



11.0 ACADEMIC & SUPPORT FACILITIES



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2020-30 CAMPUS MASTER PLAN UPDATE

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11.0 ACADEMIC & SUPPORT FACILITIES INTRODUCTION

INTRODUCTION

STRATEGIC PLAN FOR FACILITIES

Figure 11.0-1 Strategic Plan Chapter 5

Facilities are addressed in the [UCF COLLECTIVE IMPACT Strategic Plan 2016](#) as follows:

Innovate Academic, Operational, and Financial Models to Transform Higher Education Facilities

FACILITIES	
Metrics	<ul style="list-style-type: none"> Define and achieve a new standard in facility efficiency (sq. ft. per student, per employee). Develop a new standard for teaching facility design with measurable improvement in pedagogical effectiveness.
Strategies	<ul style="list-style-type: none"> With the exception of highly specialized uses, design all new space and all renovations to be flexible and capable of accommodating the needs of multiple disciplines and new faculty. Develop an approach for allocation of facilities based upon merit-based criteria such as student credit hours generated or research productivity). Blend space effectively between co-curricular and curriculum-based activities.
Lead	<ul style="list-style-type: none"> Vice President for Administration and Finance Provost Vice Provost for Teaching and Learning and Dean of Undergraduate Studies

RELATED ELEMENTS

See 3.0 HOUSING for undergraduate, graduate, and Greek student housing.

See 4.0 ATHLETICS, RECREATION & OPEN SPACE for intercollegiate, intramural, and recreational facilities.

See 5.0 GENERAL INFRASTRUCTURE & UTILITIES and 12.0 FACILITIES MAINTENANCE for utility, recycling, operations, and other support facility needs.

See 6.0 TRANSPORTATION for roads, paths, and parking facilities.

See 10.0 CAPITAL IMPROVEMENTS & IMPLEMENTATION for the 10-Year Schedule of Capital Projects (SCP) that lists all facilities needed during the 10-year planning timeframe.

REGULATION



11.0 ACADEMIC & SUPPORT FACILITIES is the combination of two elements that UCF has included in the Campus Master Plan since 1995.

Optional elements are permitted under BOG 21.212, but are not subject to review under Chapter 21.

11.0 ACADEMIC & SUPPORT FACILITIES GOALS, OBJECTIVES, & POLICIES

GOALS, OBJECTIVES, & POLICIES

11.1 Academic Facilities Sub-Element

NARRATIVE

Academic Facilities include Classrooms, Teaching Labs, Research Facilities, Libraries (study areas and stacks for book storage) and Academic Departments (offices supporting academic departments).
The University has a significant deficit of academic and research space according to current BOG standards (see Data & Analysis).

GOAL 1: Provide modern, well-equipped, academic facilities to meet general requirements of state-of the-art instruction in all programs.

OBJECTIVE 1.1: Provide state-of-the-art classrooms to meet the requirements of instruction in all programs.

POLICY 1.1.1: The University shall seek to increase its classroom inventory by an average of at least 10,000 net assignable square (NASF) feet per year, to address the classroom space deficit of 83,904 SF. This target will be evaluated on an annual basis, with priority projects presented in the annual Five-Year Capital Improvement Plan (CIP).

POLICY 1.1.2: The University shall not lease temporary or modular structures for classrooms.

POLICY 1.1.3: The University shall continue to apply space-use standards embodied in the long-standing SUS Space Needs Generation Formula, together with the more detailed standards of Florida's State Requirements for Educational Facilities (SREF).

OBJECTIVE 1.2: Provide teaching laboratories to meet the requirements of specialized instruction in all programs at the undergraduate and graduate levels.

POLICY 1.2.1: The University shall seek to increase its teaching laboratory inventory by approximately 20,000 NASF per year in order to address the teaching laboratory space deficit of 324,648 SF. This target will be evaluated on an annual basis, with priority projects presented in the annual CIP.

POLICY 1.2.2: The University shall continue to apply the established state, SUS, and UCF space-use standards to determine future teaching laboratory building programs, and shall optimize laboratory space in teaching laboratory renovations.

OBJECTIVE 1.3: Provide state-of-the-art library facilities and resources.

POLICY 1.3.1: The University shall seek to create a 21st-century library by the year 2025, provided CITF funding is available and approved for use on the library renovation.

OBJECTIVE 1.4: Provide research laboratories to meet the scholarship needs of undergraduate and graduate students, as well as for research faculty in all programs.

POLICY 1.4.1: The University shall seek to increase its research laboratory inventory by an average of at least 25,000 NASF per year in order to address the research laboratory space deficit of 629,057 SF. This target will be evaluated on an annual basis, with priority projects presented in the annual CIP.

POLICY 1.4.2: The University shall continue to identify future research laboratory building programs, plan the renovation of existing teaching

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OBJECTIVE 1.5: Establish the timing and phasing of development of future academic space on campus.

laboratories to optimize existing laboratory space, and address emerging areas of research focus.

POLICY 1.5.1: Final authority for planning shall continue to be vested in the University President, acting upon advice and counsel of advisory staff, which includes divisional Vice Presidents, the Faculty Senate Chair, the Chair of the University Master Planning Committee, and others selected by the President.

OBJECTIVE 1.6: Set priorities for the development of future academic buildings.

POLICY 1.6.1: The University shall amend the adopted CMP as needed to add, remove, rename, or otherwise change projects projected in the 10-year Schedule of Capital Projects (SCP). The SCP is subject to change as needs evolve.

POLICY 1.6.2: The University shall analyze and amend the priority, funding, and timing of projects listed in the annual 5-Year Capital Improvement Plan (CIP).

OBJECTIVE 1.7: Estimate the funding necessary for the development of future academic facilities.

POLICY 1.7.1: Allocations of funds for the development of future academic facilities shall be requested in the annual 5-year Capital Improvement Plan (CIP).

POLICY 1.7.2: Academic facilities which arise from grant awards, accelerated funding, or other circumstances, may be added to the CMP by Minor Amendment.

OBJECTIVE 1.8: Define appropriate locations for future academic buildings.

POLICY 1.8.1: Future academic facilities shall be located within the Academic Core, when possible.

POLICY 1.8.2: The University shall seek to locate future academic buildings in a manner that meets the requirements of growth, while maintaining an environmentally-pleasing, inviting space in which students, faculty, and staff can learn, teach, and work.

POLICY 1.8.3: The University shall consider walking distances and elapsed time between scheduled classes when locating Academic Buildings. It is important that students have adequate time to move from one class to another.¹

GOALS, OBJECTIVES, & POLICIES

11.2 Support Facilities Sub-Element

NARRATIVE

Support Building Spaces include administrative offices and computer uses; campus administrative spaces, such as Facilities Maintenance; and student support services and activities of a non-academic nature such as the Student Union, and auditorium/exhibition spaces.

Support Facilities should not be confused with Support Land Use (see 2.0 FUTURE LAND USE & URBAN DESIGN).

¹ UCF class scheduling currently schedules a 10-minute class break (elapsed time).

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Although other facilities are needed to support the Academic and Research Mission of the University, they are listed in the following elements:

3.0 HOUSING (graduate, undergraduate, and Greek housing)

4.0 ATHLETICS, RECREATION & OPEN SPACE (intercollegiate, intramural, and recreational facilities)

5.0 GENERAL INFRASTRUCTURE & UTILITIES (utility, recycling, and other support facilities)

6.0 TRANSPORTATION (roads, paths, and parking facilities)

12.0 FACILITIES MAINTENANCE (operations and other support facilities)

GOAL 1: Plan and develop support facilities required to meet the needs of future student enrollment.

OBJECTIVE 1.1: Define appropriate locations for future support facilities.

POLICY 1.1.1: Future administrative offices shall continue to be placed within the Campus Core (inside of Gemini Boulevard).

POLICY 1.1.2: Facilities Operations facilities shall be located on the southern portion of the campus (Libra Drive), when possible.

POLICY 1.1.3: Future intercollegiate athletic facilities shall be located in the Kenneth G. Dixon Athletic Village in the northeastern area of campus.

POLICY 1.1.4: Support facilities housed in one-story buildings within the core of campus shall be re-developed at a higher density when feasible.

POLICY 1.1.5: Support space shall continue to be accommodated in mixed-use buildings when possible.

OBJECTIVE 1.2: Identify support projects to meet the needs of the campus.

POLICY 1.2.1: Future student service areas shall be implemented as directed by element 10.0 CAPITAL IMPROVEMENTS & IMPLEMENTATION.

POLICY 1.2.2: The University shall amend the CMP as needed to add, remove, rename, or otherwise change support projects listed in the SCP. The SCP is subject to change as support needs evolve.

POLICY 1.2.3: The University shall analyze and amend the priority, funding, or timing of support projects listed in the 5-Year Capital Improvement Plan (CIP).

POLICY 1.2.4: Allocation of funds for future support facilities shall follow the Capital Improvement Plan (CIP).

11.0 ACADEMIC & SUPPORT FACILITIES

DATA & ANALYSIS

DATA & ANALYSIS

11.1 Academic Facilities Sub-Element

Basis for Academic Facility need

Main Campus Academic facilities added since 2015.

- **UCF Global**
- **John C Hitt Library expansion**
- **Research I**
- **Trevor Colbourn Hall (TCH)**
- **CREOL Expansion**

Academic facility needs, over the 10-year planning timeframe, must be based on student enrollment and space deficits.

Since the adoption of the 2015-25 Campus Master Plan Update, UCF has added significant new space on the Main Campus, including the following:

UCF Global is a 54,887 GSF building, which opened in 2016 to serve as the International Hub on campus. It serves international students, faculty, and staff, as well as others engaging in high-impact international experiences.

The expansion of the existing library is being completed in phases.

- Library Phase 1 constructed a 18,509 GSF Automated Retrieval Center (ARC) which is a high-density facility capable of storing 750,000 volumes of library material with robotic retrieval; as well as shell space for a 4th-floor reading room.
- Library Phase 1A added a 40,000 GSF, 4-story connector building between the existing library and the ARC. The connector includes study and library operations areas, and build out of the ARC 4th floor shell space into a reading room.
- Future phases will renovate the existing 5-story library to improve study areas and library operations, and provide another 500,000 volumes of library material storage capacity.

Research I, occupied in 2018, is a 105,775 GSF building providing nearly 80 laboratories (primarily wet labs), offices, and conference, break, and support rooms.

Trevor Colbourn Hall is a 136,786 GSF facility with classrooms, meeting rooms, study space, and offices for the College of Arts & Humanities, Burnett Honors College, the College of Undergraduate Studies, the College of Graduate Studies, Student Development and Enrollment Services, and UCF IT. When the building opened in 2018, it had over 10,000 NASF of finished, unoccupied space to support University growth. When TCH was completed, Colbourn Hall was demolished after 45 years in service.

This 13,500 GSF addition to the 1996 CREOL Building added necessary space for the College of Optics and Photonics.

11.0 ACADEMIC & SUPPORT FACILITIES DATA & ANALYSIS

SPACE DEFICIT

Despite efforts to fund and construct new facilities, UCF has deficits in every space category.

Table 11.0-2 Unmet Space Needs

The following table was taken from the current UCF Educational Plant Survey, page 36, "Table 7 Formula Generated Net Assignable Square Feet by Category."

Space Category		Space Needs By Space Type	Satisfactory Space Inventory	Unmet Need
<u>Instructional</u>				
	Classroom	324,244	240,340	83,904
	Teaching Laboratory	618,915	296,831	324,648
	Research Laboratory	932,086	303,335	629,057
<u>Academic Support</u>				
	Study	682,870	163,148	519,722
	Instructional Media	82,522	9,727	72,795
	Auditorium/Exhibition	123,783	28,262	95,521
	Teaching Gymnasium	172,058	14,438	157,620
<u>Instructional Support</u>				
	Student Academic Support	0	0	0
	Office/Computer	996,247	726,834	271,443
	Campus Support Services	205,181	101,651	104,103
	Total	4,137,906	1,884,566	2,258,813

CLASSROOMS

Classroom space deficits may be alleviated by adding classrooms and through policy changes that improve classroom utilization through scheduling.

Without strong measures, UCF will run out of schedulable classroom space in fewer than 6 years.

- **Classroom Utilization (Efficiency)**

The University's Main Campus is operating well above capacity for classroom utilization, because of the routine usage of regular academic space throughout a weekly schedule that is greater than what the official SUS space formula calls for (i.e., 67 hours per week, versus the official 40 hours per week).

In addition, Courses are taught in areas originally designed for other purposes (laboratories, conference rooms, theaters, study areas, etc.).

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Figure 11.0-4 is a breakdown by days and hours for the general-purpose classrooms. There are 155 rooms in use for a total of 5,984 hours, making the average 38.6 hours per room.

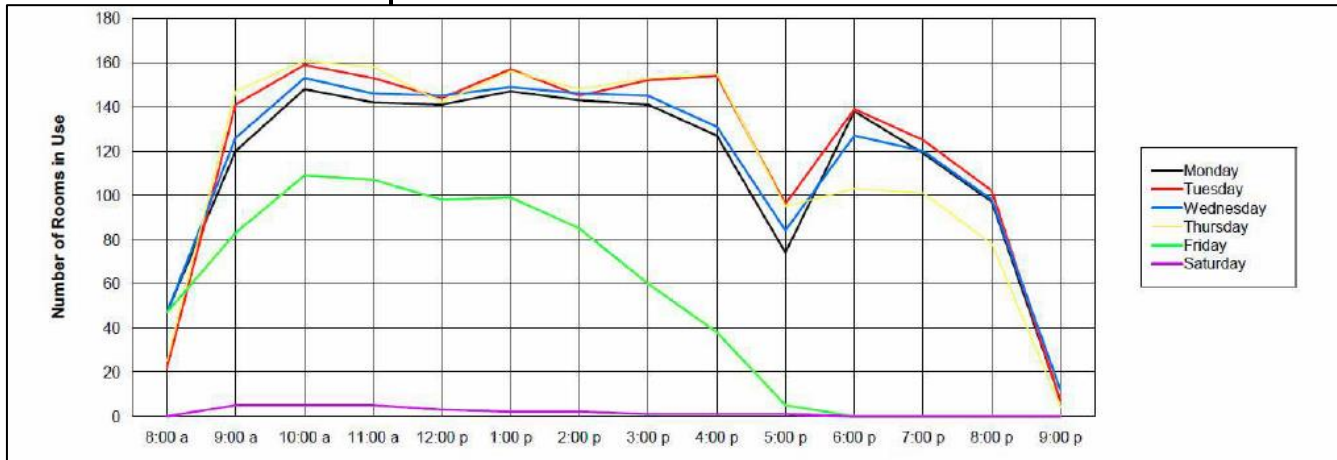
Figure 11.0-3 Lecture Rooms in Use by Day and Time shows the strong pattern of prime-time classroom use Monday through Thursday.

Figure 11.0-3 Average Weekly Hours by Rooms and Time of Day

UNIVERSITY OF UCF CENTRAL FLORIDA		Average weekly hours for Sections by Room and Time of Day												6/26/2019	
Scheduled Hours for Fall 2018														6/26/2019 4:09 pm	
Campus: Orlando Main Campus Region: GP Space		Term: Fall 2018 Dates: 8/20/18 - 12/8/18													
	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	Total
Totals for Orlando Main Campus Rooms: 155															
Sunday	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Monday	29.75	89.75	111.75	122.75	129.25	116.25	108.75	115.50	79.50	64.00	124.50	104.75	96.75	5.50	1,307.50 *
Tuesday	18.25	147.50	130.25	127.25	132.00	112.50	114.25	150.75	92.25	77.00	131.75	108.50	96.75	6.00	1,452.75 *
Wednesday	31.00	93.00	114.75	122.25	132.75	121.25	106.75	112.00	68.75	47.50	119.00	114.00	106.75	5.50	1,305.50 *
Thursday	21.75	144.00	128.00	129.00	134.50	113.88	118.00	148.25	78.88	56.25	90.75	79.25	70.00	3.00	1,324.00 *
Friday	30.00	57.00	75.25	81.00	79.25	77.75	82.50	58.50	22.00	4.50	0.50	1.00	1.00	0.50	580.25 *
Saturday	0.00	2.50	3.00	3.00	1.00	1.00	1.00	1.00	1.00	0.50	0.00	0.00	0.00	0.00	14.00
Total:	130.75	533.75	563.00	585.25	608.75	542.63	531.25	586.00	342.38	249.75	466.50	407.50	371.25	20.50	5,984.00 *

* Total reflects hours meeting before 8 am or after 10 pm not shown in grid

Figure 11.0-4 Lecture Rooms in Use by Day and Time



• **Adding / Removing Classrooms**

In the past 5 years, UCF has added classrooms as follows:

- In 2016, UCF Global added 18 departmental classrooms and several conference rooms to support international programs.
- In 2018, Trevor Colbourn Hall added six general-purpose active learning classrooms and two departmental classrooms.

11.0 ACADEMIC & SUPPORT FACILITIES DATA & ANALYSIS

- In 2018, Colbourn Hall was demolished, removing four (4) classrooms.
 - In 2018, the College of Business Administration renovated a general-purpose lecture hall into a large active learning classroom, and renovated two departmental classrooms and contiguous space into another large active learning classroom.
 - In 2019, UCF Downtown opened 26 general-purpose active learning classrooms in the Dr. Phillips Academic Commons and four (4) classrooms in UnionWest; and added teaching labs and classrooms for Valencia College in both buildings. The courses moved to the downtown classrooms will help relieve overcrowding on the Main Campus.
- Improving Existing Classroom Utilization**
- The Office of the Registrar is working diligently on a policy to improve utilization by improving scheduling policies. Policies that would improve utilization include:
- Requiring faculty to teach during the normal class hours of 7:00am to 6:00pm Monday through Friday, rather than only during the prime-time hours (9:00am to 4:30pm, 30 hours per week).
 - Requiring “On Grid” scheduling, whereby course schedules must adhere to:
 - 50-minute blocks on Monday, Wednesday, and Friday
 - 75-minute blocks on Tuesday and Thursday
 - Identifying departmental classrooms that could be transferred to the general-purpose classroom inventory.
- Teaching Everywhere**
- There are many types of learning spaces that support scheduled instruction, including open labs, conference rooms, and meeting rooms. Without the use of these additional spaces, UCF’s classroom space deficit would be even more severe.
- Learning spaces may be scheduled for use if:
- the activities generate weekly student contact hours (WSCH),
 - the activities fulfill course requirements, and/or
 - there is a formal convener present.
- TEACHING LABS**
- The Weekly Student Contact Hours (WSCH) for teaching labs are lower than the WSCH for classrooms, but square footage per student is typically greater in teaching labs, at approximately 30-35 SF per station.
- While growth in STEM disciplines leads to a need for more teaching labs, the need does not rise as steeply as the need for classrooms. Teaching Lab utilization always appears to lack “efficiency” compared to classrooms. The room use standard is 24 hours for lower level courses and 20 hours for upper level. The station occupancy rate is 80% for both levels.

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DATA & ANALYSIS

RESEARCH LABS

In certain disciplines, the need for labs is particularly acute and is the bottleneck for not offering more sections, examples: Organic Chemistry, Chemistry, and Physics.

The need for added research laboratories is driven by the need for space for research faculty, research clusters, and student staff to support research projects.

- With research success comes the need for added faculty; and in the lab sciences, engineering, studio arts, etc., new faculty need lab space to support scholarship and required professional development activities.
- Research labs are needed for thesis and dissertation work in disciplines with active graduate programs, such as science and engineering. The distinction between research labs and teaching labs blurs somewhat, as instructional functions are intrinsic to both. Often the same lab is used for faculty research, graduate coursework, and thesis or dissertation work.

Increasing the campus research space portfolio continues to be a high priority, due to UCF's current unmet research space need, its growing research programs, and its goal for preeminence.

OFFICE /COMPUTER

While offices are not considered academic spaces, improving our student to faculty ratio requires additional regular faculty and staff, who cannot function properly without office space. Therefore, as classrooms and teaching labs are added, offices for instructional faculty will be needed.

The University has made a strong effort to maximize office space efficiency by designing right-sized offices and encouraging open office environments based on functional need.

Additional study areas created in the past five years include:

- Trevor Colbourn Hall (2018), which includes considerable public space dedicated to study areas.
- Business Administration renovations increased the quantity and effectiveness of public area study space. Additional study space is found scattered in buildings across the campus.

Approximately 32% of study areas are outside the Library, and forward-thinking design philosophies will result in an even higher percentage in the future.

UNMET SPACE NEEDS

The University's unmet space need, as determined by the current Educational Plant Survey, is **2,258,813 square feet**. It is likely that the University will still be operating with a significant space deficit during the planning timeframe.

While the future of state-funding for new construction cannot be predicted, UCF will continue operating with high efficiency, and exploring methods to further improve its space utilization.

11.0 ACADEMIC & SUPPORT FACILITIES DATA & ANALYSIS

Interdisciplinary Buildings

Many UCF buildings include multiple space categories such as learning space, office, study, and support space within a single structure.

It is likely that future academic facilities will be interdisciplinary in nature, rather than single-use buildings (e.g., classroom building, laboratory building).

DATA & ANALYSIS

11.2 Support Facilities Sub-Element

Inventory and Analysis of Existing Conditions

Support Building Space

The purpose of the Support Facilities Sub-Element is to ensure that the University is providing sufficient support facilities to satisfy its needs.

Support building spaces include administrative offices; campus administrative spaces, such as facilities management buildings; student support services; auxiliary facilities, intercollegiate, intramural, and recreational athletic facilities; and facilities of a non-academic nature such as the Student Union and auditoria/exhibition spaces.

To properly support campus needs, support facilities must be provided in parallel to the demands created by academic facilities. The space required for support facilities is related to the University's space deficit and the type of facilities to be constructed.

Support space needs are estimated every five (5) years through the development of the Educational Plant Survey (EPS).

Main Campus Support facilities added since 2015.

During the first 5-years since the 2015-25 CMP was published, the following support facilities were added or enlarged:

- Warehouse Support Building (Bldg. 16-F)
- District Energy Plant IV (Bldg. 143)
- Facilities Support Building (Bldg. 162, behind Bldg. 22)
- Garage C Expansion (Bldg. 83)
- Lab & Environmental Support (Expansion of Bldg. 48)
- Arboretum Greenhouse (Bldg. 161)
- Band Practice Facility (Bldg. 163)
- Wayne Densch Center for Student-Athlete Leadership (Bldg. 136)
- Temporary Football Game-Day Parking
- Garvy Center for Student-Athlete Nutrition (part of Bldg. 135)
- Pollo Tropical Restaurant (Bldg. 183)
- Roth Athletics Center (Bldg. 165) – under construction

Future Support Facilities

The following support facilities are planned

- Recycling Facility
- Environmental Health and Safety Support Facility

11.0 ACADEMIC & SUPPORT FACILITIES DATA & ANALYSIS

Other

In 2016, the Board of Trustees sublet 5.24 acres of campus to Pegasus Hotel, LLC to build the Celeste Hotel, north of University Boulevard on Alafaya Trail. This facility does not belong to UCF; but UCF will benefit by proximity to the hotel Conference Center.