monday through Thursday (20-hour week).
- Science or vocational labs should be scheduled 24 hours per week during the same five-day period and 12 hours Monday through Thursday during the evening.

Seat Occupancy

- Eighty percent of seats should be filled when a course meeting is in session for both classrooms and class labs. Rooms with seat occupancies within ten percent above and five percent below the target fall within acceptable limits. Rooms with seat occupancies above 90 percent are considered over-utilized, while rooms with seat occupancies below 75 percent are thought to be under-utilized. Figure 5.1 provides the target criteria used in this study.

SUNY Orange Target Criteria		Room Utilization		Seat Utilization
		Daytime Hours 40 Hours/Week (Monday-Friday)	Evening Hours 20 Hours/Week (Monday-Thursday)	Target Range Day and Evening
Room Type	Student Station Size (ASF)			
Classrooms	20-25 ASF	30 Hours (75%)	15 Hours (75%)	80%
General/Open Computer Labs	35 ASF	30 Hours (75%)	15 Hours (75%)	80%
Class Labs	40-50 ASF Natural & Social Science	24 Hours (60%)	12 Hours (60%)	80%
	up to 115 ASF Arts & Vocational Technology			

Figure 5.1

Course Meetings

While the majority of courses ran the full semester, many were held during only a portion of the semester. This meant that it was possible for an instructional space to be scheduled for more than one course on the same day of the week, at the same time, if the courses ran during different portions of the semester. Therefore, it was necessary to take a “snap shot” of the schedule at one point during the semester to eliminate this potential overlap and avoid duplication of data. Week eight was selected for both campuses. This week was after the census date and represented peak utilization - the week during which the most course meetings (1,825) occurred during the fall 2014 semester.

Instructional Space

According to the course schedule supplied by SUNY Orange, there were a total of 97 classrooms (including lecture halls, conference rooms, meeting rooms, and open labs) and 65 class labs available for use at both the Middletown and Newburgh campuses. Figure 5.2 shows the number of classrooms and class labs at each campus.

Campus	Classrooms	Class Labs	Total
Middletown	72	51	123
Newburgh	25	14	39
Total	97	65	162

Figure 5.2

The Physical Space Inventory (PSI) includes 21 additional instructional spaces that were not scheduled during fall 2014; 20 on the Middletown campus and one on the Newburgh campus. See Figure 5.3 below.

Campus	Classrooms	Class Labs	Total
Middletown	9	11	20
Newburgh	-	1	1
Total	9	12	21

Figure 5.3

More than half of the vacant space was due to the Architecture, Engineering, and Science programs moving to the Rowley Center in 2011. Course data was analyzed for all spaces that were utilized during the fall 2014 semester on both the Middletown and Newburgh campuses.

Middletown Campus - Fall 2014

Utilization Summary Tables

Utilization summary tables were prepared to provide a detailed look at how each instructional space was used during the peak week. The results of the analysis are divided into day and evening groupings. The room area, number of seats, number of square feet per seat, and number of hours scheduled during the peak week are provided for each space. Seat counts included in the PSI provided by the College were verified by the planning team.

Green highlighting in the two right-hand columns of the table indicates the target criteria were met. Red highlighting indicates the targets were exceeded. Light green highlighting identifies spaces that fell within five percent below the targets. In all other cases (where no color is shown) the utilization targets were not met, indicating that additional hourly and/or seating capacity was available.

Figures 5.4 to 5.10 provide a summary of the hourly and seat fill utilization results for the scheduled instructional spaces on the Middletown Campus during week eight in fall 2014. The first group of charts reflects daytime utilization.

Room	Space Name	Credit/ Non- Credit	Area (NSF)	No. of Stations	NSF/ Seat	Percent Seats Occupied	Hours Scheduled in Week	Percent Hours Scheduled
Middletown Campus - Fall 2014 - Week 8								
Day Courses								
Bio-Tech Building								
117	CLASSROOM	Credit	872	29	30	74.9%	16.00	40.0%
119	CLASSROOM	Credit	648	25	26	62.5%	12.00	30.0%
201	LECTURE HALL	Credit	963	75	13	22.4%	20.00	50.0%
203	LECTURE HALL	Credit	963	77	13	29.1%	19.50	48.8%
207	LECTURE HALL	Credit	2,070	141	15	17.0%	3.00	7.5%
264	CLASSROOM	Credit	553	25	22	79.8%	27.50	68.8%
270	CLASSROOM	Credit	501	25	20	89.8%	24.50	61.3%
301	LECTURE HALL	Credit	951	70	14	35.0%	16.50	41.3%
303	LECTURE HALL	Credit	955	70	14	27.1%	19.00	47.5%
311	LECTURE HALL	Credit	1,765	104	17	26.1%	12.00	30.0%
320	CLASSROOM	Credit	1,149	24	48	83.3%	3.00	7.5%
354	CLASSROOM	Credit	880	34	26	59.5%	29.00	72.5%
358	CLASSROOM	Credit	887	40	22	54.2%	24.50	61.3%
Classroom Total			13,157	739			226.50	
103	PHYSICAL THERAPY	Credit	1,927	24	80	59.9%	22.00	55.0%
113	COMPUTER LAB	Credit	675	20	34	79.7%	20.50	51.3%
121	COMPUTER LAB	Credit	1,213	24	51	78.4%	19.00	47.5%
204	OCCUPATIONAL THERAPY	Credit	993	26	38	62.6%	23.50	58.8%
206	PRACTICE LAB	Credit	1,331	18	74	75.0%	12.00	30.0%
208	PRACTICE LAB	Credit	1,331	18	74	63.2%	24.00	60.0%
223	DENTAL LABORATORY	Credit	1,449	20	72	81.3%	28.00	70.0%
251	LEARNING LAB	Credit	1,181	24	49	75.0%	24.00	60.0%
255	COMPUTER LAB	Credit	1,024	20	51	95.5%	21.50	53.8%
262	WRITING LAB	Credit	970	24	40	54.2%	3.00	7.5%
308	X-RAY ROOM	Credit	481	24	20	50.0%	25.00	62.5%
315	HISTOLOGY LAB	Credit	1,129	24	47	66.7%	11.00	27.5%
317	BIOCHEM ANALYSIS	Credit	1,160	24	48	51.7%	8.50	21.3%
319	HEMATOLOGY LAB	Credit	1,137	24	47	41.7%	5.00	12.5%
352	CRIMINAL JUSTICE LAB	Credit	1,106	24	46	94.6%	16.00	40.0%
355	COMPUTER LAB	Credit	1,165	24	49	69.8%	16.50	41.3%
357	TELECOM LAB	Credit	1,431	20	72	77.5%	8.00	20.0%
Class Lab Total			19,703	382			287.50	
Bio-Tech Building Total			32,860	1,121			514.00	

Figure 5.4

Room	Space Name	Credit/ Non- Credit	Area (NSF)	No. of Stations	NSF/ Seat	Percent Seats Occupied	Hours Scheduled in Week	Percent Hours Scheduled
Shepard Student Center								
106	ALUMNI ROOM	Non-Credit	669	32	21	12.5%	24.00	60.0%
Classroom Total			669	32			24.00	
Shepard Student Center Total			669	32			24.00	
Middletown Campus - Fall 2014 - Week 8								
Day Courses								
Harriman Hall								
101	CLASSROOM	Credit	621	24	26	93.9%	24.00	60.0%
103	CLASSROOM	Credit	464	28	17	76.5%	30.00	75.0%
105	CLASSROOM	Credit	464	27	17	77.2%	26.50	66.3%
107	CLASSROOM	Credit	455	27	17	72.8%	26.00	65.0%
109	CLASSROOM	Credit	967	25	39	83.7%	28.00	70.0%
111	AUDITORIUM	Credit	2,016	200	10	7.8%	11.25	28.1%
114A	CLASSROOM	Non-Credit	703	27	26	74.1%	12.00	30.0%
200	CLASSROOM	Credit	582	31	19	74.0%	22.50	56.3%
201	CLASSROOM	Credit	648	31	21	71.1%	23.00	57.5%
203	CLASSROOM	Credit	478	20	24	81.7%	15.50	38.8%
207	CLASSROOM	Credit	1,089	29	38	79.3%	17.00	42.5%
211A	CLASSROOM	Credit	691	32	22	71.1%	15.00	37.5%
211B	CLASSROOM	Credit	877	31	28	72.3%	27.50	68.8%
214	CLASSROOM	Credit	905	30	30	66.4%	16.00	40.0%
300	CLASSROOM	Credit	577	27	21	78.1%	34.50	86.3%
301	CLASSROOM	Credit	648	35	19	61.8%	33.50	83.8%
302	CLASSROOM	Credit	484	25	19	87.0%	28.50	71.3%
303	CLASSROOM	Credit	478	27	18	84.7%	27.25	68.1%
307	CLASSROOM	Credit	668	35	19	67.2%	31.00	77.5%
312	CLASSROOM	Credit	724	24	30	95.0%	16.00	40.0%
313	LECTURE HALL	Credit	874	62	14	36.4%	24.00	60.0%
314	CLASSROOM	Credit	1,080	24	45	85.4%	12.50	31.3%
316	CLASSROOM	Credit	1,080	24	45	77.3%	17.00	42.5%
319	CLASSROOM	Credit	706	28	25	72.4%	28.00	70.0%
Classroom Total			18,279	873			546.50	
111A	TV STUDIO	Credit	415				15.00	37.5%
113	DRAWING LAB	Credit	785	15	52	96.7%	15.00	37.5%
115	DESIGN/PRINT	Credit	1,004	24	42	75.6%	13.25	33.1%
117	PAINTING	Credit	1,147	14	82	95.2%	7.25	18.1%
210	TYPING LAB	Credit	905	19	48	77.0%	18.50	46.3%
212	KEYBOARDING LAB	Credit	920	19	48	64.0%	19.50	48.8%
217	COMPUTER LAB	Credit	897	18	50	76.3%	17.00	42.5%
Class Lab Total			6,073	109			105.50	
Harriman Hall Total			24,352	982			652.00	
Hudson Hall								
201	CLASSROOM	Credit	682	35	19	62.7%	18.00	45.0%
202	CLASSROOM	Credit	580	32	18	67.3%	28.00	70.0%
203	CLASSROOM	Credit	578	36	16	63.0%	31.00	77.5%
205	CLASSROOM	Credit	634	31	20	75.7%	28.00	70.0%
207	CLASSROOM	Credit	560	30	19	79.0%	22.00	55.0%
208	CLASSROOM	Credit	581	31	19	77.2%	16.50	41.3%
209	CLASSROOM	Credit	580	30	19	79.8%	22.00	55.0%
210	CLASSROOM	Credit	546	34	16	75.2%	31.25	78.1%
211	CLASSROOM	Credit	587	35	17	67.0%	27.75	69.4%
Classroom Total			5,328	294			224.50	
Hudson Hall Total			5,328	294			224.50	

Figure 5.5

Room	Space Name	Credit/ Non- Credit	Area (NSF)	No. of Stations	NSF/ Seat	Percent Seats Occupied	Hours Scheduled in Week	Percent Hours Scheduled
Middletown Campus - Fall 2014 - Week 8								
Day Courses								
Library								
103	INTERACTIVE VIDEO CLASSROOM	Credit	768	20	38	21.7%	8.25	20.6%
130	CLASSROOM	Credit	1,840	26	71	87.9%	16.50	41.3%
221	CONFERENCE/CLASS	Credit	1,310	26	50	76.9%	1.00	2.5%
Classroom Total			3,918	72			25.75	
Library Total			3,918	72			25.75	
Morrison Hall								
005	HONORS CLASSROOMS	Credit	501	18	28	69.8%	23.25	58.1%
Classroom Total			501	18			23.25	
Morrison Hall Total			501	18			23.25	
Orange Hall								
OH009	PHOTO STUDIO	Credit	335	15	22	80.0%	4.00	10.0%
OH107	CLASSROOM	Non-Credit	333	20	17	65.0%	20.00	50.0%
OH108	CLASSROOM	Credit	550	28	20	78.6%	22.50	56.3%
OH109	CLASSROOM	Credit	550	32	17	75.2%	19.50	48.8%
OH110	CLASSROOM	Credit	540	30	18	64.4%	13.50	33.8%
OR126	CLASSROOM (GREEN ROOM)	Credit	935	20	47	125.0%	22.00	55.0%
OR141	AUDITORIUM	Credit	3,461	388	9	3.9%	5.00	12.5%
Classroom Total			6,704	533			106.50	
OR023	CHORAL ROOM	Credit	854	27	32	68.8%	23.50	68.8%
		Non-Credit				37.0%	4.00	
OR024	MUSIC CLASSROOM	Credit	852	36	24	32.3%	21.00	57.5%
		Non-Credit				13.9%	2.00	
OR025	ART CLASSROOM	Credit	783	16	49	84.4%	6.50	16.3%
OR139	COMPUTER LAB	Credit	845	16	53	79.5%	22.75	56.9%
Class Lab Total			3,334	95			79.75	
Orange Hall Total			10,038	628			186.25	
Physical Education								
222	CLASSROOM	Credit	640	35	18	68.7%	22.50	56.3%
223	CLASSROOM	Credit	378	24	16	80.6%	12.50	31.3%
241	CLASSROOM	Credit	512	24	21	68.3%	10.50	26.3%
Classroom Total			1,530	83			45.50	
218A	STUDIO	Credit	1,472				30.50	76.3%
218B	SPIN STUDIO	Credit	1,472				12.00	30.0%
252	SAFETY LAB	Credit	504	9	56	150.0%	6.00	15.0%
Class Lab Total			3,448	9			48.50	
Physical Education Total			4,978	92			94.00	

Figure 5.6

Seat fill in classrooms and class labs in Harriman and Hudson Halls was generally good, meeting or exceeding targets in most cases. Good hourly utilization, on the other hand, was only achieved in 10 of the 40 spaces. This indicates that there is the opportunity to schedule more courses in these buildings.

Only four of the 21 classrooms and class labs in the Library, Physical Education Center, Morrison Hall, and Orange Hall were scheduled enough hours during the day to meet utilization targets. Seat fill in approximately half of the spaces met utilization targets; the other half were under filled when in use.

Room	Space Name	Credit/ Non- Credit	Area (NSF)	No. of Stations	NSF/ Seat	Percent Seats Occupied	Hours Scheduled in Week	Percent Hours Scheduled
Middletown Campus - Fall 2014 - Week 8								
Day Courses								
Rowley Center								
102	CLASSROOM	Credit	987	34	29	60.9%	15.50	38.8%
110	LECTURE HALL	Credit	1,365	45	30	50.7%	10.50	26.3%
112	LECTURE HALL	Credit	1,366	45	30	60.0%	22.00	55.0%
116	CLASSROOM	Credit	621	25	25	72.8%	7.50	18.8%
117	CLASSROOM	Credit	851	32	27	73.4%	15.00	37.5%
202	CLASSROOM	Credit	987	32	31	76.0%	9.75	24.4%
210	LECTURE HALL	Credit	1,369	45	30	40.9%	17.00	42.5%
212	LECTURE HALL	Credit	1,370	45	30	49.8%	23.75	59.4%
308	COMPUTER LAB	Credit	814	35	23	88.6%	2.00	5.0%
310	CLASSROOM	Credit	696	30	23	84.7%	13.50	33.8%
Classroom Total			10,426	368			136.50	
016	FIELD BIOLOGY LAB	Credit	1,239	24	52	50.0%	5.00	12.5%
020	DIVERSITY OF LIFE	Credit	1,291	24	54	69.6%	17.00	42.5%
104	A & P LAB	Credit	1,164	24	49	79.2%	24.00	60.0%
108	A & P LAB	Credit	1,172	24	49	81.3%	6.00	15.0%
118	INTRO TO BIOLOGY LAB	Credit	1,302	24	54	62.9%	33.00	82.5%
126	GENERAL BIOLOGY LAB 1	Credit	1,364	24	57	67.3%	21.00	52.5%
128	GENERAL BIOLOGY LAB 2	Credit	1,142	24	48	50.0%	6.00	15.0%
201	PHYSICAL SCIENCE LAB	Credit	1,175	24	49	56.3%	14.50	36.3%
204	PHYSICS - ELECTRICAL LAB	Credit	1,171	24	49	61.5%	12.00	30.0%
208	PHYSICS - MECHANICAL LAB	Credit	1,176	24	49	63.1%	16.00	40.0%
218	ORGANIC CHEM. LAB	Credit	1,309	24	55	58.3%	3.00	7.5%
219	P.S./ELEM./GEOLOGY LAB	Credit	1,001	22	46	54.5%	5.00	12.5%
220	GENERAL CHEM. LAB	Credit	1,312	24	55	70.8%	13.00	32.5%
224	GENERAL CHEM. LAB	Credit	1,365	24	57	72.9%	11.75	29.4%
226	GENERAL CHEM. LAB	Credit	1,136	24	47	37.5%	5.50	13.8%
301	CAD LAB	Credit	956	20	48	52.8%	29.00	72.5%
307	ARCH. LAB	Credit	1,369	20	68	53.3%	13.00	32.5%
Class Lab Total			20,644	398			234.75	
Rowley Center Total			31,070	766			371.25	
Middletown Campus Day Course Total			113,714	4,005			2115.00	

Figure 5.7

The Rowley Center, the newest building on the Middletown Campus, contains nine classrooms, one computer lab, and seventeen class labs. As expected with a new facility, enrollment at the College has not yet grown to a level that presses the seating capacity or hourly utilization of the new spaces. There is ample capacity to fill more seats and schedule rooms for more hours during the day.

Day courses typically drive space needs but, depending on the campus culture, classrooms and class labs may be used more heavily in the evening. As such, an analysis of evening utilization was also conducted.

The results on the following pages indicate that evening use was less intensive on the Middletown Campus, with the exception of the Rowley Center where evening seat fill and hourly utilization exceeded daytime use.

Room	Space Name	Credit/ Non-Credit	Area (NSF)	No. of Stations	NSF/ Seat	Percent Seats Occupied	Hours Scheduled in Week	Percent Hours Scheduled
Middletown Campus - Fall 2014 - Week 8								
Evening Courses								
Bio-Tech Building								
117	CLASSROOM	Credit	872	29	30	37.9%	2.00	40.0%
		Non-Credit	872	29	30	72.4%	6.00	
119	CLASSROOM	Non-Credit	648	25	26	76.0%	12.00	60.0%
201	LECTURE HALL	Credit	963	75	13	27.3%	9.00	45.0%
203	LECTURE HALL	Credit	963	77	13	22.1%	7.50	37.5%
264	CLASSROOM	Credit	553	25	22	82.0%	5.50	27.5%
270	CLASSROOM	Credit	501	25	20	72.0%	8.25	41.3%
301	LECTURE HALL	Credit	951	70	14	15.2%	5.75	28.8%
303	LECTURE HALL	Credit	955	70	14	40.0%	2.75	43.8%
		Non-Credit	955	70	14	37.1%	6.00	
354	CLASSROOM	Credit	880	34	26	38.2%	2.75	13.8%
358	CLASSROOM	Credit	887	40	22	26.7%	8.25	41.3%
Classroom Total			10,000	569			75.75	
121	COMPUTER LAB	Credit	1,213	24	51	52.8%	8.00	40.0%
204	OCCUPATIONAL THERAPY	Credit	993	26	38	38.5%	3.00	15.0%
206	PRACTICE LAB	Credit	1,331	18	74	44.4%	3.00	15.0%
208	PRACTICE LAB	Credit	1,331	18	74	63.9%	6.00	30.0%
253	COMPUTER LAB	Credit	977	20	49	60.0%	6.00	30.0%
255	COMPUTER LAB	Credit	1,024	20	51	70.0%	6.00	30.0%
262	WRITING LAB	Credit	970	24	40	33.3%	1.00	5.0%
315	HISTOLOGY LAB	Credit	1,129	24	47	70.8%	4.00	20.0%
352	CRIMINAL JUSTICE LAB	Credit	1,106	24	46	50.0%	6.50	32.5%
357	TELECOM LAB	Credit	1,431	20	72	92.5%	8.00	40.0%
Class Lab Total			11,505	218			51.50	
Bio-Tech Building Total			21,505	787			127.25	
Shepard Student Center								
106	ALUMNI ROOM	Non-Credit	669	32	21	15.6%	16.00	80.0%
Classroom Total			669	32			16.00	
Shepard Student Center Total			669	32			16.00	

Figure 5.8

Room	Space Name	Credit/ Non-Credit	Area (NSF)	No. of Stations	NSF/ Seat	Percent Seats Occupied	Hours Scheduled in Week	Percent Hours Scheduled
Middletown Campus - Fall 2014 - Week 8								
Evening Courses								
Harriman Hall								
101	CLASSROOM	Credit	621	24	26	77.1%	11.00	55.0%
103	CLASSROOM	Credit	464	28	17	68.8%	8.00	50.0%
		Non-Credit	464	28	17	28.6%	2.00	
105	CLASSROOM	Credit	464	27	17	64.2%	8.25	41.3%
107	CLASSROOM	Credit	455	27	17	77.8%	5.50	27.5%
109	CLASSROOM	Credit	967	25	39	56.0%	5.50	27.5%
200	CLASSROOM	Credit	582	31	19	62.1%	11.00	65.0%
		Non-Credit	582	31	19	19.4%	2.00	
201	CLASSROOM	Credit	648	31	21	48.4%	8.25	41.3%
203	CLASSROOM	Credit	478	20	24	53.3%	8.25	41.3%
207	CLASSROOM	Credit	1,089	29	38	48.3%	3.75	18.8%
211A	CLASSROOM	Credit	691	32	22	50.0%	3.75	18.8%
211B	CLASSROOM	Credit	877	31	28	33.9%	5.50	27.5%
214	CLASSROOM	Non-Credit	905	30	30	26.7%	3.00	15.0%
300	CLASSROOM	Credit	577	27	21	72.8%	5.25	26.3%
301	CLASSROOM	Credit	648	35	19	47.9%	9.00	45.0%
302	CLASSROOM	Credit	484	25	19	50.7%	8.25	71.3%
		Non-Credit	484	25	19	16.0%	6.00	
303	CLASSROOM	Credit	478	27	18	63.9%	11.00	55.0%
307	CLASSROOM	Credit	668	35	19	70.0%	5.50	27.5%
312	CLASSROOM	Credit	724	24	30	58.3%	3.50	17.5%
313	LECTURE HALL	Credit	874	62	14	16.1%	2.75	23.8%
		Non-Credit	874	62	14	6.5%	2.00	
316	CLASSROOM	Credit	1,080	24	45	66.7%	2.75	13.8%
319	CLASSROOM	Credit	706	28	25	56.0%	8.25	41.3%
Classroom Total			16,884	768			150.00	
115	DESIGN/PRINT	Credit	1,004	24	42	61.7%	14.75	73.8%
117	PAINTING	Credit	1,147	14	82	100.0%	4.50	22.5%
210	TYPING LAB	Credit	905	19	48	52.6%	9.25	46.3%
212	KEYBOARDING LAB	Credit	920	19	48	47.4%	5.75	28.8%
217	COMPUTER LAB	Credit	897	18	50	50.0%	3.75	18.8%
Class Lab Total			4,873	94			38.00	
Harriman Hall Total			21,757	862			188.00	
Hudson Hall								
201	CLASSROOM	Credit	682	35	19	52.1%	11.00	55.0%
202	CLASSROOM	Credit	580	32	18	37.5%	3.75	18.8%
203	CLASSROOM	Credit	578	36	16	43.8%	11.00	55.0%
205	CLASSROOM	Credit	634	31	20	60.2%	8.25	41.3%
207	CLASSROOM	Credit	560	30	19	46.7%	2.75	13.8%
208	CLASSROOM	Non-Credit	581	31	19	37.9%	11.50	57.5%
210	CLASSROOM	Credit	546	34	16	60.3%	5.50	27.5%
211	CLASSROOM	Credit	587	35	17	68.6%	2.75	13.8%
Classroom Total			4,748	264			56.50	
Hudson Hall Total			4,748	264			56.50	
Library								
215	CLASSROOM	Non-Credit	310	14	22	153.6%	12.00	60.0%
221	CONFERENCE/CLASS	Non-Credit	1,310	26	50	69.2%	12.00	60.0%
Classroom Total			1,620	40			24.00	
Library Total			1,620	40			24.00	

Figure 5.9

Room	Space Name	Credit/ Non- Credit	Area (NSF)	No. of Stations	NSF/ Seat	Percent Seats Occupied	Hours Scheduled in Week	Percent Hours Scheduled
Middletown Campus - Fall 2014 - Week 8								
Evening Courses								
Morrison Hall								
005	HONORS CLASSROOMS	Credit	501	18	28	50.0%	11.00	27.5%
Classroom Total			501	18			11.00	
Morrison Hall Total			501	18			11.00	
Orange Hall								
OH108	CLASSROOM	Credit	550	28	20	58.0%	11.00	55.0%
OH109	CLASSROOM	Credit	550	32	17	75.0%	2.75	38.8%
		Non-Credit	550	32	17	53.1%	5.00	
OR126	CLASSROOM	Credit	935	20	47	90.0%	5.50	27.5%
OR141	AUDITORIUM	Credit	3,461	388	9	4.4%	5.50	27.5%
Classroom Total			6,046	500			29.75	
OR023	CHORAL ROOM	Credit	854	27	32	44.4%	5.50	27.5%
OR024	MUSIC CLASSROOM	Credit	852	36	24	33.3%	1.75	8.8%
OR139	COMPUTER LAB	Credit	845	16	53	81.3%	10.75	53.8%
Class Lab Total			2,551	79			18.00	
Orange Hall Total			8,597	579			47.75	
Physical Education								
222	CLASSROOM	Credit	640	35	18	68.6%	2.00	25.0%
		Non-Credit	640	35	18	57.1%	3.00	
241	CLASSROOM	Credit	512	24	21	79.2%	4.00	20.0%
Classroom Total			1,792	94			9.00	
218A	STUDIO	Credit	1,472				8.00	40.0%
Class Lab Total			1,472				8.00	
Physical Education Total			3,264	94			17.00	
Rowley Center								
102	CLASSROOM	Credit	987	34	29	55.9%	3.00	15.0%
110	LECTURE HALL	Credit	1,365	45	30	45.9%	17.50	87.5%
112	LECTURE HALL	Credit	1,366	45	30	42.7%	13.00	65.0%
116	CLASSROOM	Credit	621	25	25	84.0%	6.00	30.0%
117	CLASSROOM	Credit	851	32	27	60.6%	13.50	67.5%
210	LECTURE HALL	Credit	1,369	45	30	31.1%	7.25	36.3%
212	LECTURE HALL	Credit	1,370	45	30	33.3%	6.50	32.5%
310	CLASSROOM	Credit	696	30	23	96.7%	2.75	13.8%
Classroom Total			8,625	301			69.50	
017	GENERAL LAB	Credit	1,104	24	46	41.7%	5.75	28.8%
101	HUMAN BIOLOGY LAB	Credit	1,038	20	52	95.0%	3.00	15.0%
104	A & P LAB	Credit	1,164	24	49	86.1%	17.50	87.5%
108	A & P LAB	Credit	1,172	24	49	83.3%	18.00	90.0%
118	INTRO TO BIOLOGY LAB	Credit	1,302	24	54	75.0%	10.00	50.0%
201	PHYSICAL SCIENCE LAB	Credit	1,175	24	49	75.0%	4.25	21.3%
208	PHYSICS - MECHANICAL LAB	Credit	1,176	24	49	50.0%	2.75	13.8%
218	ORGANIC CHEM. LAB	Credit	1,309	24	55	76.4%	11.25	56.3%
219	P.S./ELEM./GEOLOGY LAB	Credit	1,001	22	46	40.9%	4.50	22.5%
224	GENERAL CHEM. LAB	Credit	1,365	24	57	62.5%	6.50	32.5%
301	CAD LAB	Credit	956	20	48	35.0%	2.00	10.0%
Class Lab Total			12,762	254			85.50	
Rowley Center Total			21,387	555			155.00	
Middletown Campus Evening Course Total			84,048	3,231			642.50	

Figure 5.10

Middletown Campus Utilization Findings

- On the Middletown Campus, only 23 of the 123 rooms scheduled during the day met or fell within five percent of the hourly utilization target; two exceeded the target.
- Seventy-nine percent of the rooms used during the day were underutilized in terms of the number of hours they were scheduled.
- Forty-one percent of the rooms met or exceeded the daytime seat occupancy targets.
- Evening seat fill utilization was even lower on the Middletown Campus with only 19 rooms meeting the target.
- Evening hourly utilization was also well below targets: 89 percent of the spaces were underutilized.

These results indicate that the current number of classrooms and class labs and their seating capacities are more than adequate for the College's current enrollment and schedule of courses.

Distribution of Course Meetings by Time of Day

Room use on each day during the peak week was tracked in half-hour increments, depicting the peaks and valleys of the daily schedule and providing a detailed look at scheduling patterns. The red lines indicate the total number of available instructional spaces, the number of rooms that were scheduled during the semester, and the number of rooms that were scheduled that week. The graph displays the number of spaces that were scheduled between 7:30 AM and 10:00 PM during the peak week.

Figure 5.11 on the following page shows classroom occupancy for week eight of the fall 2014 semester on the Middletown Campus. Of the available 81 classrooms, 72 were scheduled for classes during the peak week.

- The number of course meetings between 8:00 AM and 3:00 PM stayed fairly consistent Monday, Wednesday, and Friday. Course meetings on Tuesday and Thursday dip from 11:00 AM to 12:00 PM.
- Few courses occurred on Friday afternoon, as expected.
- There was a slight increase in the number of course meetings from 6:00 PM until 9:00 PM on Monday through Thursday, which is typical of community colleges.
- The maximum number of courses that met at the same time was 59. Therefore, at least 13 of the rooms scheduled during the semester were vacant at any one time.

Figure 5.12 shows class lab occupancy for week eight of the fall 2014 semester on the Middletown Campus. Of the 62 class labs available during the semester, 51 were scheduled for classes during the peak week.

- The number of course meetings between 8:00 AM and 11:00 AM stayed fairly consistent Monday through Friday. A dip in course meetings occurred during the lunch hour from 11:00 AM to 12:00 PM on each day, with courses on Tuesday and Thursday dropping off more significantly.
- Course meetings Monday through Thursday tapered off starting around 3:00 PM through the evening.
- Few course meetings occurred on Friday afternoon with no courses meeting in the evening.

- 31 courses met at the same time on Wednesday at 10:00 AM, which represented peak utilization. Therefore, at least 20 of the rooms scheduled during the semester were vacant at any given time. This is primarily due to the recent construction of the Rowley Center, as discussed previously. Vacated class labs elsewhere will be repurposed as part of this Master Plan.

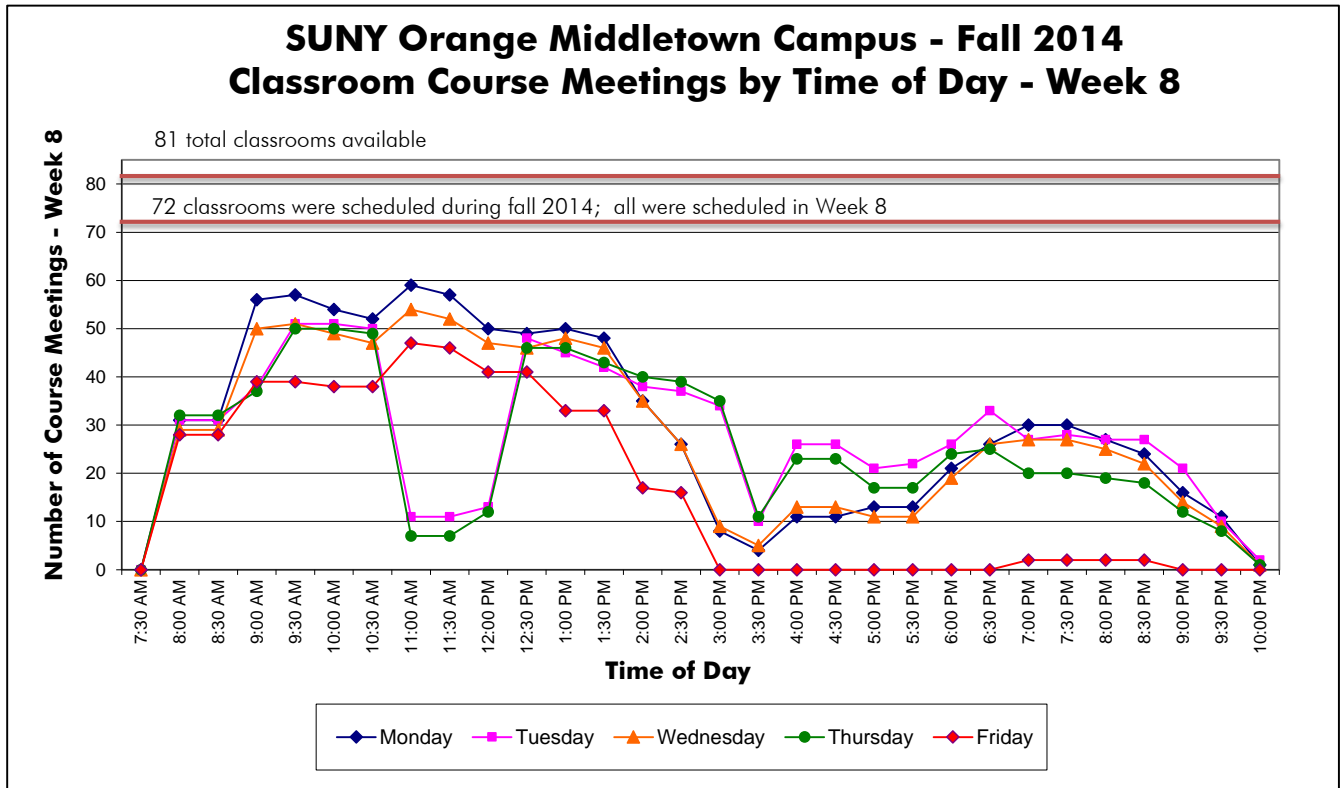


Figure 5.11

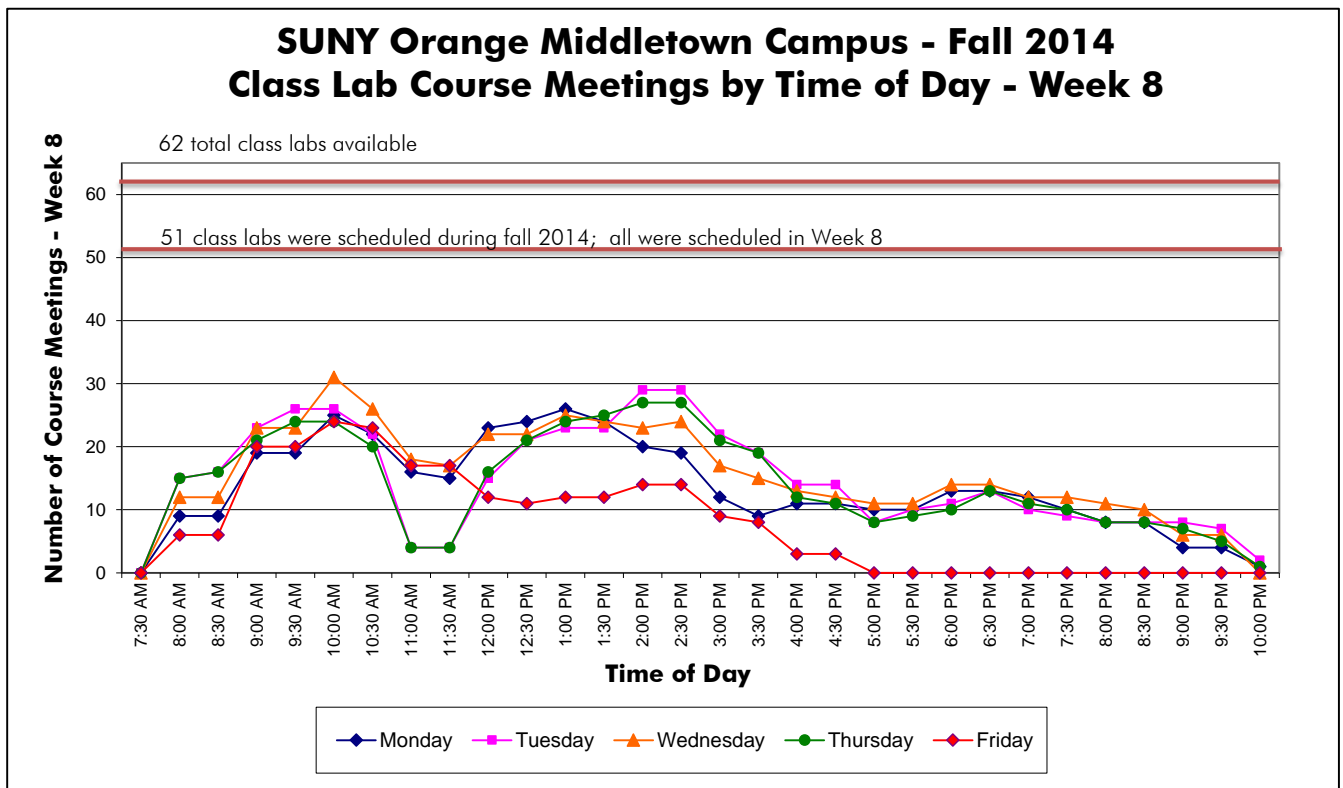


Figure 5.12

Distribution of Course Meetings by Day of Week

These bar charts track the distribution of course meetings during the peak week on a day-to-day basis. If course offerings were distributed uniformly across a five-day schedule, 20 percent of all course meetings would occur on any given day. Fridays typically have lower utilization rates, especially at two-year institutions.

The graphs in figure 5.13 illustrate the daily distribution of the 1,825 course meetings held during week eight of the fall 2014 semester. For example, 337 course meetings were held in classrooms on Mondays, representing 25.1 percent of all day course meetings. This includes courses that met only on Mondays, along with courses that met on Monday/Tuesday, Monday/Wednesday/Friday, etc.

- In both classrooms and class labs, course meetings occurred more frequently on Monday and Wednesday.
- Fewer courses met in classrooms on Thursday and class labs on Friday.

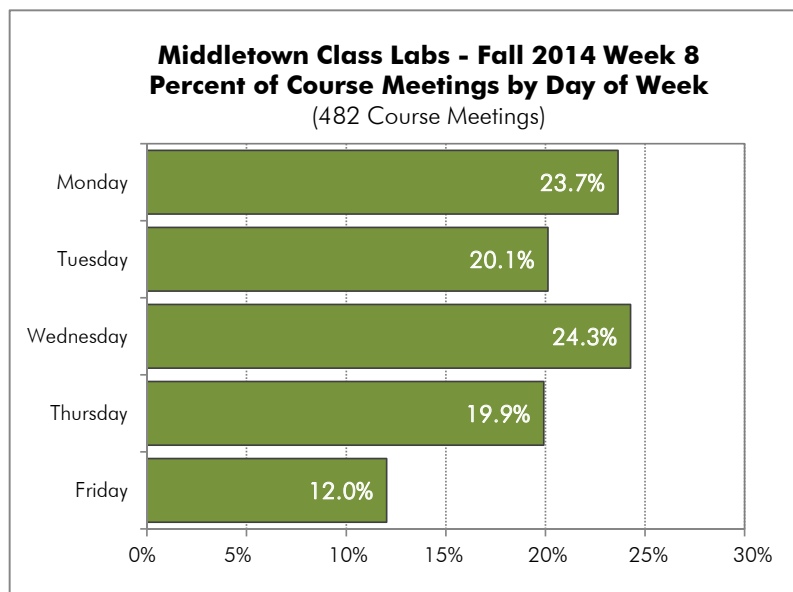
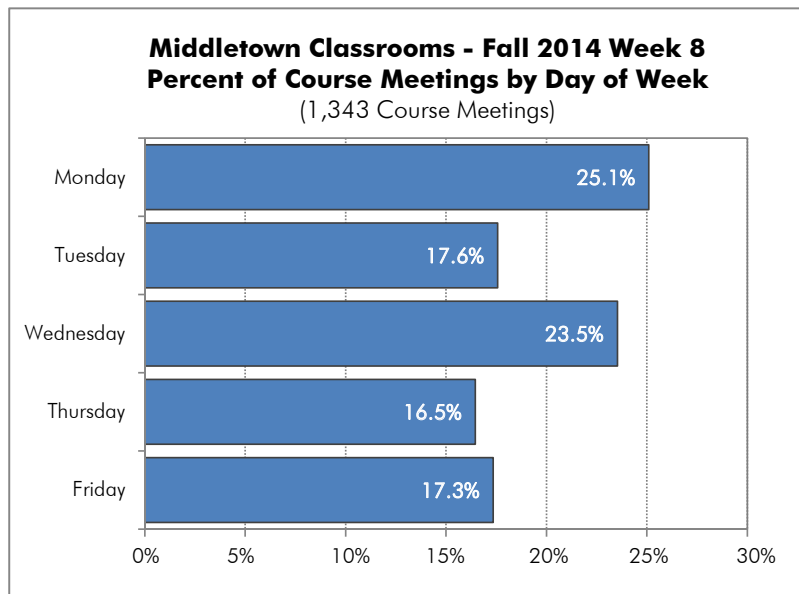


Figure 5.13

Class Size Compared to Room Capacity

These tables illustrate the degree to which course enrollments correlated with room capacity during the peak week. The number in each box indicates the number of course meetings that took place in a room with a given seating capacity and enrollment. Green highlighting indicates there was a good match between the number of students enrolled and the seating capacity of the room in which the course was scheduled. Light green highlighting indicates the spaces were marginally larger than the class enrollment, but within an appropriate range. Red indicates the spaces were significantly larger or smaller than the recommended size of the room for the class enrollment. The match for class size to room capacity is based on the SUNY Space Planning Guidelines seat occupancy target of 80 percent utilization.

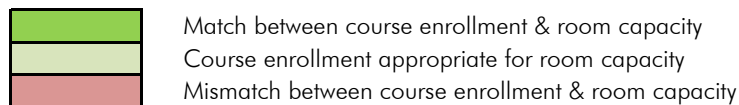
Figures 5.14 and 5.15 show the degree to which class size correlated with room capacity during week eight of the fall 2014 semester.

- Of the 1,343 scheduled course meetings held in classrooms, 52 percent of the courses were scheduled in classrooms that had the appropriate number of seats, based on the target criteria.
- Forty-six percent of classes were scheduled in classrooms that were larger than necessary. Only two percent were held in classrooms that had too few seats.

Middletown Campus Fall 2014 - Week 8

Classroom Seating Capacity	Scheduled Class Size (Enrollment)							Room Count
	10 or less	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	
11 to 15		2	2	2				2
16 to 20	16	26	14	17	3			5
21 to 25	12	22	93	99	5			13
26 to 30	10	27	125	137	36	3		17
31 to 35	29	31	90	184	88	7		20
36 to 40	2	11	8	27	7	2		2
41 to 45		8	30	23	19	5		4
61 to 65	2		5	18				1
66 to 70	5	3	3	14	7			2
71 to 75	3	7	3	5	1	1		1
76 to 80		5	5	4	4	2		1
101 to 110		2		3			3	1
141 to 150				2				1
191 to 200		4	4					1
381 to 390		2	4					1
Total Course Meetings = 1,343	79	150	386	535	170	20	3	72

Figure 5.14



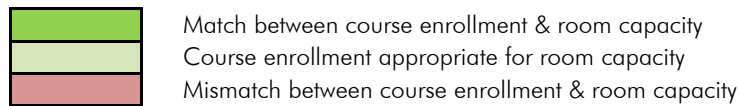
- Of the 432 course meetings held in class labs, 57 percent of the courses were scheduled in rooms that had the appropriate number of seats.
- Thirty-nine percent were held in class labs that had significantly more seats than necessary. Just four percent of the course meetings were held in rooms that were reportedly too small for the enrollment.

Middletown Campus
Fall 2014 - Week 8

Class Lab Seating Capacity	Scheduled Class Size (Enrollment)							Room Count
	10 or less	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	
10 or less		9	3					2
11 to 15		8	2					2
16 to 20	27	70	39	2				14
21 to 25	24	68	77	40				27
26 to 30	8	14	4	15				2
36 to 40	13	5	2	2				1
Total Course Meetings = 432	72	174	127	59	0	0	0	48*

*Note: Three spaces not included - HH111A TV Studio, PE218A Studio, and PE218B Spin Studio (no seats) (50 course meetings total)

Figure 5.15



Newburgh Campus - Fall 2014

Utilization Summary Tables

Utilization summary tables were prepared to provide a detailed look at how each instructional space was used during the peak week. The results of the analysis are divided into day and evening groupings. The room area, number of seats, number of square feet per seat, and number of hours scheduled during the peak week are provided for each space. Seat counts included in the PSI provided by the College were verified by the planning team.

Green highlighting in the two right-hand columns of the table indicates the target criteria were met. Red highlighting indicates the targets were exceeded. Light green highlighting identifies spaces that fell within five percent below the targets. In all other cases (where no color is shown) the utilization targets were not met, indicating that additional hourly and/or seating capacity was available.

Figures 5.16 to 5.18 provide a summary of the hourly and seat fill utilization results for the scheduled instructional spaces on the Newburgh Campus during week eight in fall 2014 when the peak number of course meetings (492) occurred.

Room	Space Name	Credit/ Non- Credit	Area (NSF)	No. of Stations	NSF/ Seat	Percent Seats Occupied	Hours Scheduled in Week	Percent Hours Scheduled
Newburgh Campus - Fall 2014 - Week 8								
Day Courses								
Kaplan Hall								
201	CLASSROOM	Credit	1,491	48	31	49.6%	12.50	31.3%
203	CLASSROOM	Credit	652	32	20	65.1%	25.00	62.5%
204	CLASSROOM	Credit	736	30	25	67.6%	25.50	63.8%
205	CLASSROOM	Credit	670	29	23	63.0%	22.25	55.6%
206	CLASSROOM	Credit	750	32	23	51.7%	21.00	52.5%
207	CLASSROOM	Credit	600	32	19	66.3%	22.75	56.9%
208	CLASSROOM	Credit	657	32	21	69.0%	16.00	40.0%
209	CLASSROOM	Credit	772	33	23	65.2%	24.75	61.9%
210	CLASSROOM	Credit	426	20	21	40.0%	2.50	6.3%
301	CLASSROOM	Credit	704	42	17	50.4%	14.00	35.0%
302	CLASSROOM	Credit	850	39	22	56.8%	22.50	56.3%
313	CLASSROOM	Credit	613	31	20	66.7%	9.50	23.8%
Classroom Total			8,921	400			218.25	
231	COMPUTER CLASSROOM	Credit	850	25	34	48.0%	1.00	2.5%
309	NURSING LAB	Credit	1,047	20	52	65.0%	11.00	27.5%
310	A&P LAB 2	Credit	1,170	24	49	79.2%	5.50	13.8%
312	A&P LAB	Credit	1,170	24	49	75.0%	6.00	15.0%
324	BIOLOGY LAB	Credit	1,415	28	51	56.6%	21.00	52.5%
325	CHEMISTRY LAB	Credit	1,215	24	51	62.5%	8.00	20.0%
328	MICROBIOLOGY LAB	Credit	1,341	16	84	100.0%	2.00	5.0%
Class Lab Total			8,208	161			54.50	
Kaplan Hall Total			17,129	561			272.75	

Figure 5.16

Only three instructional spaces in Kaplan Hall met or exceeded the target for seat fill. No spaces were scheduled enough to meet the hourly utilization target during the day.

Room	Space Name	Credit/ Non- Credit	Area (NSF)	No. of Stations	NSF/ Seat	Percent Seats Occupied	Hours Scheduled in Week	Percent Hours Scheduled
Newburgh Campus - Fall 2014 - Week 8								
Day Courses								
Tower Building								
206	CLASSROOM	Credit	504	29	17	61.3%	14.00	35.0%
207	CLASSROOM	Credit	612	28	22	64.8%	17.00	42.5%
208	CLASSROOM	Credit	712	42	17	51.0%	25.25	63.1%
214	CLASSROOM	Credit	750	21	36	83.3%	4.00	10.0%
224	SEMINAR ROOM	Non-Credit	480	24	20	83.3%	3.00	7.5%
306	SEMINAR	Credit	620	18	34	63.9%	3.75	31.9%
		Non-Credit	620	18	34	111.1%	9.00	
307	CLASSROOM	Credit	700	24	29	7.3%	4.75	11.9%
308	CLASSROOM	Credit	850	30	28	71.2%	23.75	59.4%
309	CLASSROOM	Credit	700	27	26	71.9%	16.50	41.3%
311	CLASSROOM	Credit	750	32	23	64.4%	25.00	62.5%
313	CLASSROOM	Credit	750	28	27	61.5%	27.25	68.1%
314	CLASSROOM	Credit	650	30	22	90.0%	5.00	12.5%
316	CLASSROOM	Credit	672	30	22	84.4%	16.50	41.3%
Classroom Total			9,370	381			194.75	
130	GYM STUDIO	Credit	676				8.00	20.0%
134	WEIGHT ROOM	Credit	867				8.00	20.0%
211	COMPUTER LAB	Credit	728	20	36	67.2%	11.00	27.5%
212	COMPUTER LAB	Credit	750	20	38	67.0%	17.25	43.1%
220	ART STUDIO	Credit	864	25	35	71.5%	17.00	42.5%
Class Lab Total			3,885	65			61.25	
Tower Building Total			13,255	446			256.00	
Newburgh Campus Day Course Total			30,384	1,007			528.75	

Figure 5.17

Five of the 17 rooms in the Tower Building met or exceeded seat fill targets and none were adequately scheduled during the day.

Room	Space Name	Credit/ Non- Credit	Area (NSF)	No. of Stations	NSF/ Seat	Percent Seats Occupied	Hours Scheduled in Week	Percent Hours Scheduled
Newburgh Campus - Fall 2014 - Week 8								
Evening Courses								
Kaplan Hall								
201	CLASSROOM	Non-Credit	1,491	48	31	58.3%	12.00	60.0%
203	CLASSROOM	Credit	652	32	20	64.6%	8.25	41.3%
204	CLASSROOM	Credit	736	30	25	50.0%	8.25	41.3%
205	CLASSROOM	Credit	670	29	23	63.2%	8.25	41.3%
206	CLASSROOM	Credit	750	32	23	50.8%	11.00	55.0%
207	CLASSROOM	Credit	600	32	19	34.4%	2.75	23.8%
		Non-Credit	600	32	19	18.8%	2.00	
208	CLASSROOM	Credit	657	32	21	34.4%	2.75	43.8%
		Non-Credit	657	32	21	71.9%	6.00	
209	CLASSROOM	Credit	772	33	23	56.6%	8.25	41.3%
301	CLASSROOM	Credit	704	42	17	53.6%	11.00	55.0%
302	CLASSROOM	Credit	850	39	22	43.6%	5.50	27.5%
313	CLASSROOM	Credit	613	31	20	69.4%	4.75	23.8%
Classroom Total			9,752	444			90.75	
324	BIOLOGY LAB	Credit	1,415	28	51	71.4%	3.00	15.0%
325	CHEMISTRY LAB	Credit	1,215	24	51	79.2%	15.50	77.5%
Class Lab Total			2,630	52			18.50	
Kaplan Hall Total			12,382	496			109.25	
Tower Building								
206	CLASSROOM	Credit	504	29	17	39.7%	5.50	27.5%
207	CLASSROOM	Credit	612	28	22	54.8%	6.00	30.0%
208	CLASSROOM	Credit	712	42	17	48.8%	5.50	27.5%
214	CLASSROOM	Non-Credit	750	21	36	66.7%	6.00	30.0%
224	SEMINAR ROOM	Non-Credit	480	24	20	41.7%	6.00	30.0%
306	SEMINAR	Non-Credit	620	18	34	127.8%	12.00	60.0%
308	CLASSROOM	Credit	850	30	28	70.0%	5.50	27.5%
309	CLASSROOM	Credit	700	27	26	63.0%	5.50	27.5%
311	CLASSROOM	Credit	750	32	23	50.0%	5.50	27.5%
313	CLASSROOM	Credit	750	28	27	71.4%	6.50	32.5%
314	CLASSROOM	Non-Credit	650	30	22	65.0%	11.00	55.0%
316	CLASSROOM	Credit	672	30	22	69.2%	11.00	55.0%
Classroom Total			8,050	339			86.00	
130	GYM STUDIO	Credit	676				2.00	10.0%
210	COMPUTER LAB	Non-Credit	775	20	39	45.0%	6.00	30.0%
211	COMPUTER LAB	Credit	728	20	36	70.0%	7.00	35.0%
212	COMPUTER LAB	Credit	750	20	38	60.0%	4.00	20.0%
220	ART STUDIO	Credit	864	25	35	96.0%	2.75	13.8%
Class Lab Total			3,793	85			21.75	
Tower Building Total			11,843	424			107.75	
Newburgh Campus Evening Course Total			24,225	920			217.00	

Figure 5.18

Evening use of classrooms and class labs on the Newburgh Campus was lighter than during the day.

Newburgh Campus Utilization Findings

- All of the spaces were underutilized in terms of the number of hours they were scheduled, which is not unusual for a relatively new campus.
- During the day on the Newburgh Campus, five rooms met or fell within five percent of the seat occupancy utilization target and only three exceeded the target.
- Seventy-seven percent of rooms fell below the seat utilization target.
- Evening utilization was similar, with seat fill slightly lower and hourly utilization still well below targets with 97 percent of the spaces underutilized.
- The Chemistry Lab in Kaplan Hall was utilized the most during the evening.

Distribution of Course Meetings by Time of Day

Room use on each day during the peak week was tracked in half-hour increments, depicting the peaks and valleys of the daily schedule and providing a detailed look at scheduling patterns. The red lines indicate the total number of available instructional spaces, the number of rooms that were scheduled during the semester, and the number of rooms that were scheduled that week. The graph displays the number of spaces that were scheduled between 7:30 AM and 10:00 PM during the peak week.

Figure 5.19 on the following page shows room occupancy for week eight of the fall 2014 semester on the Newburgh Campus. All 25 classrooms were scheduled during the peak week.

- The number of course meetings between 9:00 AM and 12:30 PM stayed fairly consistent Monday, Wednesday, and Friday with courses dropping off in the afternoon hours.
- Course meetings on Tuesday and Thursday peaked between 9:00 AM and 11:00 AM and again between 12:30 PM and 3:00 PM.
- There was a significant increase in course meetings Monday through Thursday from 6:00 PM through 9:00 PM, which is typical of community colleges.
- No courses occurred after 2:00 PM on Friday.
- The maximum number of courses that met at the same time was 23. Since there were 25 rooms scheduled during the peak week, only two rooms were vacant at any given time.

Figure 5.20 shows class lab occupancy on the Newburgh Campus during week eight of the fall 2014 semester. Of the 14 class labs used during the semester, 13 were scheduled for courses during the peak week.

- All course meetings had the typical dip during lunch and dinner hours with an increase in course meetings from 6:00 PM to 9:00 PM.
- During the day, Wednesday had the most course meetings. Tuesday had more course meetings in the evening.
- Few courses occurred on Friday, with none occurring after 3:00 PM.
- Only six courses met simultaneously, leaving seven rooms available at any one time.

SUNY Orange Newburgh Campus - Fall 2014 Classroom Course Meetings by Time of Day - Week 8

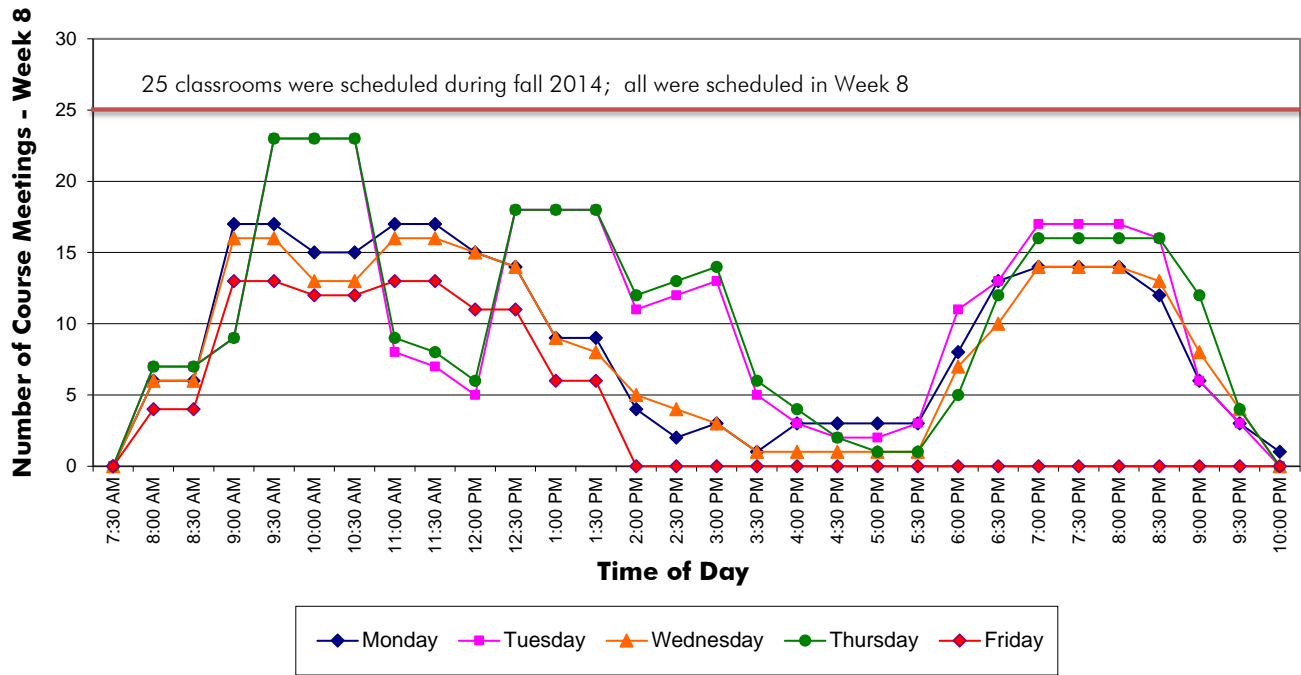


Figure 5.19

SUNY Orange Newburgh Campus - Fall 2014 Class Lab Course Meetings by Time of Day - Week 8

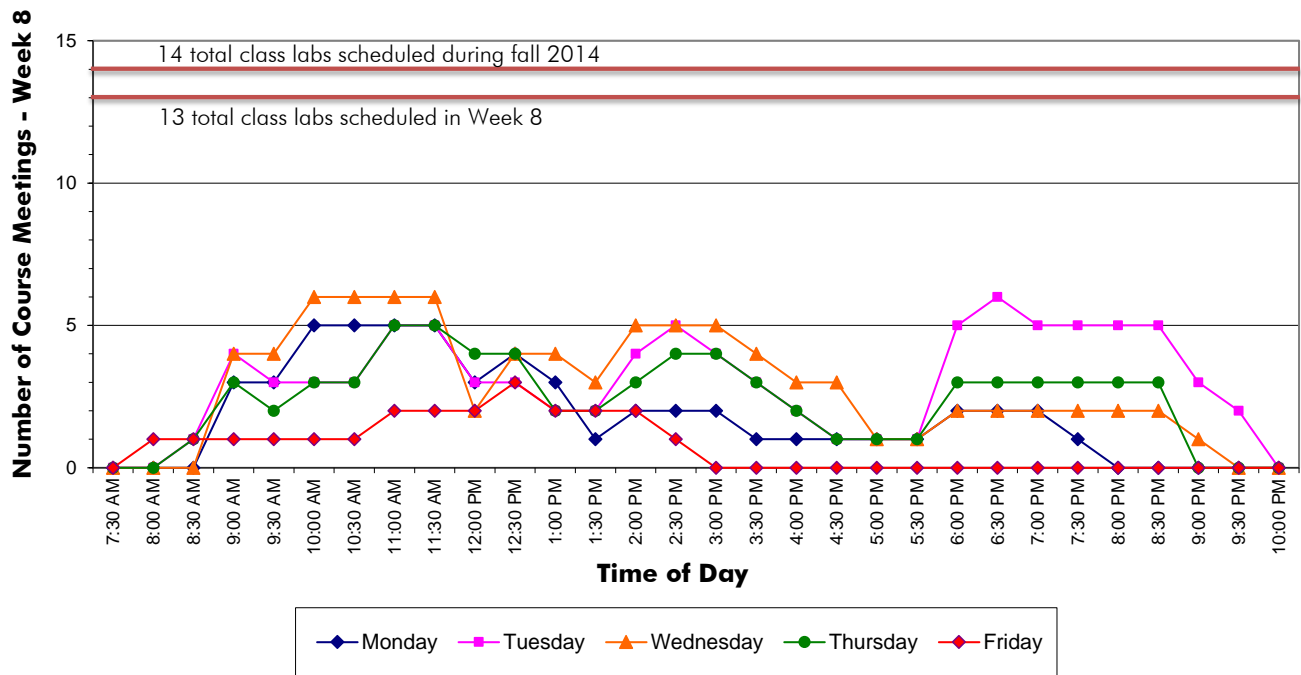


Figure 5.20

Distribution of Course Meetings by Day of Week

These bar charts track the distribution of course meetings during the peak week on a day-to-day basis. If course offerings were distributed uniformly across a five-day schedule, 20 percent of all course meetings would occur on any given day. Fridays typically have lower utilization rates, especially at two-year institutions.

The graphs in figure 5.21 illustrate the daily distribution of the 492 course meetings held during week eight of the fall 2014 semester. For example, there were 92 course meetings held in classrooms on Mondays, representing 22.3 percent of all day course meetings. This includes courses that met only on Mondays, along with courses that met on Monday/Tuesday, Monday/Wednesday/Friday, etc.

- Course meetings in classrooms were distributed fairly evenly Monday through Thursday.
- Class labs were used more frequently on Wednesday and minimally on Friday.

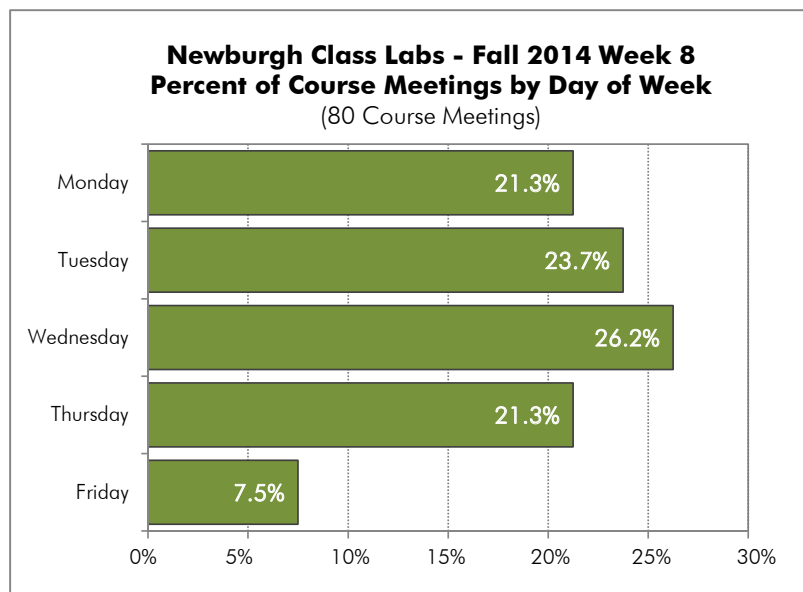
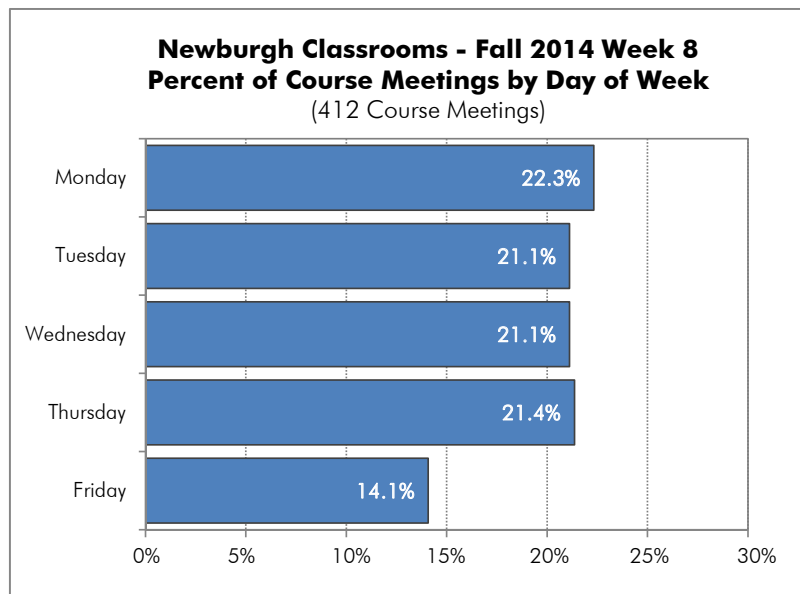


Figure 5.21

Class Size Compared to Room Capacity

These tables illustrate the degree to which course enrollments correlated with room capacity during the peak week. The number in each box indicates the number of course meetings that took place in a room with a given seating capacity and enrollment. Green highlighting indicates there was a good match between the number of students enrolled and the seating capacity of the room in which the course was scheduled. Light green highlighting indicates the spaces were marginally larger than the class enrollment, but within an appropriate range. Red indicates the spaces were significantly larger or smaller than the recommended size of the room for the class enrollment. The match for class size to room capacity is based on the SUNY Space Planning Guidelines seat occupancy target of 80 percent utilization.

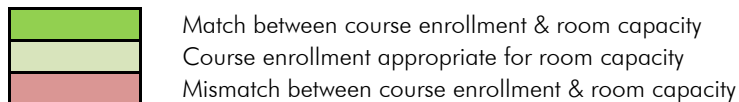
Figures 5.22 and 5.23 show the degree to which class size correlated with room capacity during week eight of the fall 2014 semester.

- Of the 412 scheduled course meetings in classrooms, just 37 percent of the courses were scheduled in classrooms that had the appropriate number of seats, based on target criteria.
- Sixty-two percent of classes were scheduled in classrooms that were larger than necessary. Only one percent were held in classrooms that reportedly had too few seats.

Newburgh Campus Fall 2014 - Week 8

Classroom Seating Capacity	Scheduled Class Size (Enrollment)							Room Count
	10 or less	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	
16 to 20	3	1	3	4				2
21 to 25	6	2	5					3
26 to 30	5	28	64	59	12			9
31 to 35	5	24	44	65	5			7
36 to 40			9	11	2			1
41 to 45	4	4	12	6	15			2
46 to 50			6	2	4		2	1
Total Course Meetings = 412	23	59	143	147	38	0	2	25

Figure 5.22



- Of the 63 course meetings held in class labs, 62 percent of the course meetings were scheduled in rooms that had the appropriate number of seats for the course enrollment.
- Thirty-six percent were held in class labs that had significantly more seats than necessary. Just two percent of the course meetings were held in rooms that were reportedly too small for the enrollment.

Newburgh Campus
Fall 2014 - Week 8

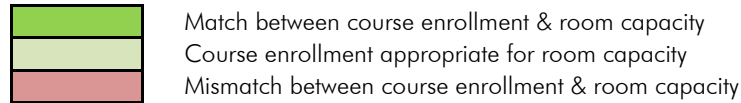
Total Course Meetings = 412	23	59	143	147	38	0	2	25
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Class Lab Seating Capacity	Scheduled Class Size (Enrollment)							Room Count
	10 or less	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	
16 to 20	8	13	10					5
21 to 25	3	4	12	4	1			5
26 to 30		2	6					1

Total Course Meetings = 63	11	19	28	4	1	0	0	11*
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*Note: 2 spaces not included - TWR0134 Weight Room and TWR0130 Gym Studio (no seats) (17 course meetings total)

Figure 5.23



College-Wide Conclusions

College-wide, the majority of classrooms and class labs were underutilized in terms of the number of hours scheduled and number of seats occupied. There appears to be capacity at both campuses to add additional courses to the schedule and to enroll more students in each course.

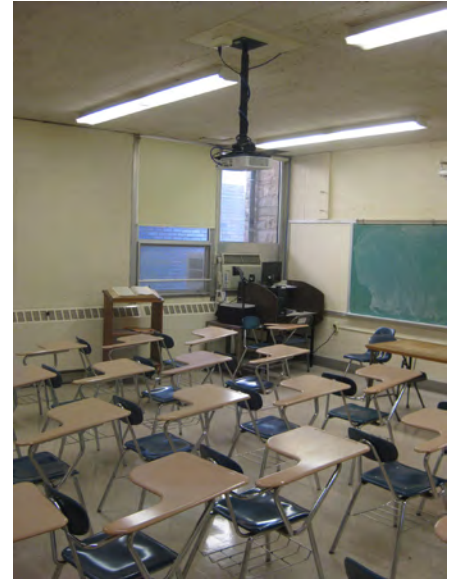
Middletown Campus

- Some classrooms and class labs met or exceeded the hourly utilization targets, but many of these spaces had low seat utilization. This means that the courses could have been taught in smaller rooms and/or class sizes could have been increased by combining sections.
- Few instructional spaces met both the hourly and seat utilization targets. Spaces that did meet the targets included: Dental Lab 223 and Learning Lab 251 in the Bio-Tech Building; four classrooms in Harriman Hall; Classroom 205 in Hudson Hall; Computer Lab OR139 in Orange Hall; and A&P Lab 104, A&P Lab 108, and Organic Chemistry Lab 215 in the Rowley Center.
- Of the 143 instructional spaces available on the campus, only 123 were scheduled during the peak week of the fall 2014 semester. At least 20 (16 percent) of available instructional spaces were not used. There were 20 instructional spaces that were not scheduled at all during the fall 2014 semester, likely due to ongoing renovations or vacancies resulting from the recent move to the Rowley Center.

Newburgh Campus

- During the evening, Chemistry Lab 325 in Kaplan Hall was the only space to meet or exceed both the hourly and seat utilization targets during the peak week of the fall 2014 semester. All other spaces fell below the hourly utilization target.

It appears that some of the underutilized instructional space on both campuses could be repurposed or reconfigured to meet other current and future space needs.



Classroom in Hudson Hall



Dental Lab 223

Campus Input VI

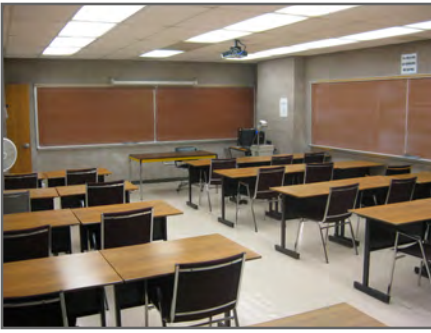
Campus Interviews

The planning team made a concerted effort to fully engage all members of the college community throughout the planning process. Administrators, faculty, and staff participated in formal interviews and students had the opportunity to share their thoughts at Student Workshops in Middletown and Newburgh.

Information gathered during academic programming interviews was critical to the development of master plan recommendations. Over the course of five days, the planning team conducted 31 interviews with over 50 members of the college community:

Division/Department	Division/Department
Facilities	Library
VP for Information Technology	Center for Teaching & Learning
Student Activities/Wellness Center	Academic Support Services
Institutional Research	Honors
Facilities	Educational Partnerships
VP for Student Services	Registrar
Athletics	Applied Technologies/Business/Math
Business, Math, Science & Technology	Dental Hygiene/Diagnostic Imaging/Med Lab Tech/Nursing
Liberal Arts	Movement Science/OTA/PTA
VP for Administration & Finance	Sustainability
Health Professions	Behavioral Sciences/Criminal Justice/Global Studies
VP for Academic Affairs	Education
Newburgh Campus	English
College Association	Arts & Communications
Continuing & Professional Education	VP for Academic Affairs
Cultural Affairs	Newburgh Campus

Figure 6.1: Academic Programming Interviews



Typical Classroom

Administrators, faculty, and staff were asked to comment of the condition of existing space, predict future space needs, and identify other campus issues. The following list of “hot topics” summarizes common threads heard during the interviews:

Academics

- Standardization of classroom technology and equipment is a top priority.
- Lecture capture and SMART technology should be installed in more classrooms.
- Additional support is required to assist faculty with classroom technology.
- Classrooms should be flexible to accommodate a variety of teaching modalities, such as project based learning and flipped classrooms.
- Department ownership of classrooms can have a positive and/or negative impact on how the College utilizes instructional space. The College should review the current classroom policy.
- Developmental education programs are growing and have significant space needs at both campuses.
- The College anticipates growth in online and certificate programs. Increases in online enrollment will impact almost every academic department and require additional support for the development of online courses.
- SUNY Orange would like to develop a Bridges Program that would help individuals 18 to 21 years old with intellectual difficulties transition from high school to college. The program would require an office for the director, an office at each campus for two site directors, and dedicated classroom space on each campus.
- The Honors Program requires more space. Their current location in the basement of Morrison Hall does not provide sufficient space to expand.
- Phi Theta Kappa (student honor society) continues to grow and needs an office, conference room, lounge, and storage area.
- There is a shortage of space for adjuncts. The preferred model is an open office area with small, private rooms for confidential meetings with students.
- More informal learning spaces should be created throughout campus to encourage collaboration and learning outside the classroom.

Business, Math, Science & Technology

- Office space for Business, on the second floor of Harriman Hall, should be reconfigured to improve utilization and efficiency. Additional offices are required for full-time and adjunct faculty.
- Classroom and office space for Math, on the third floor of Harriman Hall, should be renovated. Renovations should include updated classrooms, reconfigured faculty offices, and a new Center for Excellence in Mathematics.
- The College anticipates growth in Business Entrepreneurship, 3-D Printing, and Emerging Technology - Gaming.

Health Professions

- The top priority is to renovate the third floor of the Bio-Tech Building and create a new, interdisciplinary simulation suite. The simulation suite should include six beds, two debriefing rooms, an observation room, and storage space.
- Enrollment in the nursing program is limited by the number of clinical sites available. The program is not expected to grow, but the College is in the early stages of establishing an articulation agreement with Binghamton University for a BSN Program.
- The College is exploring a new program in Public Health under Movement Science. This program will provide students who are unable to get into the nursing program an opportunity to transfer to a four-year institution.

- The OTA and PTA labs are too small. Faculty would like to create a Rehabilitation Clinic to take pressure off the existing labs. The clinic would be shared by OTA, PTA, and Movement Science.
- SUNY Orange would like to explore certifications in Mammography, CT, and Nuclear Medicine.

Liberal Arts

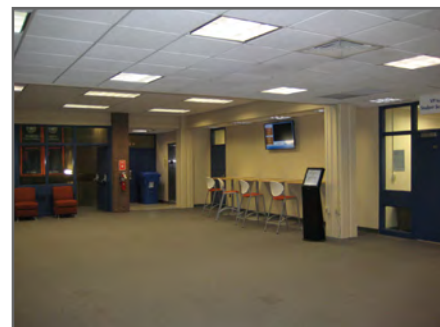
- The TV Studio, on the first floor of Harriman Hall, has mechanical and electrical issues that are potentially dangerous to the expensive equipment located in the space. The route from the TV Studio and Media Lab to the Control Room is not accessible. The College reported that some students must go outside the building during class to access the Control Room.
- The College is exploring a new interdisciplinary academic program in New Media. This program will combine Applied Technology, Communications, Art, and Computer Science.
- Faculty in Behavioral Sciences, Criminal Justice, and Global Studies will be moving to the first floor of Hudson Hall. Renovations will include a conference room, work room, student lounge, and space for adjuncts. Classrooms on the second floor should be updated with flexible seating and new technology.
- The stage in the theater is not large enough to accommodate the orchestra. SUNY Orange leases the Paramount Theater in Middletown for rehearsals and performances. The theater does not have appropriate support spaces, such as dressing rooms, for a robust theater program or professional performances.
- Art classrooms on the first floor of Harriman Hall are outdated and not accessible.

Academic/Student Support Services

- The One-Stop Student Services Center is functional, but acoustics are poor and the layout could be improved. Students must walk through staff office areas to get to Admissions and other student service functions. A new One-Stop Student Services Center should be created on the second floor that includes a reception area, Admissions, Financial Aid, Registrar, and a large presentation room.
- The Library should be renovated to provide space for groups of students to work together and soft seating areas with access to power and data. The second floor currently houses Academic Support Services, administrative offices, and faculty offices. These types of spaces have different requirements, often resulting in acoustic issues, security concerns, and poor circulation. Moving some of these functions out of the Library would provide space for group study rooms and quiet study areas.
- Testing and tutoring should be combined to consolidate these essential support services. Disability testing is too small, not acoustically separated from the One-Stop Student Services Center, and not accessible. Ideally, it should include 20 testing stations (including two quiet testing rooms) and an office for the Disabilities Specialist.
- The Wellness Center is too small and the layout does not provide an appropriate level of privacy. A new Wellness Center should be created that has appropriate office space for staff, two offices for nurses, two offices for counselors, an office for visiting doctors, two exam rooms, medical supply storage, a workroom, and a waiting area.
- Food services should be improved. The College should investigate a new model, such as a grille or coffee house. Satellite food service areas, similar to the Sarah Wells Café, should be incorporated into the Library, Bookstore, and Bio-Tech Building.



PTA Lab



Student Services Center



Dining Area



South Street



Shepard Student Center

- The Bookstore should be expanded and located in a visible, high-traffic area. In addition to the retail floor, the expanded bookstore should include additional office space, an area for processing online orders, and service windows for customer returns, customer buy-backs, and textbook rentals. The College should also consider the “marketplace concept” – combining retail and food service.
- A temporary Veterans Lounge will be located on the first floor of the Shepard Student Center, adjacent to the Student Senate Meeting Room. A permanent space for Veterans Affairs should be created that includes an office for the coordinator, lounge, and resource room.
- More student lounge space should be created throughout campus.
- Additional student club, meeting, and storage space is required.

Facilities

Middletown Campus

- Installing traffic-calming and increasing pedestrian safety on South Street and East Conkling Avenue are a top priority for this Facilities Master Plan.
- With the exception of the Morrison Lab School and Rowley Center for Science and Engineering, all spaces on the Middletown Campus should be updated. The Bio-Tech Building, Harriman Hall, Hudson Hall, and the Shepard Student Center are most in need of updates.
- There are an insufficient number of computer labs on campus.
- There are ventilation and temperature control issues throughout campus, primarily in the Library and Shepard Student Center where space has been repeatedly subdivided.
- The Shepard Student Center is the first impression of the College for new and potential students. The building is dated, unwelcoming, and should be renovated.
- The Data Center on the lower level of the Bio-Tech Building should be renovated and expanded. Finishes in the existing center are old, offices are uncomfortably loud due to HVAC issues, and additional office and storage space is required.
- There is a shortage of storage space on campus.
- Toilet rooms in Harriman Hall need to be renovated.

Newburgh Campus

- Additional computer labs and faculty offices are required.
- Students and staff hesitate to use the locker rooms in the Tower Building due to a lack of privacy.
- The College reported that the grill in the kitchen is not used due to fire code issues and maintenance costs.
- The creation of a Black Box Theater or small performance space would benefit both the College and the community.
- The following programs would service the Newburgh community and should be considered:
 - Art - Expand the existing program to include three-dimensional art.
 - Business Entrepreneurship
 - Food Service
 - Building Rehabilitation - There are many old buildings in the neighborhood. SUNY Orange could work with another organization to develop a program that focuses on the rehabilitation of these buildings.

Student Workshop

To involve students in the master planning process, student workshops were held in the Sarah Wells Cafe (Middletown Campus) and Kaplan Hall Lobby (Newburgh Campus) on February 17, 2015. A total of 92 students participated at both campuses by completing three surveys designed to help the planning team better understand the needs of the College.

In order to reach non-traditional students and ensure that all students had the opportunity to participate, the planning team also designed an online survey. The survey was created with the help of SUNY Orange and distributed to the student body by Student Services. Of the 129 students that responded to the online survey, 92 indicated that they take most of their classes on the Middletown Campus. The remaining students (37) spend most of their time on the Newburgh Campus.

Welcome to the Check Republic

The first survey, titled “Welcome to the Check Republic,” asked if participants agreed or disagreed with a series of statements. Their responses were tabulated and ranked by the percentage of participants who agreed with a particular statement. The following statements received the most “agree” checks:

Middletown Campus

64% of participants thought that there should be more space dedicated to student government, activities, and clubs

40% said they purchase food in the Shepard Student Center

27% would like the opportunity to live on campus

Only **15%** of participants thought that classroom technology was consistent across the Middletown Campus

Online Survey - Middletown

85% of respondents said that the bookstore is in a good location

77% agreed that Academic Support Services is conveniently located

44% would like the opportunity to live on campus

26% thought that classroom technology was consistent across campus

Newburgh Campus

80% of participants said they could get the courses they needed at the Newburgh Campus, which means **20%** were unable to get required courses

70% like to study in the library

Online Survey - Newburgh

66% of respondents agreed that there are enough places to meet with friends

Only **63%** said they could get the courses they needed at the Newburgh Campus

Dotmocracy in Action

The second survey, “Dotmocracy in Action,” asked participants to prioritize a series of proposed initiatives using three different colored dots representing their first, second, and third priorities. Their responses were tabulated and ranked by the total number of dots. The following initiatives received the most number of dots:



Student Engagement Workshop



Online Survey

Middletown Campus

- Update technology in the classrooms (44)
- Provide access to more computers for out-of-class work (25)
- Create more student lounges on campus (25)
- Create additional food service venues around campus (24)

Online Survey - Middletown

- Update technology in the classrooms (47)
- Create additional food service venues around campus (29)
- Create more student lounges on campus (28)
- Provide access to more computers for out-of-class work (28)

Newburgh Campus

- Expand course offerings at the Newburgh Campus (32)
- Expand food service options (24)
- Provide more group study space in the Library (21)

Online Survey - Newburgh

- Expand course offerings at the Newburgh Campus (26)
- Expand food service options (26)

The vast majority of students at the Middletown Campus feel that technology in the classrooms should be updated to better support current teaching methods. At the Newburgh Campus, the focus was on course offerings and food services.

Things the Campus Planners Should Keep In Mind

After completing the first two surveys, participants were given the opportunity to share any other concerns by writing them on the final sheet entitled “Things the Campus Planners Should Keep In Mind.” In general, the concerns echoed those that were heard during the academic programming interviews. The most frequently made comments included:

Middletown Campus

- Provide more tutors and expand the tutoring center
- Improve the One-Stop Services Center
- Provide more comfortable classroom furniture
- Explore more distance learning/online courses
- Update classroom technology
- Improve WiFi across campus
- Provide healthier and less expensive food options
- Provide additional student parking areas

Newburgh Campus

- Eliminate traffic congestion in and out of the parking garage
- Improve wayfinding signage
- Expand course offerings
- Provide healthier and less expensive food options



WELCOME to the "CHECK REPUBLIC"

Do you agree or disagree with the following statements?

	Agree
It is easy to cross South Street (between Morrison Hall & Student Center).	89%
There are places on campus to gather with my friends.	85%
I can usually get access to a computer when I need one.	69%
There should be more space dedicated to student government, activities, and clubs.	64%
The Bookstore is in a good location.	62%
I like to study in the Library.	62%
Academic Support Services (tutoring) is conveniently located.	58%
I purchase food in the Shepard Student Center.	40%
I would like the opportunity to live on campus.	27%
Classroom technology is consistent across campus.	15%

Facilities Master Plan Student Engagement Workshop - Middletown Campus

17 February 2015





“DOTMOCRACY” in Action

Rank Your Top Three Priorities

	#1	#2	#3	TOTAL
Update technology in the classrooms	22	13	9	44
Provide access to more computers for out-of-class work	9	7	9	25
Create more student lounges on campus	5	13	7	25
Create additional food service venues (similar to Sarah Wells Café) around campus	9	6	9	24
Construct a residence hall on campus	6	5	4	15
Provide more dedicated space for student government, activities, and clubs	3	6	4	13
Move Academic Support Services (tutoring) out of the Library	4	2	5	11
Provide more group study space in the Library	1	0	9	10
Improve pedestrian safety at South Street	0	4	2	6
Improve directional campus signage	1	0	0	1
Relocate the Bookstore	0	0	0	0

Facilities Master Plan Student Engagement Workshop - Middletown Campus

17 February 2015





Things the Campus Planners Should Keep in Mind

Buildings and Grounds

- Connect all buildings, similar to the Rowley Center and Harriman Hall (10)
- More things should be open on weekends (4)
- Campus housing (3)
- The crossing at East Conkling Avenue is also an issue; need crosswalks (2)
- Improve Orange Hall and the theater (2)
- Classrooms in Bio-Tech and Harriman Hall are too cold
- HVAC noise in Hudson Hall is an issue

Academics and Student Services

- Provide more tutors (5)
- Create a bookstore similar Barnes & Noble (4)
- There are never enough tutors in Rowley Center; you must sign up at beginning of the semester (2)
- Provide longer library hours, especially on Friday and during weekends (2)
- Improve wait time at the Student Services One-Stop Center
- The financial aid process should be faster
- Students must go from one group to another to receive financial aid assistance
- More advisors are required
- Advisors should be assigned upon admission
- Provide more hands on engineering courses, such as a robotics class
- No professor compiled books
- Allow art students to use the architecture lounge in the Rowley Center
- More understanding of schedules
- Improve Veteran's Affairs
- Provide better conditions for people who work while in school

Furnishings and Technology

- Update WiFi throughout campus (24)
- Restructure Grapevine e-mail; more readable; centralized events (7)
- Provide more computers in the Library (4)
- Provide better access to ANGEL (4)
- Higher communications budget; new cameras (2)
- Academic Restart - Provide more guidance regarding computer programs associated with information technology on the website
- Provide more comfortable classroom furniture
- Eliminate tablet armchairs
- Provide more Apple computers
- Update and standardize instructional technology

Facilities Master Plan Student Engagement Workshop - Middletown Campus

17 February 2015





Things the Campus Planners Should Keep in Mind

Food Services

- Provide healthier food options; eliminate burgers, fried foods, and soda; there are too many fast food restaurants in the area (17)
- Provide less expensive food (16)
- Provide cheaper food (8)
- Provide more food options (5)
- Give us food plans; not all of us can afford food (5)
- Provide coffee in every building (3)
- Provide access to a microwave for students who bring their own food (2)
- Central food location, such as Bio-Tech
- The vending machines in Harriman Hall eat money
- Provide coffee in the Library during heavy study times
- Train cafeteria staff on food safety

**Facilities Master Plan
Student Engagement Workshop - Middletown Campus**

17 February 2015





WELCOME to the "CHECK REPUBLIC"

Do you agree or disagree with the following statements?

	Agree
The Bookstore is in a good location.	85%
Academic Support Services (tutoring) is conveniently located.	77%
It is easy to cross South Street (between Morrison Hall & Student Center).	77%
I can usually get access to a computer when I need one.	69%
There should be more space dedicated to student government, activities, and clubs.	68%
There are places on campus to gather with my friends.	66%
I like to study in the Library.	64%
I would like the opportunity to live on campus.	44%
Classroom technology is consistent across campus.	26%
I purchase food in the Shepard Student Center.	25%

Facilities Master Plan Student Engagement Workshop - ONLINE Middletown





“DOTMOCRACY” in Action

Rank Your Top Three Priorities

	#1	#2	#3	TOTAL
Update technology in the classrooms	21	16	10	47
Create additional food service venues (similar to Sarah Wells Café) around campus	6	12	11	29
Create more student lounges on campus	8	7	13	28
Provide access to more computers for out-of-class work	5	16	7	28
Construct a residence hall on campus	18	2	4	24
Improve pedestrian safety at South Street	9	4	4	17
Improve directional campus signage	5	6	5	16
Provide more dedicated space for student government, activities, and clubs	3	6	6	15
Provide more group study space in the Library	1	7	6	14
Relocate the Bookstore	3	0	6	9
Move Academic Support Services (tutoring) out of the Library	0	3	5	8

**Facilities Master Plan
Student Engagement Workshop - ONLINE Middletown**





Things the Campus Planners Should Keep in Mind

Buildings and Grounds

- The Honors Classroom in the basement of Morrison Hall should be renovated into a finished basement.
- It appears that snow is not being removed or pushed far enough out of the parking lots. It takes over some of the parking spaces, which makes it difficult to find a space.
- Lighting behind the Rowley Center needs to be improved. Light bulbs need to be replaced.
- Parking is an issue even though the garage has been constructed. The money that would be spent for "on campus living" should be used for additional parking. Most people that go to SUNY Orange have a home nearby. There is no need to have on campus living.
- The Shepard Student Center should be on the main campus side of South Street.
- I think that there should be more student parking garages.
- It would be nice if all of the buildings were connected, similar to the Rowley Center and Harriman Hall.
- Provide more safe parking areas. Construct more parking garages. Give security personnel the authority to reprimand people who decide not to follow the laws of the road.
- Please provide more parking spaces. It is impossible to find parking at noon. I've driven around for up to 30 minutes looking for a parking space before giving up, going back home, and missing class.
- It is freezing in the winter. I understand that we are in college and have to walk outside, but maybe all buildings could be connected or tunnels could be constructed.
- The entrance to Harriman Hall, the stairs going down, and the stairs going up are all too close.
- The shuttle bus should be available every hour.
- There should be a space on campus for students to get to know each other through group activities. It could also be used to bring the community together. One possibility is the Physical Education Center, where students could play sports or games together in between or after classes. This would encourage students to engage with one another and be physically active.
- Expand the hours and improve the weight room.

Academics and Student Services

- Since there are not many places to study, library hours should be extended to weekends and the library should be open late during the week. It would be nice to have a coffee cart in the area for students who need a wake up while studying.
- If you are interested in constructing a residence hall on campus, you should also look into creating a better gymnasium.
- Put all nursing related courses in the Rowley Center to have better access to the BATCAVERN.
- The campus needs more gathering places and music rooms.
- I would love to see the use of video conferencing, so that I can attend class from home when school is closed for bad weather, rather than have make-up days.

Facilities Master Plan Student Engagement Workshop - ONLINE Middletown



Things the Campus Planners Should Keep in Mind

- I would like to see a greater selection of evening courses and online courses year round.
- I would like to see a more extensive curriculum of evening, parallel, and online courses tailored towards full-time workers and shift workers.
- The College should improve non-traditional student services and hire academic advisors/recruiters; I would like one of those recruiter jobs :)
- Classrooms are small and cramped. It gets really hot and uncomfortable.
- Please provide more tutors for the sciences, such as Anatomy & Physiology.
- There should be a dental hygiene clinic at the Newburgh Campus, as well as the Middletown Campus, so that more students have the opportunity to become accepted and don't have to wait a whole year to reapply to the program.
- Academic Support Services are not in a convenient location, making it difficult for students to find time to speak with advisers or other staff to assist them with their studies.
- A student club house would be awesome.
- There is not enough individual study space in the library, but there is plenty of group study space.
- I do not think there is a need for lounge areas used for socialization, but lounge areas for specific areas of study (so people taking similar courses can bounce ideas off one another and share different perspectives on the material that is presented) could be better utilized.
- The large space on the lower level of the Shepard Student Center could be reduced and subdivided. It is rarely full and most groups are spread out. I think this would be a great location for departmental lounges, but unfortunately it is not conveniently located on campus. It would be difficult for students to use the lounges between classes. The old stone building on campus (Ice House) could be a great location for this, since the spaces are small and the building is centrally located. The creation of departmental lounges could also reduce the amount of vagrancy and unwanted noise in the Library.
- More space should be provided for student clubs and activities.
- Improve education for student entering college.

Furnishings and Technology

- The WiFi connection for personal electronic devices is weak.

Food Services

- The food and coffee are terrible. There are no food options in the Bio-Tech Building. The expensive and poor quality food is particularly difficult for people who don't drive to campus.
- Throughout my time at SUNY Orange, I wished I had access to a microwave. Some students can't afford to buy the food offered at the cafeteria.
- The food is horrendous! In my opinion, SUNY Orange should give food contracts to local food businesses. This is done at many other colleges and students seem to love it. I have gotten sick and have gotten food poisoning from the food in the cafeteria. One of my friends has had the same experience.

Facilities Master Plan Student Engagement Workshop - ONLINE Middletown





Things the Campus Planners Should Keep in Mind

- Food options are very limited on campus. Both the Sarah Wells Café and the Shepard Student Center Cafeteria serve similar food. There are very little healthy options for students and I believe an educational institution should work to promote healthy lifestyles. The College should consider different food preferences for students and faculty.
- We should have the option of adding meal plans to the cost of our tuition. I would love to eat at the new café, but simply cannot afford the food out of pocket. Please consider this as I know many students feel the same.
- Please provide healthier food options throughout the campus. Please lower food prices, especially since it is hard for college students to afford the prices.
- Students should have the ability to bring their own food to campus and heat it up in lounge areas.
- Train cafeteria staff on food safety.

**Facilities Master Plan
Student Engagement Workshop - ONLINE Middletown**





WELCOME
to the
“CHECK REPUBLIC”

Do you agree or disagree with the following statements?

	Agree
It is easy for me to find my way around campus.	93%
I can get the courses I need at the Newburgh Campus.	80%
There are enough places on campus for me to meet with my friends.	78%
I purchase food at the Kaplan Hall Café.	75%
I can usually get access to a computer when I need one.	73%
I like to study in the Library.	70%
I would like to be involved in student clubs and activities.	40%

Facilities Master Plan
Student Engagement Workshop - Newburgh Campus
17 February 2015





"DOTMOCRACY" in Action

Rank Your Top Three Priorities

	#1	#2	#3	TOTAL
Expand course offerings at the Newburgh Campus	26	2	4	32
Expand food service options	7	9	8	24
Provide more group study space in the Library	5	7	9	21
Provide access to more computers for out-of-class work	2	11	5	18
Provide more opportunities to be involved in student clubs and activities	0	9	6	15
Create more student lounges on campus	0	3	12	15

Facilities Master Plan Student Engagement Workshop - Newburgh Campus

17 February 2015





Things the Campus Planners Should Keep in Mind

Buildings and Grounds

- Traffic congestion in and out of the garage on First Street is a concern (3)
- Bring back Saturday garage parking for students (3)
- Provide better signage; campus map (2)
- Provide bus service from the Town of Newburgh
- Improve access to the parking garage from Broadway or provide garage parking near the Tower Building
- Make campus room numbers more obvious
- Provide better signs that show where classes are being held
- The stairs in the Tower Building are too narrow
- Provide more lounge space in the Tower Building
- Provide study spaces in the Tower Building

Academics and Student Services

- Provide access to all course required books in the library (12)
- More course offerings, period (4)
- Offer a full psychology major (3)
- More class options in the summer (3)
- Offer the same courses at both campuses (3)
- I was upset that for certain courses (especially 200 Level English Courses) almost ALL of them were offered at Middletown (2)
- Communication courses, such as radio & television (2)
- Bring chemistry, physics, and biology courses back to Newburgh (2)
- Provide better/late library hours that correspond to the course schedule (2)
- Increase the nursing cohort
- Increase the number of evening nursing courses
- Offer more course sections for the criminal justice program
- Extend the hours of student services and the bookstore (possibly for a day) or provide Saturday hours for students working full-time
- Provide more evening English options (w/ 901 rider)

Facilities Master Plan Student Engagement Workshop - Newburgh Campus

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Things the Campus Planners Should Keep in Mind

Furnishings and Technology

- Provide more computer training (3)
- Provide more laptops in the library
- Students would benefit from more computers for out-of-class work and printing

Food Services

- Provide healthier food options (6)
- The Tower Building Café should be opened (6)
- Provide cheaper food (5)
- Provide more food options (3)
- Better food will keep students on campus and encourage participation in college activities (2)

Other

- Provide cheaper textbooks (7)
- There should be more books in the library (2)
- Provide scholarships for graduates going on to further study (2)
- Create a convenience store in Kaplan Hall
- Be a truly tobacco free campus
- I am graduating this semester and this school was a great foundation to help me move to a four-year school!

Facilities Master Plan Student Engagement Workshop - Newburgh Campus

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WELCOME
to the
“CHECK REPUBLIC”

Do you agree or disagree with the following statements?

	Agree
It is easy for me to find my way around campus.	100%
I can usually get access to a computer when I need one.	94%
I like to study in the Library.	88%
I would like to be involved in student clubs and activities.	72%
There are enough places on campus for me to meet with my friends.	66%
I can get the courses I need at the Newburgh Campus.	63%
I purchase food at the Kaplan Hall Café.	56%

Facilities Master Plan
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"DOTMOCRACY" in Action

Rank Your Top Three Priorities

	#1	#2	#3	TOTAL
Expand course offerings at the Newburgh Campus	13	9	4	26
Expand food service options	12	9	5	26
Provide more opportunities to be involved in student clubs and activities	4	5	8	17
Create more student lounges on campus	0	6	4	10
Provide more group study space in the Library	1	0	5	6
Provide access to more computers for out-of-class work	0	2	2	4

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Things the Campus Planners Should Keep in Mind

Buildings and Grounds

- Student housing at the Middletown Campus would be nice. I have heard rumors about it and, if the rumors are true, I am for it.

Academics and Student Services

- Provide a detailed map with class numbers, room names, the location of the café, etc. outside the buildings or on a main wall inside the buildings.
- One thing that really needs to be changed is the number of classes offered on the Newburgh Campus. There are two campuses for a reason. There are people that can't get to Middletown because of work, etc. I was upset that certain courses (especially 200 Level English Courses) were almost all offered at the Middletown Campus. My from school to work and from work to school schedule does not allow me to travel to Middletown.
- More core curriculum classes should be offered at the Newburgh Campus.
- I wish that I had more course options at the Newburgh Campus.
- Offer more evening classes at the Newburgh Campus.
- Extend the hours of student services and the bookstore (possibly for a day) or provide Saturday hours for students working full-time.
- Provide better access to required text books in the library.
- We need to expand the campus. There should be more programs that can be completed in Newburgh, without having to travel to the Middletown Campus. More evening classes would be nice.
- I am graduating this semester and this school was a great foundation to help me move to a four-year school!

Food Services

- More food and cheaper prices.
- I think that the Newburgh Campus is great, but more food options need to be offered. I personally believe that the current food options are too expensive and the portion sizes are extremely small.
- Food service on the Newburgh Campus is horrific. It is all pre-packaged microwave food with no taste and very little nutritional value. Coffee is \$2.00 per cup. The delis charges \$1.50 for the same size. Better food will keep students on campus and encourage them to participate more in college activities.
- Expanding food services should be strongly considered.
- Food service is not great, but it is very expensive.
- I would really like to see a café.

Furnishings and Technology

- More computers should be provided for out-of-class work and printing.

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Master Plan Recommendations

Introduction

Since the previous master plan, SUNY Orange has invested heavily in new facilities at the Middletown Campus (Rowley Center and Morrison Lab School) and substantially improved the Newburgh Campus (Kaplan Hall and Tower Building Renovations). Now is the time to renew older campus buildings, such as Harriman Hall and the Shepard Student Center.

When buildings are renovated, special attention should be paid to increase wireless connectivity, improve instructional technology, and create informal learning spaces. These learning spaces may be dedicated study rooms for students to collaborate outside of class or pockets of space that are open to the corridors and include whiteboards, computers, and soft seating.

SUNY Orange recently embarked on the process of updating their strategic plan. The new plan identifies four strategic priorities that will guide the development of the College over the next five years. This master plan will recommend where capital investments should be made to support these priorities. Each recommendation identified in this plan aligns with one or more of the following priorities:

Awareness & Access

We will raise the visibility of the College and communicate the value of a SUNY Orange education through enhanced outreach efforts and educational opportunities.

Student Support & Success

We will support our students in achieving their educational and career goals.

Collaboration & Communication

We will develop connections between internal and external constituents and advance mutually beneficial partnerships. We will promote a culture of trust, respect, and collective responsibility.

Efficient & Effective Operations

We will anticipate and adapt to changing economic realities while maintaining the infrastructure and resources necessary to foster innovation and develop and deliver high quality programs and services.



Harriman Hall

This section includes detailed descriptions of master plan recommendations and proposed capital projects. All descriptions include a list of facilities maintenance projects, enabling projects, required swing space, and estimated project costs. Recommendations identified in the SUNY Orange 2016 Six-Year Capital Plan and SUNY Orange Campus Action Plan (CAP), prepared by Steven Winter Associates, are also included for reference.

Facilities Maintenance Projects

Facilities maintenance projects are identified in Section IV: Existing Conditions Assessment. These projects are recommended to improve building conditions, maintain existing resources, and bring the campus into compliance with current code and accessibility requirements. Many of these projects have been incorporated into larger master plan projects and are identified in the project descriptions on the following pages. The remaining facilities maintenance projects will be completed individually. An allowance of \$7,500,000 has been included for facilities maintenance projects that will be completed over the life of this master plan.

Swing Space

In order to renovate existing space, it may be necessary to temporarily relocate building occupants during the renovations. Space that is used to facilitate renovation and construction projects is commonly referred to as “swing space.” Every effort has been made to phase projects so that occupants only move once (from their current space to their new space) and swing space is not required. Several projects, however, include space that will be occupied by the same department before and after the renovations. Swing space will be required for these projects. The implementation plan on page 7.5 recommends using Orange Hall as swing space to facilitate renovations to Harriman Hall and the Shepard Student Center. Swing space will also be required for the creation of the Health Sciences Suite, renovations to the Data Center and, eventually, the new Fine and Performing Arts Center.

Estimated Project Costs

Project budgets were developed by the planning team using their best professional judgment and knowledge of the construction industry. Each budget includes an allowance for soft costs and escalation (four percent per year) to the mid-point of construction based on the implementation plan. Soft costs range from 25 to 35 percent of the construction cost based on the type of project and include contingencies, professional fees, construction management fees, furnishings, fixtures, and equipment. Project budgets do not include costs associated with moving people, transporting equipment, or providing swing space during construction.

Due to the volatility of the construction market, it is particularly difficult to predict construction costs several years into the future. Project budgets will need to be revisited when projects are implemented.

Space Programs

Large master plan projects on the Middletown Campus are accompanied by space programs, which are included in Appendix A. Each space program was developed based on information received during the academic programming interviews and subsequent steering committee meetings. While they are an accurate reflection of current space needs, they should be adjusted, as necessary, when projects move forward.

Proposed Site Plan

The proposed site plan below shows site recommendations for the Middletown Campus, as well as the proposed locations for the Student Center Addition and Fine and Performing Arts Center. Long-term projects include the construction of a new Maintenance Building at the edge of campus and Student Housing along South Street. All projects for the Middletown and Newburgh campuses are detailed in the project descriptions.



Figure 7.1: Proposed Middletown Campus Site Plan

Implementation Plan

It is rare for an institution to implement all projects identified in a comprehensive master plan. The planning team, therefore, worked with SUNY Orange to identify projects that will have the greatest impact and maximum benefit to the college community in the next few years. These projects primarily focus on academic programs, recruitment, retention, and student services. They will be completed during the first phase of this master plan.

The Implementation Plan below indicates the anticipated year of design and construction for each project identified in this report, enabling projects, and related projects. Phase 1 projects are scheduled to be completed during the first five years of this master plan. The actual sequence of projects will be determined by available funding, institutional priorities, and campus logistics.

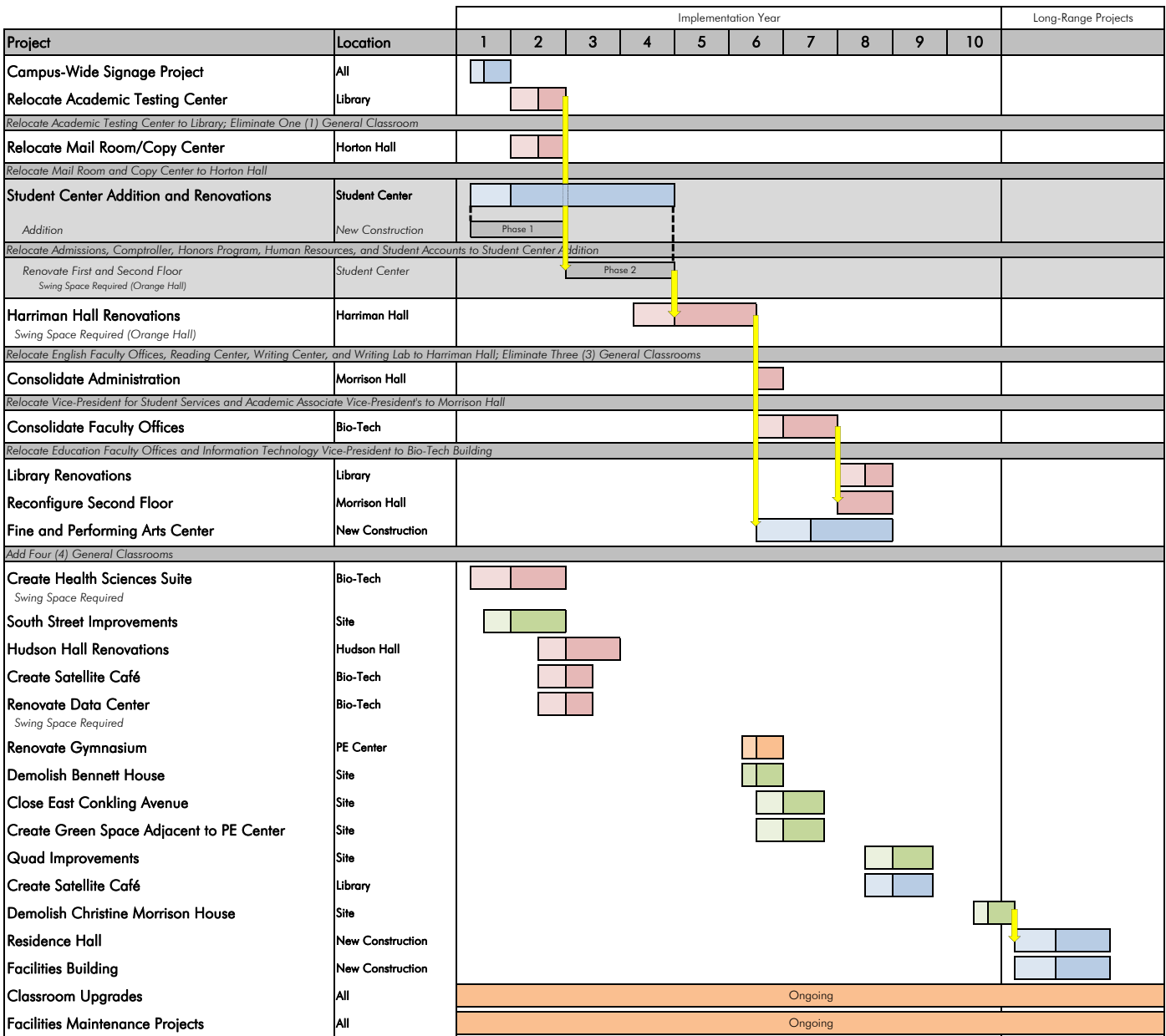
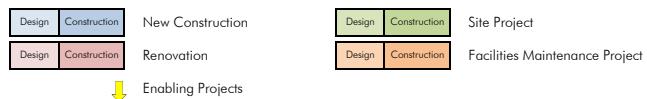


Figure 7.2: Implementation Plan



Cost Summary

The total estimated cost of this facilities master plan is \$182,975,000, as indicated in the table below. Each master plan project aligns with one or more of the strategic priorities outlined in the strategic plan. As shown in Figure 7.14, master plan project costs are distributed relatively evenly among the four strategic priorities.

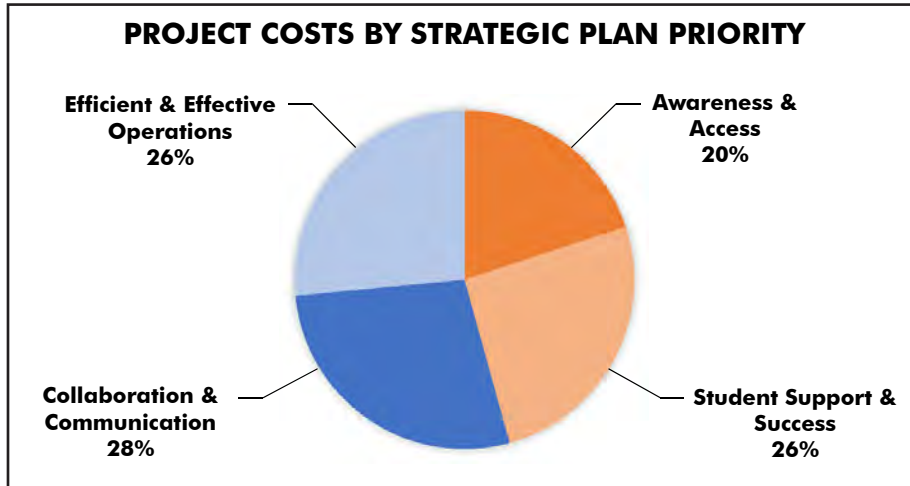
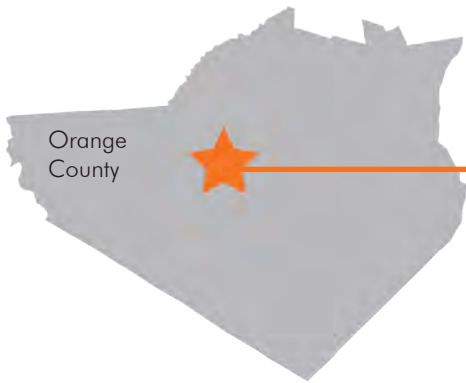


Figure 7.14: Master Plan Projects Costs by Strategic Plan Priority

Project	Location	Area (GSF)	Cost	Notes
Site Projects				
South Street Improvements	Middletown Campus	N/A	\$3,360,000	
Close East Conkling Avenue	Middletown Campus	N/A	\$1,295,000	
Create Green Space Adjacent to PE Center	Middletown Campus	N/A	\$650,000	
Quad Improvements	Middletown Campus	N/A	\$3,895,000	
Campus-wide Signage Project	Middletown Campus	N/A	\$260,000	
Demolish Bennett House	Middletown Campus	N/A	\$110,000	
Demolish Christine Morrison House	Middletown Campus	4,250	\$235,000	
Building Projects				
Student Center Addition & Renovations	Student Center	69,945	\$31,645,000	Swing Space Required
Harriman Hall Renovations	Harriman Hall	46,050	\$20,070,000	Swing Space Required
Create Health Sciences Suite	Bio-Tech Building	20,055	\$8,485,000	Swing Space Required
Consolidate Faculty Offices	Bio-Tech Building	8,390	\$985,000	
Classroom Upgrades	Bio-Tech Building	15,885	\$3,000,000	
Renovate Data Center	Bio-Tech Building	3,120	\$1,685,000	Swing Space Required
Create Satellite Café	Bio-Tech Building	400	\$185,000	
Relocate Academic Testing Center	Library	1,680	\$430,000	
Library Renovations	Library	7,340	\$695,000	Swing Space Required
Classroom Upgrades	Library	2,935	\$500,000	
Create Satellite Café	Library	1,200	\$925,000	
Consolidate Administration	Morrison Hall	2,590	\$95,000	
Reconfigure Second Floor	Morrison Hall	3,025	\$185,000	
Relocate Copy Center/Mail Room	Horton Hall	2,615	\$975,000	
Hudson Hall Renovations	Hudson Hall	7,100	\$2,765,000	
Renovate Gymnasium	Physical Education Center	22,770	\$3,065,000	
Fine and Performing Arts Center	Middletown Campus	72,650	\$89,980,000	Swing Space Required
Facilities Maintenance Projects	Middletown Campus	N/A		
Facilities Maintenance Projects	Newburgh Campus	N/A	\$7,500,000	
Long-Term Projects				
Student Housing	Middletown Campus	N/A	N/A	
Maintenance Building	Middletown Campus	N/A	N/A	
Total:			\$182,975,000	

Figure 7.15: Cost Summary



Middletown Campus

South Street Improvements
Close East Conkling Avenue
Create Green Space
Quad Improvements
Demolish Bennett House
Demolish Christine Morrison House

Strategic Plan 2015-2020

1.2 Increase the number of faculty, staff, and students to reflect the diversity of Orange County through focused **recruitment** initiatives.

1.3 Expand the visibility of the College's excellent programs and services through strategic **marketing efforts**.

3.4 Strengthen the **sense of community** to improve the institutional climate and promote collegiality, civility, and mutual respect.

4.4 Foster a collective commitment to **comprehensive planning, assessment, and prioritization** to ensure **institutional effectiveness**.

Project Description

South Street Improvements

Some of the major concerns identified by students, faculty, and staff during the master planning process include pedestrian safety, the lack of a connection between campus facilities on either side of South Street, and no sense of arrival to the campus. Improvements to South Street will address all of these concerns. Traffic calming measures, such as raised crosswalks and curb bumpouts, will improve safety and make South Street pedestrian friendly. Larger crosswalks, decorative paving, and consistent wayfinding signage will help to bridge the gap between the Shepard Student Center and buildings on the other side of South Street. Decorative light poles, canopy street trees, and monumental signage will improve the sense of arrival, which has a direct impact on student success and *recruitment*. These items could also be used as donor opportunities that could, potentially, bolster fundraising and enhance *marketing efforts*.

Since improvements to the east side of South Street will be impacted by work at the Shepard Student Center, this project should be completed in conjunction with the Student Center Addition. The work will extend from Parking Lot 11 (adjacent to the Morrison Lab School) to Grandview Avenue, as shown in the diagram on the following page. The following work is included in the project budget:

- Install new pavement
- Install new granite curbs
- Create curb bumpouts at East Conkling Street, Bennett Street, and Grandview Avenue
- Provide 8'-0" wide concrete sidewalk on north side of South Street with 2'-0" wide unit paver band along curb
- Provide 5'-0" wide concrete sidewalk on south side of South Street with 2'-0" wide unit paver band along curb
- Install decorative pavers at East Conkling Street, Bennett Street, and Grandview Avenue (raised table at Bennett Street)
- Provide high-visibility crosswalk striping at all crosswalks
- Install monumental sign with ornamental landscaping and decorative lighting at southwest corner of South Street
- Install masonry piers and wrought iron fence (to match existing)
- Install decorative light poles with banner arms
- Plant large canopy trees along South Street

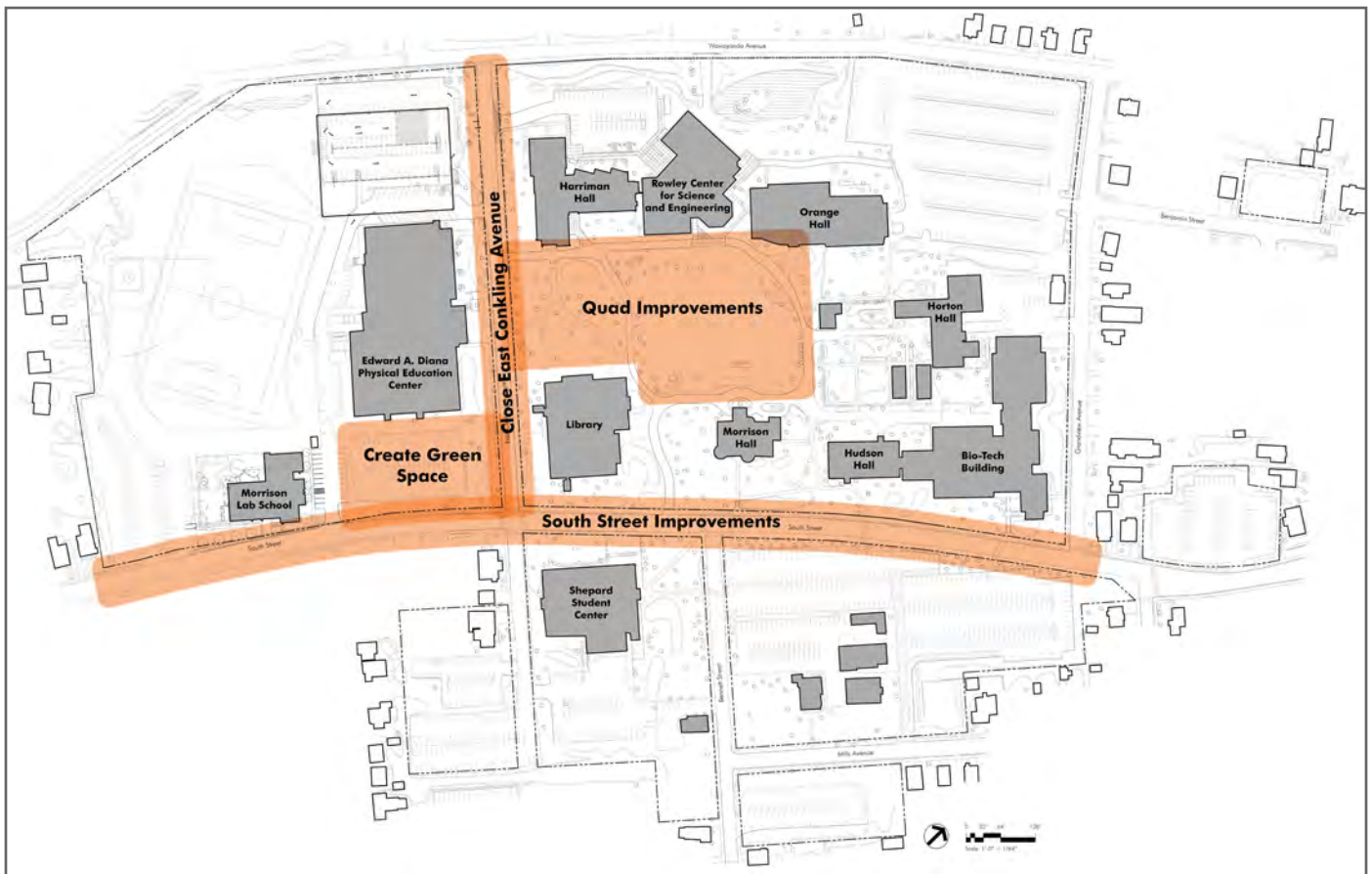


Figure 7.3: Site Recommendations

Close East Conkling Avenue

East Conkling Avenue presents challenges similar to South Street. Pedestrian safety is a concern and there is a lack of connection between the Diana Physical Education Center and buildings on the other side of the street. Closing East Conkling Avenue will improve pedestrian safety, eliminate some vehicular traffic through the center of campus, and enhance the *sense of community* by extending the quad to the front doors of the Diana Physical Education Center.

Since East Conkling Avenue only extends from Parking Lot 6 (behind the Shepard Student Center) to Wawayanda Avenue, closing a portion of the street will not dramatically impact the flow of vehicular traffic around campus. The closure of East Conkling Avenue will, however, eliminate the staff parking lot behind the Library. This project should be coordinated with the improvements to South Street, new green space, and quad improvements. As shown in the diagram above, closing East Conkling Avenue will impact all other recommended site projects. The following work will be included in this project:

- Demolish granite curbing and asphalt paving
- Establish new lawn
- Reconfigure sidewalks
- Install decorative pavers at entrance to the Diana Physical Education Center
- Install decorative light poles
- Plant large canopy trees along sidewalks
- Install new granite curbs to terminate East Conkling Avenue at the Library and parking garage



New site features along South Street should match the historic character of the existing site elements.



East Conkling Avenue should be closed to eliminate some vehicular traffic through the center of campus.

Create Green Space Adjacent to Physical Education Center

To further enhance the *sense of community* and experience of the pedestrian, a green space will be created adjacent to the Diana Physical Education Building. The new lawn could be used for student gathering space, outdoor classes, recreation, and scheduled activities. Site lighting, landscaping, and signage will be seamlessly integrated with the improvements to South Street and East Conkling Avenue. The following work will be included:

- Demolish asphalt paving
- Establish new lawn
- Provide 5'-0" wide concrete sidewalks that connects the Morrison Lab School to the main quad
- Plant large canopy trees and specimen trees

Quad Improvements

Pedestrians should be given *priority* on campus, particularly on the main quad. Reconfiguring walkways, removing unnecessary vehicles by eliminating the drop-off loop in front of Morrison Hall, and distinguishing vehicular areas from pedestrian areas will go a long way in making the campus pedestrian first. The College should also look at relocating accessible parking areas, if possible, to further reduce vehicular traffic in the center of campus.

As shown in the diagram in the following page, many walkways in the quad are in fair to poor condition. They will be repaired or replaced, as necessary, as part of the improvements. The project also includes new entrance plazas at the buildings surrounding the quad. New benches, lighting, bike racks, and trash/recycling bins will be provided at each plaza. Improvements to the quad should be coordinated with the new Fine and Performing Arts Center, which will be accessed from the new network of walkways. The following items will be included in the work:

- Demolish asphalt paving
- Establish new lawn
- Reconfigure sidewalks
- Install decorative pavers at the entrance to Harriman Hall, Horton Hall, Hudson Hall, Morrison Hall, and the new Fine and Performing Arts Center
- Provide new site furnishings including benches, bike racks, picnic tables, and trash/recycling bins
- Install decorative light poles
- Plant large canopy trees along sidewalks

Campus-wide Signage Project

Some campus signage does not comply with ADA standards and some required signage, such as signs along South Street, is missing. To improve wayfinding, increase pedestrian safety, and ensure consistency across campus, all signage should be replaced and missing signs should be installed as part of a campus-wide signage project. The following site and building signage will be included in this project:

- Campus Maps
- Parking Identification Signs
- Building Identification Signs
- Directional Signs
- ADA Required Signs
- Building Code Required Signs

Demolish Bennett House

This former residence housed Information Technology until the department moved to the first floor of the Bio-Tech Building. Although the College used the building as office space for many years, the configuration of the space is not appropriate for most college uses. Steep stairs, narrow doorways, and residential bathrooms make updating the interior to meet current accessibility requirements very difficult. The Bennett House is scheduled for demolition.

Demolish Christine Morrison House

The Christine Morrison House currently includes office space for Behavioral Sciences, Criminal Justice, and Global Studies. Once these departments move to the first floor of Hudson Hall, the building will be vacant. Similar to Bennett House, this building is not appropriate for most college uses and is recommended for demolition.

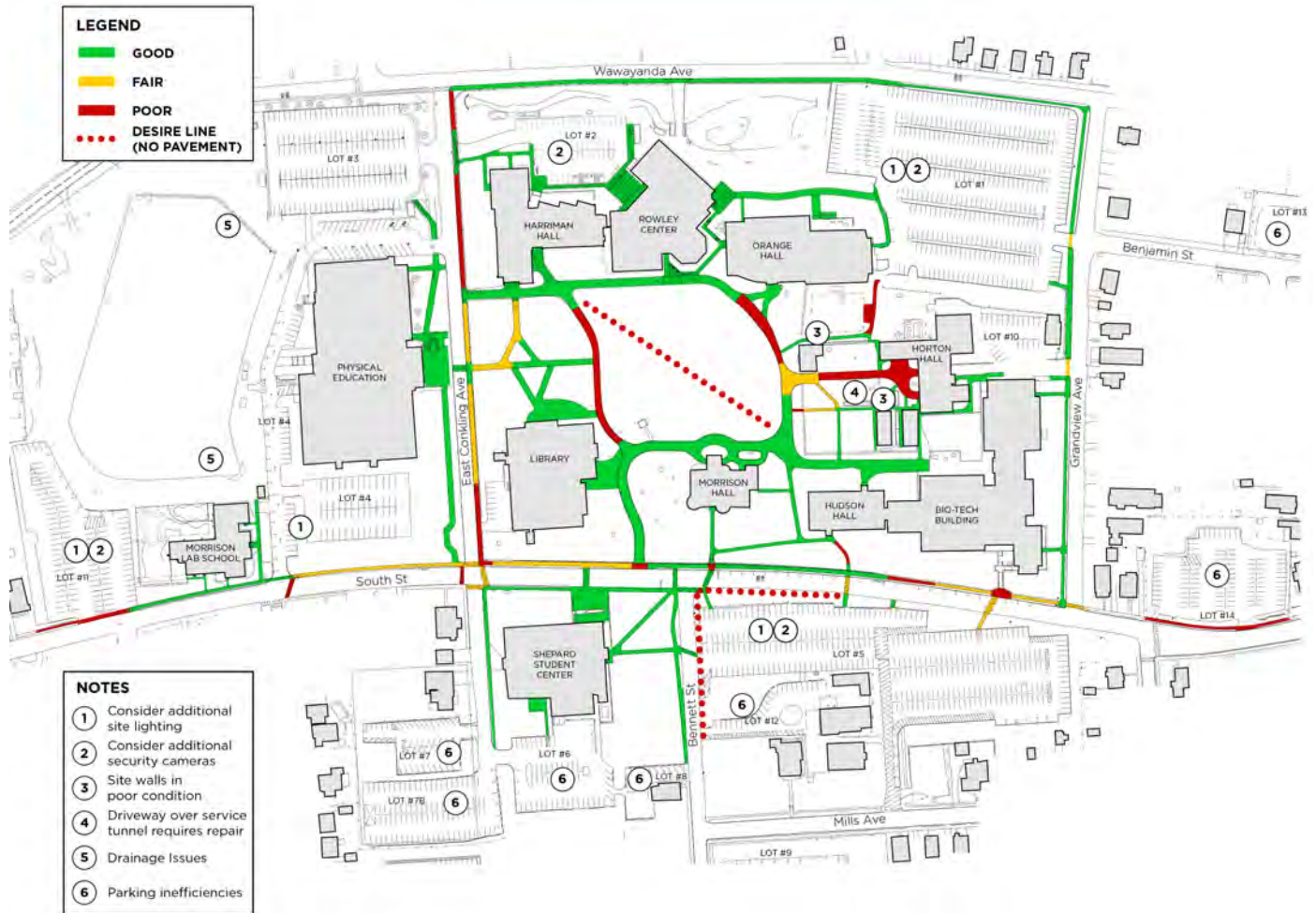


Figure 7.4: Conditions of Walkways

2016 Capital Plan Projects

The following projects will be completed as part of the 2016 Six Year Capital Plan:

- Replace South Street Sidewalk
- Repair Sidewalk Paving
- Repair Parking Lot Paving
- Upgrade Parking Lot Lighting

Facilities Maintenance Projects

The following projects will be addressed as part of this Master Plan Project:

- Improve Pedestrian Safety
- Repair Site Walls
- Install Bicycle Racks
- Update Signage

Energy Audit Recommendations

None

Enabling Projects

None

Swing Space Required

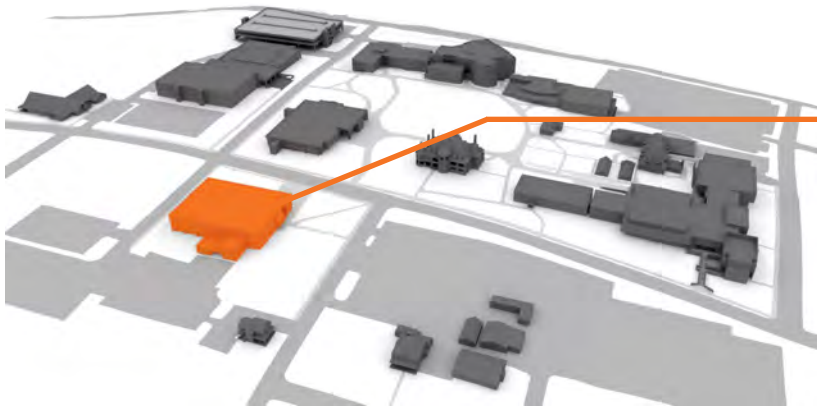
None

Project Budget

South Street Improvements:	\$3,360,000
Close East Conkling Avenue:	\$1,295,000
Create Green Space:	\$650,000
Quad Improvements:	\$3,895,000
Campus-wide Signage Project:	\$260,000
Demolish Bennett House	\$110,000
Demolish Christine Morrison House	\$235,000

Site Total: \$9,805,000

Project budget includes soft costs and escalation to the mid-point of construction



Student Center

Addition	15,000 GSF
First Floor Renovations	19,510 GSF
Second Floor Renovations	17,670 GSF
Third Floor Renovations	17,765 GSF

Strategic Plan 2015-2020

- 1.2 Increase the number of faculty, staff, and students to reflect the diversity of Orange County through focused **recruitment** initiatives.
- 2.1 **Prepare students for college success** through academic planning and advising and comprehensive, ongoing support.
- 2.3 Increase student **retention, completion, transfer, and employment readiness**.
- 3.1 Foster stronger **connections** among **academic programs, business, & industry** to increase applied learning opportunities for students.
- 3.4 Strengthen the **sense of community** to improve the institutional climate and promote collegiality, civility, and mutual respect.

Project Description

Although the population of Orange County is expected to grow between 2015 and 2030, the number of public high school graduates is expected to decrease by more than five percent during that time. Enrollment at SUNY Orange is, therefore, projected to remain constant for the next ten years. In order to maintain or grow enrollment, the College will need to focus on recruitment, retention, and student success.

Removing barriers and streamlining the admissions process is extremely important for *recruiting* prospective students. An addition to the Shepard Student Center is the top priority for the College. The 15,000 GSF addition will create a new front door for visitors approaching campus from South Street or Bennett Street. An entrance and large atrium will help to establish one of the primary campus intersections and improve the connection to major campus buildings on the other side of South Street.

The first floor of the addition will provide new space for Admissions and Recruitment that is easily accessible from the street. A drop-off loop along Bennett Street and dedicated parking will further enhance the experience for prospective students. The remainder of the first floor will provide long-needed space for the Honors Program. A dedicated classroom, computer lab, quiet study room, and student lounge will create a *sense of community* that students lack in their current location.

Comptroller, Human Resources, and Student Accounts will move from Orange Hall to the second floor of the addition. The new space will provide the departments with more appropriate office space and access to natural light. The Copy Center and Mail Room will move from Orange Hall to the first floor of Horton Hall (see page 7.23 for a description of this project). The vacated space in Orange Hall will be used as swing space to enable renovations to the existing building. Once all administrative functions move out of Orange Hall, approximately 8,543 NSF will be available as swing space. An additional 2,100 NSF could be available (for a total of 10,643 NSF) if the large art gallery on the first floor of Orange Hall is temporarily closed and the space is subdivided for swing space.

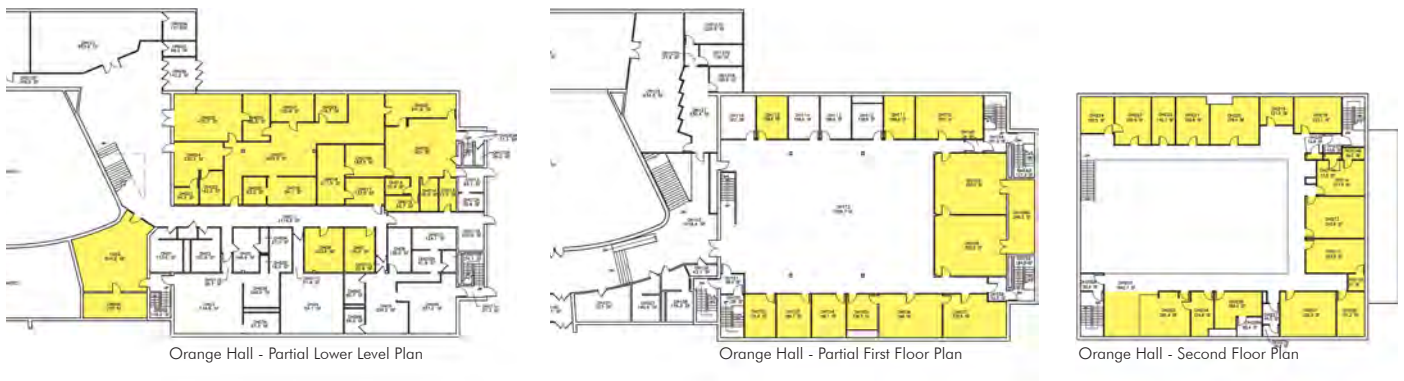


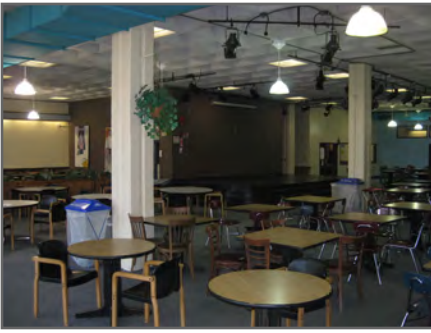
Figure 7.5: Available Swing Space in Orange Hall



Existing Shepard Student Center



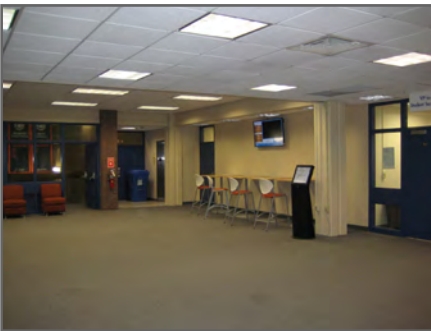
Figure 7.6: Student Center Addition



Existing Dining Area



The Fireside Lounge is largely underutilized.



Existing Student Services Center

First Floor and Second Floor Renovations

Once the addition is complete and departments currently located in the Shepard Student Center temporarily move to Orange Hall, renovations to the existing building will begin. Since there will not be enough vacated space in Orange Hall to accommodate all departments currently located in the Shepard Student Center, the renovations will need to be phased. Renovations to the first and second floor require approximately 8,650 NSF of swing space. First floor renovations will include the following:

- The bookstore will be relocated to the first floor and expanded to include additional administrative space and service windows for textbook returns, rentals, and buy-backs.
- SUNY Orange is interested in moving from a centralized food service model to a model that includes multiple small venues. The kitchen will be converted to a modest café, similar to the Sarah Wells Café, and the dining area will be reconfigured.
- Space for student activities will be created adjacent to the dining area. In addition to administrative space, it will include office and meeting space for student organizations, a game room, and a student activity space with a stage.

Spaces created on the second floor will further the College's strategic efforts to increase student *retention, completion, transfer, and employment readiness*. A One-Stop Student Services Center will be created and include space for Bursar, Financial Aid, Registrar, and Student Services Central. A large presentation room, located near the Fireside Lounge, will be available for use by all departments in the building. The second floor will also provide new space for two programs that do not currently have space: Phi Theta Kappa and Veterans Affairs.

Third Floor Renovations

Renovations to the third floor will require approximately 10,500 NSF of swing space. Academic Advising, Accessibility Services, Career Services, and the Wellness Center will be located on this floor. Spaces will be expanded and reconfigured to provide additional space for each department.

Two additional offices will be provided for Academic Advising. Accessibility Services will include quiet testing rooms to better *prepare students for college success*. The Wellness Center will include offices space for counselors and visiting doctors. Treatment rooms will be expanded and reconfigured to provide an appropriate level of privacy.

Offices, classrooms, and computer labs for Continuing and Professional Education (CAPE) will also be located on the third floor. Since all spaces dedicated to CAPE will be in one location, the College will only need to provide access to one building during evenings and on weekends. New, modern classrooms will provide the perfect venue to foster stronger relationships with local *business and industry* partners.

Administrative space will include offices for Associate Vice-President of Enrollment Management and Associate Vice-President of Student Engagement. Renovations on all floors will include new toilet rooms and the installation of a sprinkler system. The complete space program for all departments located in the Shepard Student Center can be found in the appendices.

Second Floor Renovations



Third Floor Renovations



Figure 7.7: Student Center Renovations

2016 Capital Plan Projects

The following projects will be completed as part of the 2016 Six Year Capital Plan:

- Recoat Roof
- Replace Pump Motors

Facilities Maintenance Projects

The following projects will be addressed as part of this Master Plan Project:

- Install Energy Efficient Windows
- Upgrade Interior Finishes
- Replace Air-Handling Units
- Install Direct Digital Controls
- Install Electrical Distribution Equip.
- Upgrade Lighting Fixtures
- Accessibility Upgrades

Energy Audit Recommendations

The following recommendations could result in a reduction of GHG emissions and potential cost savings:

- Install VFDs on Cooling Tower Fans
- Install VFDs on CHW Pumps
- Replace 150W MH
- Install Vending Misers

From SUNY Orange CAP prepared by Steven Winter Associates

Enabling Projects

Renovations

Relocate Academic Testing Center
Relocate Copy Center/Mail Room

Swing Space Required

Renovations

First Floor: 750 NSF
Second Floor: 7,900 NSF
Third Floor: 10,500 NSF

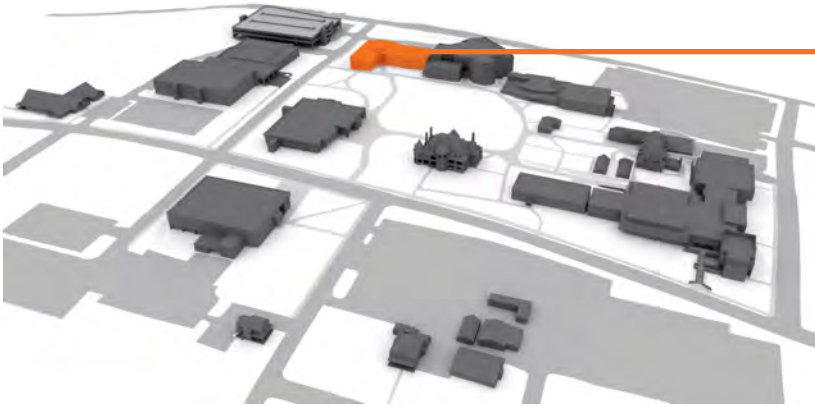
Project Budget

Addition:	\$8,945,000
First Floor Renovations:	\$8,605,000
Second Floor Renovations:	\$6,825,000
Third Floor Renovations:	\$7,270,000

Building Total: \$31,645,000

Project budget includes soft costs and escalation to the mid-point of construction

Harriman Hall



First Floor Renovations

15,880 GSF

Second Floor Renovations

15,085 GSF

Third Floor Renovations

15,085 GSF

Strategic Plan 2015-2020

2.2 Accelerate students' completion of **developmental education** and ensure college readiness by refining processes, services, and course sequences.

3.4 Strengthen the **sense of community** to improve the institutional climate and promote collegiality, civility, and mutual respect.

4.2 Develop, cultivate, and support **innovation** throughout the organization for continuous improvement.

Project Description

Second and Third Floor Renovations

Three large labs on the third floor of Harriman Hall were vacated when the Rowley Center for Science and Engineering was completed. The remainder of the third floor includes classrooms, computer labs, and faculty offices for the Math Department. While the amount of space is reportedly adequate, faculty would like to reconfigure offices to improve privacy and provide a student learning space. This master plan also recommends the creation of a Center for Excellence in Mathematics that will provide space for student experimentation, collaboration, and *innovation*.

The second floor currently houses classrooms, computer labs, and faculty offices for the Business Department. It will be renovated to improve faculty space and provide additional study space for students. To minimize disruption and make the best use of limited resources, the second and third floors will be renovated at the same time. As part of the renovations, classrooms on both floors will be right-sized and updated to better support current teaching modalities. Toilet rooms will be also updated.

During the renovations, swing space will be required for both departments. If the Student Center Addition is completed prior to the Harriman Hall renovations, both departments could temporarily move into the spaces in Orange Hall that will be vacated by Comptroller, Human Resources, and Student Accounts.

First Floor Renovations

The English Department is currently located on the third floor of Morrison Hall. Additional faculty offices are located in Harriman Hall and Bio-Tech. Students are often reluctant to enter Morrison Hall and/or do not know where offices are located. The department should be consolidated in one location to make it easier for students to get the support they need and strengthen the *sense of community* between faculty and students.

Many of the dedicated spaces on the first floor of Harriman Hall will be moving to other locations on campus. CAPE Classrooms (HH114 and HH114A) will be moving to newly renovated space in the Shepard Student Center and space dedicated to Arts and Communications, such as the art studios, will be relocated to the new Fine and Performing Arts Center. These spaces could be temporarily housed in Orange Hall once renovations to the second and third floor are complete.

The first floor will be renovated for the English Department. The Reading Center, Writing Center, and Writing Lab will move from Bio-Tech to the current location of the art studios (HH113, HH115, and HH117). A raised floor system will be installed in each of the studios to make the spaces fully accessible. Dedicated computer labs for *developmental education* will be constructed across the hall. Classrooms will be right-sized and updated. Toilet rooms will also be updated.

First Floor Renovations

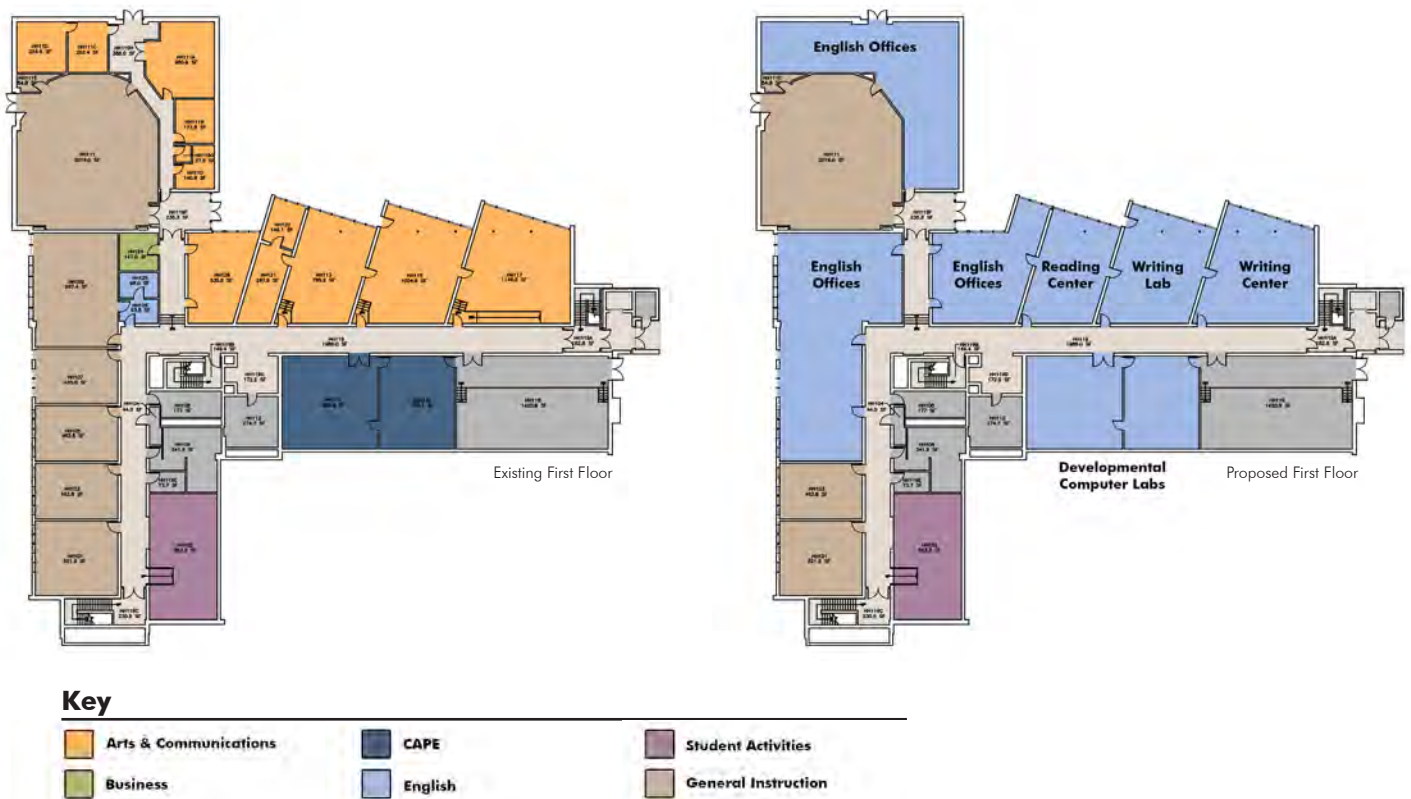


Figure 7.8: Harriman Hall Renovations

2016 Capital Plan Projects

The following projects will be completed as part of the 2016 Six Year Capital Plan:

- Recoat Roof
- Window Replacment
- Replace Unit Ventilators
- Replace Pump Motors

Facilities Maintenance Projects

The following projects will be addressed as part of this Master Plan Project:

- Replace Curtainwall System
- Install Metal Fascia
- Upgrade Interior Finishes
- Install Direct Digital Controls
- Upgrade Lighting Fixtures
- Replace Deteriorating Pipes
- Accessibility Upgrades

Energy Audit Recommendations

The following recommendations could result in a reduction of GHG emissions and potential cost savings:

- Replace/Upgrade AC Units
- Install Vending Misers
- Install LED Exit Signs

From SUNY Orange CAP prepared by Steven Winter Associates

Enabling Projects

Renovations

Student Center Addition
Student Center Renovations

Swing Space Required

Renovations

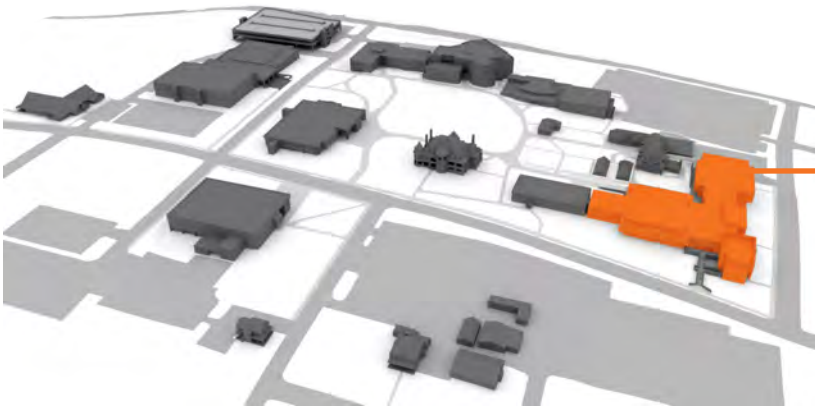
First Floor: 7,050 NSF
Second Floor: 4,575 NSF
Third Floor: 4,925 NSF

Project Budget

First Floor Renovations:	\$8,030,000
Second Floor Renovations:	\$7,005,000
Third Floor Renovations:	\$7,035,000

Building Total: \$22,070,000

Project budget includes soft costs and escalation to the mid-point of construction



Bio-Tech

Create Health Sciences Suite

20,055 GSF

Consolidate Faculty Offices

8,390 GSF

Classroom Upgrades

15,885 GSF

Renovate Data Center

3,120 GSF

Create Satellite Café

400 GSF

Strategic Plan 2015-2020

2.4 Engage in comprehensive review of **program offerings, delivery formats, and course scheduling** to meet the needs of diverse populations.

3.4 Strengthen the **sense of community** to improve the institutional climate and promote collegiality, civility, and mutual respect.

4.2 Develop, cultivate, and support **innovation** throughout the organization for continuous improvement.

Project Description

Create Health Sciences Suite

The population of this country is aging and the demand for healthcare services is increasing. In order for health sciences to remain competitive with programs at other institutions, their space will need to be renovated and expanded. A new health sciences suite on the third floor of the Bio-Tech Building will include a multi-disciplinary simulation lab, rehabilitation clinic, testing center, student learning space, and faculty offices for Diagnostic Imaging, Medical Laboratory Technician, Occupational Therapy Assistant, and Physical Therapy Assistant. The simulation lab will include new equipment and technology that promotes *innovation* in the health sciences and collaboration between disciplines. Instructional spaces for Diagnostic Imaging and Medical Laboratory Technician will be reconfigured. The existing Occupational Therapy Lab on the second floor and Physical Therapy Lab on the first floor will remain.

Several spaces in the building were vacated when the Rowley Center for Science and Engineering was completed. While some of the space has been repurposed, three large labs on the third floor (BT316, BT318, and BT320) remain vacant. These labs will provide the space required for health sciences to expand in place. Swing space, however, will be required for the renovations.

Consolidate Faculty Offices

Many faculty offices in the building are not grouped by department. This is typical at colleges and universities when existing programs grow and faculty take up residence in offices available at the time. It is necessary to periodically reconfigure office space to consolidate resources, improve student access, encourage collaboration, improve efficiency, and build a *sense of community*. When office space is reconfigured, appropriate support space (such as faculty work rooms) should be provided.

Once the Reading and Writing Centers move to the first floor of Harriman Hall, office space for Applied Technologies can be consolidated on the third floor of the Bio-Tech Building, adjacent to the Telecom and Gaming Labs. Dental Hygiene faculty will move to the second floor, in the space currently occupied by the Writing Lab, to be closer to the Dental Clinic. Education faculty will move from the second floor of the Library to the office suite across the hall from the Learning Lab. Nursing faculty will move from Hudson Hall. Finally, the Vice-President for Information Technology will move from Morrison Hall to newly renovated space near the Data Center. All of these moves are shown in Figure 7.10.

Classroom Upgrades

The instructional space utilization study revealed that many classrooms in the Bio-Tech Building meet hourly utilization targets, but not seat fill targets; or meet seat fill targets, but have low hourly utilization. This means that courses are often held in classrooms that are too large or too small for course enrollments. By right-sizing classrooms, the College will get better use of existing space. When classrooms are renovated, furnishings and technology will be updated to better reflect *current program offerings and delivery formats*.

Renovate Data Center

The raised floor system in the Data Center is in poor condition and the College reported that a recent sewage leak was not properly mediated. The center will be renovated to improve working conditions and reconfigured to increase efficiency.

Create Satellite Café

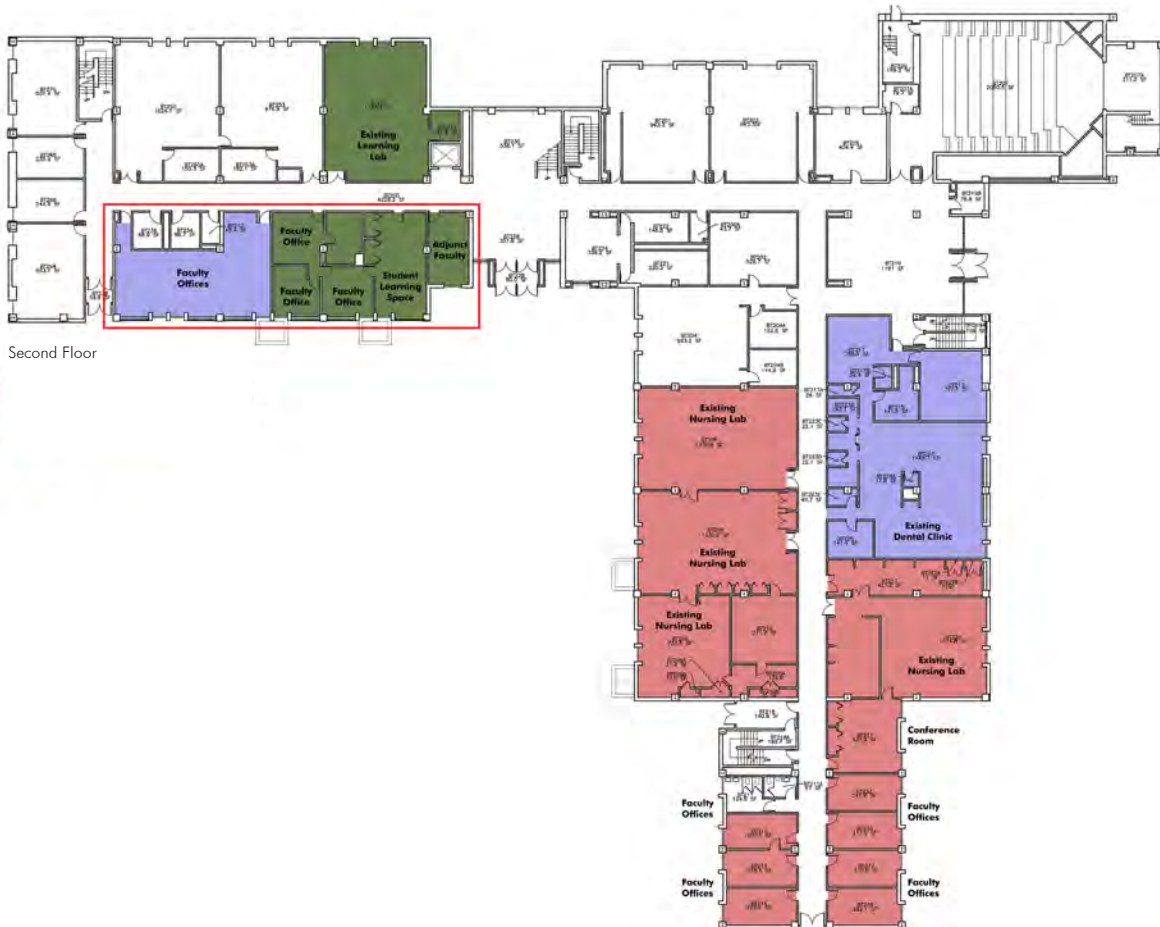
To further the goal of moving toward a decentralized food service model, a small satellite café will be created near the main entrance of the Bio-Tech Building.

Health Sciences Suite



Figure 7.9: Create Health Sciences Suite

Consolidate Faculty Offices



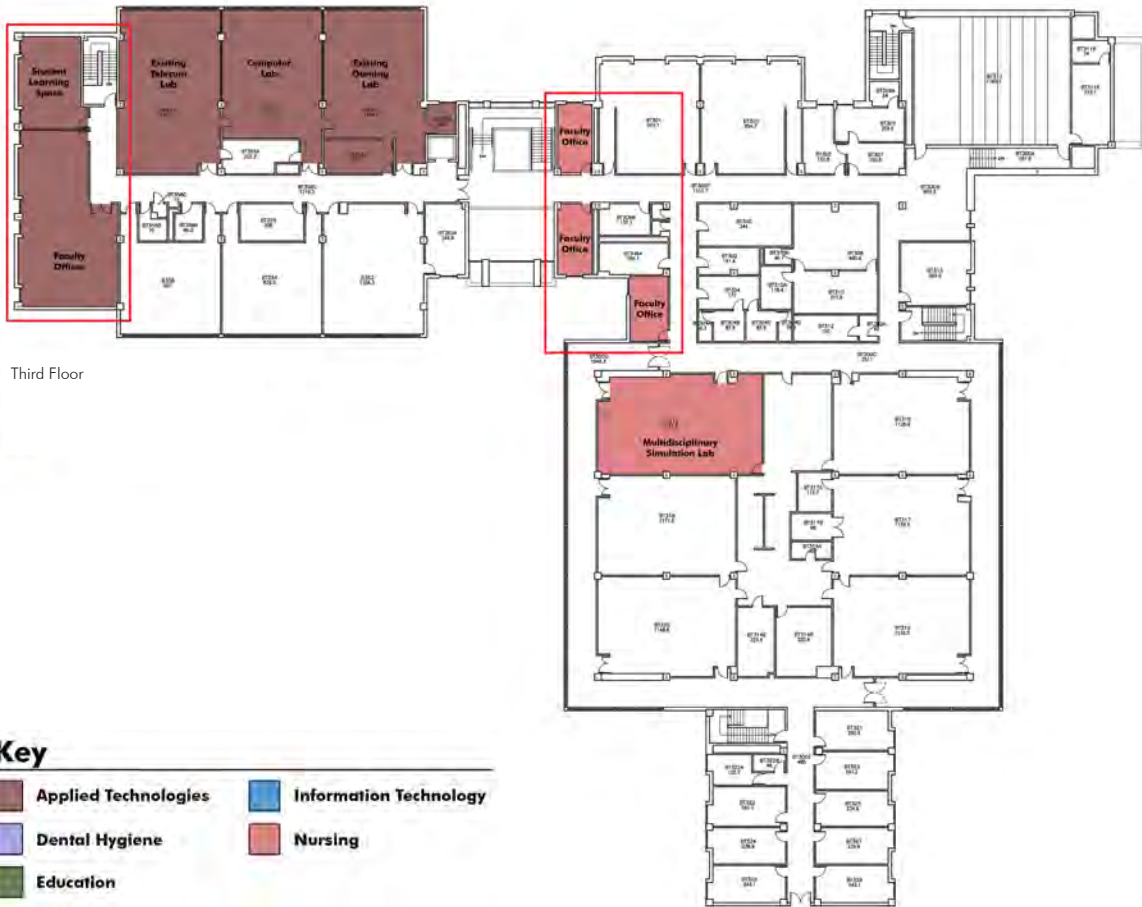


Figure 7.10: Consolidate Faculty Offices

2016 Capital Plan Projects

The following projects will be completed as part of the 2016 Six Year Capital Plan:

- Recoat Roof
- Window Replacment
- Replace Cooling Tower
- Replace Unit Ventilators
- Replace Pump Motors

Facilities Maintenance Projects

The following projects will be addressed as part of this Master Plan Project:

- Replace Curtainwall System
- Replace Ceiling Tiles*
- Replace Raised Floor System
- Upgrade Lighting Fixtures*
- Accessibility Upgrades*

*project areas only

Energy Audit Recommendations

The following recommendations could result in a reduction of GHG emissions and potential cost savings:

- Install VFDs on Cooling Tower Fans
- Install VFDs on CHW Pumps
- Install Vending Misers

From SUNY Orange CAP prepared by Steven Winter Associates

Enabling Projects

Consolidate Faculty Offices

- Student Center Addition
- Student Center Renovations
- Harriman Hall Renovations

Swing Space Required

Create Health Sciences Suite

9,675 NSF

Renovate Data Center

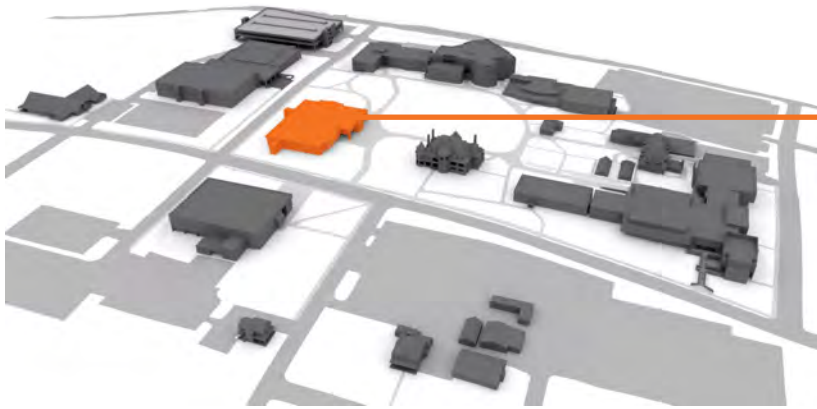
3,000 NSF

Project Budget

Create Health Sciences Suite:	\$8,485,000
Consolidate Faculty Offices:	\$985,000
Classroom Upgrades:	\$3,000,000
Renovate Data Center:	\$1,685,000
Create Satellite Cafe:	\$185,000

Building Total: \$14,285,000

Project budget includes soft costs and escalation to the mid-point of construction



Library

Relocate Academic Testing Center

1,680 GSF

Library Renovations

7,340 GSF

Classroom Upgrades

2,935 GSF

Create Satellite Cafe

1,200 GSF

Strategic Plan 2015-2020

2.1 **Prepare students for college success** through academic planning and advising and comprehensive, ongoing support.

2.4 Engage in comprehensive review of **program offerings, delivery formats, and course scheduling** to meet the needs of diverse populations.

Project Description

Relocate Academic Testing Center

The Academic Testing Center is currently located on the second floor of the Shepard Student Center. While the testing center often works closely with other departments located in the Student Center, there are several advantages to locating the testing center near Academic Support Services. First, the departments can work together to provide fully integrated testing and tutoring services to students. Second, there are several spaces (such as computer labs) that can be shared by the departments. Finally, moving the Academic Testing Center to the second floor of the Library will create a Learning Resource Center within the Library that will better *prepare students for college success*. Renovations will include the reconfiguration of existing space, new finishes, and new lighting.

Library Renovations

Only 68 percent of space in the building is dedicated to the library. Since space must be provided for essential library services (such as reference materials) the amount of space dedicated to soft seating, individual study, and group study is limited. As mentioned previously, faculty offices for the Education department will move to the second floor of the Bio-Tech Building, adjacent to the existing Learning Lab. Office space for the Academic Associate Vice-Presidents will be consolidated in Morrison Hall (see page 7.22 for a description of this project). These moves should provide ample space on the second floor for additional student gathering and study space.

Academic Support Services is currently located on the second floor. It is open to adjacent stack and seating areas, which results in acoustic issues and security concerns. As part of the renovations, the tutoring center will be enclosed with a glass partition system to maintain views into the space, eliminate acoustic issues, and reduce security concerns.

Classroom Upgrades

There are three general classrooms in the building. While the classrooms were not heavily scheduled during the fall 2014 semester, they will become essential when classrooms in other campus buildings are temporarily or permanently taken off-line. The classrooms will be renovated, furnishings will be replaced, and technology will be updated to better reflect *current program offerings and delivery formats*.

Create Satellite Café

A small satellite café will be created adjacent to the main entrance of the Library, as shown in Figure 7.11. The café will capture exterior space below the existing overhang. A portion of the existing exterior wall will be removed to provide direct access from the café to the first floor of the Library. Most of the seating will be accommodated in the library, but a large plaza on the other side of the main entrance will provide an opportunity for students to enjoy warm weather.

Once the café is created, students will have the option to purchase food in the Bio-Tech Building, Library, Shepard Student Center, and Rowley Center for Science and Engineering. The proposed location for each café is shown in Figure 7.12.

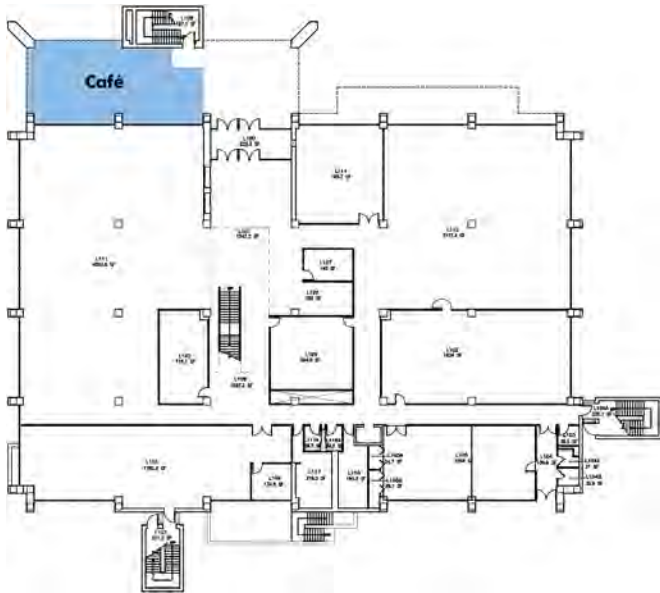


Figure 7.11: Create Satellite Café at Library



Figure 7.12: Proposed Café Locations

2016 Capital Plan Projects

The following projects will be completed as part of the 2016 Six Year Capital Plan:

- Recoat Roof
- Replace Chiller
- Replace Cooling Tower Piping
- Replace Pump Motors

Facilities Maintenance Projects

The following projects will be addressed as part of this Master Plan Project:

- Upgrade Lighting Fixtures*
- Accessibility Upgrades*

*project areas only

Energy Audit Recommendations

The following recommendations could result in a reduction of GHG emissions and potential cost savings:

- Install VFD on Cooling Tower
- Install Vending Misers

From SUNY Orange CAP prepared by Steven Winter Associates

Enabling Projects

Library Renovations

Student Center Addition
 Student Center Renovations
 Harriman Hall Renovations
 Relocate Academic Vice-Presidents
 Consolidate Faculty Offices

Swing Space Required

Library Renovations

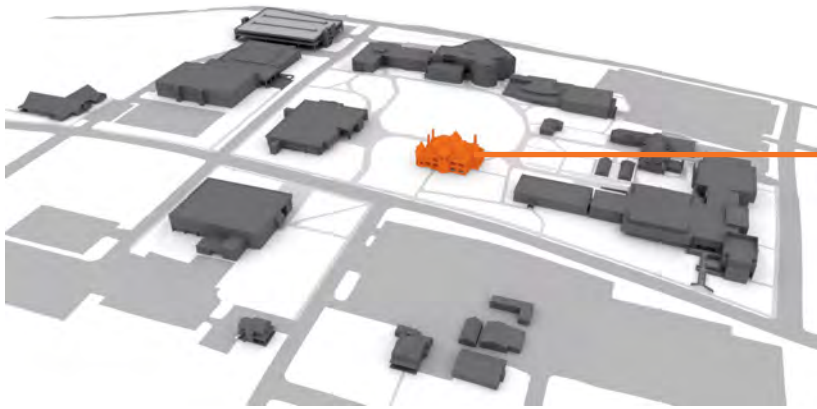
3,625 NSF

Project Budget

Relocate Academic Testing Center:	\$430,000
Library Renovations:	\$695,000
Classroom Upgrades:	\$500,000
Create Satellite Cafe:	\$925,000

Building Total: \$2,550,000

Project budget includes soft costs and escalation to the mid-point of construction



Morrison Hall

Consolidate Administration

2,590 GSF

Relocate Institutional Advancement

2,635 GSF

Expand Office of the President

390 GSF

Strategic Plan 2015-2020

3.4 Strengthen the **sense of community** to improve the institutional climate and promote collegiality, civility, and mutual respect.

Project Description

As part of this master plan, the Vice-President of Information Technology will move to the Bio-Tech Building to consolidate the department adjacent to the Data Center. The Vice-President of Institutional Advancement will then move to the office formerly occupied by the Vice-President of Information Technology. These moves will provide the space necessary to expand the Office of the President on the second floor of Morrison Hall.

The Vice-President for Student Services is currently located in the Shepard Student Center and offices for the Academic Associate Vice-Presidents are on the second floor of the Library. To provide additional study space in the Library and strengthen the *sense of community* among administrators, office space for both will move to the third floor of Morrison Hall. As offices are relocated, new finishes and lighting fixtures should be provided. Care should be taken to maintain the historic character of the building and protect unique building elements, such as the Tiffany light fixtures and C.W. Dodge ceiling murals.

2016 Capital Plan Projects

The following projects will be completed as part of the 2016 Six Year Capital Plan:

- Replace Cooling Tower
- Replace Pump Motors

Facilities Maintenance Projects

The following projects will be addressed as part of this Master Plan Project:

- Upgrade Lighting Fixtures*
- Accessibility Upgrades*

*project areas only

Energy Audit Recommendations

The following recommendations could result in a reduction of GHG emissions and potential cost savings:

- Install Vending Misers
- Install LED Exit Signs

From SUNY Orange CAP prepared by Steven Winter Associates

Enabling Projects

Consolidate Administration

Student Center Addition
Student Center Renovations
Harriman Hall Renovations

Institutional Advancement

Consolidate Faculty Offices

Office of the President

Consolidate Faculty Offices
Institutional Advancement

Swing Space Required

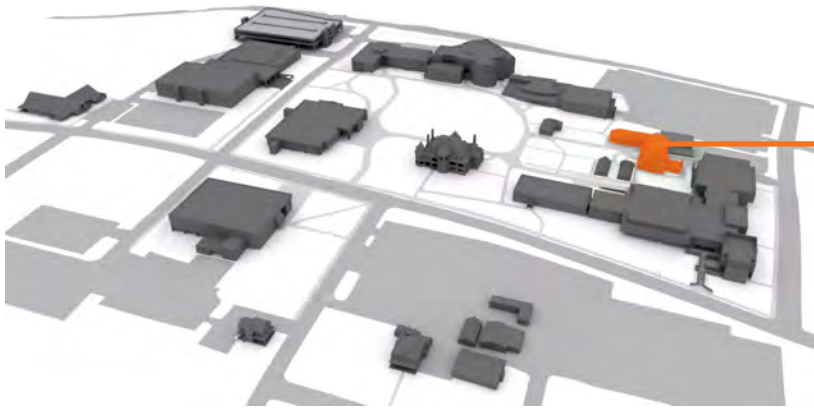
None

Project Budget

Consolidate Administration:	\$95,000
Relocate Institutional Advancement:	\$160,000
Expand Office of the President:	\$25,000

Building Total: \$280,000

Project budget includes soft costs and escalation to the mid-point of construction



Horton Hall

Relocate Copy Center/Mail Room
2,615 GSF

Strategic Plan 2015-2020

3.3 Improve **management of information** to increase transparency and centralize communication practices.

Project Description

At one time, the first floor of Horton Hall housed classrooms, labs, and faculty offices for the Chemistry Department. All academic space in the building was relocated to the Rowley Center for Science and Engineering in 2104. The Facilities Department has temporarily moved into the vacated space.

The copy center and mail room will need to move out of the lower level of Orange Hall to provide additional swing space for the renovations to Harriman Hall and the Shepard Student Center. Eventually, Orange Hall will be demolished to provide space for the new Fine and Performing Arts Center. Horton Hall is centrally located and will provide space for a new copy center and mail room. Renovations to Horton Hall will include new finishes and lighting fixtures. Due to the age of the building, an allowance for abatement should be included.

2016 Capital Plan Projects

The following projects will be completed as part of the 2016 Six Year Capital Plan:

- Site Repairs
- Replace Boiler
- Replace Pump Motors

Facilities Maintenance Projects

The following projects will be addressed as part of this Master Plan Project:

- Upgrade Interior Finishes*
- Update HVAC System*
- Upgrade Lighting Fixtures*
- Accessibility Upgrades*

*project areas only

Energy Audit Recommendations

The following recommendations could result in a reduction of GHG emissions and potential cost savings:

- Replace/Upgrade AC Units

From SUNY Orange CAP prepared by Steven Winter Associates

Enabling Projects

None

Swing Space Required

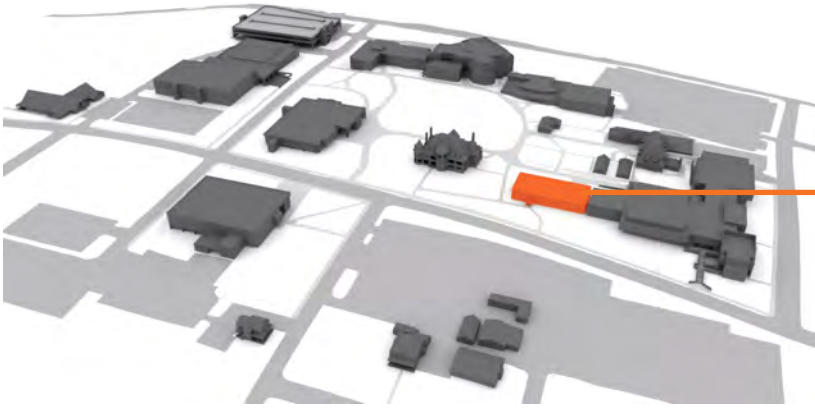
None

Project Budget

Relocate Copy Center/Mail Room: \$975,000

Building Total: \$975,000

Project budget includes soft costs and escalation to the mid-point of construction



Hudson Hall

First Floor Renovations
Underway
Second Floor Renovations
7,100 GSF

Strategic Plan 2015-2020

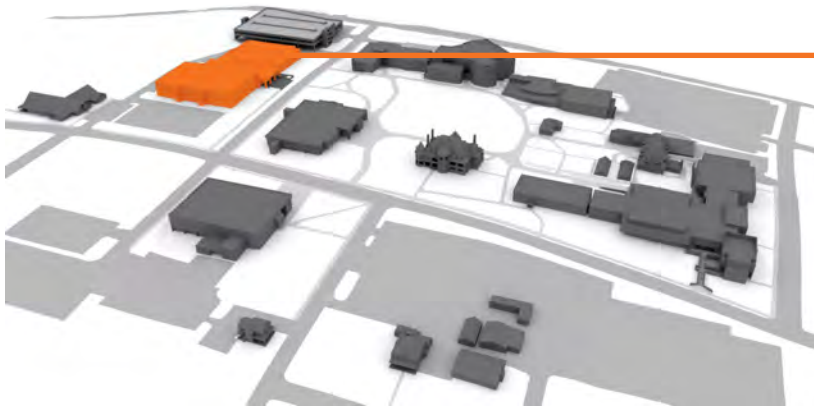
- 2.4 Engage in comprehensive review of **program offerings, delivery formats, and course scheduling** to meet the needs of diverse populations.
- 3.4 Strengthen the **sense of community** to improve the institutional climate and promote collegiality, civility, and mutual respect.

Project Description

Renovations to the first floor of Hudson Hall are underway. Faculty offices for Behavioral Sciences, Criminal Justice, and Global Studies will move to Hudson Hall to improve access for students, strengthen the *sense of community*, and enable demolition of the Christine Morrison House.

The instructional space utilization study revealed that some classrooms on the second floor are underutilized. As part of this master plan, they will be right-sized to improve utilization, furnishings in the classrooms will be replaced, and instructional technology will be updated to better reflect *current program offerings and delivery formats*.

<p><u>2016 Capital Plan Projects</u></p> <p>The following projects will be completed as part of the 2016 Six Year Capital Plan:</p> <ul style="list-style-type: none"> • Recoat Roof • Replace Boiler • Replace Pump Motors 	<p><u>Facilities Maintenance Projects</u></p> <p>The following projects will be addressed as part of this Master Plan Project:</p> <ul style="list-style-type: none"> • Replace Curtainwall Infill Panels • Replace Sealant • Install Missing Soffit Panels • Install Air-Conditioning System • Update Direct Digital Controls • Install Electrical Distribution Equip. • Upgrade Lighting Fixtures • Replace Deteriorating Pipes • Accessibility Upgrades 	<p><u>Energy Audit Recommendations</u></p> <p>The following recommendations could result in a reduction of GHG emissions and potential cost savings:</p> <ul style="list-style-type: none"> • Install LED Exit Signs <p>From SUNY Orange CAP prepared by Steven Winter Associates</p>								
<p><u>Enabling Projects</u></p> <p>None</p>	<p><u>Swing Space Required</u></p> <p>None</p>	<p><u>Project Budget</u></p> <table border="0"> <tr> <td>First Floor Renovations:</td> <td>Underway</td> </tr> <tr> <td>Second Floor Renovations:</td> <td>\$2,765,000</td> </tr> <tr> <td colspan="2"><hr/></td> </tr> <tr> <td>Building Total:</td> <td>\$2,765,000</td> </tr> </table> <p>Project budget includes soft costs and escalation to the mid-point of construction</p>	First Floor Renovations:	Underway	Second Floor Renovations:	\$2,765,000	<hr/>		Building Total:	\$2,765,000
First Floor Renovations:	Underway									
Second Floor Renovations:	\$2,765,000									
<hr/>										
Building Total:	\$2,765,000									



Strategic Plan 2015-2020

3.2 Optimize **enrollment** through **partnerships** with area high schools, civic organizations, and businesses.

Project Description

The gymnasium and pool in the Diana Physical Education Center are available for students, faculty, and members of the surrounding community. By providing space for community events, SUNY Orange increases the visibility of the College and provides opportunities to *partner* with area high schools, civic organizations, and local businesses. In order to maintain high-quality event space, the following work should be completed in the gymnasium:

- Install new, high-quality, overhead, operable partitions
- Replace bleachers (A project to replace the bleachers is included in the 2106 Six Year Capital Plan)
- Replace interior storefront between gymnasium and lobby
- Scrape, prime, and repaint gymnasium walls
- Install an air-conditioning system
- Upgrade lighting fixtures

2016 Capital Plan Projects

The following projects will be completed as part of the 2016 Six Year Capital Plan:

- Recoat Roof
- Bleacher Replacment
- Replace Rooftop Units
- Replace Pump Motors

Facilities Maintenance Projects

The following projects will be addressed as part of this Master Plan Project:

- Replace Storefront System*
- Paint Gymnasium Walls
- Install Air-Conditioning System*
- Upgrade Lighting Fixtures*
- Accessibility Upgrades*

*project areas only

Energy Audit Recommendations

The following recommendations could result in a reduction of GHG emissions and potential cost savings:

- Install VFDs on Hot Water Pumps
- Install Vending Misers

From SUNY Orange CAP prepared by Steven Winter Associates

Enabling Projects

None

Swing Space Required

None

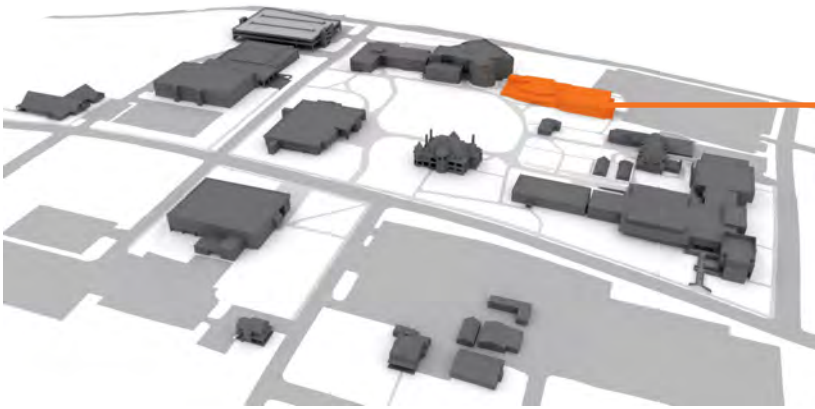
Project Budget

Renovate Gymnasium: \$3,065,000

Building Total: \$3,065,000

Project budget includes soft costs and escalation to the mid-point of construction

Fine and Performing Arts Center



Demolish Orange Hall

47,480 GSF

New Construction

72,650 GSF

Parking Deck

Strategic Plan 2015-2020

1.2 Increase the number of faculty, staff, and students to reflect the diversity of Orange County through focused **recruitment** initiatives.

4.2 Develop, cultivate, and support **innovation** throughout the organization for continuous improvement.

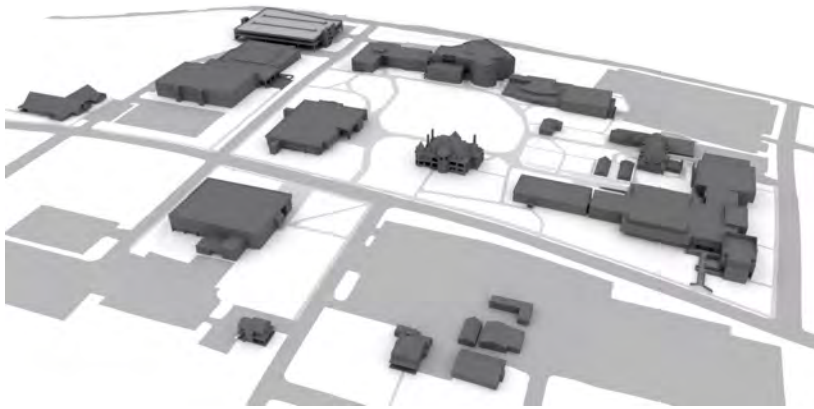
Project Description

Once renovations to Harriman Hall and the Shepard Student Center are complete, Orange Hall will be demolished to provide space for a new Fine and Performing Arts Center. The center will include new space with *innovative* technology intended to support new academic programs and *recruit* new students to existing programs. The new facility will also address many of the issues identified in Orange Hall, such as the need for a larger stage and additional backstage support spaces. The following departments/spaces will move to the new 72,650 GSF building:

- Arts and Communications: All spaces dedicated to Arts and Communications (classrooms, class labs, practice rooms, and faculty offices) currently located in Orange Hall
- Arts and Communications: The Drawing Lab, Painting Lab, Design/Print Lab, TV Studio, and faculty offices currently located on the first floor of Harriman Hall
- Center for Teaching and Learning: Office space from the Rowley Center for Science and Engineering
- Center for Teaching and Learning: The video room currently located on the second floor of the Library
- Cultural Affairs: The art gallery and associated support space from the second floor of Orange Hall

As part of the project, a new parking deck for approximately 215 vehicles will be constructed behind the Fine and Performing Arts Center. Faculty and students will access the building on the upper level from the quad. Visitors will access the theater and other public spaces from the upper level of the parking deck. Swing space will be required for the demolition of Orange Hall and construction of the new facility. An independent study should be completed to determine the feasibility, demand, and scope of work prior to implementation. The complete space program for the Fine and Performing Arts Center can be found in the appendices.

<u>Enabling Projects</u>	<u>Swing Space Required</u>	<u>Project Budget</u>										
<p>Demolish Orange Hall Student Center Addition Student Center Renovations Harriman Hall Renovations Relocate Mail Room/Copy Center</p>	<p>Demolish Orange Hall 28,500 NSF</p>	<table> <tr> <td>Demolish Orange Hall:</td> <td>\$1,880,000</td> </tr> <tr> <td>New Construction:</td> <td>\$77,180,000</td> </tr> <tr> <td>Sitework:</td> <td>\$1,850,000</td> </tr> <tr> <td>Parking Deck:</td> <td>\$9,070,000</td> </tr> <tr> <td>Project Total:</td> <td>\$89,980,000</td> </tr> </table> <p>Project budget includes soft costs and escalation to the mid-point of construction</p>	Demolish Orange Hall:	\$1,880,000	New Construction:	\$77,180,000	Sitework:	\$1,850,000	Parking Deck:	\$9,070,000	Project Total:	\$89,980,000
Demolish Orange Hall:	\$1,880,000											
New Construction:	\$77,180,000											
Sitework:	\$1,850,000											
Parking Deck:	\$9,070,000											
Project Total:	\$89,980,000											



Long-Term Projects

**Student Housing
Maintenance Building**

Strategic Plan 2015-2020

1.3 Expand the visibility of the College’s excellent programs and services through strategic **marketing efforts**.

3.4 Strengthen the **sense of community** to improve the institutional climate and promote collegiality, civility, and mutual respect.

Project Description

The following long-range projects are not included in the ten year window of this master plan, but were discussed with the Steering Committee and should be considered in future planning efforts.

Student Housing

Many community colleges are revising their *marketing* strategies to attract students from outside their service area. The addition of student housing is one way to attract these students. Once constructed, student housing also has the potential to strengthen the *sense of community* among students living on campus. A Student Housing Market Study was completed by Brailsford & Dunlavey in December 2013. The results of the study, and subsequent discussions with the College, indicate that future student housing should target first-year students and transfer students. It should include 350-450 beds in suite-style apartments with a mix of single and double units. The building should include a multi-purpose room, computer lab, general classroom, study lounge, and common laundry facility. Security personnel should be stationed at the main entrance.

If the College determines that student housing is the right choice for SUNY Orange, it should be located on South Street adjacent to a new dedicated parking lot. The townhouse-style buildings should be organized along the street to better define the edge of campus and to mediate the scale of the large campus buildings and surrounding residential community.

Maintenance Building

The Facilities Department is currently located in one of the original campus buildings. Moving the department into a new building on the edge of campus would allow the spaces within historic Horton Hall to be used for student-focused activities, such as student clubs and organizations. A new 20,000 GSF Facilities Building would include the copy center, mail room, office space for the facilities department, and storage space for seasonal equipment and supplies. Large garage doors would be provided at the front and rear of the building for large snow removal equipment. All other facilities buildings, such as the salt barn, and all outdoor equipment would be relocated to an adjacent storage yard.

<u>Enabling Projects</u>	<u>Swing Space Required</u>	<u>Project Budget</u>
Residence Hall Demolish Christine Morrison House	None	None



Newburgh Campus

Improve Pedestrian Safety
Repair Site Stair

Strategic Plan 2015-2020

- 1.2 Increase the number of faculty, staff, and students to reflect the diversity of Orange County through focused **recruitment** initiatives.
- 4.3 Review and revise **allocation methods** to ensure appropriate investment in people, services, facilities & technologies.



Pedestrian safety is extremely important on any campus.

Project Description

Improve Pedestrian Safety

Many improvements to the Newburgh Campus have been completed in the last five years. The network of roads, walkways, and green spaces are in excellent condition. The College indicated, however, that exterior lighting is insufficient at parking lots and along walkways.

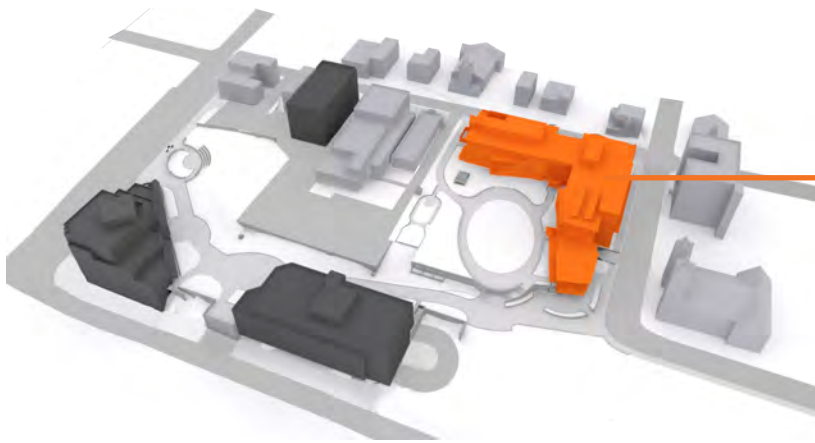
Pedestrian safety is important on any campus, but is essential in an urban setting. To improve pedestrian safety, this master plan includes additional site lighting at parking lots and along walkways. Additional security cameras will also be installed in select locations throughout campus.

Repair Site Stair

The College should periodically review *allocation methods* to ensure that facilities maintenance projects in Middletown and Newburgh are addressed. Stair treads on the large concrete stair between Kaplan Hall and the Tower Building are spalling, which presents a tripping hazard for pedestrians. The stair treads should be repaired.



The site stair should be repaired.



Kaplan Hall

Art Gallery Upgrades
Learning Commons Upgrades

Strategic Plan 2015-2020

2.1 **Prepare students for college success** through academic planning and advising and comprehensive, ongoing support.

Project Description

Art Gallery Upgrades

Kaplan Hall was completed in 2011. It includes a library, learning center, art gallery, student services center, laboratories, general classrooms, and faculty offices. While the building is in excellent condition, the College reported that the art gallery requires several upgrades.

The glass wall between the art gallery and corridor exposes the artwork to harmful natural light. As part of this master plan, a window film will be applied to the windows to protect the artwork. In addition, the carpet will be replaced with a more durable material, such as hardwood.

Learning Commons Upgrades

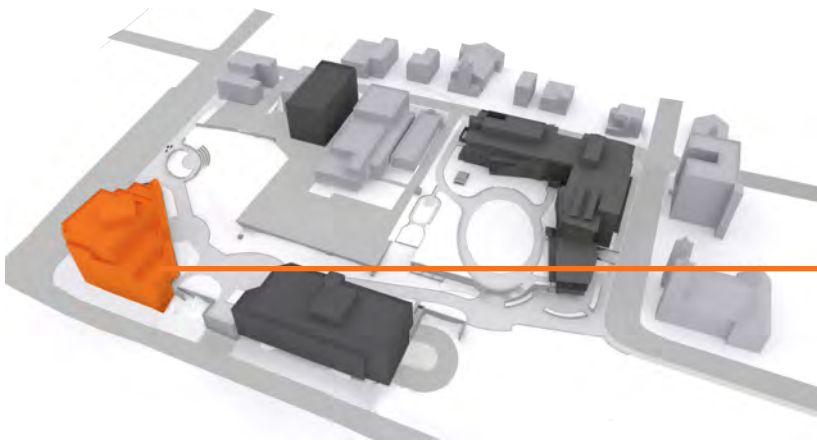
The Learning Center is located on the second floor adjacent to the main lobby. It includes a large, open study area and several smaller tutoring centers for reading, writing, and math. Staff indicated that noise from students doing group work in the tutoring centers is disruptive to students using the open study area. Large, glass doors will be installed at the entrance to each tutoring center to control sound and maintain visibility between the spaces. The doors will also give staff the ability to indicate when the tutoring centers are open or closed.



Kaplan Hall



Glass doors will be installed at the entrance to each tutoring center.



Tower Building

Create 3D Art Studio
Fitness Center Improvements
Food Service Upgrades
Additional Office Space

Strategic Plan 2015-2020

2.4 Engage in comprehensive review of **program offerings, delivery formats, and course scheduling** to meet the needs of diverse populations.



Tower Building

Project Description

Create 3D Art Studio

The Tower Building (originally a Key Bank Headquarters) was renovated in 2102. Renovations included a bookstore, fitness center, lab school, criminal justice and forensics laboratory, general classrooms, and faculty offices. The College would like to expand *program offerings* at the Newburgh Campus to include three-dimensional art, such as sculpture. The existing art studios are not large enough to support this medium. A new art studio will be created as part of this master plan.

The College indicated that student lounges on the second and third floors are not well used. The space utilization study revealed that there is additional capacity in classrooms. The College could repurpose some of this space for the new art studio.

Fitness Center Improvements

Faculty and students do not use the shower adjacent to the Fitness Center due to direct sight lines from the adjacent corridor. A vestibule will be added to provide an appropriate level of privacy.

Food Service Upgrades

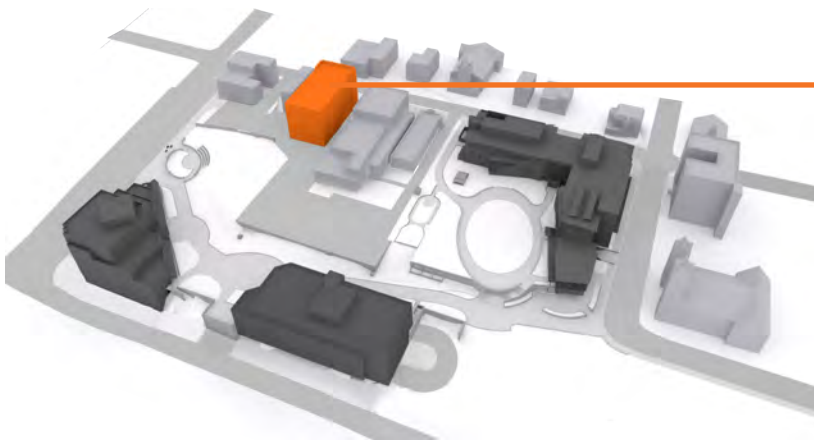
Renovations to the building did not include replacement of the existing kitchen equipment. The College reported that fire code issues and maintenance concerns prevent use of the grill. Faculty and students both feel that the lack of food service on the Newburgh Campus is a major issue. Fire code issues should be resolved and maintenance concerns should be addressed, so that the grill can be used and food service options expanded.

Additional Office Space

Office space should be provided for the Bridges Program, CAPE, Phi Theta Kappa, and Newburgh Board of Activities. There is adequate space on the upper floors of the building to accommodate these offices.



Fire code issues and maintenance concerns prevent use of the grill in the kitchen.



Strategic Plan 2015-2020

3.2 Optimize **enrollment** through **partnerships** with area high schools, civic organizations, and businesses.

Project Description

The Masonic Temple is located north of the Tower Building and west of Kaplan Hall. It was constructed in 1914 as the headquarters for the Hudson River Lodge Chapter of Free and Accepted Masons. The building was purchased by Orange County in December of 2013 with the intent to expand the Newburgh Campus and enrich the student experience through *partnerships* with local organizations. Since that time, however, the building has remained unoccupied.

The College has explored several options for the building:

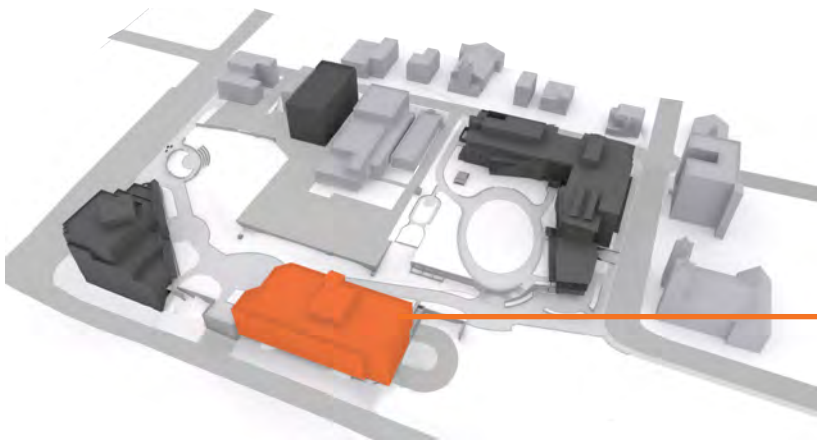
- **Fine and Performing Arts Center:** The College currently uses the multi-purpose room in Kaplan Hall for performances and events. A dedicated performance space with a stage, appropriate lighting, sound system, and support space (such as a dressing room and waiting area for performers) would provide more appropriate space on the Newburgh Campus for college and community events.
- **Classroom Building and Theater:** In this option, the first and second floors would be repurposed as general classrooms. The third floor currently includes a large assembly space with high ceilings. This space could be easily converted into a theater.
- **Community Arts Center:** The first floor would include art studios and general classrooms. The assembly space on the second floor would be used for large movement classes and the space on the third floor would be converted into a theater. The new art studio proposed for the Tower Building could be located in the Masonic Temple.
- **Physical Education Building:** General classrooms on the first floor would be outfitted for physical education classes. Large movement classes, such as dance and yoga, would be accommodated in the assembly space on the second floor. The third floor assembly space would be converted into a theater.



Masonic Temple

A cost estimate was prepared by Holt Construction in 2008 for renovations and improvements that would be necessary for SUNY Orange to occupy the building. The total estimate, including soft costs and contingency, was \$3,613,750. Escalated to 2015 dollars (using an escalation rate of 4 percent per year) the cost of the renovations total \$4,755,500.

The cost for renovations to the Masonic Temple has not been included in this master plan. If funding were to become available to transform the building to a Fine & Performing Arts Center, however, the College would carefully consider the impact on academic programs now located at the Middletown Campus and how recommendations for new facilities on that campus might change.



Maple Building

Renovations

Strategic Plan 2015-2020

4.4 Foster a collective commitment to **comprehensive planning, assessment, and prioritization** to ensure **institutional effectiveness**.

Project Description

The Maple Building is strategically located on the primary walkway between the Tower Building and Kaplan Hall. In 2014, SUNY Orange explored the possibility of occupying the building. At that time, JMZ Architects studied the feasibility of renovating the first floor for Continuing and Professional Education, Occupational Therapy, and Start-Up New York. The renovations would also include several general classrooms and a small café that overlooks the Hudson River. Figure 7.13 shows the proposed first floor renovations.

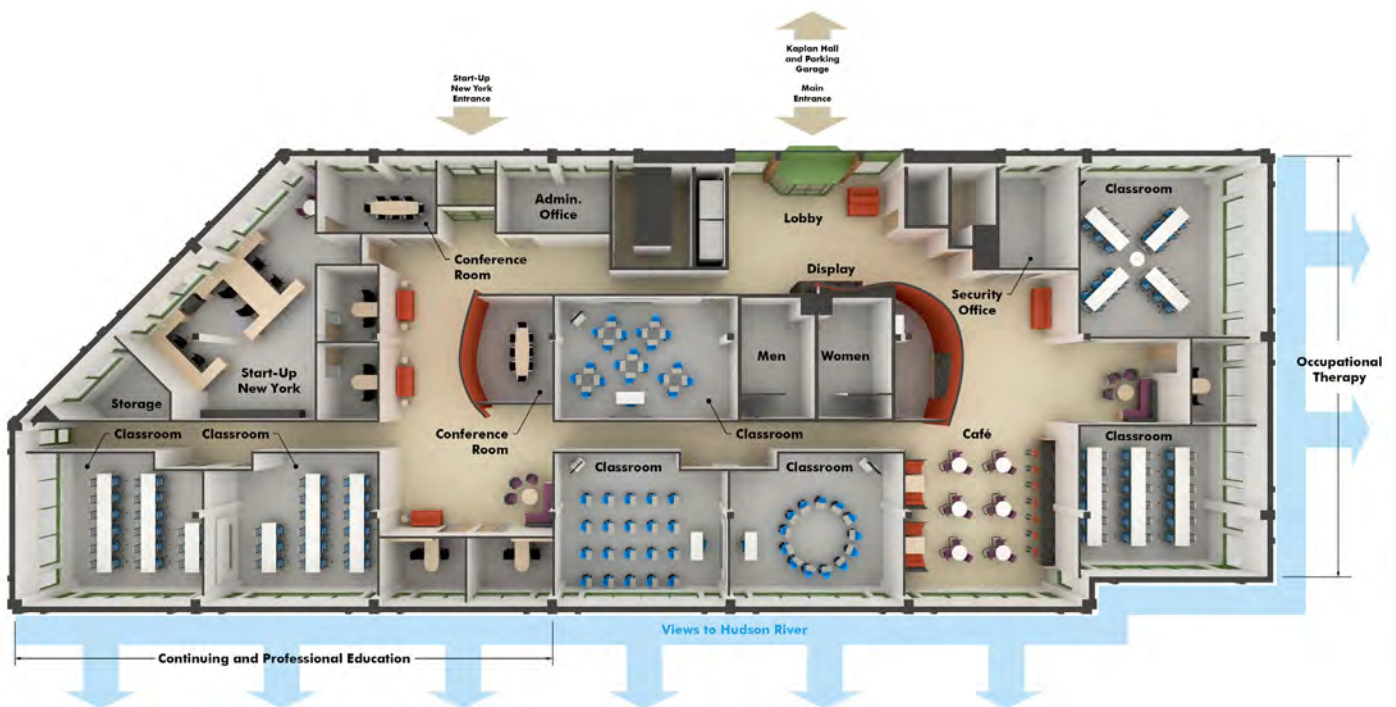


Figure 7.13: Proposed First Floor Renovations

Appendices

Middletown Campus Space Programs



The following space programs were developed based on information received during the academic programming interviews and subsequent steering committee meetings. While they are an accurate reflection of current space needs, they should be adjusted, as necessary, when projects move forward.

The term “net assignable square feet” (NASF) refers to the amount of space in a building that is assigned to a particular department. Not all space is eligible for assignment. Restrooms and corridors, for example, are not included in NASF. The term “gross square feet” (GSF) refers to all space in the building and includes the thickness of interior and exterior walls.

In order to determine the number of gross square feet required to accommodate the projected net assignable square feet, a grossing factor is used. The grossing factor will vary by building type, but is typically between 1.2 and 1.6. By using a grossing factor, the planning team ensures that sufficient space is available for circulation, building services, and structure.

SUNY Orange Space Program
Academic Advising
Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
RECEPTION/WAITING	New	CC Floor 3	0	8	0	160	
ACADEMIC ADVISING - SUPPORT STAFF	CC342	CC Floor 3	3	3	555	240	Kelly Jonigan, Lark Kuhta, Camille Rtcci; Open Workstations
ACADEMIC ADVISING - DIRECTOR	CC331	CC Floor 3	1	1	191	180	Talia Ulosa
ACADEMIC ADVISING - ASST DIRECTOR	CC326	CC Floor 3	1	1	144	140	Suzanne Baumann
ACADEMIC ADVISING - FACULTY	CC324	CC Floor 3	1	1	179	140	Kris McGrath
ACADEMIC ADVISING - FACULTY	CC325	CC Floor 3	1	1	144	140	Maureen Flaherty
ACADEMIC ADVISING - FACULTY	CC327	CC Floor 3	1	1	144	140	Jamie Cupolo
ACADEMIC ADVISING - FACULTY	CC328	CC Floor 3	1	1	144	140	Antonino Scalia
ACADEMIC ADVISING - FACULTY	CC329	CC Floor 3	1	1	144	140	Terrri VanEveren
ACADEMIC ADVISING - FACULTY	CC332	CC Floor 3	1	1	97	140	Nancy Boylan
ACADEMIC ADVISING - FACULTY	New	CC Floor 3	0	1	0	140	New Faculty Line - Advisor
ACADEMIC ADVISING - FACULTY	New	CC Floor 3	0	1	0	140	New Faculty Line - Advisor
ASSESSMENT CENTER	CC337	CC Floor 3	23	23	778	805	
STORAGE	CC343	CC Floor 3	0	0	151	200	
Administrative Space Subtotal					2,671	2,845	

Summary	Existing Fall 2014	Projected
Administrative Space	2,671	2,845
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Department Summary	2,671	2,845
Grossing Factor	1.2	
TOTAL GSF		3,414

SUNY Orange Space Program
Academic Support Services
Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
TUTORIAL CENTER - DIRECTOR	L201A	L Floor 2	1	1	510	180	Eileen Burke
TUTORIAL CENTER - CLERICAL SUPPORT	L209	L Floor 2	2	2	58	160	Robyn Hannes, Margaret Wasnieski; Open Workstations
TUTORIAL CENTER - FACULTY	New	L Floor 2	0	1	0	100	New Faculty Line
TUTORIAL CENTER - FACULTY	New	L Floor 2	0	1	0	100	New Faculty Line
WORKROOM	L208	L Floor 2	0	0	53	140	
Administrative Space Subtotal					621	680	

	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Special Use Space							
TUTORIAL CENTER	L220	L Floor 2	0	0	2,768	3,000	
LANGUAGE CORNER	L204	L Floor 2	2	2	56	80	
LANGUAGE CORNER	L205	L Floor 2	2	2	48	80	
QUIET STUDY	L206	L Floor 2	2	2	48	80	
QUIET STUDY	L207	L Floor 2	2	2	56	80	
LEARNING COMMUNITIES	New	L Floor 2	0	6	0	210	Also Used for Interventions
LEARNING COMMUNITIES	New	L Floor 2	0	6	0	210	Also Used as a Conference Room
Special Use Space Subtotal					2,976	3,740	

	Existing Fall 2014	Projected
Summary		
Administrative Space	621	680
Dedicated Classroom Space		
Laboratory Space		
Special Use Space	2,976	3,740
Department Summary	3,597	4,420
Grossing Factor		1.2
TOTAL GSF		5,304

SUNY Orange Space Program
Accessibility Services
Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space	CC334	CC Floor 3	1	1	103	140	Melanie Bukovsky
ACCESSIBILITY SERVICES					103	140	
Administrative Space Subtotal					103	140	

	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Special Use Space							
TESTING CENTER	CC348	CC Floor 3	0	4	99	160	
TESTING CENTER	CC349	CC Floor 3	0	4	90	160	
TESTING CENTER	CC350	CC Floor 3	0	4	233	160	
TESTING CENTER	CC351	CC Floor 3	0	4	95	160	
QUIET TESTING	CC348	CC Floor 3	0	2	0	80	
QUIET TESTING	CC348	CC Floor 3	0	2	0	80	
Special Use Space Subtotal					517	800	

	Existing Fall 2014	Projected
Summary		
Administrative Space	103	140
Dedicated Classroom Space		
Laboratory Space		
Special Use Space	517	800
Department Summary	620	940
Grossing Factor	1.2	
TOTAL GSF	1,128	

SUNY Orange Space Program
Admissions & Recruitment
Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
LOBBY	New	CC Addition	0	0	0	500	
RECEPTION/WAITING	New	CC Addition	0	8	0	160	
ADMISSIONS - SECRETARY	CC336B	CC Addition	2	2	270	160	Tiffany Graham, Susan Hesleitner; Open Workstations
ADMISSIONS - CLERICAL SUPPORT	CC309	CC Addition	2	2	711	160	Elizabeth Murphy, Typist I (Vacant); Open Workstations
ADMISSIONS - DIRECTOR	CC307	CC Addition	1	1	129	180	Maynard Schmidt
ADMISSIONS - ASSOC DIRECTOR	CC308	CC Addition	1	1	129	140	Laura Morcone
ADMISSIONS - ASST DIRECTOR	CC339A	CC Addition	1	1	100	140	Jarrett Johnson
ADMISSIONS - RECRUITER	New	CC Addition	0	1	0	100	New Faculty Line - Recruiter
ADMISSIONS - RECRUITER	New	CC Addition	0	1	0	100	New Faculty Line - Recruiter
ADMISSIONS - MAIN OFFICE	CC310	CC Addition	0	0	483	600	
PRESENTATION ROOM	New	CC Floor 2	0	40	0	1,000	Include High-Quality Operable Partition
CONFERENCE ROOM/BREAK ROOM	CC311	CC Addition	0	10	274	220	
WORK ROOM	New	CC Addition	0	0	0	140	Include High-Quality Operable Partition
STORAGE	New	CC Addition	0	0	0	200	Include High-Quality Operable Partition
Administrative Space Subtotal					2,096	3,800	

Summary	Existing Fall 2014	Projected
Administrative Space	2,096	3,800
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Shepard Student Center Addition		2,800
Grossing Factor		1.6
TOTAL GSF		4,480
Shepard Student Center - Floor 2		1,000
Grossing Factor		1.2
TOTAL GSF		1,200

SUNY Orange Space Program
Applied Technologies
Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
RECEPTION/WAITING	New	BT360-364	0	4	0	80	
APPLIED TECHNOLOGY - SECRETARY	BT254	BT360-364	1	1	232	80	Thomas McCarthy, Open Workstation
APPLIED TECHNOLOGY - CHAIR	BT258	BT360-364	1	1	189	180	Cartmel Warrington
APPLIED TECHNOLOGY - FACULTY	BT268	BT360-364	2	2	235	200	Arlin Bartlett, Christopher Rigby
APPLIED TECHNOLOGY - FACULTY	BT351	BT360-364	1	2	210	200	Thomas Giorgianni, Future Position
BIOMEDICAL ARTS TECHNOLOGY	BT256	N/A	0	0	221	0	Vacant Office
APPLIED TECHNOLOGY - ADJUNCTS	New	BT360-364	0	4	0	160	New Adjunct Office Suite
MEETING ROOM - ADJUNCTS	New	BT360-364	0	0	0	80	New Adjunct Office Suite
WORKROOM	BT254A	BT360-364	0	0	151	140	
STUDENT LEARNING SPACE	New	BT360-364	0	10	0	400	Maker Space / Informal Learning
Administrative Space Subtotal					1,238	1,520	

	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Laboratory Space							
TELECOM LAB	BT357	BT357	20	20	1,432	1,432	
GAMING LAB	New	BT353	0	15	0	1,487	EXISTING LAB TO REMAIN
COMPUTER LAB	New	BT355	0	20	0	1,165	Computer Lab for New Media Program
Laboratory Space Subtotal					1,432	4,084	

Summary	Existing Fall 2014	Projected
Administrative Space	1,238	1,520
Dedicated Classroom Space		
Laboratory Space	1,432	4,084
Special Use Space		
Department Summary	2,670	5,604
Grossing Factor	1.2	1.2
TOTAL GSF		6,725

SUNY Orange Space Program
Arts & Communications
Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
RECEPTION/WAITING	New	PAC	0	8	0	160	
ARTS AND COMMUNICATIONS - SECRETARY	OR127	PAC	2	2	330	160	Kathy O'Dell, Terry Sandford; Open Workstations
ARTS AND COMMUNICATIONS - CHAIR	OR127C	PAC	1	1	226	180	Candice O'Conner
ARTS AND COMMUNICATIONS - ASST CHAIR	OH005	PAC	1	1	149	140	Mark Strunsky
ARTS AND COMMUNICATIONS - FACULTY	HH110	PAC	1	1	141	140	Mark Carranceja
ARTS AND COMMUNICATIONS - FACULTY	HH120	PAC	1	1	149	140	Susan Slater-Tanner
ARTS AND COMMUNICATIONS - FACULTY	OH112	PAC	1	1	139	140	Joe Litow
ARTS AND COMMUNICATIONS - FACULTY	OH113	PAC	1	1	170	140	Dana Salkowsky
ARTS AND COMMUNICATIONS - FACULTY	OH114	PAC	1	1	170	140	Christopher Parker
ARTS AND COMMUNICATIONS - FACULTY	OR020	N/A	0	0	64	0	
ARTS AND COMMUNICATIONS - FACULTY	OR134	PAC	1	1	174	140	Howard Schaefer
ARTS AND COMMUNICATIONS - FACULTY	OR146	PAC	1	1	93	140	Peter Galipeau
ARTS AND COMMUNICATIONS - FACULTY	New	PAC	1	1	0	140	Future Office
ARTS AND COMMUNICATIONS - FACULTY	New	PAC	1	1	0	140	Future Office
ARTS AND COMMUNICATIONS - FACULTY	New	PAC	1	1	0	140	Future Office
ARTS AND COMMUNICATIONS - ADJUNCTS	HH121	PAC	5	5	268	200	
MEETING ROOM - ADJUNCTS	New	PAC	0	0	0	80	New Adjunct Office Suite
CONFERENCE ROOM	New	PAC	0	10	0	220	
BREAK ROOM	New	PAC	0	0	0	140	
WORKROOM	New	PAC	0	0	0	140	
MUSIC LIBRARY	New	PAC	0	0	0	200	
STUDENT LOUNGE	New	PAC	0	0	0	400	
FACULTY LOUNGE	OR127B	PAC	0	0	116	140	Musical Scores/Theater Scripts
STORAGE	OH005A	N/A	0	0	27	0	
STORAGE	OR127A	PAC	0	0	109	100	
Administrative Space Subtotal					2,325	3,660	

	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Dedicated Classroom Space							
CLASSROOM	New	PAC	0	20	0	500	
CLASSROOM	New	PAC	0	20	0	500	
CLASSROOM	New	PAC	0	30	0	750	
CLASSROOM	New	PAC	0	30	0	750	
Dedicated Classroom Space Subtotal					0	2,500	

**SUNY Orange Space Program
Arts & Communications**
Assigned Academic Square Footage

	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Laboratory Space							
COMPUTER LAB	OR133	PAC	10	24	664	840	
COMPUTER LAB	OR139	PAC	16	24	845	840	
COMPUTER LAB	New	PAC	0	24	0	840	Visual Communications
PHOTO STUDIO	OH009	PAC	15	15	335	525	
DARKROOM	OH009A	PAC	6	6	357	100	
STORAGE	OH009B	PAC	0	0	66	100	
STORAGE	OH009C	PAC	0	0	81	0	
TV STUDIO	HH111A	PAC	0	0	415	500	
CONTROL ROOM	HH111B	PAC	0	0	174	250	
RADIO	HH111C	PAC	0	0	132	140	
MEDIA LAB	HH111D	PAC	16	24	255	840	
RADIO	HH111F	PAC	0	0	58	140	
STORAGE	HH119G	PAC	0	0	28	100	
EDIT ROOM	New	PAC	0	0	0	100	
EDIT ROOM	New	PAC	0	0	0	100	
EDIT ROOM	New	PAC	0	0	0	100	
EDIT ROOM	New	PAC	0	0	0	100	
DRAWING LAB	HH113	PAC	15	24	785	1,200	
DESIGN/PRINT LAB	HH115	PAC	24	24	1,004	1,400	
PAINTING LAB	HH117	PAC	14	24	1,147	1,400	
REHEARSAL ROOM	New	PAC	0	80	0	2,000	
CHORAL CLASSROOM	OR023	PAC	27	40	854	1,400	
STORAGE	OR020A	PAC	0	0	122	100	
MUSIC CLASSROOM	OR024	PAC	36	40	852	1,400	
INSTRUMENT STORAGE	New	PAC	0	0	0	300	
STORAGE	OR024A	PAC	0	0	134	100	
STORAGE	OR024B	PAC	0	0	121	0	
RECORDING STUDIO	New	PAC	0	0	0	400	
EDIT ROOM	New	PAC	0	0	0	80	
EDIT ROOM	New	PAC	0	0	0	80	
ART CLASSROOM	OR025	PAC	16	24	783	600	
STORAGE	OR025A	PAC	0	0	545	140	
PIANO LAB	OR132	PAC	16	20	592	1,200	
MUSIC PRACTICE RM	OR115	PAC	0	0	86	80	
MUSIC PRACTICE RM	OR116	PAC	0	0	64	80	
MUSIC PRACTICE RM	OR117	PAC	0	0	82	80	
MUSIC PRACTICE RM	New	PAC	0	0	0	80	
MUSIC PRACTICE RM	New	PAC	0	0	0	100	
MUSIC PRACTICE RM	New	PAC	0	0	0	100	
MUSIC PRACTICE RM	New	PAC	0	0	0	100	
MUSIC PRACTICE RM	New	PAC	0	0	0	100	
MUSIC PRACTICE RM	New	PAC	0	0	0	150	
MUSIC PRACTICE RM	New	PAC	0	0	0	150	
Laboratory Space Subtotal			0	0	10,581	18,435	

**SUNY Orange Space Program
Arts & Communications**
Assigned Academic Square Footage

Special Use Space	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
LOBBY	New	PAC	0	0	0	1,750	
AUDITORIUM	OR141	PAC	388	400	3,461	4,000	
CONTROL ROOM	New	PAC	0	0	0	200	
BOX OFFICE	OR101	PAC	0	0	223	80	
STAGE	OR128	PAC	0	0	1,598	2,000	
SCENE SHOP	OR118	PAC	0	0	1,014	1,500	
STAGE OFFICE	OR128B	PAC	0	0	32	100	
GREEN ROOM	New	PAC	0	0	0	400	
COSTUME SHOP	New	PAC	0	0	0	600	
DRESSING ROOM	New	PAC	0	0	0	380	
DRESSING ROOM	New	PAC	0	0	0	380	
STORAGE	OH003	PAC	0	0	535	600	
STORAGE	OR128A	PAC	0	0	112	0	
SHIPPING/RECEIVING/STORAGE	New	PAC	0	0	0	800	
ART GALLERY	HH128	PAC	0	0	536	600	
STORAGE	New	PAC	0	0	0	200	
Special Use Space Subtotal					7,511	13,590	

Summary	Existing Fall 2014	Projected
Administrative Space	2,325	3,660
Dedicated Classroom Space	0	2,500
Laboratory Space	10,581	18,435
Special Use Space	7,511	13,590
Department Summary	20,417	38,185
Grossing Factor		1.7
TOTAL GSF		64,915

SUNY Orange Space Program
Athletics
Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
ATHLETICS - DIRECTOR	PE246	PE246	1	1	225	225	Wayne Smith (Shared with Coaches)
ATHLETIC OFFICE	PE129	PE129	0	0	124	124	Lifeguards
ATHLETIC OFFICE	PE130	PE130	0	0	124	124	Lifeguards
ATHLETIC OFFICE	PE250	PE250	0	0	247	247	Coaches
ATHLETIC OFFICE	PE251	PE251	0	0	247	247	Coaches
STORAGE	PE128	PE128	0	0	6	6	
STORAGE	PE131	PE131	0	0	6	6	
Administrative Space Subtotal					979	979	

	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Laboratory Space							
ATHLETIC TRAINING	PE103	PE103	0	0	848	848	
STUDIO	PE218A	PE218A	0	0	1,472	1,472	
SPIN STUDIO	PE218B	PE218B	0	0	1,472	1,472	
HUMAN PERFORMANCE LAB	PE224	PE224	0	0	354	354	
STORAGE	PE225	PE225	0	0	29	29	
STORAGE	PE227	PE227	0	0	142	142	
SAFETY LAB	PE252	PE252	0	0	504	504	
Laboratory Space Subtotal					4,821	4,821	

	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Special Use Space							
MAIN GYM	PE201	PE201	90	90	22,767	22,767	
TICKET OFFICE	PE219	PE219	0	0	63	63	
STORAGE	PE211A	PE211A	0	0	173	173	
STORAGE	PE211B	PE211B	0	0	365	365	
STORAGE	PE216	PE216	0	0	264	264	
NATORIUM	PE124	PE124	30	30	6,972	6,972	
SPECTATOR SEATING	PE230	PE230	250	250	1,511	1,511	
CHEMICAL STORAGE	PE126	PE126	0	0	208	208	
FITNESS CENTER	PE231	PE231	0	0	1,184	1,184	
TRX ROOM	PE121	PE121	0	0	1,167	1,167	
STORAGE	PE120	PE120	0	0	152	152	
STORAGE	PE146	PE146	0	0	348	348	
HANDBALL COURT	PE138	PE138	4	4	817	817	
HANDBALL COURT	PE139	PE139	4	4	817	817	
HANDBALL COURT	PE140	PE140	4	4	817	817	
HANDBALL COURT	PE141	PE141	4	4	817	817	
HANDBALL COURT	PE142	PE142	4	4	817	817	
HANDBALL COURT	PE143	PE143	4	4	817	817	
FIRING RANGE	PE105	PE105	6	6	2,604	2,604	Used for Archery in Inclimate Weather
STORAGE	PE105A	PE105A	0	0	224	224	

SUNY Orange Space Program

Athletics

Assigned Academic Square Footage

Special Use Space (cont)	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
MEN'S LOCKERS	PE113	PE113	0	0	1,560	1,560	
LOCKERS	PE113A	PE113A	0	0	78	78	
TOILETS	PE113B	PE113B	0	0	213	213	
SINKS	PE113C	PE113C	0	0	461	461	
SHOWERS	PE113D	PE113D	0	0	438	438	
SHOWERS	PE117	PE117	0	0	161	161	
Varsity Lockers	PE113E	PE113E	0	0	503	503	
STORAGE	PE113F	PE113F	0	0	503	503	
WOMEN'S LOCKERS	PE101	PE101	0	0	1,419	1,419	
Varsity Lockers	PE102	PE102	0	0	469	469	
MEN'S FACULTY LOCKERS	PE151	PE151	0	0	925	925	
MEN'S FACULTY LOCKERS	PE152	PE152	0	0	153	153	
WOMEN'S FACULTY LOCKERS	PE155	PE155	0	0	703	703	
OFFICIAL'S LOCKERS	PE153	PE153	0	0	195	195	
SHOWERS	PE154	PE154	0	0	40	40	
FENCING STORAGE	PE135	PE135	0	0	46	46	
GENERAL STORAGE	PE001	PE001	0	0	240	240	
GENERAL STORAGE	PE100	PE100	0	0	1,134	1,134	
GENERAL STORAGE	PE202	PE202	0	0	1,158	1,158	
Special Use Space Subtotal					53,303	53,303	

Summary	Existing Fall 2014	Projected
Administrative Space	979	979
Dedicated Classroom Space		
Laboratory Space	4,821	4,821
Special Use Space	53,303	53,303
Department Summary	59,103	59,103

SUNY Orange Space Program
Academic & Associate Vice-Presidents
Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
RECEPTION/WAITING	New	MH301	0	4	0	80	
SUPPORT STAFF	L222	MH301	2	2	288	160	April Kinne, Irene Spaulding; Open Workstations
BUSINESS, MATH, SCIENCE & TECHNOLOGY - AVP	L222B	MH302	1	1	195	229	Stacey Moegeburg
ENROLLMENT MANAGEMENT - AVP	CC303	CC Floor 3	1	1	316	240	Gerianne Brusati
ENROLLMENT MANAGEMENT - CLERICAL SUPPORT	CC323	CC Floor 3	2	2	179	240	Nancy Boylan, Leigh Rokitowski; Open Workstations; Includes 80 SF Waiting Area
HEALTH PROFESSIONS - AVP	L222C	MH316	1	1	180	252	Michael Gawronski
LIBERAL ARTS - AVP	L222D	MH317	1	1	71	254	Linda Williams
STUDENT ENGAGEMENT - AVP	CC333	CC Floor 3	1	1	220	240	Madeline Torres-Diaz
STUDENT ENGAGEMENT - SECRETARY	CC335	CC Floor 3	4	4	63	400	Christopher Beers, Keyana Downes, Margaret Fratto, John McHale; Open Workstations; Includes 80 SF Waiting Area
CONFERENCE ROOM	L222E	MH304	0	8	353	171	
WORKROOM	L222A	MH303	0	0	99	306	
STORAGE	New	MH302A	0	0	0	5	
STORAGE	New	MH302B	0	0	0	19	
STORAGE	New	MH303A	0	0	0	13	
STORAGE	New	MH303B	0	0	0	14	
STORAGE	New	MH304A	0	0	0	10	
STORAGE	New	MH316A	0	0	0	8	
STORAGE	New	MH316B	0	0	0	11	
STORAGE	New	MH316C	0	0	0	39	
STORAGE	New	MH316D	0	0	0	14	
STORAGE	New	MH317B	0	0	0	18	
Administrative Space Subtotal					1,964	2,723	

Summary	Existing Fall 2014	Projected
Administrative Space	1,964	2,723
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Morrison Hall		1,603
Shepard Student Center - Floor 3		1,120
Grossing Factor		1.2
TOTAL GSF		1,344

SUNY Orange Space Program

Biology

Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
BIOLOGY - OFFICE SUITE	RCSE105	RCSE105	0	0	709	709	
BIOLOGY - CHAIR	RCSE105D	RCSE105D	1	1	201	201	Frank Traeger
BIOLOGY - SECRETARY	RCSE105B	RCSE105B	1	1	146	146	Arlene Stefane
BIOLOGY - FACULTY	RCSE019A	RCSE019A	1	1	202	202	Jennifer Merriam
BIOLOGY - FACULTY	RCSE019B	RCSE019B	1	1	202	202	Mercedes Ebbert
BIOLOGY - FACULTY	RCSE105E	RCSE105E	2	2	187	187	Marie De Fazio-Schultz, Kirsten Gabrielson
BIOLOGY - FACULTY	RCSE105F	RCSE105F	2	2	187	187	Tandee Dillon, Damon Ely
BIOLOGY - FACULTY	RCSE105G	RCSE105G	2	2	187	187	Walter Jahn, Monty Vacura
BIOLOGY - FACULTY	RCSE105H	RCSE105H	2	2	188	188	Michele Paradies, Joseph Zuravchak
BIOLOGY - FACULTY	RCSE105I	RCSE105I	0	0	220	220	Future Office
BIOLOGY - LAB TECH	RCSE105J	RCSE105J	1	1	182	182	Deborah Dorwitt
BIOLOGY - ADJUNCTS	RCSE019	RCSE019	0	0	248	248	Adjuncts
BIOLOGY - ADJUNCTS	RCSE105M	RCSE105M	0	0	105	105	Adjuncts
BIOLOGY - ADJUNCTS	RCSE105N	RCSE105N	0	0	105	105	Adjuncts
BIOLOGY - ADJUNCTS	RCSE105P	RCSE105P	0	0	122	122	Adjuncts
CONFERENCE ROOM	RCSE111	RCSE111	16	16	451	451	
STORAGE	RCSE111A	RCSE111A	0	0	30	30	
CONFERENCE ROOM	RCSE105C	RCSE105C	6	6	133	133	
COFFEE	RCSE105O	RCSE105O	0	0	118	118	
STORAGE	RCSE105K	RCSE105K	0	0	90	90	
STORAGE	RCSE105L	RCSE105L	0	0	89	89	
WORKROOM	RCSE105A	RCSE105A	0	0	161	161	
Administrative Space Subtotal					4,263	4,263	

	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Laboratory Space							
A & P LAB	RCSE104	RCSE104	24	24	1,164	1,164	
A & P LAB	RCSE108	RCSE108	24	24	1,172	1,172	
LAB PREP	RCSE106	RCSE106	0	0	459	459	
DIVERSITY OF LIFE LAB	RCSE020	RCSE020	24	24	1,291	1,291	
FIELD BIOLOGY LAB	RCSE016	RCSE016	24	24	1,239	1,239	
LAB PREP	RCSE018	RCSE018	0	0	461	461	
MUD ROOM	RCSE018A	RCSE018A	0	0	118	118	
GENERAL BIOLOGY LAB 1	RCSE126	RCSE126	24	24	1,364	1,364	
GENERAL BIOLOGY LAB 2	RCSE128	RCSE128	24	24	1,142	1,142	
PREP/FLEX	RCSE124	RCSE124	0	0	454	454	
GENERAL LAB	RCSE017	RCSE017	24	24	1,104	1,104	
HUMAN BIOLOGY LAB	RCSE101	RCSE101	20	20	1,038	1,038	
INTRO TO BIOLOGY LAB	RCSE118	RCSE118	24	24	1,302	1,302	
INTRO TO BIOLOGY LAB	RCSE122	RCSE122	24	24	1,311	1,311	
LAB PREP	RCSE120	RCSE120	0	0	478	478	
Laboratory Space Subtotal					14,097	14,097	

SUNY Orange Space Program

Biology

Assigned Academic Square Footage

Special Use Space	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
GREENHOUSE A	GA0001	GA0001	0	0	1,239	1,239	
GREENHOUSE B	GB0001	GB0001	0	0	1,239	1,239	
MOSQUITO ROOM	BT300	RCSE Floor 1	0	0	344	344	
Special Use Space Subtotal					2,822	2,822	

Summary	Existing Fall 2014	Projected
Administrative Space	4,263	4,263
Dedicated Classroom Space		
Laboratory Space	14,097	14,097
Special Use Space	2,822	2,822
Department Summary	21,182	21,182

SUNY Orange Space Program

Bookstore

Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
BOOKSTORE - MANAGER	CC224	CC Floor 1	1	1	109	140	Pamela Suters
BOOKSTORE - SECRETARY	CC223	CC Floor 1	5	5	120	100	Bookstore Staff
BOOKSTORE - ACCOUNTS RECEIVABLE	New	CC Floor 1	0	1	0	100	Future Position
BOOKSTORE - CASH MANAGEMENT	New	CC Floor 1	0	1	0	100	Future Position
Administrative Space Subtotal					229	440	

	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Special Use Space							
BOOKSTORE	CC220	CC Floor 1	0	0	2,760	2,500	
RETURNS	New	CC Floor 1	0	0	0	40	Includes Service Window
RENTALS	New	CC Floor 1	0	0	0	40	Includes Service Window
BUY-BACK	New	CC Floor 1	0	0	0	80	Includes Service Window
ON-LINE ORDERS	New	CC Floor 1	0	0	0	80	
STORAGE	CC220A	CC Floor 1	0	0	194	800	
STORAGE	CC222	N/A	0	0	525	0	
STORAGE	CC226A	N/A	0	0	845	0	
RECEIVING	CC119	CC Floor 1	0	0	251	250	
STORAGE	CC116	N/A	0	0	77	0	
DUMBWAITER	CC119B	N/A	0	0	16	0	
Special Use Space Subtotal					4,668	3,790	

Summary	Existing Fall 2014	Projected
Administrative Space	229	440
Dedicated Classroom Space		
Laboratory Space		
Special Use Space	4,668	3,790
Department Summary	4,897	4,230
Grossing Factor		1.2
TOTAL GSF		5,076

SUNY Orange Space Program

Business

Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
RECEPTION/WAITING	New	HH Floor 2	0	4	0	80	
BUSINESS - SECRETARY	HH205	HH Floor 2	2	2	539	160	Nedelka George, Anne Ruscher; Open Workstations
BUSINESS - CHAIR	HH202	HH Floor 2	1	1	260	180	Suzanne Krissler
BUSINESS - ASST CHAIR	HH205B	HH Floor 2	1	1	137	140	Lucinda Fleming
BUSINESS - FACULTY	HH124	HH Floor 2	1	1	147	100	Eric Brooks
BUSINESS - FACULTY	HH204	HH Floor 2	3	3	264	300	Barbara Fiorello, Samuel Markovits, Donald Urmston
BUSINESS - FACULTY	HH205C	HH Floor 2	1	1	138	100	Stephen Winter
BUSINESS - FACULTY	HH212A	HH Floor 2	1	1	167	100	Elizabeth White
BUSINESS - FACULTY	HH212B	HH Floor 2	0	1	160	100	Future Position
BUSINESS - FACULTY	HH213	HH Floor 2	3	3	347	300	Daryl Goldberg, Thomas Stack, Josephina Vondras
BUSINESS - ADJUNCTS	HH205A	HH Floor 2	7	7	307	280	Adjuncts
MEETING ROOM - ADJUNCTS	New	HH Floor 2	0	0	0	80	New Adjunct Office Suite
FACULTY LOUNGE	HH207A	HH Floor 2	0	0	342	140	
CONFERENCE ROOM	New	HH Floor 2	0	8	0	176	
WORKROOM	New	HH Floor 2	0	0	0	140	
STUDENT LEARNING SPACE	New	HH Floor 2	0	8	0	400	
STORAGE	New	HH Floor 2	0	0	0	200	
Administrative Space Subtotal					2,808	2,976	

	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Laboratory Space							
COMPUTER LAB	HH210	HH Floor 2	19	20	905	700	
COMPUTER LAB	HH212	HH Floor 2	19	20	920	700	
COMPUTER LAB	HH215	N/A	16	0	709	0	Not Scheduled - Eliminate
COMPUTER LAB	HH217	HH Floor 2	18	20	897	700	
Laboratory Space Subtotal					3,431	2,100	

Summary	Existing Fall 2014	Projected
Administrative Space	2,808	2,976
Dedicated Classroom Space		
Laboratory Space	3,431	2,100
Special Use Space		
Department Summary	6,239	5,076
Grossing Factor	1.2	
TOTAL GSF	6,091	

SUNY Orange Space Program

CAPE

Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
RECEPTION/WAITING	New	CC Floor 3	0	4	0	80	
CAPE - SUPPORT STAFF	CC301	CC Floor 3	2	2	222	160	Ann Misiano, Diana Pitre; Open Workstations
CAPE - COORDINATOR	CC301A	CC Floor 3	1	1	140	140	Rob Larkin
CAPE - COORDINATOR	CC301B	CC Floor 3	1	1	69	100	Dorene Kieva
CAPE - TECH ASSISTANT	CC302	CC Floor 3	1	1	152	100	Elizabeth Hession
CAPE - YOUTH EMPOWERMENT PROGRAM	OH115	CC Floor 3	1	1	170	100	Peggy Britt
CAPE - ESL COORDINATOR	CC226B	CC Floor 3	1	1	114	100	Debra Horowitz
CONFERENCE ROOM	New	CC Floor 3	0	8	0	176	
INTERVIEW ROOM	New	CC Floor 3	0	0	0	80	Also used as swing space for Newburgh Staff
INTERVIEW ROOM	New	CC Floor 3	0	0	0	80	Also used as swing space for Newburgh Staff
Administrative Space Subtotal					867	1,116	

	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Dedicated Classroom Space							
CLASSROOM	HH114A	CC Floor 3	27	20	703	440	
CLASSROOM	New	CC Floor 3	0	30	0	660	
STORAGE	New	CC Floor 3	0	0	0	200	
Dedicated Classroom Space Subtotal					703	1,300	

	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Laboratory Space							
COMPUTER LAB	HH114	CC Floor 3	18	18	900	630	
Laboratory Space Subtotal					900	630	

	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Summary							
Administrative Space					867	1,116	
Dedicated Classroom Space					703	1,300	
Laboratory Space					900	630	
Special Use Space							
Department Summary					2,470	3,046	
Grossing Factor						1.2	
TOTAL GSF						3,655	

SUNY Orange Space Program

Career Services

Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
RECEPTION/WAITING	New	CC Floor 3	0	8	0	160	
CAREER CENTER - CLERICAL-SUPPORT	CC344A	CC Floor 3	1	1	251	80	Jeanine Borko; Open Workstation
CAREER SERVICES - DIRECTOR	CC227A	CC Floor 3	1	1	164	140	Petra Wege-Beers
CAREER SERVICES - ASST DIRECTOR	CC227B	CC Floor 3	1	1	164	140	Donald Green
CAREER SERVICES - MAIN OFFICE	CC227	CC Floor 3	1	1	634	600	Dorian Tondo
CAREER CENTER - MAIN OFFICE	CC344	CC Floor 3	0	0	423	400	
Administrative Space Subtotal					1,636	1,520	

	Existing Fall 2014	Projected
Summary		
Administrative Space	1,636	1,520
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Department Summary	1,636	1,520
Grossing Factor		1.2
TOTAL GSF		1,824

SUNY Orange Space Program

Comptroller

Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
RECEPTION/WAITING	New	CC Addition	0	4	0	80	
COMPTROLLER - SUPPORT STAFF	New	CC Addition	0	2	0	160	Christine Bodecker, Future Position; Open Workstations
COMPTROLLER - COMPTROLLER	OH214	CC Addition	1	1	218	180	Jo Ann Hamburg
COMPTROLLER - ASSISTANT COMPTROLLER	OH218	CC Addition	1	1	223	140	Cynthia Richichi
COMPTROLLER - ACCOUNTING	OH219	CC Addition	1	1	122	100	Liza Fragola
COMPTROLLER - PURCHASING	OH220	CC Addition	2	2	278	200	Margaret Kujawski, Maria Sarett
COMPTROLLER - ACCOUNT CLERK	OH213	CC Addition	2	2	317	200	Lisabeth Ivanchukov, Kim Paffenroth
COMPTROLLER - ACCOUNT CLERK	OH207	CC Addition	1	1	323	100	Danielle DeLuca
COMPTROLLER - ACCOUNT CLERK	OH223	CC Addition	1	1	223	100	Kirsten Elwood
COMPTROLLER - ACCOUNT CLERK	OH224	CC Addition	1	1	158	100	Laurie Burns
CONFERENCE ROOM	OH212	CC Addition	8	12	254	264	
WORKROOM	OH208	CC Addition	0	0	161	140	
STORAGE	OH212A	CC Addition	0	0	14	200	
STORAGE	OH214A	N/A	0	0	35	0	
STORAGE	OH214B	N/A	0	0	43	0	
STORAGE	OH225	N/A	0	0	43	0	
STORAGE	OH226	N/A	0	0	13	0	
Administrative Space Subtotal					2,425	1,964	

Summary	Existing Fall 2014	Projected
Administrative Space	2,425	1,964
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Department Summary	2,425	1,964
Grossing Factor		1.6
TOTAL GSF		3,142

SUNY Orange Space Program
Copy Center/Mailroom
Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
COPY CENTER	OR004	H108	2	2	604	657	Stephanie Fezza, Lara VanInwegen
STORAGE	OR004A	H107	0	0	207	584	
MAIL ROOM	OH030	H102	0	0	561	681	
OFFICE/WORKROOM	OH021B	H103A & B	1	1	198	254	Vicki Solero
KITCHEN	OH016	H102A	0	0	53	75	
STORAGE	OH014	H102A	0	0	77	100	
STORAGE	OH029	H104	0	0	242	265	
MAIL ROOM	MH021	MH021	0	0	278	278	
Administrative Space Subtotal					2,220	2,894	

	Existing Fall 2014	Projected
Summary		
Administrative Space	2,220	2,894
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Department Summary	2,220	2,894
Grossing Factor		1.2
TOTAL GSF		3,473

SUNY Orange Space Program
Center for Teaching & Learning
Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
CTL - RECEPTION/WORK AREA	RCSE008	PAC	1	1	431	400	Samantha Seeley
CTL - DIRECTOR	RCSE008A	PAC	1	1	102	140	Dena O'Hara Whipple
CTL - MULTIMEDIA SPECIALIST	RCSE008B	PAC	2	2	121	200	Colin Duryea, Tanya Ginop
CTL - ASSESSMENT COORDINATOR	New	PAC	0	1	0	100	New Faculty Line
CTL - INSTRUCTIONAL DESIGNER	New	PAC	0	1	0	100	New Faculty Line
CTL - INSTRUCTIONAL DESIGNER	New	PAC	0	1	0	100	New Faculty Line
CONFERENCE ROOM	RCSE008C	PAC	12	20	393	440	
CONSULTATION ROOM	New	PAC	0	3	0	80	Also used for "Drop-in" Trainings
CONSULTATION ROOM	New	PAC	0	3	0	80	Also used for "Drop-in" trainings
DISTANCE LEARNING/VIDEO ROOM	L213	PAC	0	12	805	420	Sound-Proofing is Critical
STORAGE	L213B	PAC	0	0	17	20	
Administrative Space Subtotal					1,869	2,080	

Summary	Existing Fall 2014	Projected
Administrative Space	1,869	2,080
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Department Summary	1,869	2,080
Grossing Factor		1.7
TOTAL GSF		3,536

**SUNY Orange Space Program
Cultural Affairs**

Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
CULTURAL AFFAIRS - COORDINATOR	OH116	PAC	2	1	192	140	Dorothy Szefc
CULTURAL AFFAIRS - SUPPORT STAFF	New	PAC	0	2	0	200	Mitchell Saler, Irene Stover
Administrative Space Subtotal					192	340	

	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Special Use Space							
ART GALLERY	OH173	PAC	0	0	2,103	2,000	
KITCHEN	New	PAC	0	0	0	80	
STORAGE	New	PAC	0	0	0	250	Kitchen for Events in the Gallery
Special Use Space Subtotal					2,103	2,330	

	Existing Fall 2014	Projected
Summary		
Administrative Space	192	340
Dedicated Classroom Space		
Laboratory Space		
Special Use Space	2,103	2,330
Department Summary	2,295	2,670
Grossing Factor	1.7	
TOTAL GSF	4,539	

SUNY Orange Space Program

Dental Hygiene

Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
RECEPTION/WAITING	New	BT262	0	4	0	80	
DENTAL HYGIENE - SECRETARY	BT326	BT262	2	2	81	160	Kristen Decker, Lorraine Triola
DENTAL HYGIENE - CHAIR	BT321	BT262	1	1	261	180	Mary Ann McGinnis-Adamo
DENTAL HYGIENE - FACULTY	New	BT262	1	2	0	200	Niccole Card, Future Position
DENTAL HYGIENE - FACULTY	BT329	BT262	2	2	243	200	Meg Atwood, Fredrick Melone
Administrative Space Subtotal					585	820	

	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Laboratory Space							
CHANGING ROOM	BT152	BT152	0	0	406	406	EXISTING TO REMAIN
ORAL LABORATORY	BT213	BT213	12	20	377	377	EXISTING TO REMAIN
RECEPTION	BT217	BT217	8	8	358	358	EXISTING TO REMAIN
STORAGE	BT217A	BT217A	0	0	26	26	EXISTING TO REMAIN
COORDINATOR	BT215	BT215	0	0	142	142	EXISTING TO REMAIN
DENTAL LABORATORY	BT223	BT223	10	10	1,449	1,449	EXISTING TO REMAIN
X-RAY ROOM	BT223A	BT223A	0	0	84	84	EXISTING TO REMAIN
X-RAY ROOM	BT223B	BT223B	0	0	84	84	EXISTING TO REMAIN
DARK ROOM	BT223C	BT223C	0	0	48	48	EXISTING TO REMAIN
DISPENSER	BT223D	BT223D	0	0	18	18	EXISTING TO REMAIN
STORAGE	BT223E	BT223E	0	0	41	41	EXISTING TO REMAIN
STORAGE	BT225	BT225	0	0	141	141	EXISTING TO REMAIN
Laboratory Space Subtotal					3,174	3,174	

	Existing Fall 2014	Projected
Summary		
Administrative Space	585	820
Dedicated Classroom Space		
Laboratory Space	3,174	3,174
Special Use Space		
Department Summary	3,759	3,994
Grossing Factor	1.2	
TOTAL GSF	4,793	

SUNY Orange Space Program

Education

Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
RECEPTION/WAITING	New	BT254	0	4	0	152	Elizabeth Tarvin
EDUCATION - SECRETARY	New	BT254	0	1	0	80	Open Workstation
EDUCATION - CHAIR	L234	BT258	1	1	109	189	Elizabeth Tarvin
EDUCATION - FACULTY	L223	BT256	3	2	269	221	Dianne Gersbeck, Jennifer Mirecki, Katherine Sinsabaugh
EDUCATION - ADJUNCTS	New	BT250	0	5	0	247	New Adjunct Office Suite
MEETING ROOM - ADJUNCTS	New	BT252	0	0	0	80	New Adjunct Office Suite
WORKROOM	New	BT254A	0	0	0	151	New Adjunct Office Suite
STUDENT LEARNING SPACE	New	BT252	0	8	0	340	Informal learning
Administrative Space Subtotal					378	1,460	

	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Laboratory Space							
LEARNING LAB	BT251	BT251	24	24	1,181	1,181	EXISTING LAB TO REMAIN
STORAGE	BT251A	BT251A	0	0	78	78	EXISTING LAB TO REMAIN
Laboratory Space Subtotal					1,259	1,259	

	Existing Fall 2014	Projected
Summary		
Administrative Space	378	1,460
Dedicated Classroom Space		
Laboratory Space	1,259	1,259
Special Use Space		
Department Summary	1,637	2,719

SUNY Orange Space Program
Educational Partnerships
Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
EDUCATIONAL PARTNERSHIPS - DIRECTOR	L202	L Floor 2	1	1	58	140	Mary Ford
EDUCATIONAL PARTNERSHIPS - OFFICE	L203	N/A	0	0	53	0	
EDUCATIONAL PARTNERSHIPS - SECRETARY	L228	L Floor 2	1	1	135	140	Lyla Ten Eyck
Administrative Space Subtotal					246	280	

	Existing Fall 2014	Projected
Summary		
Administrative Space	246	280
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Department Summary	246	280
Grossing Factor		1.2
TOTAL GSF		336

SUNY Orange Space Program

English

Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
RECEPTION/WAITING	MH300	HH Floor 1	0	4	777	80	
ENGLISH - SECRETARY	MH300	HH Floor 1	1	1	80	80	Judith Jackman; Open Workstation
ENGLISH - CHAIR	MH307	HH Floor 1	1	1	238	180	Patricia Sculley
ENGLISH - ASST. CHAIR/ADJUNCT COORDINATOR	New	HH Floor 1	0	2	0	200	
ENGLISH - FACULTY	BT266	HH Floor 1	1	1	245	100	Sue Pendergast
ENGLISH - FACULTY	HH126	HH Floor 1	1	1	94	100	Abigail Kreitzer
ENGLISH - FACULTY	MH113	HH Floor 1	3	3	151	300	Melissa Browne, Lynn Houston, Mary Warrenner
ENGLISH - FACULTY	MH301	HH Floor 1	4	4	336	400	Anthony Cruz, Cecilia Dos Santos, Kristen Katzin-Nystrom, Alexandra Kay
ENGLISH - FACULTY	MH302	HH Floor 1	3	3	229	300	Amanda Crowell, Andrea Laurencell Sheridan, Stephen Meagher
ENGLISH - FACULTY	MH303	HH Floor 1	3	3	306	300	Alexander Jakubowski, Susan Rosalsky, Anne Sandor
ENGLISH - FACULTY	MH304	HH Floor 1	1	1	171	100	Donald Parker
ENGLISH - FACULTY	MH305	HH Floor 1	1	1	120	100	Tanya Parker-Hughes
ENGLISH - FACULTY	MH306	HH Floor 1	1	1	137	100	Kathleen Malia
ENGLISH - FACULTY	MH308	HH Floor 1	1	1	138	100	Geoffrey Platt
ENGLISH - FACULTY	MH313	HH Floor 1	1	1	156	100	Stephanie Wish
ENGLISH - FACULTY	MH315	HH Floor 1	1	1	157	100	James Givant
ENGLISH - FACULTY	MH316	HH Floor 1	3	3	252	300	Diane Bliss, Deborah Chedister, Anna Rosen
ENGLISH - FACULTY	MH317	HH Floor 1	1	1	254	100	Kathleen Wright
ENGLISH - ADJUNCTS	MH309	HH Floor 1	15	15	145	600	
MEETING ROOM - ADJUNCTS	New	HH Floor 1	0	0	0	80	New Adjunct Office Suite
CONFERENCE ROOM	New	HH Floor 1	0	8	0	176	
WORKROOM	BT364	HH Floor 1	0	0	513	140	
STORAGE	HH125	HH Floor 1	0	0	98	0	
STORAGE	MH302A	HH Floor 1	0	0	5	0	
STORAGE	MH302B	HH Floor 1	0	0	19	0	
STORAGE	MH303A	HH Floor 1	0	0	13	0	
STORAGE	MH303B	HH Floor 1	0	0	14	0	
STORAGE	MH304A	HH Floor 1	0	0	10	0	
STORAGE	MH306A	HH Floor 1	0	0	10	0	
STORAGE	MH308A	HH Floor 1	0	0	2	0	
STORAGE	MH312A	HH Floor 1	0	0	11	0	
STORAGE	MH312B	HH Floor 1	0	0	12	0	
STORAGE	MH312C	HH Floor 1	0	0	5	0	
STORAGE	MH313A	HH Floor 1	0	0	6	0	
STORAGE	MH315A	HH Floor 1	0	0	13	0	
STORAGE	MH316A	HH Floor 1	0	0	8	0	
STORAGE	MH316B	HH Floor 1	0	0	11	0	
STORAGE	MH316C	HH Floor 1	0	0	39	0	
STORAGE	MH316D	HH Floor 1	0	0	14	0	
STORAGE	MH317B	HH Floor 1	0	0	18	0	
STORAGE	MH310	HH Floor 1	0	0	85	0	
STORAGE	MH311	HH Floor 1	0	0	38	0	
Administrative Space Subtotal					4,930	4,036	

SUNY Orange Space Program

English

Assigned Academic Square Footage

Laboratory Space	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
WRITING LAB	BT262	HH117	24	24	970	1,147	
READING CENTER	BT362	HH115	27	24	536	1,005	
WRITING CENTER	BT360	HH113	8	24	796	785	
COMPUTER LAB	New	HH114	0	24	0	900	Dedicated to Developmental Courses
COMPUTER LAB	New	HH114A	0	24	0	703	Dedicated to Developmental Courses
Laboratory Space Subtotal					2,302	4,540	

Summary	Existing Fall 2014	Projected
Administrative Space	4,930	4,036
Dedicated Classroom Space		
Laboratory Space	2,302	4,540
Special Use Space		
Department Summary	7,232	8,576
Grossing Factor		1.2
TOTAL GSF		10,291

SUNY Orange Space Program
Facilities/Maintenance
Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
FACILITIES - DIRECTOR	H210	H210	1	1	283	283	Mike Worden
FACILITIES - SECRETARY	H205B	H205B	1	1	140	140	Cathy Daino
FACILITIES - SECRETARY	H209	H209	1	1	371	371	Ilene Hauburger
MAINTENANCE - MANAGER	H209B	H209B	1	1	243	243	Church Pfeil
PHYSICAL PLANT - MANAGER	H204	H204	1	1	171	171	Fred Brennan
CUSTODIAL MANAGEMENT - MANAGER	H203B	H203B	1	1	300	300	John Parsons
CUSTODIAL MANAGEMENT - ASSISTANT MANAGER	H203A	H203A	1	1	300	300	Gerald Gatto
CENTRAL SCHEDULING	H203C	H203C	1	1	300	300	Kim Markle
SHIFT WORKERS OFFICE	BT155	BT155	6	6	1,144	1,144	Shift Workers (HVAC and Plumbing)
REPORTING OFFICE	BT156	BT156	1	1	250	250	Reporting Office
PLUMBING OFFICE	BT158	BT158	1	1	308	308	Plumbing Office
CONFERENCE ROOM	H201	H201	16	16	1,243	1,243	
CONFERENCE ROOM	H203D	H203D	6	6	170	170	
PLAN ROOM	H210C	H210C	0	0	119	119	
CARPENTER SHOP	CARP 0001	CARP 0001	0	0	138	138	
WORK AREA	CARP 0002	CARP 0002	0	0	588	588	
STORAGE	CARP 0003	CARP 0003	0	0	16	16	
ELECTRICAL SHOP	BT153	BT153	0	0	827	827	
STORAGE	BT153A	BT153A	0	0	267	267	
STORAGE	BT153B	BT153B	0	0	128	128	
FOUNDATIONS SHOP	GS0001	GS0001	0	0	413	413	
WORK AREA	GS0002	GS0002	0	0	749	749	
WORK AREA	GS0003	GS0003	0	0	1,200	1,200	
GARAGE	H011	H011	0	0	2,566	2,566	
RECEIVING	RCSE003	RCSE003	0	0	495	495	
GENERAL STORAGE	BT110A	BT110A	0	0	65	65	
GENERAL STORAGE	BT151	BT151	0	0	1,060	1,060	
STORAGE	BT151A	BT151A	0	0	87	87	
GENERAL STORAGE	BT154	BT154	0	0	1,696	1,696	
GENERAL STORAGE	BT219B	BT219B	0	0	79	79	
RECORDS STORAGE	MH023	MH023	0	0	140	140	
STORAGE	MH023A	MH023A	0	0	30	30	
ELECTRICAL STORAGE	H002	H002	0	0	1,000	1,000	
GENERAL STORAGE	H003	H003	0	0	393	393	
GENERAL STORAGE	H005	H005	0	0	484	484	
GENERAL STORAGE	H007	H007	0	0	2,089	2,089	
GENERAL STORAGE	H008	H008	0	0	58	58	
GENERAL STORAGE	H010	H010	0	0	1,021	1,021	
HAZARDOUS MATERIALS STORAGE	H109	H109	0	0	57	57	
GENERAL STORAGE	H109A	H109A	0	0	196	196	
GENERAL STORAGE	H114	H114	0	0	100	100	
GENERAL STORAGE	H202	H202	0	0	260	260	
GENERAL STORAGE	H209A	H209A	0	0	140	140	
GENERAL STORAGE	H209C	H209C	0	0	180	180	

SUNY Orange Space Program

Facilities/Maintenance

Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space (cont)							
GENERAL STORAGE	H209D	H209D	0	0	62	62	
GENERAL STORAGE	H210A	H210A	0	0	137	137	
GENERAL STORAGE	RSCE024	RSCE024	0	0	137	137	
GENERAL STORAGE	STORES 001	STORES 001	0	0	2,158	2,158	
Administrative Space Subtotal					24,358	24,358	

Summary	Existing Fall 2014	Projected
Administrative Space	24,358	24,358
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Department Summary	24,358	24,358

SUNY Orange Space Program

Financial Aid

Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
FINANCIAL AID - DIRECTOR	CC322	CC Floor 2	1	1	179	180	John Ivankovic
FINANCIAL AID - ASST DIRECTOR	CC321	CC Floor 2	1	1	179	140	Christine McGraw
FINANCIAL AID - SECRETARY	CC346	CC Floor 2	2	2	316	240	Office Asst (Vacant), Typist I (Vacant); Open Workstations; Includes 80 SF Waiting Area
FINANCIAL AID - CLERICAL SUPPORT	CC320	CC Floor 2	1	1	179	80	Frank Samuels; Open Workstation
PRESENTATION ROOM	New	CC Floor 2	0	0	0	0	Shared with Admissions
Administrative Space Subtotal					853	640	

	Existing Fall 2014	Projected
Summary		
Administrative Space	853	640
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Department Summary	853	640
Grossing Factor		1.2
TOTAL GSF		768

SUNY Orange Space Program

Health Sciences

Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Shared Space							
RECEPTION/WAITING	New	BT320	0	8	0	160	
HEALTH SCIENCES - SECRETARY	BT307	BT320	1	1	76	80	LuAnn Haviland; Open Workstation
HEALTH SCIENCES - SECRETARY	BT307	BT320	1	1	76	80	Barbara Pampiano; Open Workstation
HEALTH SCIENCES - SECRETARY	BT326	BT320	1	1	162	80	Margaret Boyle; Open Workstation
REHABILITATION CLINIC	New	BT318	0	24	0	1,000	
STORAGE	New	BT318	0	0	0	200	
TESTING CENTER	New	BT Floor 3	0	24	0	880	Shared with Nursing
OFFICE - ADJUNCTS	New	BT320	0	8	0	320	
MEETING ROOM - ADJUNCTS	New	BT320	0	0	0	80	
MEETING ROOM - ADJUNCTS	New	BT320	0	0	0	80	
CONFERENCE ROOM/BREAK ROOM	BT313	BT313	20	20	384	300	
KITCHENETTE	New	BT313A	0	0	0	80	
WORK ROOM	New	BT320	0	0	0	140	
STUDENT LEARNING SPACE	New	BT305/307	0	8	0	400	
STORAGE	New	BT305/307	0	0	0	80	
Shared Space Total					697	3,960	

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Diagnostic Imaging							
DIAGNOSTIC IMAGING - CHAIR	BT305	BT321	1	1	151	261	Ronald Kopec
DIAGNOSTIC IMAGING - FACULTY	BT306	BT323	1	1	222	124	Ann Verschuuren
DIAGNOSTIC IMAGING - FACULTY	BT350	BT323	1	1	216	124	Bob Misiak
DIAGNOSTIC IMAGING - FACULTY	New	BT326	1	1	0	122	Future Position
DIAGNOSTIC IMAGING - ADJUNCTS	BT304	N/A	2	0	177	0	Combine with Shared Adjunct Office
STORAGE	BT304A	N/A	0	0	36	0	Combine with Diagnostic Imaging Storage
ELECTROMICROSCOPY	BT304B	N/A	0	0	83	0	Combine with Diagnostic Imaging Storage
STORAGE	BT304C	N/A	0	0	83	0	Combine with Diagnostic Imaging Storage
STORAGE	BT304D	N/A	0	0	36	0	Combine with Diagnostic Imaging Storage
X-RAY ROOM	BT308	BT308	24	24	481	840	
CLASSROOM	BT310	BT310	24	24	517	600	
DARKROOM	BT310A	N/A	0	0	118	0	Eliminate - Not Used
STORAGE	BT310B	N/A	0	0	41	0	Combine with Diagnostic Imaging Storage
DIAGNOSTIC IMAGING - STORAGE	New	BT300	0	0	0	400	
Diagnostic Imaging Total					2,161	2,471	

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Medical Laboratory Technician							
LAB TECH - CHAIR	BT309	BT322	1	1	210	261	Rosamaria Contarino
LAB TECH - FACULTY	BT322	BT324	1	1	261	120	Nadia Rajsz
LAB TECH - FACULTY	New	BT324	1	1	0	120	Future Position
STUDENT LOUNGE	BT317A	N/A	0	0	117	0	Combine with Shared Student Lounge
STORAGE	BT309A	N/A	0	0	64	0	Combine with Lab Tech Storage
HISTOLOGY LAB	BT315	BT315	24	24	1,129	1,129	EXISTING LAB ON THIRD FLOOR TO REMAIN

SUNY Orange Space Program
Health Sciences
Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Medical Laboratory Technician (cont)							
BIOCHEM ANALYSIS	BT317	BT317	24	24	1,160	1,160	EXISTING LAB ON THIRD FLOOR TO REMAIN
STORAGE	BT317B	N/A	0	0	96	0	Combine with Lab Tech Storage
HEMATOLOGY LAB	BT319	BT319	24	24	1,137	1,137	EXISTING LAB ON THIRD FLOOR TO REMAIN
PREP ROOM	BT314	BT314	0	0	1,242	400	
SPECIMEN ROOM	BT314A	BT314A	0	0	60	60	
ANIMAL ROOM	BT314B	BT314B	0	0	326	300	
TECH ASSISTANT	BT314C	BT314C	0	0	73	100	
STORAGE	BT314D	N/A	0	0	245	0	Combine with Lab Tech Storage
STORAGE	BT314E	N/A	0	0	223	0	Combine with Lab Tech Storage
LAB TECH - STORAGE	New	BT314D	0	0	0	400	
Medical Laboratory Technician Total					6,343	5,187	

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Occupational Therapy Assistant							
OTA - CHAIR	BT325	BT325	2	1	234	234	Mildred Consolo-Melchionne
OTA - FACULTY	New	BT326	0	1	0	122	Future Position (Florence Hammes)
OTA - ADJUNCTS	BT324	N/A	3	0	239	0	Combine with Shared Adjunct Office
OCCUPATIONAL THERAPY LAB	BT204	BT204	26	26	993	993	EXISTING LAB ON SECOND FLOOR TO REMAIN
OFFICE	BT202	BT202	0	0	527	527	EXISTING LAB ON SECOND FLOOR TO REMAIN
STORAGE	BT204A	BT204A	0	0	153	153	EXISTING LAB ON SECOND FLOOR TO REMAIN
STORAGE	BT204B	BT204B	0	0	145	145	EXISTING LAB ON SECOND FLOOR TO REMAIN
Occupational Therapy Total					2,291	2,174	

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Physical Therapy Assistant							
PTA - CHAIR	BT323	BT329	1	1	247	243	Maria Masker
PTA - FACULTY	BT123	BT327	1	1	120	120	Edward Leonard
PTA - FACULTY	BT327	BT327	1	1	240	120	Karen Stephens
PHYSICAL THERAPY LAB	BT103	BT103	24	12	1,927	1,927	EXISTING LAB ON FIRST FLOOR TO REMAIN
STORAGE	BT103A	BT103A	0	0	60	60	EXISTING LAB ON FIRST FLOOR TO REMAIN
STORAGE	BT103B	BT103B	0	0	254	254	EXISTING LAB ON FIRST FLOOR TO REMAIN
COMPUTER LAB	BT103C	BT103C	0	0	134	134	EXISTING LAB ON FIRST FLOOR TO REMAIN
STORAGE	BT103D	BT103D	0	0	38	38	EXISTING LAB ON FIRST FLOOR TO REMAIN
Physical Therapy Assistant Total					3,020	2,896	

SUNY Orange Space Program
Health Sciences
Assigned Academic Square Footage

	Existing Fall 2014	Projected
Shared Space	697	3,960
Diagnostic Imaging	2,161	2,471
Medical Laboratory Technician	6,343	5,187
Occupational Therapy Assistant	2,291	2,174
Physical Therapy Assistant	3,020	2,896
Department Summary	14,512	16,688
Grossing Factor		1.2
TOTAL GSF		20,026

SUNY Orange Space Program
Honors Program
Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
RECEPTION/WAITING	New	CC Addition	0	4	0	80	
HONORS - COORDINATOR	MH010	CC Addition	1	1	258	180	Elaine Torda
HONORS - OFFICE	New	CC Addition	0	1	0	100	
INTERDISCIPLINARY STUDIES - OFFICE	New	CC Addition	0	1	0	100	
INTERDISCIPLINARY STUDIES - OFFICE	New	CC Addition	0	1	0	100	
COMPUTER LAB	MH009	CC Addition	6	10	77	350	
LOUNGE	MH013	CC Addition	0	0	389	400	
QUIET STUDY	New	CC Addition	0	0	0	200	
KITCHEN	MH018	CC Addition	0	0	269	80	
WORK ROOM	New	CC Addition	0	0	0	140	
STORAGE	MH011	CC Addition	0	0	55	100	
STORAGE	MH012	CC Addition	0	0	46	0	
STORAGE	MH018B	CC Addition	0	0	41	0	
Administrative Space Subtotal					1,135	1,830	

	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Dedicated Classroom Space							
CLASSROOM	MH005	CC Addition	18	24	501	600	
Dedicated Classroom Space Subtotal					501	600	

Summary	Existing Fall 2014	Projected
Administrative Space	1,135	1,830
Dedicated Classroom Space	501	600
Laboratory Space		
Special Use Space		
Department Summary	1,636	2,430
Grossing Factor		1.6
TOTAL GSF		3,888

SUNY Orange Space Program
Human Resources
Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
RECEPTION/WAITING	OH020	CC Addition	4	4	83	80	
HUMAN RESOURCES - SECRETARY	OH021	CC Addition	2	2	625	160	Sasha Deneve, Pamela Hogg, Open Workstations
HUMAN RESOURCES - AVP	OH027	CC Addition	1	1	156	180	Wendy Holmes
HUMAN RESOURCES - RESOURCE OFFICER	OH021A	CC Addition	1	1	80	100	Eileen Barrett
HUMAN RESOURCES - RESOURCE OFFICER	OH028	CC Addition	1	1	117	100	Lori Charitable
HUMAN RESOURCES - PAYROLL	OH025	CC Addition	4	4	415	400	Andrea Holmes, Irma Martine, Laura Mofisi, Mary Sullivan
HUMAN RESOURCES - PAYROLL	OH026	CC Addition	1	1	166	100	Patrice Henry
HUMAN RESOURCES - OFFICE	OH017	CC Addition	0	1	133	100	Future Position
CONFERENCE ROOM	OH018A	CC Addition	6	12	164	264	
WORKROOM	OH019	CC Addition	0	0	154	140	
STORAGE	OH006	CC Addition	0	0	223	400	
STORAGE	OH007	N/A	0	0	176	0	
STORAGE	OH018	N/A	0	0	211	0	
Administrative Space Subtotal					2,703	2,024	

	Existing Fall 2014	Projected
Summary		
Administrative Space	2,703	2,024
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Department Summary	2,703	2,024
Grossing Factor		1.6
TOTAL GSF		3,238

SUNY Orange Space Program

Institutional Research

Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
INSTITUTIONAL RESEARCH - OFFICER	MH213	MH213	1	1	105	105	Christine Work
INSTITUTIONAL RESEARCH - COORDINATOR	MH214	MH214	1	1	263	263	John Wetzstein
INSTITUTIONAL RESEARCH - ASSISTANT	MH215	MH215	1	1	58	58	Elizabeth Gray
Administrative Space Subtotal					426	426	

	Existing Fall 2014	Projected
Summary		
Administrative Space	426	426
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Department Summary	426	426

SUNY Orange Space Program
Information Technology
Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
INFORMATION TECHNOLOGY - DIRECTOR	BT112	BT112	1	1	185	185	Showkat Choudhury
INFORMATION TECHNOLOGY - DIRECTOR	BT108	BT108	1	1	176	176	Kenneth Kempsey
INFORMATION TECHNOLOGY - DIRECTOR	BT109	BT109	1	1	284	284	Maureen Larsen
INFORMATION TECHNOLOGY - ASST/STANT DIRECTOR	BT107	BT107	1	1	283	283	Artur Charukhchyan
INFORMATION TECHNOLOGY - COORDINATOR	L235	L235	1	1	125	125	Gabriele Triefenbach-Kramer
INFORMATION TECHNOLOGY - SYSTEMS ANALYST	BT100	BT100	2	2	387	387	Angela Elia, Lynne Lindh
INFORMATION TECHNOLOGY - SYSTEMS ANALYST	BT106	BT106	2	2	213	213	Laura Groszek, Clifton Long
INFORMATION TECHNOLOGY - SYSTEMS ANALYST	BT110	BT110	2	2	231	231	Ronald Vigliotti, Arthur Ramos
INFORMATION TECHNOLOGY - SYSTEMS ANALYST	BT110B	BT110B	2	2	242	242	Julio Acevedo, Yasin Latif
INFORMATION TECHNOLOGY - REPAIR SPECIALIST	BT102	BT102	1	1	234	234	Steve Holmbraker
INFORMATION TECHNOLOGY - SUPPORT SPECIALIST	RCSE309	RCSE309	1	1	121	121	William Polakowski
INFORMATION TECHNOLOGY - SUPPORT SPECIALIST	BT121A	BT121A	2	2	206	206	Donald Predmore, Lucas Tanner
INFORMATION TECHNOLOGY - OFFICE	BT104	BT104	1	1	210	210	Tim G.
INFORMATION TECHNOLOGY - DATA CENTER	BT114	BT114	4	4	1,740	1,740	William Ansley, James Gill, Rogerio Faria, Devon Riley
INFORMATION TECHNOLOGY - SERVER ROOM	BT114B	BT114B	1	1	348	348	Minwer Subeh
HELP DESK	New	L FLOOR 1	0	0	0	100	
DATA ROOM	H106	H106	0	0	171	171	
SERVER ROOM	BT255A	BT255A	0	0	150	150	
SERVER ROOM	BT355A	BT355A	0	0	202	202	
SERVER ROOM	L213A	L213A	0	0	68	68	
STORAGE	BT207A	BT207A	0	0	311	311	
STORAGE	HH112	HH112	0	0	275	275	
STORAGE	BT105	BT105	0	0	93	93	
STORAGE	BT114A	BT114A	0	0	340	340	
STORAGE	BT118	BT118	0	0	59	59	
STORAGE	BT120	BT120	0	0	137	137	
Administrative Space Subtotal					6,791	6,891	

	Existing Fall 2014	Projected
Summary		
Administrative Space	6,791	6,891
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Department Summary	6,791	6,891

SUNY Orange Space Program
Lab School
Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
OFFICE	LAB105	LAB105	1	1	154	154	Nadine Girardi
MEETING ROOM	LAB144	LAB144	0	0	179	179	
KITCHEN	LAB133	LAB133	0	0	423	423	
PANTRY	LAB134	LAB134	0	0	70	70	
STAFF ROOM	LAB135	LAB135	0	0	200	200	
Administrative Space Subtotal					1,026	1,026	

	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Laboratory Space							
INFANTS	LAB107	LAB107	0	0	544	544	
STORAGE	LAB107A	LAB107A	0	0	5	5	
CRIB AREA	LAB108	LAB108	0	0	190	190	
NURSING AREA	LAB109	LAB109	0	0	75	75	
TODDLERS	LAB111	LAB111	15	15	898	898	
STORAGE	LAB111A	LAB111A	0	0	9	9	
STORAGE	LAB112	LAB112	0	0	42	42	
OBSERVATION	LAB110	LAB110	0	0	133	133	
UPK2	LAB116	LAB116	20	20	879	879	
TOILET	LAB117	LAB117	0	0	108	108	
STORAGE	LAB116A	LAB116A	0	0	9	9	
STORAGE	LAB118	LAB118	0	0	59	59	
3 & 4 YR OLDS	LAB124	LAB124	20	20	835	835	
TOILET	LAB125	LAB125	0	0	95	95	
STORAGE	LAB124A	LAB124A	0	0	9	9	
STORAGE	LAB126	LAB126	0	0	36	36	
UPK1	LAB128	LAB128	20	20	738	738	
TOILET	LAB130	LAB130	0	0	106	106	
STORAGE	LAB128A	LAB128A	0	0	9	9	
STORAGE	LAB129	LAB129	0	0	36	36	
OBSERVATION	LAB127	LAB127	0	0	133	133	
OUTDOOR CLASSROOM	LAB132	LAB132	0	0	601	601	
LAUNDRY ROOM	LAB122	LAB122	0	0	170	170	
STROLLER ROOM	LAB114	LAB114	0	0	63	63	
STORAGE	LAB115	LAB115	0	0	79	79	
Laboratory Space Subtotal					5,861	5,861	

SUNY Orange Space Program
Lab School
Assigned Academic Square Footage

Special Use Space	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
MARS	LAB138	LAB138	0	0	1,002	1,002	
TOILET	LAB140	LAB140	0	0	65	65	
TOILET	LAB142	LAB142	0	0	65	65	
STORAGE	LAB139	LAB139	0	0	25	25	
STORAGE	LAB141	LAB141	0	0	36	36	
OBSERVATION	LAB143	LAB143	0	0	108	108	
ISOLATION ROOM	LAB104	LAB104	0	0	64	64	
Special Use Space Subtotal					1,365	1,365	

Summary	Existing Fall 2014	Projected
Administrative Space	1,026	1,026
Dedicated Classroom Space		
Laboratory Space	5,861	5,861
Special Use Space	1,365	1,365
Department Summary	8,252	8,252

SUNY Orange Space Program
Liberal Arts
Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Shared Space							
RECEPTION/WAITING	New	HU Floor 1	0	4	0	80	
WORKSTATION - SECRETARY	N/A	HU Floor 1	1	1	N/A	80	Kim Baxter; Workstation in Reception/Waiting
WORKSTATION - SECRETARY	N/A	HU Floor 1	1	1	N/A	80	Teri Lehuray; Workstation in Reception/Waiting
OFFICE - INTERNSHIP COORDINATOR	New	HU Floor 1	1	1	0	100	Future Position
OFFICE - ADJUNCTS	New	HU Floor 1	0	12	0	480	40 SF per Adjunct Station; Copier; Printer; Lockable Storage
MEETING ROOM - ADJUNCTS	New	HU Floor 1	0	0	0	80	
MEETING ROOM - ADJUNCTS	New	HU Floor 1	0	0	0	80	
CONFERENCE ROOM/BREAK ROOM	New	HU Floor 1	0	15	0	330	
KITCHENETTE	New	HU Floor 1	0	0	0	80	
WORK ROOM	New	HU Floor 1	0	0	0	140	Adjacent to Conference Room/Break Room
STUDENT LOUNGE	New	HU Floor 1	0	10	0	350	Copier; Printer; 24 File Drawers Located Under Work Table
STORAGE	New	HU Floor 1	0	0	0	80	Also used as Club Space
Common Space Total					N/A	1,960	

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Behavioral Sciences							
BEHAVIORAL SCIENCES - CHAIR	N/A	HU Floor 1	1	1	N/A	180	Cory Harris
BEHAVIORAL SCIENCES - FACULTY	N/A	HU Floor 1	1	1	N/A	100	Stephen Coccia
BEHAVIORAL SCIENCES - FACULTY	N/A	HU Floor 1	1	1	N/A	100	Patricia Guallini
BEHAVIORAL SCIENCES - FACULTY	N/A	HU Floor 1	1	1	N/A	100	Gary Pavsek
BEHAVIORAL SCIENCES - FACULTY	N/A	HU Floor 1	1	1	N/A	100	John Pernice
BEHAVIORAL SCIENCES - FACULTY	N/A	HU Floor 1	1	1	N/A	100	Douglas Sanders
BEHAVIORAL SCIENCES - FACULTY	N/A	HU Floor 1	1	1	N/A	100	Vincent Marasco
ARCHEOLOGY/ANTHROPOLOGY STORAGE	New	HU Floor 1	0	0	0	200	
Behavioral Sciences Total					N/A	980	

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Criminal Justice							
CRIMINAL JUSTICE - CHAIR	N/A	HU Floor 1	1	1	N/A	180	Dennis O'Loughlin
CRIMINAL JUSTICE - FACULTY	N/A	HU Floor 1	1	1	N/A	100	Robert Cacciatore
CRIMINAL JUSTICE - FACULTY	N/A	HU Floor 1	1	1	N/A	100	Ronald Jurain
CRIMINAL JUSTICE - FACULTY	N/A	HU Floor 1	1	1	N/A	100	Janine Sarbak
CRIMINAL JUSTICE - FACULTY	New	HU Floor 1	0	1	N/A	100	Future Position
CRIME LAB	BT352	BT352	24	24	1,106	1,106	
STORAGE	BT352A	BT352A	0	0	249	249	
Criminal Justice Total					N/A	1,935	

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Global Studies							
GLOBAL STUDIES - CHAIR	N/A	HU Floor 1	1	1	N/A	180	Paul Basinski
GLOBAL STUDIES - SECRETARY	N/A	HU Floor 1	1	1	N/A	80	Michael McCoy
GLOBAL STUDIES - FACULTY	N/A	HU Floor 1	1	1	N/A	100	Edgar Gutierrez

SUNY Orange Space Program

Liberal Arts

Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Global Studies (cont)							
GLOBAL STUDIES - FACULTY	N/A	HU Floor 1	1	1	N/A	100	Demosthenes Kontos
GLOBAL STUDIES - FACULTY	N/A	HU Floor 1	1	1	N/A	100	Vincent Odock
GLOBAL STUDIES - FACULTY	N/A	HU Floor 1	1	1	N/A	100	Michael Strmiska
GLOBAL STUDIES - FACULTY	N/A	HU Floor 1	1	1	N/A	100	Heidi Weber
GLOBAL STUDIES - FACULTY	N/A	HU Floor 1	1	1	N/A	100	Kidaya Ntoko
Global Studies Total					N/A	860	

	Existing Fall 2014	Projected
Shared Space	N/A	1,960
Behavioral Sciences	N/A	980
Criminal Justice	N/A	1,935
Global Studies	N/A	860

Department Summary	
Grossing Factor	N/A
TOTAL GSF	5,735

1.2

6,882

SUNY Orange Space Program

Library

Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
LIBRARY - DIRECTOR	L219	L219	1	1	169	169	Susan Parry
LIBRARY - CIRCULATION	L127	L127	5	5	244	244	Linda Bonney, Theresa Detko, Florence Gertsen, Linda Nichols, Denise Psathas, Susanne Wasson
LIBRARY - TECH SERVICES	L105	L105	6	6	1,066	1,066	Tina Arzonetti, Donna Campanale, Amy Hillick, Linda Lucas, Rhonda Niski, William Worford
LIBRARY - LIBRARIAN	L129A	L129A	2	2	502	502	Andrew Heiz, Nancy Murrillo
LIBRARY - OFFICE	L112A	L112A	1	1	154	154	
STAFF LOUNGE	L218	L218	12	12	251	251	
KITCHEN	L125	L125	0	0	112	112	
STORAGE	L105A	L105A	0	0	25	25	
STORAGE	L105B	L105B	0	0	39	39	
Administrative Space Subtotal					2,562	2,562	

Laboratory Space	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
COMPUTER LAB	L114	L114	26	26	795	795	
Laboratory Space Subtotal					795	795	

Special Use Space	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
CIRCULATION DESK	L126	L126	0	0	248	248	
STACKS/READING	L110	L110	0	0	882	882	
STACKS/READING	L220	L220	225	225	13,067	13,067	
LIBRARY SEATING	L112	L112	42	42	3,019	3,019	
GROUP STUDY	New	L220	0	4	0	80	
GROUP STUDY	New	L220	0	4	0	80	
GROUP STUDY	New	L220	0	4	0	80	
GROUP STUDY	New	L220	0	8	0	160	
GROUP STUDY	New	L220	0	8	0	160	Include Media Equipment (Student Computers Connect to Wall Monitors)
MAKER SPACE	New	L220	0	10	0	500	Include Media Equipment (Student Computers Connect to Wall Monitors)
QUIET STUDY	L110	L110	47	47	900	900	
QUIET STUDY	L111	L111	67	67	2,718	2,718	
HISTORY/HERITAGE COLLECTION	L109	L109	0	0	135	135	
ARCHIVE STORAGE	L001	L001	0	0	969	969	Need Archive Storage with Humidity Control, etc.
GENERAL STORAGE	New	L220	0	0	0	200	
Special Use Space Subtotal					21,938	23,198	

SUNY Orange Space Program

Library

Assigned Academic Square Footage

	Existing Fall 2014	Projected
Summary		
Administrative Space	2,562	2,562
Dedicated Classroom Space		
Laboratory Space	795	795
Special Use Space	21,938	23,198
Department Summary	25,295	26,555

SUNY Orange Space Program

Mathematics

Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
RECEPTION/WAITING	New	HH Floor 3	0	4	0	80	
MATH - SECRETARY	New	HH Floor 3	0	1	0	80	
MATH - CHAIR	HH311A	HH Floor 3	1	1	146	180	Anne Prial
MATH - COORDINATOR	HH312C	HH Floor 3	1	1	68	100	John Rion
MATH - FACULTY	HH302A	HH Floor 3	2	2	272	200	Michelle Tubbs, Eric Wortman
MATH - FACULTY	HH305A	HH Floor 3	1	1	104	100	Kaitlin Reissig
MATH - FACULTY	HH305B	HH Floor 3	1	1	104	100	Jacqueline Flanagan
MATH - FACULTY	HH315	HH Floor 3	10	10	1,240	1,000	Donna Avery, Scott Graber, Shahrazad Latefi, Josh Lavorgna, Chirstine Leroux, Carolyn Meere, Robert Moody, Joel Morocho, Janet Stonick, Barbara Wortman
MATH - FACULTY	HH321	HH Floor 3	2	2	357	200	Frances Cummins, Ming Wang
MATH - FACULTY	HH312D	N/A	0	0	58	0	Spare Office
MATH - ADJUNCTS	HH305	HH Floor 3	10	10	256	400	
MEETING ROOM - ADJUNCTS	New	HH Floor 3	0	0	0	80	New Adjunct Office Suite
FACULTY LOUNGE	HH312A	HH Floor 3	0	0	378	140	
CONFERENCE ROOM	New	HH Floor 3	0	8	0	176	
WORK ROOM	New	HH Floor 3	0	0	0	140	
STUDENT LOUNGE	HH311	N/A	0	0	195	0	Combine with Student Learning Space
STUDENT LEARNING SPACE	New	HH Floor 3	0	8	0	400	
STORAGE	HH317	HH Floor 3	0	0	170	200	
STORAGE	HH317A	N/A	0	0	172	0	
Administrative Space Subtotal					3,520	3,576	

Laboratory Space	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
MATH LAB	HH309	N/A	25	25	981	0	
MATH LAB - OFFICE	HH309A	N/A	0	0	93	0	
CENTER FOR EXCELLENCE IN MATHEMATICS	New	HH Floor 3	0	25	0	875	Combine with Center for Excellence in Mathematics
CENTER FOR EXCELLENCE IN MATHEMATICS	New	HH Floor 3	0	25	0	875	Combine with Center for Excellence in Mathematics
Laboratory Space Subtotal					1,074	1,750	

Summary	Existing Fall 2014	Projected
Administrative Space	3,520	3,576
Dedicated Classroom Space		
Laboratory Space	1,074	1,750
Special Use Space		
Department Summary	4,594	5,326
Grossing Factor		1.2
TOTAL GSF		6,391

SUNY Orange Space Program

Movement Science

Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
MOVEMENT SCIENCE - CHAIR	PE243	PE243	1	1	250	250	Sheila Stepp
MOVEMENT SCIENCE - ASST ATHLETIC DIRECTOR	PE215	PE215	1	1	227	227	Stacey Morris
MOVEMENT SCIENCE - SECRETARY	PE245	PE245	1	1	250	250	Maria Calvaruso
MOVEMENT SCIENCE - FACULTY	PE248	PE248	1	1	247	247	Ann Marie Boffalo
MOVEMENT SCIENCE - FACULTY	PE249	PE249	0	0	239	239	New Faculty Line - Public Health Program
STORAGE	PE214	PE214	0	0	9	9	
Administrative Space Subtotal					1,222	1,222	

	Existing Fall 2014	Projected
Summary		
Administrative Space	1,222	1,222
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Department Summary	1,222	1,222

SUNY Orange Space Program

Nursing

Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
RECEPTION/WAITING	New	BT212	0	2	0	48	
NURSING - SECRETARY/FACULTY	BT212	BT212	2	2	208	160	Kellie Tomaszewski, Brenda Walsh, Open Workstations
NURSING - CHAIR	BT214	BT214	1	1	218	218	Patricia Slesinski
NURSING - ASSISTANT CHAIR	BT239	BT239	1	1	222	222	Alice Coburn
NURSING - FACULTY	BT111	BT350/351	4	4	589	426	Anglea Graff, Diane Grendel, Suzanne Lindau, Jill McLaughlin
NURSING - FACULTY	BT123	BT235	1	1	120	109	Patricia Cal
NURSING - FACULTY	BT210B	BT210B	2	2	108	108	Eileen Drabik, Jean Halpern
NURSING - FACULTY	BT216	BT216	2	2	223	223	David Hattenbrun, Linda Kelly
NURSING - FACULTY	BT227	BT227	2	2	164	164	Ruthanne Dykstra; Suzanne Montgomery
NURSING - FACULTY	BT233	BT233	2	2	218	218	Dagmar Strenk, Cheryl Whalen
NURSING - FACULTY	BT235	BT235	1	1	218	109	Patricia Sullivan
NURSING - FACULTY	BT237	BT237	2	2	217	217	Ilene Castaldo, Betty Ann Easton
NURSING - FACULTY	HU212	BT306	2	2	168	222	Alan McGlynn, Kathleen Thaler
CONFERENCE ROOM	BT231	BT231	10	10	438	438	
Administrative Space Subtotal					3,111	2,882	

	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Dedicated Classroom Space							
CLASSROOM	BT210	BT210	15	15	371	371	
Dedicated Classroom Space Subtotal					371	371	

	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Laboratory Space							
COMPUTER LAB	BT115	BT115	10	10	616	616	
PRACTICE LAB	BT206	BT206	18	18	1,331	1,331	
PRACTICE LAB	BT208	BT208	18	18	1,331	1,331	
PRACTICE LAB	BT229	BT229	13	13	1,315	1,315	
STORAGE	BT227A	BT227A	0	0	259	259	
STORAGE	BT227B	BT227B	0	0	11	11	
STORAGE	BT227C	BT227C	0	0	11	11	
SIMULATION LAB	New	New	0	8	0	600	Multi-Disciplinary Simulation Suite
DEBRIEFING ROOM	New	New	0	12	0	200	Multi-Disciplinary Simulation Suite
OBSERVATION ROOM	New	New	0	0	0	200	Multi-Disciplinary Simulation Suite
STORAGE	New	New	0	0	0	200	Multi-Disciplinary Simulation Suite
SIMULATION LAB	BT210C	BT210C	4	4	626	626	
STORAGE	BT210D	BT210D	0	0	46	46	
STORAGE	BT210E	BT210E	0	0	36	36	
Laboratory Space Subtotal					5,582	6,782	

SUNY Orange Space Program

Nursing

Assigned Academic Square Footage

	Existing Fall 2014	Projected
Summary		
Administrative Space	3,111	2,882
Dedicated Classroom Space	371	371
Laboratory Space	5,582	6,782
Special Use Space	0	0
Department Summary	9,064	10,035

SUNY Orange Space Program

Phi Theta Kappa

Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
PHI THETA KAPPA - ADVISOR	New	CC Floor 2	0	1	0	100	
MEETING ROOM	New	CC Floor 2	0	8	0	176	
LOUNGE	New	CC Floor 2	0	0	0	400	
STORAGE	New	CC Floor 2	0	0	0	100	
Administrative Space Subtotal					0	776	

	Existing Fall 2014	Projected
Summary		
Administrative Space	0	776
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Department Summary	0	776
Grossing Factor		1.2
TOTAL GSF		931

SUNY Orange Space Program
Office of the President
Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
PRESIDENT'S OFFICE - PRESIDENT	MH206	MH206	1	1	333	333	William Richards
PRESIDENT'S OFFICE - SECRETARY	MH204	MH204	1	1	153	153	Carol Murray
PRESIDENT'S OFFICE	New	MH207	0	0	0	35	
PRESIDENT'S OFFICE	New	MH209	0	0	0	263	
PRESIDENT'S OFFICE	New	MH210	0	0	0	93	
CONFERENCE ROOM	MH205	MH205	8	8	229	229	
CLOSET	MH206A	MH206A	0	0	24	24	
CLOSET	MH206B	MH206B	0	0	18	18	
Administrative Space Subtotal					757	1,148	

Summary	Existing Fall 2014	Projected
Administrative Space	757	1,148
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Department Summary	757	1,148

SUNY Orange Space Program

Public Services

Assigned Academic Square Footage

Administrative Space	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
CONFERENCE ROOM	MH103	MH103	11	11	265	265	
CONFERENCE ROOM	MH104	MH104	19	19	467	467	
DINING ROOM	MH115	MH115	19	19	468	468	
LIBRARY	MH102	MH102	18	18	462	462	
KITCHEN	MH114	MH114	0	0	339	339	
PANTRY	MH112	MH112	0	0	154	154	
STORAGE	MH100A	MH100A	0	0	15	15	
STORAGE	MH100C	MH100C	0	0	32	32	
STORAGE	MH101A	MH101A	0	0	9	9	
STORAGE	MH114A	MH114A	0	0	9	9	
STORAGE	MH115A	MH115A	0	0	18	18	
Administrative Space Subtotal					2,238	2,238	

Summary	Existing Fall 2014	Projected
Administrative Space	2,238	2,238
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Department Summary	2,238	2,238

SUNY Orange Space Program

Registrar

Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
REGISTRAR - REGISTRAR	CC304	CC Floor 2	1	1	212	180	Neil Foley (includes small conference table)
REGISTRAR - ASSOC/ASST REGISTRAR	CC306	CC Floor 2	2	2	261	280	Kelly Fox, Angela Romano
REGISTRAR - SECRETARY	CC336B	CC Floor 2	5	5	540	480	Joyce Depew, Frances Girolamo, Deborah Saksen, Stacey Smith, Diane Simcik, Patricia Stevens; Includes 80 SF Waiting Area
Administrative Space Subtotal					1,013	940	

Summary	Existing Fall 2014	Projected
Administrative Space	1,013	940
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Department Summary	1,013	940
Grossing Factor		1.2
TOTAL GSF		1,128

SUNY Orange Space Program
Science, Engineering & Architecture
Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
SCIENCE, ENGINEERING & ARCHITECTURE - OFFICE SUITE	RCSE205	RCSE205	1	1	838	838	Anita Spero
SCIENCE, ENGINEERING & ARCHITECTURE - CHAIR	RCSE205D	RCSE205D	1	1	193	193	John Wolbeck
SCIENCE, ENGINEERING & ARCHITECTURE - FACULTY	RCSE205E	RCSE205E	1	1	187	187	Megumi Kinoshita
SCIENCE, ENGINEERING & ARCHITECTURE - FACULTY	RCSE205F	RCSE205F	1	1	187	187	William Stillman
SCIENCE, ENGINEERING & ARCHITECTURE - FACULTY	RCSE205G	RCSE205G	1	1	187	187	Cynthia Macmahon
SCIENCE, ENGINEERING & ARCHITECTURE - FACULTY	RCSE205H	RCSE205H	1	1	187	187	Timothy Macmahon
SCIENCE, ENGINEERING & ARCHITECTURE - FACULTY	RCSE205I	RCSE205I	1	1	181	181	Lawrence O'Brien
SCIENCE, ENGINEERING & ARCHITECTURE - FACULTY	RCSE304	RCSE304	2	2	343	343	Andrew Magnes, Pamela Rice-Woytowick
SCIENCE, ENGINEERING & ARCHITECTURE - ADJUNCTS	RCSE205K	RCSE205K	0	0	103	103	Adjuncts
SCIENCE, ENGINEERING & ARCHITECTURE - ADJUNCTS	RCSE205L	RCSE205L	0	0	108	108	Adjuncts
ENGINEERING LOUNGE	RCSE216	RCSE216	18	18	633	633	
CONFERENCE ROOM	RCSE211	RCSE211	16	16	449	449	
STORAGE	RCSE211A	RCSE211A	0	0	32	32	
COFFEE	RCSE205B	RCSE205B	0	0	118	118	
STORAGE	RCSE205J	RCSE205J	0	0	196	196	
WORKROOM	RCSE205C	RCSE205C	0	0	249	249	
Administrative Space Subtotal					4,191	4,191	

	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Laboratory Space							
ARCHITECTURE LAB	RCSE307	RCSE307	20	20	1,369	1,369	
ARCHITECTURE STORAGE	RCSE307A	RCSE307A	0	0	232	232	
CAD LAB	RCSE301	RCSE301	20	20	956	956	
GENERAL CHEMISTRY LAB	RCSE220	RCSE220	24	24	1,312	1,312	
GENERAL CHEMISTRY LAB	RCSE224	RCSE224	24	24	1,365	1,365	
GENERAL CHEMISTRY LAB	RCSE226	RCSE226	24	24	1,136	1,136	
ORGANIC CHEMISTRY LAB	RCSE218	RCSE218	24	24	1,309	1,309	
LAB PREP	RCSE222	RCSE222	0	0	732	732	
CHEMISTRY STORAGE	RCSE222A	RCSE222A	0	0	199	199	
CHEMICAL WASTE STORAGE	RCSE003B	RCSE003B	0	0	168	168	
PHYSICAL SCIENCE/GEOLOGY LAB	RCSE219	RCSE219	22	22	1,001	1,001	
PHYSICAL SCIENCE LAB	RCSE201	RCSE201	24	24	1,175	1,175	
PHYSICS - ELECTRICAL LAB	RCSE204	RCSE204	24	24	1,171	1,171	
PHYSICS - MECHANICAL LAB	RCSE208	RCSE208	24	24	1,176	1,176	
PHYSICS STORAGE	RCSE206	RCSE206	0	0	454	454	
CLOSET	RCSE206A	RCSE206A	0	0	41	41	
PROJECT ROOM	RCSE011	RCSE011	0	0	990	990	
RESOURCE ROOM	RCSE305	RCSE305	12	12	391	391	
GEOLOGY STORAGE	RCSE217	RCSE217	0	0	216	216	
STORAGE	RCSE302	RCSE302	0	0	188	188	
TUTORING CENTER	RCSE306	RCSE306	60	60	2,476	2,476	
STUDY	RCSE306A	RCSE306A	4	4	113	113	
STUDY	RCSE306B	RCSE306B	6	6	144	144	

SUNY Orange Space Program
Science, Engineering & Architecture
Assigned Academic Square Footage

Laboratory Space (cont)	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
STUDY	RCSE306C	RCSE306C	6	6	141	141	
STUDY	RCSE306D	RCSE306D	4	4	116	116	
VIDEO ROOM	RCSE306E	RCSE306E	12	12	257	257	
STORAGE	RCSE306F	RCSE306F	0	0	158	158	
TESTING	RCSE306H	RCSE306H	4	4	100	100	
Laboratory Space Subtotal					19,086	19,086	

Special Use Space	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
GALLERY	RCSE010C	RCSE010C	0	0	198	198	
SUGAR (OLD LOCATION)	BT230	BT230	0	0	538	538	
SUGAR (NEW LOCATION)	RCSE022A	RCSE022A	0	0	264	264	
Special Use Space Subtotal					1,000	1,000	

Summary	Existing Fall 2014		Projected	
	Existing Fall 2014	Projected	Existing Fall 2014	Projected
Administrative Space	4,191	4,191		
Dedicated Classroom Space			19,086	19,086
Laboratory Space	1,000	1,000		
Special Use Space	24,277	24,277		
Department Summary			24,277	24,277

SUNY Orange Space Program

Security

Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
SECURITY - OFFICE	H113	H113	0	0	420	420	
SECURITY - DIRECTOR	H112A	H112A	1	1	170	170	Edward Kiely
SECURITY - COORDINATOR	H112B	H112B	1	1	170	170	Anthony Jacklitsch
SECURITY - TECHNICAL ASSISTANT	H113A	H113A	1	1	130	130	Robert Putney
WORK ROOM	H112	H112	0	0	340	340	
KITCHEN	H111	H111	0	0	93	93	
Administrative Space Subtotal					1,323	1,323	

	Existing Fall 2014	Projected
Summary		
Administrative Space	1,323	1,323
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Department Summary	1,323	1,323

**SUNY Orange Space Program
Student Accounts**

Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
STUDENT ACCOUNTS - DIRECTOR	OH221	CC Addition	1	1	203	180	Susan Mansueto
STUDENT ACCOUNTS - COORDINATOR	OH102	CC Addition	1	1	172	100	William Potter
STUDENT ACCOUNTS - ACCOUNT CLERK	OH105	CC Addition	1	1	139	100	Susan Plichta
STUDENT ACCOUNTS - ACCOUNT CLERK	OH106	CC Addition	1	1	349	100	Rachael Castro
STUDENT ACCOUNTS - ACCOUNT CLERK	OH104	CC Addition	1	1	189	100	Elsie Kloczkowski
STUDENT ACCOUNTS - BURSAR	CC203A	CC Floor 2	3	3	423	420	Lynn-Ann Harrison, Robin Knosp, Karen Rubio
STUDENT ACCOUNTS - BURSAR	CC203B	CC Floor 2	1	1	246	140	Stacey Osborn
STORAGE	OH222	CC Addition	0	0	143	200	
Administrative Space Subtotal					1,864	1,340	

	Existing Fall 2014	Projected
Summary		
Administrative Space	1,864	1,340
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Shepard Student Center Addition		780
Grossing Factor		1.6
TOTAL GSF		1,248

Shepard Student Center - Floor 2	560
Grossing Factor	1.2
TOTAL GSF	672

* Use Comptroller/Human Resources Conference Room and Workroom

SUNY Orange Space Program
Student Activities
Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
RECEPTION/WAITING	New	CC Floor 1	0	4	0	80	
STUDENT ACTIVITIES - RECEPTION	CC210	CC Floor 1	4	4	288	320	Kelly Higginson, Michelle Toia, Omeria Perfliman, Helen Santos; Open Workstations
STUDENT ACTIVITIES - DIRECTOR	CC209	CC Floor 1	1	1	270	180	Steven Harpst
STUDENT ACTIVITIES - CLERICAL SUPPORT	CC211A	CC Floor 1	1	1	120	100	Karen Reid
STUDENT ACTIVITIES - ALUMNI ROOM	CC106	CC Floor 1	32	32	669	704	
STUDENT ACTIVITIES - MEETING ROOM	CC211	CC Floor 1	8	8	171	176	
STUDENT ACTIVITIES - WORKROOM	CC207	CC Floor 1	0	0	218	140	
STUDENT ACTIVITIES - ACTIVITY SPACE	New	CC Floor 1	0	0	0	4,500	
STUDENT SENATE - OFFICE	CC102C	CC Floor 1	0	0	154	140	
STUDENT SENATE - MEETING ROOM	CC102B	CC Floor 1	12	12	309	264	
STUDENT SENATE - STORAGE	CC102E	CC Floor 1	0	0	314	200	
BOARD OF ACTIVITIES - OFFICE	CC102D	CC Floor 1	0	0	154	140	
STUDENT CLUBS - OFFICE	New	CC Floor 1	0	0	0	140	
STUDENT CLUBS - MEETING ROOM	New	CC Floor 1	0	12	0	264	
STUDENT CLUBS - STORAGE	New	CC Floor 1	0	0	0	400	
GAMEROOM	CC102A	CC Floor 1	0	0	966	1,000	
FIRESIDE LOUNGE	CC205	CC Floor 1	0	0	7,315	3,000	
STUDENT LOUNGE	BT224	BT224	20	20	339	339	
STUDENT LOUNGE	BT252	N/A	22	22	442	0	
STUDENT LOUNGE	HH102	HH102	32	32	863	863	
STUDENT LOUNGE	HH119D	HH119D	0	0	172	172	
STUDENT LOUNGE	OH228	N/A	0	0	185	0	
Administrative Space Subtotal					12,949	13,122	

	Existing Fall 2014	Projected
Summary		
Administrative Space	12,949	13,122
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Department Summary	12,949	13,122

SUNY Orange Space Program
Student Services Central
Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
CENTRAL WAITING/RECEPTION	New	CC Floor 2	0	0	2,752	3,500	Shared
STUDENT SERVICES CENTRAL - RECEPTION	CC336A	CC Floor 2	2	2	160	160	Laura Kelly, Typist I (Vacant); Open Workstations
STUDENT SERVICES CENTRAL - DIRECTOR	CC338	CC Floor 2	1	1	275	180	Likkia Moody
STUDENT SERVICES CENTRAL	CC340	CC Floor 2	8	8	523	640	Kathleen Dempsey, Nakia Hickman, Cassadra Knights, Fanny Melendez, Christa O'Brien, Donna Sanders, Cynthia Stevens, Richard Tompkins
STUDENT SERVICES CENTRAL	CC339	N/A	0	0	622	0	Combine with Central Waiting/Reception
CONFERENCE ROOM	CC352	CC Floor 2	10	10	443	220	Shared
WORKROOM	New	CC Floor 2	0	0	0	140	Shared
KITCHENETTE	New	CC Floor 2	0	0	0	80	Shared
STORAGE	CC353	CC Floor 2	0	0	353	400	Shared
Administrative Space Subtotal					5,128	5,320	

Summary	Existing Fall 2014	Projected
Administrative Space	5,128	5,320
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Department Summary	5,128	5,320
Grossing Factor		1.2
TOTAL GSF		6,384

SUNY Orange Space Program
Academic Testing Center
Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
TESTING CENTER - DIRECTOR	New	L Floor 2	0	1	0	140	
Administrative Space Subtotal			0	1	0	140	

	Location		Number of Occupants		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Special Use Space							
TESTING CENTER	CC225A	L Floor 2	4	10	214	350	
TESTING CENTER	CC225B	L Floor 2	26	26	780	910	Tam Lam, Eileen Moloney-Cook, Kevin Turco
Special Use Space Subtotal			30	36	994	1,260	

	Existing Fall 2014	Projected
Summary		
Administrative Space	0	140
Dedicated Classroom Space		
Laboratory Space		
Special Use Space	994	1,260
Department Summary	994	1,400
Grossing Factor		1.2
TOTAL GSF		1,680

SUNY Orange Space Program

Veterans

Assigned Academic Square Footage

Location		Personnel		NASF		Comments
Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	

Location		Personnel		NASF	
Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected
New	CC Floor 2	0	1	0	140
New	CC Floor 2	0	0	0	240
New	CC Floor 2	0	0	0	140
Administrative Space Subtotal				0	520

	Existing Fall 2014	Projected
Administrative Space	0	520
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Department Summary	0	520
Grossing Factor	1.2	
TOTAL GSF		624

SUNY Orange Space Program
Vice-Presidents
Assigned Academic Square Footage

	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
Administrative Space							
ACADEMIC AFFAIRS - VP	MH202	MH202	1	1	351	351	Heather Perfetti
ACADEMIC AFFAIRS - SECRETARY	MH219	MH219	1	1	109	109	Robbin Raso
ACADEMIC AFFAIRS - ASSESSMENT COORDINATOR	New	MH113	0	1	0	151	Future Position
ADMINISTRATION & FINANCE - VP	MH222	MH222	1	1	296	296	Roslyn Smith
ADMINISTRATION & FINANCE - SECRETARY	MH211	MH211	1	1	122	122	Ronnie Galletty
INFORMATION TECHNOLOGY - VP	MH218	BT111	3	3	426	589	Jose Bernier, Jean Chang, Lisa Montalbano (Education Consortium)
INSTITUTIONAL ADVANCEMENT - VP	MH209	MH218	1	1	263	300	Vincent Cazzetta
INSTITUTIONAL ADVANCEMENT - DEVELOPMENT	MH400	MH400	1	1	528	528	Natalie McKinstry
INSTITUTIONAL ADVANCEMENT - ALUMNI RELATIONS	MH210	MH218	1	1	93	126	Mary Roth
INSTITUTIONAL ADVANCEMENT - COMMUNICATIONS	MH108	MH108	1	1	287	287	Michael Albright
INSTITUTIONAL ADVANCEMENT - COMMUNICATIONS	MH404	MH404	2	2	251	251	Stephen Hedderton, Christopher Thurtle
INSTITUTIONAL ADVANCEMENT - GRANTS	MH401	MH401	1	1	311	311	Judith Osburn
STUDENT SERVICES - RECEPTION	New	MH300	0	4	0	80	
STUDENT SERVICES - SECRETARY	CC319	MH306	2	2	101	137	Beverly Byrne
STUDENT SERVICES - SECRETARY	CC319	MH308	2	2	101	138	Dolores Jones
STUDENT SERVICES - VP	CC318	MH307	1	1	274	238	Paul Broadle
STUDENT SERVICES - JUDICIAL AFFAIRS	New	MH305	0	1	0	120	
STUDENT SERVICES - GRANTS	New	MH313	0	2	0	156	Floating Offices
LOUNGE	MH020	MH020	0	0	301	301	
STORAGE	MH108A	MH108A	0	0	18	18	
STORAGE	MH200A	MH200A	0	0	10	10	
STORAGE	MH200C	MH200C	0	0	5	5	
STORAGE	MH203	MH203	0	0	61	61	
STORAGE	MH212	MH212	0	0	39	39	
STORAGE	MH218A	MH218A	0	0	18	18	
STORAGE	MH221	MH221	0	0	46	46	
STORAGE	MH222B	MH222B	0	0	26	26	
STORAGE	New	MH306A	0	0	0	10	
STORAGE	New	MH308A	0	0	0	2	
STORAGE	New	MH313A	0	0	0	6	
STORAGE	MH400A	MH400A	0	0	35	35	
STORAGE	MH401A	MH401A	0	0	8	8	
STORAGE	MH401B	MH401B	0	0	10	10	
STORAGE	MH401C	MH401C	0	0	10	10	
STORAGE	MH401D	MH401D	0	0	12	12	
STORAGE	MH401E	MH401E	0	0	8	8	
STORAGE	MH402A	MH402A	0	0	56	56	
STORAGE	MH403	MH403	0	0	225	225	
STORAGE	MH405	MH405	0	0	296	296	
STORAGE	MH406A	MH406A	0	0	40	40	
WORKROOM	MH402	MH402	0	0	435	435	
Administrative Space Subtotal					5,172	5,967	

SUNY Orange Space Program

Vice-Presidents

Assigned Academic Square Footage

	Existing Fall 2014	Projected
Summary		
Administrative Space	5,172	5,967
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Department Summary		5,967

SUNY Orange Space Program

Wellness Center

Assigned Academic Square Footage

Administrative Space	Location		Personnel		NASF		Comments
	Existing Fall 2014	Proposed	Existing Fall 2014	Projected	Existing Fall 2014	Projected	
WAITING AREA	New	CC Floor 3	0	8	0	160	
WELLNESS CENTER - RECEPTION	New	CC Floor 3	2	2	0	160	Irma O'Dowd, Elaine McClung; Open Workstations
WELLNESS CENTER - DIRECTOR	New	CC Floor 3	1	1	0	140	Mark Parisi
WELLNESS CENTER - NURSE	CC237	CC Floor 3	3	3	199	120	Susan Corbett; Mary Mulvihill, Marianne Sciucco
WELLNESS CENTER - VISITING DOCTOR	New	CC Floor 3	0	0	0	100	
WELLNESS CENTER - COUNSELOR	New	CC Floor 3	0	1	0	140	
WELLNESS CENTER - COUNSELOR	New	CC Floor 3	0	1	0	140	
WELLNESS CENTER	CC236	CC Floor 3	0	0	814	800	
TREATMENT ROOM	CC235	CC Floor 3	0	0	26	100	
TREATMENT ROOM	CC238	CC Floor 3	0	0	26	100	
STORAGE	New	CC Floor 3	0	0	0	100	
Administrative Space Subtotal					1,065	2,060	

Summary	Existing Fall 2014	Projected
Administrative Space	1,065	2,060
Dedicated Classroom Space		
Laboratory Space		
Special Use Space		
Department Summary	1,065	2,060
Grossing Factor		1.2
TOTAL GSF		2,472

SUNY Orange CAP

prepared by Steven Winter Associates

B



SUNY Orange CAP

ORANGE COUNTY COMMUNITY COLLEGE

SUSTAINABILITY AND GHG EMISSIONS

Submitted By:
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New York, NY 10001

1 MAY, 2015

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1.0. Introduction and Methodology

Sustainability and reduction of energy consumption and green house gas emissions are key elements of any campus master plan. The following analyses and recommendations are presented by Steven Winter Associates, Inc. (SWA) in support of a scope of work performed for Orange County Community College (SUNY Orange) by JMZ Architects and Planners. SWA looked at energy, water, and waste data provided by SUNY Orange for the past two years. In addition, SWA was able draw upon work previously completed during 2011/2012, which consisted of performing energy audits of the SUNY Orange campus. The current analysis includes the Middletown campus as well as three new buildings, Kaplan Hall and Tower Building (Newburgh Campus) and Middletown RCSE.

In order to facilitate the analysis and to provide SUNY Orange with the ability to continue to track and monitor energy and GHG emission reductions going forward, SWA developed a GHG Emissions Tracking Tool (see attached spreadsheet). In addition to creating a visually accessible spreadsheet for the current analyses, the tool will enable the SUNY Orange team to continue to input data and update information as part of its Campus Action Plan. This tool has been designed to allow for tracking of all utility accounts, recording all account numbers, and evaluating progress in GHG emissions reductions. These reductions can be measured and verified using the tool and then easily transposed into reports for promoting savings and celebrating successes.

SWA used the US Environmental Protection Agency (EPA) method for GHG accounting. The EPA's Greenhouse Gas Equivalencies Calculator uses the Emissions & Generation Resource Integrated Database (eGRID) US annual non-baseload CO₂ output emission rate to convert reductions of kilowatt-hours, therms, and waste into avoided units of carbon dioxide emissions. This tool was updated in 2014, ensuring that the following GHG accounting uses the most consistent and up-to-date data available. Electricity usage, natural gas usage, water usage and waste tonnage were obtained from the SUNY Orange team. Using this data, SWA converted all metrics into metric tons of CO₂ to calculate total emissions from these sources and estimate potential emissions reductions.

2.0. GHG Emissions for SUNY Orange

SWA has quantified GHG emissions from electricity, natural gas, water, and waste for the following buildings where data were available. Data evaluated ranged from 2010 – 2011 (when SWA conducted energy audits on the Middletown Campus) and from 2012 – 2014 for all buildings.

1. Bio-Tech Building, 115 South St, Middletown, NY
2. Horton Hall, 115 South St, Middletown, NY
3. Library, 115 South St, Middletown, NY (LRC on the water data)
4. PhysEd Building, 115 South St, Middletown, NY
5. Commons (George F. Shepard Student Center), 115 South St, Middletown, NY
6. The Loop: Harriman Hall, 115 South St, Middletown, NY



7. The Loop: Orange Hall, 115 South St, Middletown, NY
8. The Loop: Hudson Hall, 115 South St, Middletown, NY
9. The Loop: Morrison Hall, 115 South St, Middletown, NY
10. Newburgh Campus: Tower Building, 1 Washington Center
11. Newburgh Campus: Kaplan Building, Grand St & 1st St
12. Lab School, (Middletown Campus- opened approximately Jan. 2013)

Table 1: Total GHG Emissions for SUNY Orange 2012 – 2014 (Metric Tons CO2)

Source of GHG Emissions	Metric Tons of CO2		
	2012/2013	2013/2014	2 Year Total
Electricity	5,477	5,104	10,581
Natural Gas	2,259	2,418	4,677
Water	5	5	10
Waste	79	108	186
Two Year Total GHG Emissions (Metric Tons CO2)			15,454

3.0. Energy Audit Findings & Recommendations

Under a previous scope in 2011/2012, SWA conducted energy audits under NYSERDA's FlexTech Program for the following SUNY Orange buildings:

1. Bio-Tech Building
2. The Loop
 - a. Harriman Hall
 - b. Orange Hall
 - c. Hudson Hall
 - d. Morrison Hall
3. The Library
4. Physical Education Building
5. Commons (George F. Shepard Student Center)



Due to the Middletown Campus being a master metered complex for electricity usage, building specific data is not available. The campus purchases electrical service from Orange & Rockland Utilities at an average aggregated rate of \$0.104/kWh. Natural Gas usage is available for each building. See Table 2 below for energy audit results and recommendations.

Table 2: Energy Audit Recommendations

Energy Audit Recommendations, Potential Cost & Savings						
	Measure	Estimated Cost	Estimated Savings (kWh)	Estimated Savings (\$)	Simple Payback	
Bio-Tech Building	Install VFDs on Cooling Tower Fans	\$ 9,000	24394	\$ 2,537.00	3.5	
	Vending Misers	\$ 1,733	12846	\$ 1,323.00	1.3	
	Install VFDs on CHW pumps	\$ 6,500	9984	\$ 1,028.00	6.3	
The Loop	Harriman Hall					
	Vending Misers	\$ 857	5610	\$ 577.83	1.5	
	Replace/Upgrade Window AC units	\$ 1,540	1806	\$ 185.98	8.3	
	Install 1 LED exit sign	\$ 151	215	\$ 52.74	2.9	
	Orange Hall	Vending Misers	\$ 339	1891	\$ 194.77	1.7
	Hudson Hall	Install 1 LED exit sign	\$ 151	215	\$ 52.74	2.9
Morrison Hall	Vending Misers	\$ 179	2045	\$ 210.64	0.8	
	Install 3 LED Exit signs	\$ 452	644	\$ 158.22	2.9	
Horton Hall	Replace/Upgrade Window AC units	\$ 1,980	2322	\$ 239.00	8.3	
Library	Install VFD on cooling tower	\$ 4,500	24338	\$ 2,507.00	1.8	
	Install 2 vending misers	\$ 339	2085	\$ 215.00	1.6	
PhysEd Building	Install 2 vending misers	\$ 339	1784	\$ 184.00	1.8	
	Install VFDs on primary hot water pumps	\$ 4,525	4179	\$ 435.00	10.4	
Student Center	Install 4 vending misers	\$ 697	5223	\$ 538.00	1.3	
	Install VFDs on Cooling Tower Fans	\$ 4,500	20813	\$ 1,728.00	2.6	
	Install VFDs on CHW pumps	\$ 3,000	4629	\$ 477.00	6.3	
	Replace 150W MH w pulse start 100W MH	\$ 1,607	3994	\$ 411.00	3.9	
TOTAL		\$ 42,389	129017	\$ 13,054.92	3.2	
TOTAL GHG EMISSIONS AVOIDED (METRIC TONS CO2)					88.96	

SWA recommends that SUNY Orange implements the above scope of work. If all measures are installed, the potential reduction in GHG emissions would be 99.96 metric tons of CO2. This is equivalent to taking 19 passenger cars off the road in one year. It will also save the school over \$13,000 and has a combined simple payback of 3.2 years.



Operations & Maintenance Recommendations

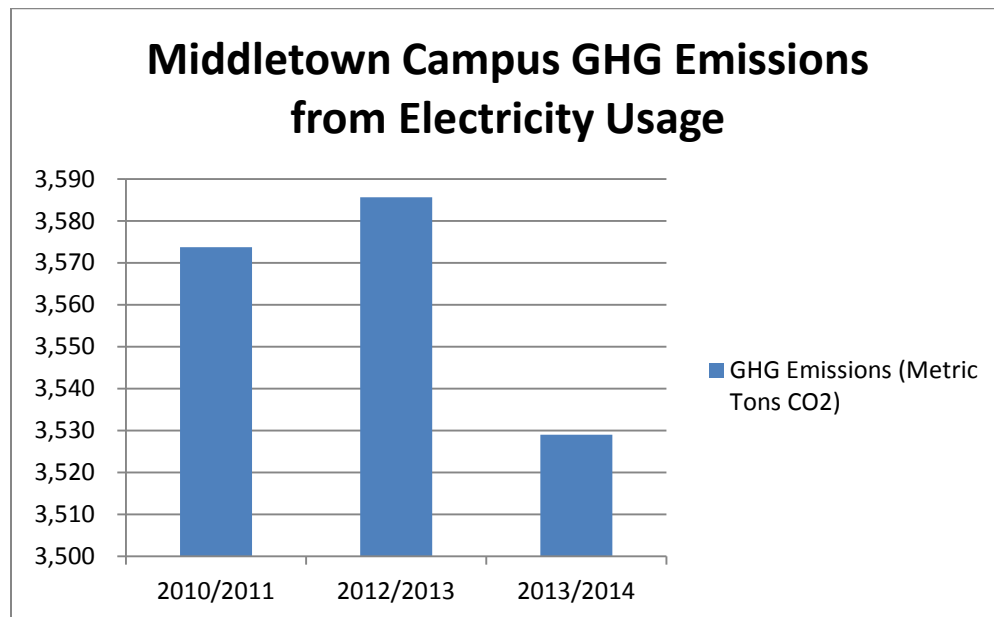
Additional operation and maintenance measures can be incorporated at SUNY Orange, some with little to no cost, to further save energy, decrease GHG emissions, and improve building performance. O&M is one of the most important considerations when achieving and maintaining GHG emissions reductions. Such measures are described below:

- Install sub-metering at the building level, when possible, allowing for more independent analysis of each building and more accurate specification of future improvements
- Upgrade BMS system via calibration and daily trending
- Install programmable thermostats
- Develop a detailed Preventative Maintenance schedule
- Any equipment that utilizes refrigerant R-22 should be converted to R-410a or replaced by equipment that utilizes R-410a. According to The Montreal Protocol, chemical manufacturers will no longer produce R-22 beyond 2020.
- Any piping for hot water, steam, or refrigerant should be properly insulated and sealed
- Maintain sealants at all windows for airtight performance
- Reduce hot water temperature set point to 125-130° F

Trends in GHG Emissions

SWA was able to evaluate trends in GHG emissions from 2010 to 2014 based on data received during the energy audits and the most recent analysis. SUNY Orange has recently implemented lighting upgrades in the BioTech Building the Student Center. This has resulted in a reduction in GHG emissions of 45 metric tons of CO₂. See Chart 1 below for more detail.

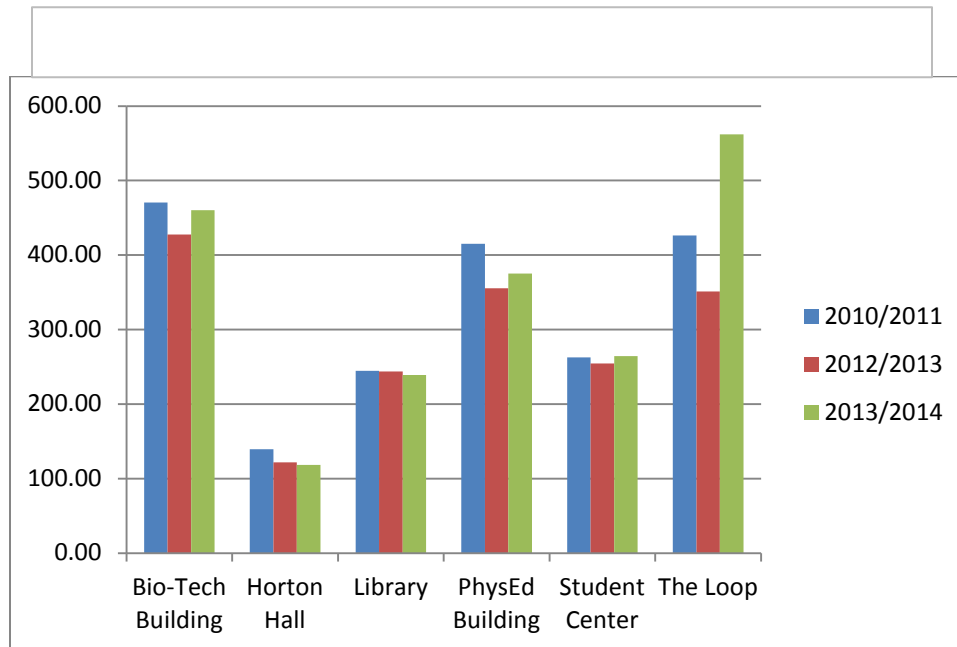
Chart 1: Middletown Campus GHG Emissions from Electricity Usage





Natural Gas usage is metered at each building and on average has decreased from 2010 to 2014 with the exception of The Loop. The PhysEd building recently installed a new boiler and achieved a GHG emissions reduction of 0.5 metric tons of CO₂. See Chart 2 below for more detail.

Chart 2: Middletown Campus GHG Emissions from Natural Gas (Metric Tons CO₂)



SWA recommends conducting an evaluation of The Loop to determine why natural gas usage has spiked in the 2013/2014 school year.

4.0. Next Steps for the CAP

In order for SUNY Orange to continue to reduce GHG emissions and meet the goals of the CAP, energy and water efficiency improvements plus waste reduction strategies should be pursued in 2015.

Electricity

The following actions should be taken to reduce GHG emissions from electricity usage:

- Submeter each building to better understand energy and water usage. Once you have submetered data for one year, you can update the SUNY Orange Portfolio Manager Account and pursue an Energy Star certification score.
- The scope of work presented in Table 2 should be implemented; it has the potential to cut emissions by 89 metric tons of CO₂ in the first year.
- Installing energy efficient lighting has already achieved 44 metric tons of CO₂ reduction and \$6,750 savings in two buildings. SUNY Orange should implement lighting upgrades across all buildings.
- Convert electric domestic hot water makers to natural gas. With the utility rate per BTU



for natural gas, SWA estimates a 60% savings from the conversion.

Natural Gas

Strategies for reducing natural gas usage need further evaluation in order to provide savings and cost estimation. Detailed energy audits may reveal further opportunities for SUNY Orange. The following recommendations should be considered at this time:

- Conduct detailed energy audits of all buildings.
 - The Loop energy audit is a priority. Natural Gas usage for those buildings is showing large swings in their utility data.
- Replace all single pane windows across the campus with low-E Energy Star windows. Typically when converting from a single pane window to an Energy Star window, the EPA estimates a 20% savings in usage and emissions and over \$400 in energy costs per window in northern New York.
- Investigate all potential air sealing opportunities across the campus to reduce heat losses and natural gas use.

Based on previous projects, a conservative estimate of potential savings in gas usage would be 10% of total gas usage from the measures discussed above. The average rate for gas across the campus is \$1.24/therm. A 10% reduction in gas usage from last year would result in a GHG reduction of 2.4 metric tons of CO₂.

Water

Water usage has decreased 7% from 2012/2013 to 2013/2014. Strategies to continue water usage reduction include:

- Install low flow Water Sense water fixtures across the campus. These fixtures use 20% less water than plumbing code compliant fixtures. Typical payback for water efficient fixtures is six months to one year.
- Water usage for irrigation should be separately metered. This is called abatement metering and can be a water savings. SUNY Orange could avoid sewer charges for all irrigation water.
- Strategies for reduced irrigation should be investigated such as rain sensors, drip irrigation, rainwater harvesting and native planting.
- Signs across the campus encouraging people to report leaks should be implemented. Leaks account for 10-30% of water usage on average.
- Observe water meters during off hours such as between 2am-4am, depending on building usage, and note if water usage is being measured during these times. Water usage should not be high during off hours therefore this can be an indication of water leaks.

If the strategies above are implemented, SWA estimates the campus could potentially reduce water usage by 10% as well as the associated GHG emissions reduction. Based on the current water rates at SUNY Orange, a water usage reduction of 10% at the Middletown Campus would result in a further savings of approximately \$7,000; a water reduction of 10% would result in savings of approximately \$10,000 at the Newburgh Campus. The Middletown Campus pays an average rate of \$11.22/CCF (hundred cubic feet) and the Newburgh Campus pays an average



rate of \$32.60/CCF.

Waste

SUNY Orange is actively recycling most of its waste stream. The campus should conduct a waste stream audit to determine what percentage of the waste stream is compostable and implement a composting program. Composting would decrease GHG emissions and can be used as an educational tool. There is the potential to start an on campus garden and use the compost in the garden. Excess compost could be donated to the community.

5.0. Aspirational Activities

Reducing GHG emissions goes beyond just reducing your energy, waste and water usage. There are many steps that not only decrease the campus's impact on the environment but also can demonstrate SUNY Orange's leadership in climate change mitigation.

Policy

SUNY Orange can put policies in place to ensure all faculty, staff and students maintain the goals of the CAP:

- Green Cleaning Program
- Sustainable Purchasing
 - Office and teaching supplies
 - Energy Star electronics
 - Low-VOC materials
 - Sustainable furniture
 - No bottled water, only water bottle filling stations
- Bike racks for all buildings and safe bike paths
- Sourcing local and/or organic food when possible
- Mandatory recycling
- All new developments should follow the LEED Standard Guidelines

Outreach

The SUNY Orange CAP has been in place for a couple years. There is an opportunity to celebrate the successes of the school's commitment to climate change mitigation through outreach. Outreach can include:

- Higher visibility website
 - Interactive so students can track emissions and submit ideas for further GHG emissions reductions
- Signage across the campus to inform students, staff, and visitors of sustainable building and grounds features. This also provides an educational opportunity.

Training

Training and education of faculty, facilities staff, and students should be a priority and should be ongoing. In order to maintain GHG emissions reductions already achieved, all players involved must understand the importance of reduction, how their actions contribute to climate change,



how to operate sustainable buildings features, and preventative steps they can take to ensure emissions don't increase.

Potential training opportunities can include:

- High Performance Operations & Maintenance (O&M) training for all facilities staff
 - O&M of new energy efficient systems to maintain savings
 - How benchmarking data can be used to inform decisions on capital upgrades to building systems
 - Formulating a preventative maintenance plan and building operation manual
 - The importance of maintaining logbooks of building operations
- Integration of the CAP into existing curriculum for students
- Special events for students and staff such as:
 - Lights Out Day: turning off lights across campus during a safe hour to save energy and raise awareness
 - Climate Change Walk: raise awareness and money for future initiatives
 - Electronics Recycling Day: hold an electronics drop off day to avoid students and community members from throwing away electronics
- Real time electronic displays around campus of energy and water usage and how that impacts GHG emissions.

Looking Ahead

SUNY Orange's commitment to the CAP will continue to grow and certain best practices should be considered for the future:

- Conducting feasibility studies for Cogeneration and Renewable Energy systems
- Consider purchasing renewable energy credits (RECs)
- Campus wide composting program in coordination with community needs for compost
 - Campus community garden managed by students
- Installing green roofs where economically feasible
 - Potential to be maintained by students and serve as a learning tool
- Rainwater harvesting for campus irrigation needs
 - Only planting native plants.

SUNY Orange has many opportunities to continue to reduce its impact on the environment by cutting GHG emissions, raising climate change awareness and integrating sustainability into all curricula.

Assumptions

Metric Tons of CO₂ per kWh

<http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results>

Metric Tons of CO₂ per CCF of Nat Gas

<http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results>

Metric Tons of CO₂ per Ton of Solid Waste

http://www.epa.gov/wastes/nonhaz/municipal/pubs/msw_2010_rev_factsheet.pdf

Metric Tons of CO₂ per Gallon of Water

http://buildgreen.ufl.edu/ppt/Handout_Landscaping_Carbon_Footprint.pdf



6.0. Appendices

- A. SUNY Orange Building List
- B. Electric Usage
- C. Gas Usage
- D. Water Usage
- E. Waste
- F. Energy Audit Results

A. SUNY ORANGE BUILDING LIST

		Gas Account #	Sept 12 - Aug 14 Gas Usage Data	Electric Account #	Sept 12 - Aug 14 Elec Usage Data	Water Account #	Sept 12 - Aug 14 Water Data
1	Bio-Tech Building, 115 South St, Middletown, NY	01089-58005	Y	01719-58008 MAIN	Y	53-90011280-0	Y
2	Horton Hall, 115 South St, Middletown, NY	83304-82005		01719-58008 MAIN	Y	53-90011260-0	Y
3	Library, 115 South St, Middletown, NY (LRC on the water data)	01299-58005	Y	01719-58008 MAIN	Y	53-0011320-0	Y
4	PhysEd Building, 115 South St, Middletown, NY (E. Conkling Ave on water data)	01509-58008	Y	01719-58008 MAIN	Y	53-90011330-0	Y
5	Commons (George F. Shepard Student Center), 115 South St, Middletown, NY	00879-58003	Y	01719-58008 MAIN	Y	53-90011310-0	Y
6	The Loop: Harriman Hall, 115 South St, Middletown, NY	83724-82005	Y	01719-58008 MAIN	Y	53-90011340-0	Y
7	The Loop: Orange Hall, 115 South St, Middletown, NY			01719-58008 MAIN	Y	53-90011360-0	Y
8	The Loop: Hudson Hall, 115 South St, Middletown, NY			01719-58008 MAIN	Y	53-90011290-0	Y
9	The Loop: Morrison Hall, 115 South St, Middletown, NY			01719-58008 MAIN	Y	53-90011300-0	Y
10	Newburgh Campus: Tower Building, 1 Washington Center	8673-0390-03	Y	8673-0391-03	Y		Y
11	Newburgh Campus: Kaplan Building, Grand St & 1st St	8673-0392-00	Y	8120-0440-00	Y		Y
12	Lab School, (Middletown Campus- opened approx.. Jan. 2013)	01930-54009	Y	01930-54009	Y	53-90011355-0	Y
	The "Loop" references the "gas loop" only.						

B. ELECTRIC USAGE

* Includes: BioTech Horton Orange Hall Harriman Hall Library Phys Ed. building Commons (now call Shepard Student Center) Morrison Hall Hudson Hall	Middletown Campus 9 Buildings*		Newburgh Campus: Tower Building, 1 Washington Center		Newburgh Campus: Kaplan Building, Grand St & 1st St		Lab School, Middletown Campus opened ~ Jan. 2013	
	Account #	01719-58008	Account #	8673-0391-03	Account #	8120-0440-00	Account #	01930-54009
	AY 12-13 (2013)	KWH	AY 12-13 (2013)	KWH	AY 12-13 (2013)	KWH	AY 12-13 (2013)	KWH
	Aug-13	387,181	Aug-13	73,680	Aug-13	186,040	Aug-13	6,640
	Jul-13	423,459	Jul-13	70,320	Jul-13	200,562	Jul-13	6,240
	Jun-13	391,983	Jun-13	62,640	Jun-13	180,543	Jun-13	7,600
	May-13	431,308	May-13	54,960	May-13	154,438	May-13	6,520
	Apr-13	427,749	Apr-13	63,840	Apr-13	154,498	Apr-13	6,880
	Mar-13	420,526	Mar-13	63,600	Mar-13	144,856	Mar-13	4,720
	Feb-13	505,251	Feb-13	76,320	Feb-13	150,173	Feb-13	7,760
	Jan-13	472,304	Jan-13	53,280	Jan-13	102,842	Jan-13	7,920
	Dec-12	436,303	Dec-12	81,600	Dec-12	112,316	Dec-12	5,800
	Nov-12	427,999	Nov-12	70,320	Nov-12	134,377	Nov-12	6,480
	Oct-12	398,072	Oct-12	52,080	Oct-12	139,880	Oct-12	5,680
	Sep-12	478,206	Sep-12	141,120	Sep-12	140,492	Sep-12	6,080
	TOTALS (AY 12-13)	5,200,341	TOTALS (AY 12-13)	863,760	TOTALS (AY 12-13)	1,801,017	TOTALS (AY 12-13)	78,320
	AY 13-14 (2014)	01719-58008	AY 13-14 (2014)	8673-0391-03	AY 13-14 (2014)	8120-0440-00	AY 13-14 (2014)	01930-54009
	Aug-14	423,267	Aug-14	69,360	Aug-14	145,572	Aug-14	6,800
	Jul-14	380,499	Jul-14	72,720	Jul-14	145,828	Jul-14	7,440
	Jun-14	393,405	Jun-14	63,120	Jun-14	131,625	Jun-14	6,120
	May-14	403,729	May-14	59,040	May-14	123,912	May-14	6,000
	Apr-14	403,131	Apr-14	66,720	Apr-14	124,439	Apr-14	6,360
	Mar-14	438,140	Mar-14	55,200	Mar-14	109,665	Mar-14	13,840
	Feb-14	430,076	Feb-14	82,080	Feb-14	11,262	Feb-14	0
	Jan-14	433,578	Jan-14	70,320	Jan-14	112,211	Jan-14	7,160
	Dec-13	473,802	Dec-13	79,200	Dec-13	101,133	Dec-13	6,960
	Nov-13	440,991	Nov-13	62,880	Nov-13	112,938	Nov-13	6,160
	Oct-13	421,737	Oct-13	54,960	Oct-13	131,634	Oct-13	5,920
	Sep-13	475,810	Sep-13	63,360	Sep-13	155,601	Sep-13	6,640
	TOTALS (AY 13-14)	5,118,165	TOTALS (AY 13-14)	798,960	TOTALS (AY 13-14)	1,405,820	TOTALS (AY 13-14)	79,400
	Middletown Campus	kWh	Newburgh - Tower	kWh	Newburgh - Kaplan	kWh	Lab School	kWh
	Total 12/13	5,200,341	Total 12/13	863,760	Total 12/13	1,801,017	Total 12/13	78,320
	Total 13/14	5,118,165	Total 13/14	798,960	Total 13/14	1,405,820	Total 13/14	79,400
	2 Year Total	10,318,506	2 Year Total	1,662,720	2 Year Total	3,206,837	2 Year Total	157,720
	TOTAL CAMPUS ELECTRIC (KWH)							
	Total 12/13	7,943,438						
	Total 13/14	7,402,345						
	2 Year Total	15,345,783						
	TOTAL CAMPUS GHG ELECTRIC EMISSIONS (METRIC TONS CO2)							
	Total 12/13	5,477.00						
	Total 13/14	5,103.92						
	2 Year Total	10,580.92						
	0.0006895 Emission Coefficient for Metric Tons of CO2 per kWh							

C. GAS USAGE

Bio-Tech Building, 115 South St, Middletown, NY		Horton Hall, 115 South St, Middletown, NY		Library, 115 South St, Middletown, NY (LRC on the water data)		PhysEd Building, 115 South St, Middletown, NY		Commons (George F. Shepard Student Center), 115 South St, Middletown, NY		The Loop - 4 Buildings		Newburgh Campus: Tower Building, 1 Washington Center		Newburgh Campus: Kaplan Building, Grand St & 1st St		Lab School, (Middletown Campus- opened ~Jan. 2013)	
Account #	01089-58005	Account #	83304-82005	Account #	01299-58005	Account #	01509-58008	Account #	00879-58003	Account #	83724-82005	Account #	8673-0390-03	Account #	8673-0392-00	Account #	01930-54009
AY 12-13 (2013)	THERMS	AY 12-13 (2013)	THERMS	AY 12-13 (2013)	THERMS	AY 12-13 (2013)	THERMS	AY 12-13 (2013)	THERMS	AY 12-13 (2013)	THERMS	AY 12-13 (2013)	THERMS	AY 12-13 (2013)	THERMS	AY 12-13 (2013)	THERMS
Aug-13	6,190.00	Aug-13	45.00	Aug-13	3,970.00	Aug-13	950.00	Aug-13	3,060.00	Aug-13	140.00	Aug-13	114.00	Aug-13	2,365.00	Aug-13	21.00
Jul-13	7,970.00	Jul-13	64.00	Jul-13	3,540.00	Jul-13	750.00	Jul-13	4,960.00	Jul-13	90.00	Jul-13	89.00	Jul-13	1,360.00	Jul-13	11.00
Jun-13	4,300.00	Jun-13	113.00	Jun-13	3,720.00	Jun-13	1,550.00	Jun-13	2,300.00	Jun-13	580.00	Jun-13	117.00	Jun-13	2,080.00	Jun-13	26.00
May-13	2,060.00	May-13	874.00	May-13	910.00	May-13	3,590.00	May-13	1,850.00	May-13	2,560.00	May-13	1,133.00	May-13	2,250.00	May-13	35.00
Apr-13	6,000.00	Apr-13	2,417.00	Apr-13	3,020.00	Apr-13	6,970.00	Apr-13	3,550.00	Apr-13	9,860.00	Apr-13	1,868.00	Apr-13	3,870.00	Apr-13	250.00
Mar-13	9,400.00	Mar-13	3,596.00	Mar-13	5,210.00	Mar-13	10,140.00	Mar-13	5,380.00	Mar-13	8,790.00	Mar-13	4,694.00	Mar-13	5,660.00	Mar-13	403.00
Feb-13	12,700.00	Feb-13	4,763.00	Feb-13	6,650.00	Feb-13	13,360.00	Feb-13	7,450.00	Feb-13	13,570.00	Feb-13	10,215.00	Feb-13	7,520.00	Feb-13	871.00
Jan-13	10,320.00	Jan-13	4,064.00	Jan-13	5,780.00	Jan-13	11,170.00	Jan-13	5,900.00	Jan-13	13,260.00	Jan-13	7,347.00	Jan-13	4,920.00	Jan-13	1,192.00
Dec-12	8,140.00	Dec-12	3,607.00	Dec-12	5,200.00	Dec-12	9,320.00	Dec-12	5,360.00	Dec-12	10,180.00	Dec-12	10,633.00	Dec-12	7,230.00	Dec-12	922.00
Nov-12	4,440.00	Nov-12	2,216.00	Nov-12	2,970.00	Nov-12	5,840.00	Nov-12	3,340.00	Nov-12	5,390.00	Nov-12	6,958.00	Nov-12	4,450.00	Nov-12	617.00
Oct-12	2,400.00	Oct-12	1,035.00	Oct-12	930.00	Oct-12	2,590.00	Oct-12	1,410.00	Oct-12	1,550.00	Oct-12	1,583.00	Oct-12	2,150.00	Oct-12	450.00
Sep-12	6,600.00	Sep-12	141.00	Sep-12	4,010.00	Sep-12	730.00	Sep-12	3,410.00	Sep-12	210.00	Sep-12	1,590.00	Sep-12	1,590.00	Sep-12	156.00
TOTALS (AY 12-13)	80,520.00	TOTALS (AY 12-13)	22,935.00	TOTALS (AY 12-13)	45,910.00	TOTALS (AY 12-13)	66,960.00	TOTALS (AY 12-13)	47,970.00	TOTALS (AY 12-13)	66,180.00	TOTALS (AY 12-13)	44,751.00	TOTALS (AY 12-13)	45,445.00	TOTALS (AY 12-13)	4,954.00
AY 13-14 (2014)	01089-58005	AY 13-14 (2014)	83304-82005	AY 13-14 (2014)	01299-58005	AY 13-14 (2014)	01509-58008	AY 13-14 (2014)	00879-58003	AY 13-14 (2014)	83724-82005	AY 13-14 (2014)	8673-0390-03	AY 13-14 (2014)	8673-0392-00	AY 13-14 (2014)	01930-54009
Aug-14	6170.00	Aug-14	87.00	Aug-14	3,510.00	Aug-14	-	Aug-14	3,310.00	Aug-14	3,750.00	Aug-14	113.00	Aug-14	1,060.00	Aug-14	19.00
Jul-14	7540.00	Jul-14	82.00	Jul-14	4,970.00	Jul-14	470.00	Jul-14	4,460.00	Jul-14	3,600.00	Jul-14	120.00	Jul-14	975.00	Jul-14	22.00
Jun-14	3780.00	Jun-14	102.00	Jun-14	1,980.00	Jun-14	350.00	Jun-14	1,790.00	Jun-14	820.00	Jun-14	217.00	Jun-14	975.00	Jun-14	35.00
May-14	2910.00	May-14	926.00	May-14	1,830.00	May-14	2,830.00	May-14	1,580.00	May-14	3,400.00	May-14	1,063.00	May-14	1,800.00	May-14	208.00
Apr-14	5290.00	Apr-14	2,431.00	Apr-14	3,410.00	Apr-14	6,260.00	Apr-14	3,330.00	Apr-14	8,090.00	Apr-14	5,390.00	Apr-14	3,190.00	Apr-14	538.00
Mar-14	11540.00	Mar-14	3,577.00	Mar-14	4,870.00	Mar-14	11,170.00	Mar-14	5,940.00	Mar-14	23,500.00	Mar-14	6,078.00	Mar-14	5,180.00	Mar-14	652.00
Feb-14	11510.00	Feb-14	4,944.00	Feb-14	6,420.00	Feb-14	12,110.00	Feb-14	7,560.00	Feb-14	11,930.00	Feb-14	4,342.00	Feb-14	6,660.00	Feb-14	1,236.00
Jan-14	12540.00	Jan-14	4,309.00	Jan-14	6,300.00	Jan-14	14,620.00	Jan-14	7,340.00	Jan-14	20,220.00	Jan-14	4,079.00	Jan-14	6,780.00	Jan-14	1,011.00
Dec-13	10900.00	Dec-13	3,537.00	Dec-13	4,800.00	Dec-13	12,150.00	Dec-13	6,510.00	Dec-13	18,740.00	Dec-13	3,060.00	Dec-13	6,790.00	Dec-13	934.00
Nov-13	5440.00	Nov-13	2,020.00	Nov-13	3,070.00	Nov-13	6,750.00	Nov-13	3,720.00	Nov-13	10,750.00	Nov-13	1,527.00	Nov-13	5,020.00	Nov-13	391.00
Oct-13	2450.00	Oct-13	225.00	Oct-13	960.00	Oct-13	2,680.00	Oct-13	960.00	Oct-13	830.00	Oct-13	248.00	Oct-13	2,730.00	Oct-13	91.00
Sep-13	6650.00	Sep-13	52.00	Sep-13	2,900.00	Sep-13	1,330.00	Sep-13	3,320.00	Sep-13	250.00	Sep-13	115.00	Sep-13	2,365.00	Sep-13	40.00
TOTALS (AY 13-14)	86720.00	TOTALS (AY 13-14)	22,292.00	TOTALS (AY 13-14)	45,020.00	TOTALS (AY 13-14)	70,720.00	TOTALS (AY 13-14)	49,820.00	TOTALS (AY 13-14)	105,880.00	TOTALS (AY 13-14)	26,352.00	TOTALS (AY 13-14)	43,525.00	TOTALS (AY 13-14)	5,177.00
Bio Tech Building	THERMS	Horton Hall	THERMS	Library	THERMS	PhysEd Building	THERMS	Commons/Student Cer	THERMS	The Loop	THERMS	Newburgh - Tower	THERMS	Newburgh - Kaplan	THERMS	Lab School	THERMS
Total 12/13	80,520	Total 12/13	22,935	Total 12/13	45,910	Total 12/13	66,960	Total 12/13	47,970	Total 12/13	66,180	Total 12/13	44,751	Total 12/13	45,445	Total 12/13	4,954
Total 13/14	86,720	Total 13/14	22,292	Total 13/14	45,020	Total 13/14	70,720	Total 13/14	49,820	Total 13/14	105,880	Total 13/14	26,352	Total 13/14	43,525	Total 13/14	5,177
2 Year Total	167,240	2 Year Total	45,227	2 Year Total	90,930	2 Year Total	137,680	2 Year Total	97,790	2 Year Total	172,060	2 Year Total	71,103	2 Year Total	88,970	2 Year Total	10,131
TOTAL CAMPUS GAS (CCF)																	
Total 12/13	425,625																
Total 13/14	455,506																
2 Year Total	881,131																
TOTAL CAMPUS GHG GAS EMISSIONS (METRIC TONS OF CO2)																	
Total 12/13	2,259.22																
Total 13/14	2,417.83																
2 Year Total	4,677.04																
	0.005308	Emission Coefficient for Metric Tons of CO2 per Therm															

D. WATER USAGE

Bio-Tech Building, 115 South St, Middletown, NY		Horton Hall, 115 South St, Middletown, NY		Library, 115 South St, Middletown, NY (LRC on the water data)		PhysEd Building, 115 South St, Middletown, NY (E.Conkling Ave on water data)		Commons (George F. Shepard Student Center), 115 South St, Middletown, NY		The Loop: Harriman Hall, 115 South St, Middletown, NY		Newburgh Campus: Tower Building, 1 Washington Center		Newburgh Campus: Kaplan Building, Grand St & 1st St		Lab School, (Middletown Campus- opened approx. Jan. 2013)	
Account #	53-90011280-0	Account #	53-90011260-0	Account #	53-0011320-0	Account #	53-90011330-0	Account #	53-90011310-0	Account #	53-90011340-0	Account #		Account #		Account #	53-90011355-0
AY 12-13 (2013)	GAL	AY 12-13 (2013)	GAL	AY 12-13 (2013)	GAL	AY 12-13 (2013)	GAL	AY 12-13 (2013)	GAL	AY 12-13 (2013)	GAL	AY 12-13 (2013)	GAL	AY 12-13 (2013)	GAL	AY 12-13 (2013)	GAL
Sep-12	303,000.00	Sep-12	18,390.00	Sep-12	156,620.00	Sep-12	16,900.00	Sep-12	123,800.00	Sep-12	17,670.00	7/1/12-9/30/12	255,000.00	7/1/12-9/30/12	1,105,000.00	Sep-12	
Oct-12	353,900.00	Oct-12	17,920.00	Oct-12	100,100.00	Oct-12	48,600.00	Oct-12	142,500.00	Oct-12	58,620.00	10/1/12-12/31/12	201,000.00	10/1/12-12/31/12	114,000.00	Oct-12	
Nov-12	272,600.00	Nov-12	15,320.00	Nov-12	35,030.00	Nov-12	73,800.00	Nov-12	154,600.00	Nov-12	60,280.00	1/1/13-3/31/13	242,000.00	1/1/13-3/31/13	79,000.00	Nov-12	
Dec-12	214,200.00	Dec-12	13,500.00	Dec-12	24,610.00	Dec-12	40,300.00	Dec-12	42,000.00	Dec-12	39,380.00	4/1/13-6/30/13	212,000.00	4/1/13-6/30/13	306,000.00	Dec-12	
Jan-13	133,400.00	Jan-13	8,010.00	Jan-13	20,980.00	Jan-13	33,800.00	Jan-13	36,800.00	Jan-13	32,270.00					Jan-13	
Feb-13	96,500.00	Feb-13	7,520.00	Feb-13	11,690.00	Feb-13	19,600.00	Feb-13	33,200.00	Feb-13	19,350.00					Feb-13	
Mar-13	149,600.00	Mar-13	8,270.00	Mar-13	25,720.00	Mar-13	64,900.00	Mar-13	46,600.00	Mar-13	43,920.00					Mar-13	
Apr-13	136,600.00	Apr-13	7,900.00	Apr-13	20,970.00	Apr-13	42,700.00	Apr-13	32,700.00	Apr-13	37,930.00					Apr-13	59,320.00
May-13	330,080.00	May-13	18,770.00	May-13	72,380.00	May-13	87,730.00	May-13	94,610.00	May-13	96,090.00					May-13	17,990.00
Jun-13	141,100.00	Jun-13	8,470.00	Jun-13	33,330.00	Jun-13	37,100.00	Jun-13	52,100.00	Jun-13	27,130.00					Jun-13	10,890.00
Jul-13	187,800.00	Jul-13	23,760.00	Jul-13	74,300.00	Jul-13	37,900.00	Jul-13	57,800.00	Jul-13	5,830.00					Jul-13	8,500.00
Aug-13	266,100.00	Aug-13	38,310.00	Aug-13	95,780.00	Aug-13	41,000.00	Aug-13	128,600.00	Aug-13	7,910.00					Aug-13	5,840.00
TOTALS (AY 12-13)	2,584,880.00	TOTALS (AY 12-13)	186,140.00	TOTALS (AY 12-13)	671,510.00	TOTALS (AY 12-13)	510,530.00	TOTALS (AY 12-13)	945,310.00	TOTALS (AY 12-13)	446,380.00	TOTALS (AY 12-13)	910,000.00	TOTALS (AY 12-13)	1,604,000.00	TOTALS (AY 12-13)	102,540.00
AY 13-14 (2014)	53-90011280-0	AY 13-14 (2014)	53-90011260-0	AY 13-14 (2014)	53-0011320-0	AY 13-14 (2014)	53-90011330-0	AY 13-14 (2014)	53-90011310-0	AY 13-14 (2014)	53-90011340-0	AY 13-14 (2014)		AY 13-14 (2014)		AY 13-14 (2014)	53-90011355-0
Sep-13	172,100.00	Sep-13	17,950.00	Sep-13	61,220.00	Sep-13	34,300.00	Sep-13	79,600.00	Sep-13	11,470.00	7/1/13-9/30/13	423,000.00	7/1/13-9/30/13	463,000.00	Sep-13	3,410.00
Oct-13	293,600.00	Oct-13	21,090.00	Oct-13	70,370.00	Oct-13	52,300.00	Oct-13	104,400.00	Oct-13	67,370.00	10/1/13-12/31/13	148,000.00	10/1/13-12/31/13	139,000.00	Oct-13	12,190.00
Nov-13	229,300.00	Nov-13	17,700.00	Nov-13	45,500.00	Nov-13	69,800.00	Nov-13	62,700.00	Nov-13	58,230.00	1/1/14-3/31/14	146,000.00	1/1/14-3/31/14	68,000.00	Nov-13	12,530.00
Dec-13	172,100.00	Dec-13	10,300.00	Dec-13	32,700.00	Dec-13	51,900.00	Dec-13	48,900.00	Dec-13	49,000.00	4/1/14-6/30/14	285,000.00	4/1/14-6/30/14	807,000.00	Dec-13	9,200.00
Jan-14	106,100.00	Jan-14	7,900.00	Jan-14	17,800.00	Jan-14	63,800.00	Jan-14	25,700.00	Jan-14	26,800.00					Jan-14	6,350.00
Feb-14	121,000.00	Feb-14	4,120.00	Feb-14	5,650.00	Feb-14	31,500.00	Feb-14	21,000.00	Feb-14	30,000.00					Feb-14	4,200.00
Mar-14	162,400.00	Mar-14	9,260.00	Mar-14	25,510.00	Mar-14	43,500.00	Mar-14	34,500.00	Mar-14	35,000.00					Mar-14	6,870.00
Apr-14	170,000.00	Apr-14	24,350.00	Apr-14	30,830.00	Apr-14	49,900.00	Apr-14	39,400.00	Apr-14	35,459.00					Apr-14	10,790.00
May-14	161,300.00	May-14	10,250.00	May-14	29,800.00	May-14	39,500.00	May-14	44,300.00	May-14	70,600.00					May-14	9,290.00
Jun-14	163,200.00	Jun-14	8,310.00	Jun-14	49,370.00	Jun-14	49,900.00	Jun-14	49,600.00	Jun-14	27,100.00					Jun-14	9,010.00
Jul-14	203,300.00	Jul-14	9,590.00	Jul-14	97,980.00	Jul-14	45,700.00	Jul-14	61,000.00	Jul-14	144,400.00					Jul-14	9,790.00
Aug-14	252,400.00	Aug-14	14,730.00	Aug-14	81,320.00	Aug-14	28,100.00	Aug-14	106,500.00	Aug-14	127,900.00					Aug-14	6,320.00
TOTALS (AY 13-14)	2,206,800.00	TOTALS (AY 13-14)	155,550.00	TOTALS (AY 13-14)	548,050.00	TOTALS (AY 13-14)	560,200.00	TOTALS (AY 13-14)	677,600.00	TOTALS (AY 13-14)	683,329.00	TOTALS (AY 13-14)	1,002,000.00	TOTALS (AY 13-14)	1,477,000.00	TOTALS (AY 13-14)	99,950.00
BioTech Building	GAL	Horton Hall	GAL	Library (LRC)	GAL	PhysEd Building	GAL	Commons/Student Center	GAL	The Loop	GAL	Newburgh - Tower	GAL	Newburgh - Kaplan	GAL	Lab School	GAL
Total 12/13	2,584,880	Total 12/13	186,140	Total 12/13	671,510	Total 12/13	510,530	Total 12/13	945,310	Total 12/13	446,380	Total 12/13	910,000	Total 12/13	1,604,000	Total 12/13	102,540
Total 13/14	2,206,800	Total 13/14	155,550	Total 13/14	548,050	Total 13/14	560,200	Total 13/14	677,600	Total 13/14	683,329	Total 13/14	1,002,000	Total 13/14	1,477,000	Total 13/14	99,950
2 Year Total	4,791,680	2 Year Total	341,690	2 Year Total	1,219,560	2 Year Total	1,070,730	2 Year Total	1,622,910	2 Year Total	1,129,709	2 Year Total	1,912,000	2 Year Total	3,081,000	2 Year Total	202,490
TOTAL CAMPUS WATER (GALLONS)																	
Total 12/13	7,961,290																
Total 13/14	7,410,479																
2 Year Total	15,371,769																
TOTAL CAMPUS GHG WATER EMISSIONS (METRIC TONS OF CO2)																	
Total 12/13	5.11																
Total 13/14	4.76																
2 Year Total	9.87																

E. WASTE

	Tons			
	2012		2013	
Waste Item	Waste	Recycle	Waste	Recycle
Solid Waste	0.57		0.67	
Yard Waster			3.46	
Mixed Recyclables				36
Pallets		1.1475		
Office Paper		11.18		6.99
Mixed Paper		18.275		
Computer Monitors		0.9		0.465
Misc. Electronics		0.54		
Printers		1.89		0.099
TVs		1.5525		0.32
Computer Peripherals				0.2
CPU Units				0.378
Used Motor Oil		1 55gal Drum		0.35
Used Antifreeze				0.2347
Used Oil Filters		.025 gal		
TOTAL CAMPUS WASTE (TONS)				
Total 2012	35.88			
Total 2013	49.1667			
2 Year Total	85.047			
TOTAL CAMPUS GHG WASTE EMISSIONS (METRIC TONS)				
Total 2012	78.51			
Total 2013	107.59			
2 Year Total	186.10			
2.188235 Metric Tons of CO2 per Ton of Solid Waste				

F. ENERGY AUDIT RESULTS

Electricity (kWh)	2010/2011	2012/2013	2013/2014			Energy Audit Recommendations, Potential Cost & Savings						
						Measure	Estimated Cost	Estimated Savings (kWh)	Estimated Savings (\$)	Simple Payback		
Middletown Campus	5,183,093	5,200,341	5,118,165									
						Bio-Tech Building	Install VFDs on Cooling Tower Fans	\$ 9,000	24394	\$ 2,537.00	3.5	
							Vending Misers	\$ 1,733	12846	\$ 1,323.00	1.3	
Natural Gas (CCF)	2010/2011	2012/2013	2013/2014				Install VFDs on CHW pumps	\$ 6,500	9984	\$ 1,028.00	6.3	
Bio-Tech Building	88,658	80,520	86,720				Vending Misers	\$ 857	5610	\$ 577.83	1.5	
Horton Hall	26,262	22,935	22,292			Harriman Hall	Replace/Upgrade Window AC units	\$ 1,540	1806	\$ 185.98	8.3	
Library	46,090	45,910	45,020		The Loop		Install 1 LED exit sign	\$ 151	215	\$ 52.74	2.9	
PhysEd Building	78,182	66,960	70,720			Orange Hall	Vending Misers	\$ 339	1891	\$ 194.77	1.7	
Student Center	49,480	47,970	49,820			Hudson Hall	Install 1 LED exit sign	\$ 151	215	\$ 52.74	2.9	
The Loop	80,302	66,180	105,880			Morrison Hall	Vending Misers	\$ 179	2045	\$ 210.64	0.8	
							Install 3 LED Exit signs	\$ 452	644	\$ 158.22	2.9	
							Horton Hall	Replace/Upgrade Window AC units	\$ 1,980	2322	\$ 239.00	8.3
							Library	Install VFD on cooling tower	\$ 4,500	24338	\$ 2,507.00	1.8
							Install 2 vending misers	\$ 339	2085	\$ 215.00	1.6	
						PhysEd Building	Install 2 vending misers	\$ 339	1784	\$ 184.00	1.8	
							Install VFDs on primary hot water pumps	\$ 4,525	4179	\$ 435.00	10.4	
						Student Center	Install 4 vending misers	\$ 697	5223	\$ 538.00	1.3	
							Install VFDs on Cooling Tower Fans	\$ 4,500	20813	\$ 1,728.00	2.6	
							Install VFDs on CHW pumps	\$ 3,000	4629	\$ 477.00	6.3	
							Replace 150W MH w pulse start 100W MH	\$ 1,607	3994	\$ 411.00	3.9	
							TOTAL	\$ 42,389	129017	\$ 13,054.92	3.2	
							TOTAL GHG EMISSIONS AVOIDED (METRIC TONS CO2)			88.96		

2016 Six Year Capital Plan

prepared by SUNY Orange



2016 Six Year Capital Plan	
County 2016/State 2017	
Black Top Campus Wide	\$ 400,000.00
Univent Replacement Harriman Hall	\$ 375,000.00
Univent Replacement Bio Tech	\$ 300,000.00
Morrison Hall Cooling Tower	\$ 250,000.00
	\$ 1,325,000.00
County 2017/State 2018	
Library Chiller Replacement	\$ 330,000.00
Window Replacement Bio Tech Building	\$ 350,000.00
Horton Hall Site Repairs	\$ 350,000.00
Recoat Roofs	\$ 300,000.00
	\$ 1,330,000.00
County 2018/State 2019	
PE Building Bleacher Replacement	\$ 400,000.00
Replace PE Building Roof Top Units	\$ 330,000.00
South Street Sidewalk Replacement	\$ 200,000.00
Replace Pumps Motors Campus Wide	\$ 300,000.00
	\$ 1,230,000.00
County 2019/State 2020	
Replace Bio Tech Cooling Tower	\$ 300,000.00
Cooling Tower Piping Library	\$ 350,000.00
Window Replacement Orange Hall	\$ 330,000.00
Window Replacement Harriman Hall	\$ 330,000.00
	\$ 1,310,000.00
County 2020/State 2021	
Parking Lot Paving Campus Wide	\$ 500,000.00
Sidewalk Replacement	\$ 200,000.00
Parking Lot Site Light Upgrade Phase I	\$ 300,000.00
	\$ 1,000,000.00
County 2021/State 2022	
Replace Roof Top Air handler Units Orange Hall	\$ 350,000.00
Parking Lot Site Light Upgrade Phase II	\$ 250,000.00
Hudson & Horton Hall Boiler Replacment	\$ 200,000.00
	\$ 800,000.00