

# University of North Carolina Pembroke Master Plan

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Campus Mater Plan: Space Needs Analysis— June 30, 2011

## Section 1: Introduction

### Overview

The following report documents Sasaki's analysis of current and future space requirements at the University of North Carolina Pembroke, assessing the quantity and utilization of existing facilities against normative guidelines. The analysis was performed within the context of a comprehensive master planning initiative for the UNCP campus, which is examining the impact of targeted enrollment growth to 7,300 headcount students and beyond. Results were correlated through consultation and outreach with the University stakeholders and surveys that were distributed to the dean of each college and to the heads of administrative departments.

The results of the space analysis will help guide decisions concerning space use on the campus including strategies for the renovation, reassignment and reuse of existing space, as well as the location and extent of new construction.

This analysis provides an overview of the programmatic space needs at UNCP in accordance with space planning guidelines and definitions developed by the Council of Educational Facility Planning (CEFPI), and where appropriate, University of North Carolina standards.

The specific recommendations relative to the conclusions of this report are provided in the separately documented Master Plan report.

The purpose of this report is twofold:

1. to determine if there is space to support the current enrollment and academic programs;
2. to provide the estimated space requirements for future enrollments and academic programs.

### A. Key Findings

The analysis suggests there are existing space needs for library, dining and student service space, while there is currently a theoretical surplus of classroom space, office and assembly space. These needs will increase as enrollment grows. The analysis suggests there may also be a need for some types of teaching labs to support the University's emerging educational mission, although it is recommended that current lab utilization be examined before creating new space. Tables A1 and A2 summarize the current and future space needs for each category.

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**Table A-1: Summary of Current Space Needs**

HEGIS Category	Type of Space	Existing Area (asf)	Total Space Need (asf)	Surplus/(Deficit) asf
100	Classroom	74,362	51,174	23,188
200	Teaching Lab	45,136	31,471	13,665
250	Research Lab	2,036	2,036	--
300	Office	166,697	146,350	20,347
400	Study/Library	38,022	54,820	(16,798)
520	Rec/Physical Ed	79,665	85,360	(5,695)
530	Audio/Visual/Television	3,676	6,036	(2,360)
610	Assembly and Exhibition	43,394	29,072	14,322
630	Dining	16,128	32,934	(16,806)
650-690	Student Services	43,597	54,324	(10,727)
700	Support Facilities	51,100	33,986	17,114
800	Health Care Facilities	2,612	2,910	(298)
<b>Totals</b>		<b>566,425</b>	<b>530,473</b>	

**Table A-2: Summary of Future Space Needs (2020)**

HEGIS Category	Type of Space	Proposed Area*	Total Space Need (asf)	Surplus/(Deficit) asf
100	Classroom	111,613	62,827	48,786
200	Teaching Lab	67,579	38,638	28,941
250	Research Lab**	2,036	2,036	--
300	Office	248,338	151,430	96,908
400	Study/Library	74,446	66,181	8,265
520	Rec/Physical Ed	79,665	99,100	(19,435)
530	Audio/Visual/Television	18,676	7,410	11,266
610	Assembly and Exhibition	47,457	31,820	15,637
630	Dining	16,128	38,106	(21,978)
650-690	Student Services	51,722	66,690	(14,968)
700	Support Facilities	51,100	45,945	5,155
800	Health Care Facilities	2,612	3,323	(711)
<b>Totals</b>		<b>771,372</b>	<b>613,506</b>	

\*Assumes campus is built out according to the master plan and programmed according to estimated spaces from Table D1. This total number also assumes that West, Wellons and Jacobs have been taken offline.

\*\*See Section 2.2.0 for full explanation of research lab projections.

## **B. General Assumptions**

The space needs analysis provides a quantitative assessment of space; it does not attempt to valuate or assess the quality of classroom, lab or office space nor does it take into account elements of space in older buildings that may result in inefficiencies in comparison to new buildings.

The following list notes the assumptions utilized in this analysis.

### ***B-1: Enrollment Data Assumptions***

1. Projections are based on Full Time Equivalent (FTE/Fall 2010) as noted or finalized in the data provided by UNCP.
2. Fall Semester 2010 Headcount (HC) data received via email from UNCP Facilities Planning on 4/5/2011 is utilized.
3. The target planning year is 2020. According to “Master Plan data Enrollment Man[agement]” received 3/18/11, the University is planning for moderate growth over the next two years with a target of 7,286 HC/6,351 FTE. While there are no official plans for growth beyond the year 2013, the campus is planning for growth in many areas. This space analysis uses 6,351 FTE as the target for 2015 and 7,410 FTE for the year 2020. Ongoing and proposed building construction should expand the capacity for enrollment well beyond these targets.

### ***B-2: Faculty/Staff Data Assumptions***

1. Faculty/staff data for Fall 2010 was obtained from Facilities Management on April 5, 2011.
2. It is assumed that FTE = Fulltime HC + ½ part time HC. Faculty FTE is used directly for the analysis.
3. Office staff population is used to calculate office needs and non-office staff is used to calculate lounge/merchandising space. Staff categories considered are as follows:

Exec/Admin & Management	Office Staff
Clerical & Secretarial	Office Staff
Technical & Professional	Office Staff

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Service/Maintenance	Non-Office Staff
Skilled Craft	Non-Office Staff
Faculty	Office Staff

4. Faculty growth projections are based on the desired faculty student ratio of 1:14. Staff growth is based on the existing Staff/Student Headcount Ratios, therefore, it varies directly with student enrollment growth at approximately 1%: See “3.0 Office” below for full Faculty and Staff Projections.

	Existing Ratio
Faculty/Student HC	1:16
Faculty/Student FTE	1:14

## ***B-3: Facilities Assumptions***

1. All existing Space Data is derived from “Fall2010RoomInvFinal” received (3/17/11) from UNCP facilities which included the space classifications according to the standard Higher Education General Survey (HEGIS) categories.
2. All UNCP space is included in this space inventory including the Biotechnology Research and Training Center at COMtech.
3. Assignable Space Data for planned new facilities including the Information Commons are based on preliminary building programs provided by UNCP Office of Facilities Planning. Sasaki assigned HEGIS Categories for space within each building.
4. Only HEGIS 100-800 space is included in this survey. Residential space (Category 900) is not included. Space in residence halls coded as office or library space is included.
5. All spaces in the current room and building inventory were counted.
6. Potential buildings taken offline by 2020: Jacobs, Wellons and West.

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## **B-4: Planning Target Year Assumptions**

Planning target years for the analysis are 2011, 2015 and 2020. For the purposes of this analysis it is assumed that Allied Health and the Information Commons will be online by the year 2015. In order to provide a site for the new Information Commons, it is assumed that Jacobs Hall is taken offline. West and Livermore will be converted into office space during this time period (2015). The new Business School and potential Visitor’s Center will come online by 2020 at which point West will no longer be needed as swing space, and thus taken offline. Livermore’s new function will be student support services.

## **C. Existing Space on Campus**

The total existing space on campus is approximately 566,000 assignable square feet (asf). The space is divided into 12 categories as per the CEFPI guidelines and HEGIS codes. Existing totals for each type of space are summarized below in Table C1.

**Table C-1: Types of Space by Total Amount on Campus\***

Type of Space	HEGIS Category	Assignable Square Footage	Percent of Total Space
Office	300	166,697	29.43%
Classroom	100	74,362	13.13%
Teaching Lab	200	45,136	7.97%
Study/Library	400	38,022	6.71%
Rec/Physical Ed	520	79,665	14.06%
Research Lab	250	2,036	0.36%
General Use	610	43,394	7.66%
Dining	630	16,128	2.85%
Audio/Visual/Television	530	3,676	0.65%
Student Services	650-690	43,597	7.70%
Shop/Storage	720/730/740	49,912	8.81%
Central Service	750	1,188	0.21%
Health Care Facilities	800	2,612	0.46%
<b>Totals</b>		<b>566,425</b>	<b>100.00%</b>

\*Data collected from primary sources provided by UNCP Facilities (Fall2010RoomInvFinal).

Note: Space in Residence Halls, outdoor recreation and similar spaces are not analyzed using the CEFPI guidelines as they are generally determined by institutional policy. Dining space assessed using Pennsylvania State Guidelines.

## **D. Planned Space**

Three new facilities are planned for the UNCP campus during the master plan horizon (2011-2020), the new Allied Health Building (under construction), an Information Commons and a new Business School. A new Visitor's Center is recommended as a potential project.

Table D-1 provides a theoretical break down of space for planned and future buildings. The assigned spaces are subject to change following a more detailed program and design analysis.

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**Table D-1 New and Proposed Building Space Summary (by HEGIS Category):**

Building/Type of Space	HEGIS Category	Assignable Square Footage
<b>New Allied Health*</b>		
Office	100	21,338
Lab Use	200**	21,338
Office Use	300	8,500
Study Facilities	400	5,700
<b>Sub-total</b>		<b>56,876</b>
<b>New Information Commons***</b>		
Classroom	100	2,500
Office	300	15,000
Study Facilities	400	65,000
Special Use	500	15,000
<b>Sub-total</b>		<b>97,500</b>
<b>New Business School***</b>		
Classroom	100	26,520
Lab Space	200**	1,105
Office	300	16,575
<b>Sub-total</b>		<b>44,200</b>
<b>New Visitor Center***</b>		
Office	300	8,125
General Use	600	8,125
<b>Sub-total</b>		<b>16,250</b>
<b>Livermore Renovation (Student Services)***</b>		
Office (assumed to be mostly office)	300	34,276
<b>Sub-total</b>		<b>34,276</b>
<b>Business Renovation***</b>		
Office (may include some classrooms)	300	13,107
<b>Sub-total</b>		<b>13,107</b>
<b>Total New</b>		<b>214,826</b>
<b>Total Renovation</b>		<b>47,383</b>
<b>Grand Total</b>		<b>262,209</b>

\* Allied Health categories estimated according to GSF footprint. No detailed programmatic data provided.

\*\* All 200 space will be considered teaching lab space (210), not research (250).

\*\*\* Programmatic categories estimated based on current and projected needs by Sasaki.

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## Section 2: Space Needs

This section summarizes the programmatic needs and requirements as determined in accordance with the CEFPI space guidelines unless otherwise noted. The CEFPI guidelines assist in determining the total amount of space that would ideally be allocated to support various campus activities. The aim is to determine areas in which UNCP may have space surpluses or shortfalls.

The following discusses the space needs for 2011(based on 2010 data) and the planning target years of 2015 and 2020 by space type.

### 1.0 Classrooms (HEGIS Category 100)

#### 1.1.1 Category 100 Definition

Category 100 includes rooms used for instruction that do not require special purpose equipment. Subcategories include general classrooms, lecture halls, seminar rooms, and departmental classrooms and other rooms for non-laboratory instruction. Included are service rooms, space that directly serves classrooms for instruction-related activities such as projection rooms, cloakrooms, preparation rooms, closets and storage.

**Table 1.1a: Existing Classroom Space Location**

Building	Assignable Square Footage
Business Admin	13,107
Canton Field House	4,766
D F Lowry	1,693
Dial Humanities	8,724
Education Bldg.	9,768
English J. Jones Bldg.	4,968
Givens PAC	741
Locklear	857
Moore Hall	1,664
Music Annex	1,422
Old Main	3,645
Oxendine Science	10,854
Sampson Classroom	11,213
SRMC	940
<b>Grand Total</b>	<b>74,362</b>

Source: UNCP Facilities

Note: Includes support space for classrooms such as projection rooms, prep rooms, etc.



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**Table 1.1b: Existing Classrooms by Type (Classroom Area Only)\***

<b>Building</b>	<b>Number of Rooms</b>	<b>ASF</b>
<b><i>Seminar (3-19 Stations)</i></b>		
BUSINESS ADMIN	1	242
EDUCATION BUILDING	1	310
OLD MAIN	1	406
SAMPSON CLASSROOM	1	567
<b><i>Sub-total</i></b>	<b>4</b>	<b>1,525</b>
<b><i>General Classroom (20-49 Stations)</i></b>		
BUSINESS ADMIN	11	10,105
CANTON FIELD HOUSE	2	4,766
D F LOWRY	3	1,693
DIAL HUMANITIES	13	7,498
EDUCATION BUILDING	9	6,690
ENGLISH E. JONES BLD	5	3,737
GIVENS PERF ARTS CTR	1	689
LOCKLEAR	1	857
MOORE HALL	2	1,664
OLD MAIN	3	2,008
OXENDINE SCIENCE BLD	9	6,518
SAMPSON CLASSROOM	7	5,912
SRMC	2	940
<b><i>Sub-total</i></b>	<b>68</b>	<b>53,077</b>
<b><i>Lecture (50+ Stations)</i></b>		
DIAL HUMANITIES	1	1,190
EDUCATION BUILDING	2	2716
ENGLISH E. JONES BLD	1	1,231
MUSIC ANNEX	1	1,422
OLD MAIN	1	917
OXENDINE SCIENCE BLD	4	4,236
SAMPSON CLASSROOM	4	4,494
<b><i>Sub-total</i></b>	<b>14</b>	<b>16,206</b>
<b>GRAND TOTAL</b>	<b>86</b>	<b>70,808</b>

\*Note: Space for classroom only, excludes support space.

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## 1.1.2 CEFPI Classroom Space Needs Formula

The formula for the required classroom space to support current and projected enrollment levels is as follows:

$$\text{Space Factor} = \frac{\text{ASF per Student Station}}{(\text{maximum number of hours room used per week} \times \text{room use rate} \times \text{station occupancy rate})}$$

Where\*:  
number of assigned square feet per station = 18 ASF  
maximum number of hours used per week = 35 hours/week  
room use rate = 0.65  
station occupancy rate = 0.65

\*WSCH = number of hours a student will occupy a seat in a classroom/week; or the number of students enrolled x credit hours for the course.

Projected WSCH derived by the following formula:  
(2010 WSCH/2010 FTE) x (projected student FTE)

UNCP WSCH 2010 = 40,217 (calculated from course schedule)  
UNCP WSCH 2015 = 40,217 (projected)  
UNCP WSCH 2020 = 46,922 (projected)

\*All UNC space guidelines are taken from "Facilities Inventory and Utilization Study, Fall 2009: For the State of North Carolina, 43<sup>rd</sup> Edition" September 2010

There are several assumptions incorporated in the formula: 1) classrooms are centrally scheduled; 2) classes may be scheduled 35 hours per week; 3) classrooms are utilized at least (6) hours a day; 4) 0.65 percent of the seats on average are occupied during scheduled classes; and, 5) general classroom space is appropriate for all courses.

A 35-hour week is equivalent to scheduling classes Monday through Friday from 8 a.m. to 3 p.m. While classes at UNCP are scheduled in a much broader window (into the evening), the 35-hour week reflects the standard utilization mandated by University of North Carolina System.

## 1.1.3. Classroom Space Needs Results

Applying the CEFPI classroom formula to existing and projected enrollment levels and WSCH at UNCP provides the following results:

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**Table 1.1c: Classroom Space Needed\***

Year	Existing Available	ASF/Student**	Guideline	Surplus/(Deficit)
2011	74,362	18	51,174	23,188
2015	98,200	18	53,849	44,351
2020	111,613	18	62,827	48,786

\*Includes all spaces labeled 110 in the space inventory.

\*\*The UNC system average student station size standard is 18 asf per student.

Comparing the existing available classroom space to the CEFPI classroom guidelines result in a current surplus of 23,000 asf, assuming 18 asf per student station. The surpluses increase to approximately 49,000 asf if a new Information Commons, Business Building and Visitor Center become a reality. The building asf increase represents significant growth in facility capacity with very modest student growth.

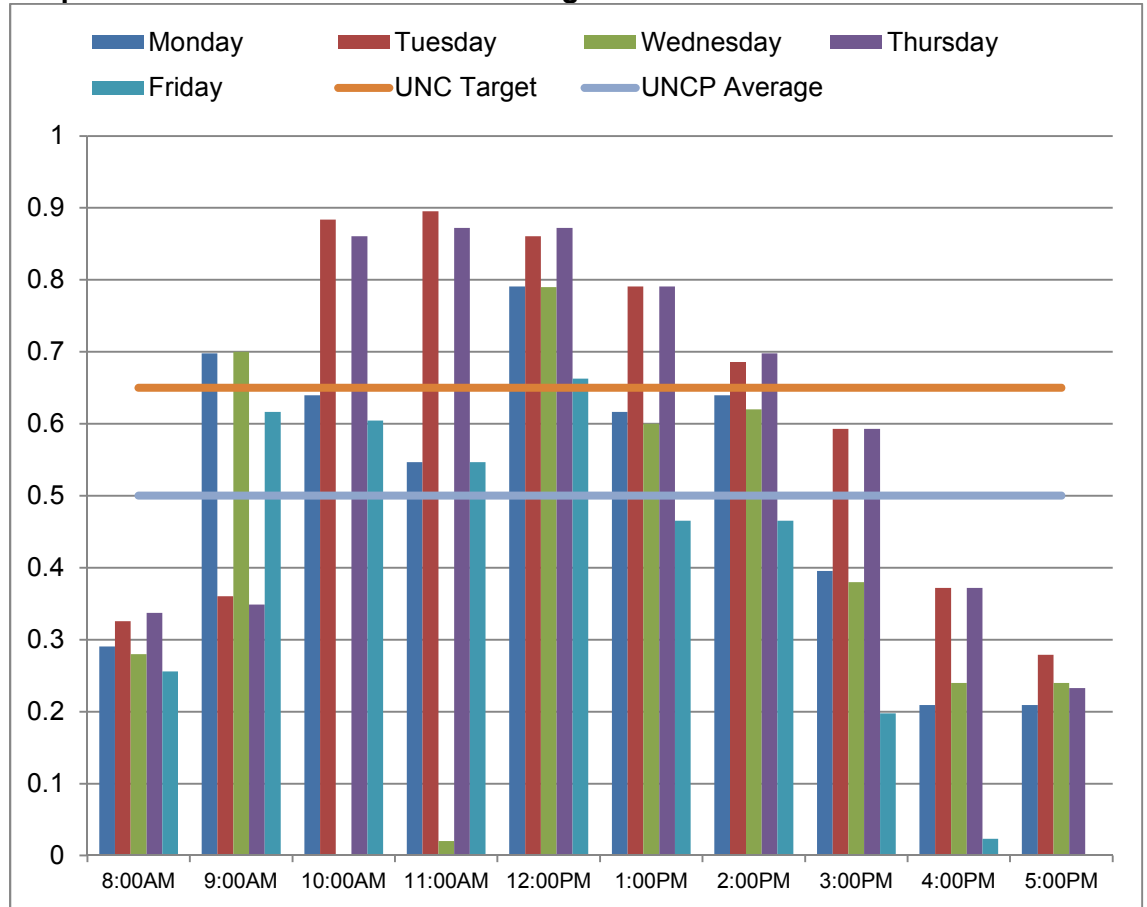
In exploring the nature of the surplus, it was discovered that the UNC targets are not being met, specifically the utilization and station size targets. The current UNCP utilization average throughout the week averages much closer to 50 percent rather than the UNC guideline of 65 percent. The ASF per student station, currently set at 18 asf per student also does not reflect the reality of courses scheduled at UNCP; the average station size at UNCP is 21 asf (this particular size is also consistent with flexible classroom space). When the current average standards are applied to existing and projected space, the surplus shrinks significantly and yields the following results:

**Table 1.1d: Classroom Space Needed according to Current Usage**

Year	Existing Available	ASF/Student	UNCP	Surplus/(Deficit)
2011	74,362	21	77,613	(3,251)
2015	98,200	21	81,672	16,528
2020	111,613	21	95,288	16,325

Another consideration is utilization throughout the week. As illustrated in the chart below, utilization of classrooms centrally scheduled by the Registrar exceeds the 65 percent many times throughout the week. In fact, Tuesday and Thursday utilization rates are very high, some almost reaching 90 percent. While these times in particular, between 10:00 am and 2:00 pm are popular, times outside of this window seldom reach 50 percent utilization.

**Graph 1.1a: Classroom Utilization during the Week**



### 1.1.4 Classroom Space Needs Conclusions:

Based on the CEFPI calculation, UNCP has an overall surplus of total classroom assignable space, indicating that the University theoretically has enough space to accommodate existing and projected Weekly Scheduled Contact House (WSCH).

Several factors explain the nature of the surplus:

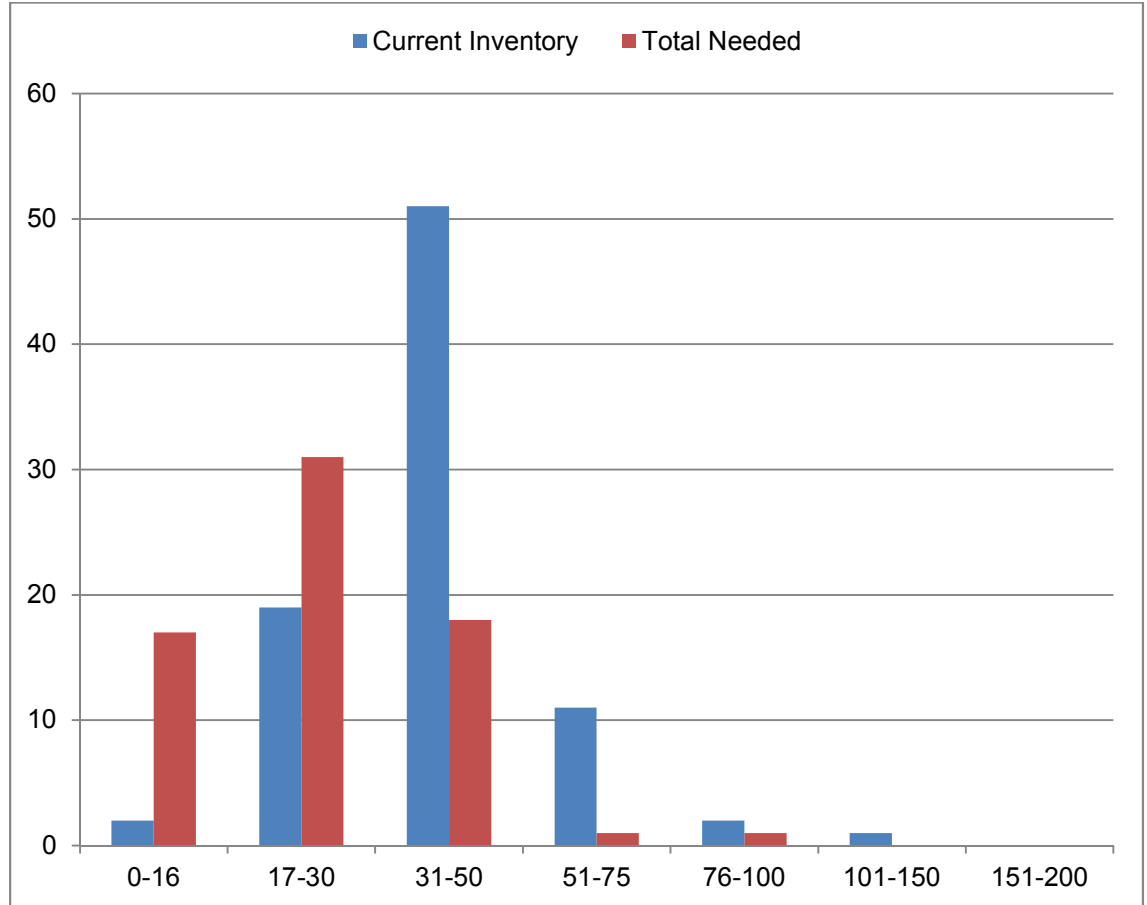
- 1) Classroom utilization: Centrally managed classrooms are scheduled in specific places during specific times. Pushing the utilization earlier and later in the day would aid in raising the overall utilization.
- 2) Classroom Sizes: Many of the classrooms on campus are larger than class section sizes, indicating that there is a need for smaller classrooms,

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or more efficient matching of class enrollment and classroom size. The guideline assumes on average, classrooms will be 65 percent full. The utilization data maintained by the Registrar indicates that for centrally scheduled classes, the average percentage of seats occupied is much lower.

**Graph 1.1b: Classroom Mismatch**



- 3) Meeting the UNC Standard: UNCP falls well short of meeting the baseline UNC classroom utilization standards. Future renovations and new construction provide an opportunity for UNCP to “right-size” classroom space relative to section sizes.

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## 2.0 Teaching and Open Labs (HEGIS Categories 210/220)

### 2.1.1 Category 200 Definition

Category 200 includes rooms that are designed for and/or furnished with equipment to serve the needs of particular disciplines for instruction purposes, specifically those which require special-purpose equipment for student participation, experimentation, observation, or practice in a field of study.

Teaching and Open Labs are located in the following buildings:

**Table 2.1a: Teaching Lab Locations**

<b>Building</b>	<b>ASF</b>
BIOTECH ADDITION	606
BUSINESS ADMIN	531
DIAL HUMANITIES	1,280
EDUCATION BUILDING	1,968
ENGLISH E. JONES BLD	649
JACOBS HALL	427
LOCKLEAR	7,251
MIMOSA	625
MOORE HALL	3,475
MUSIC ANNEX	550
NURSING	444
OLD MAIN	1,017
OXENDINE SCIENCE BLD	23,121
SAMPSON CLASSROOM	957
SRMC	2,235
<b>Grand Total</b>	<b>45,136</b>

Source: UNCP Room Inventory.

### 2.1.2 CEFPI Teaching Lab Space Needs Formula

**Teaching Lab Space for social sciences, business and management, languages, mathematics, physical and biological sciences:**

*Allocation = asf station module size x \*use factor (.0879) x WSCH for teaching labs*

*Where: use factor= 1/(Max Room Hours\*Room Use Rate)\*occupancy rate*

*Projection= Room Use Rate\*Station Size Module\*WSCH*

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**Table 2.1b: WSCH Calculation for Teaching Labs**

Labs Summary	2011		Ratio per FTE	2015		2020	
	WSCH	FTE		WSCH	FTE	WSCH	FTE
College of Arts & Sciences	3745	3,476	1.077	3,940	3658	4,597	4268
School of Business	0	745	0	0	783	0	914
School of Education	323	1,426	4.41	339	1500	396	1751
<b>Totals</b>		<b>5,647</b>			<b>5,941</b>		<b>6,933</b>

The space model uses a weighted average of 60 asf derived from the following station sizes. Weighting is based on how the contact hours, measured from the course schedule, are distributed between the four teaching lab intensity categories.

**Table 2.1c: Assumed Workstation Sizes by Building**

Category	ASF Per Station		Discipline
	Station	Discipline	
Highly Intensive	108	Dramatic Arts, Dance	
Intensive	70	Health Professions, Physical Sciences	
Moderately Intensive	50	Economics, Communication, Computer, Education	
Non-Intensive	33	Business, Music, Language Social Sciences	

## 2.1.3 Teaching Lab Space Need Results

**Table 2.1d: Teaching Lab Space Need**

ASF	2011		2015*		2020**	
Available	Guideline	Surplus/(Deficit)	Guideline	Surplus/(Deficit)	Guideline	Surplus/(Deficit)
45,136	31,471	13,665	33,117	33,357	38,638	28,941

\*Assumes Allied Health is online, which adds approximately 22,000 asf of lab space.

\*\*Assumes new Business Bldg. comes on line and adds approximately 1,000 asf. (based on current program of lab space in Business Bldg.)

Applying the CEFPI formula to existing and projected enrollment and WSCH, results in a current surplus of approximately 14,000 asf. According to the assumptions in Table C-1, in 2015 the surplus increases as a result of the Allied Health Building which adds about 22,000 asf to the program. This surplus

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assumes that all of the new estimated 200 space in the Allied Health Building is teaching lab, and not research lab space.

The space added by Allied Health should give UNCP the flexibility to reassess the quality of their current teaching labs, and possibly allow some space to be repurposed for some other use.

Approximately 12,000 asf of space is scheduled by the various departments and not included in the WSCH maintained by the registrar. WSCH utilization for these labs is not available and negatively impacts space projections. The 26 labs, which are included in the room inventory, that are not scheduled for any known lab work include:

**Table 2.1e: Unscheduled or Departmentally Arranged Labs**

Building	Room #	ASF
BIOTECH ADDITION	147	606
BUSINESS ADMIN	113	531
DIAL HUMANITIES	149	739
JACOBS HALL	233N	205
LOCKLEAR	101B	564
LOCKLEAR	103B	900
LOCKLEAR	104E	920
LOCKLEAR	113B	590
LOCKLEAR	123C	732
MIMOSA	146	625
MUSIC ANNEX	1	61
MUSIC ANNEX	3	59
MUSIC ANNEX	5	63
NURSING	109	444
OLD MAIN	208	114
OLD MAIN	253	240
OXENDINE SCIENCE BLD	1,202	1,308
OXENDINE SCIENCE BLD	1,254	915
OXENDINE SCIENCE BLD	2,121	258
OXENDINE SCIENCE BLD	3,121	247
SRMC	134	360
SRMC	135	360
SRMC	137	360
SRMC	138	360
SRMC	139	360
SRMC	150	360
<b>Grand Total</b>		<b>12,281</b>



## **2.1.4 Teaching Lab Space Conclusions**

The nature of the surplus in the Teaching Lab space may be explained in part by the following:

- 1) It is understood that some lab space is used sporadically throughout the semester, in conjunction with a scheduled class. Other labs have equipment and experiments set up for the exclusive use of one class throughout a semester, but not every day. These factors lower the utilization of these facilities.
- 2) Older labs may simply not be equipped to handle the modern educational needs.
- 3) The number of labs not included in the Registrar's data may negatively impact the lab projections. Since projections are derived from WSCH, it is difficult to project for future needs when many of the lab WSCH are not recorded.

## **2.2.0 Research Labs (HEGIS Category 250)**

### **2.2.1 Category 250 Definition**

Category 250 includes non-class laboratories used for laboratory application, research and/or training in research methodology that requires special purpose equipment for faculty, staff and/or advanced student experimentation and observation. This category also includes service areas which directly serve one or more of these labs as extensions of their activities, such as balance rooms, cold rooms, stock rooms, dark rooms, shops, and similar rooms, except animal rooms and greenhouses.

Research labs are found in the following buildings:

**Table 2.2a: Research Labs by Building**

<b>Building</b>	<b>ASF</b>
BIOTECH ADDITION (Off-campus)	1,376
OXENDINE SCIENCE BLD	300
SAMPSON CLASSROOM	360
<b>Grand Total</b>	<b>2,036</b>

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## **2.2.2 Guideline Formula**

According to UNC guidelines\* a recommendation is in place to ultimately develop four categories of disciplines with corresponding ASF allowances per \$1 million of averaged expenditures:

Allocation (by discipline) =

Arts and Science = 4,000 asf/\$1 million

Business = 4,000 asf/\$1 million

Education and Human Performance = 9,000 asf/\$1 million

Health Sciences = 9,000 asf / \$1 million

\*"Facilities Inventory and Utilization Study, Fall 2009: For the State of North Carolina, 43<sup>rd</sup> Edition" September 2010, Pages 51-52.

## **2.2.3 Research Lab Space Needs Conclusions**

The addition of the Allied Health Building could change the importance and scope of research at UNCP in the future; however, sponsored research at UNCP has not traditionally been a priority. Research lab space demand is considered in this analysis to be market driven and based almost entirely on the ability of the institution to raise funds. Future need for space, therefore, will be a function of additional funding which cannot be estimated at this time.

## **3.0 Office (HEGIS Category 300)**

### **3.1.1 Category Definition**

Category 300 includes rooms used by faculty, staff and or students and generally equipped with one or more desks, chairs, tables, bookcases, and/or filing cabinets. It also includes studio space, if that room also serves as an office; serves areas which directly serve one or more of these rooms as extensions of their activities such as file rooms, copy rooms, waiting rooms, interview rooms, closets, private toilets, record rooms, and office supply rooms. Conference rooms that are used primarily for staff meeting and departmental activities, other than instructional activities, are also included.

### **3.1.2 CEFPI Office Needs Formula**

The total amount of office space required campus-wide is calculated by applying module size in asf to personnel requiring office space. Module sizes and FTE calculations differ by personnel type. The general formula is as follows:

Allocation Space= module size x number of personnel=total office, service, conference and lounge space required to serve and individual office.

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Regarding office space, there are two sets of module sizes to be considered for UNCP, the UNC guideline and the CEFPI guideline.

**Table 3.1a: Office Module Sizes**

<b>UNC Office Guideline</b>	
<b>Type of Staff</b>	<b>Module Size* (asf)</b>
Faculty	190
Clerical & Secretarial	140
Exec/Admin & Mgmt	275
Technical & Professional	190
Service/Maint	0
Skilled Craft	0

<b>CEFPI Office Guideline</b>	
<b>Type of Staff</b>	<b>Module Size* (asf)</b>
Faculty	155
Clerical & Secretarial	135
Exec/Admin & Mgmt	240
Technical and Professional	165
Service/Maint	0
Skilled Craft	0

\*Module includes individual office space, supporting conference, service and lounge areas.

The following tables indicate how future faculty and staff projections were derived and how office need has been determined by each method.

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**Table 3.1b: Total Office Space Needed**

UNC Guideline			2011		2015		2020	
Student FTE			6,036		6,351		7,410	
USER	UNC	Data Input	Existing Pop	ASF Needed	Projected Pop	ASF Needed	Projected Pop*	ASF Needed
Faculty	190	FTE	379	72,010	398	75,620	465	88,350
Clerical & Secretarial	140	FTE	152	21,280	160	22,400	187	26,180
Exec/Admin & Mgmt	275	FTE	52	14,300	55	15,125	64	17,600
Technical & Professional	190	FTE	204	38,760	215	40,850	250	47,500
<b>Totals</b>			<b>146,350</b>		<b>153,995</b>		<b>179,630</b>	

CEFPI Guideline			2011		2015		2020	
Student FTE			6,036		6,351		7,410	
USER	CEFPI	Data Input	Existing Pop	ASF Needed	Projected Pop*	ASF Needed	Projected Pop*	ASF Needed
Faculty	155	FTE	379	58,745	398	61,690	465	72,075
Clerical & Secretarial	135	FTE	152	20,520	160	21,600	187	25,245
Exec/Admin & Mgmt	240	FTE	52	12,480	55	13,200	64	15,360
Technical & Professional	155	FTE	204	31,620	215	33,325	250	38,750
<b>Totals</b>			<b>123,365</b>		<b>129,815</b>		<b>151,430</b>	

\* Projections assume student/faculty ratio remains the same as UNCP grows.

The current difference between the UNC and CEFPI standard currently stands at 22,985 asf and expands to 28,200 asf by 2020.

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## 3.1.3 Office Space Needs Results:

**Table 3.1.c: Total Office Space Needs**

UNC		2011		2015*		2020**	
Available	Guideline	Surplus (Deficit)	Guideline	Surplus (Deficit)	Guideline	Surplus (Deficit)	Surplus (Deficit)
166,697	146,350	20,347	153,995	76,536	179,630	68,708	

CEFPI		2011		2015*		2020**	
Available	Guideline	Surplus (Deficit)	Guideline	Surplus (Deficit)	Guideline	Surplus (Deficit)	Surplus (Deficit)
166,697	123,365	43,332	129,815	100,716	151,430	96,908	

\*Includes added office program in Allied Health, Information Commons and Livermore Library. The surplus also includes space from West (which will most likely be utilized as swing space).

\*\*Includes new office space from the potential Visitor Center and new Business School with West offline in 2020.

The UNC standard calculation indicates a current (20,347) and long term surplus (68,708) of office space due to the addition of new buildings (see Table D-1) mostly because of significant building and addition.

The CEFPI guidelines offer a peek at what moderate space standards could offer UNCP. These guidelines, however, both indicate that adequate space can be provided for all staff and faculty. Through the course of interviews and campus observation it is clear that this is not the case—some office stations were undersized while other were disproportionately oversized.

The large surpluses originate in the reprogramming and reuse of current UNCP buildings. For example, by 2015 it is assumed that a new Information Commons will be online. According to table D-1, this move could add approximately 47,000 asf of office space to UNCP's campus (assuming Livermore is renovated to the Student Services Building). Reprogramming Livermore as something other than office, and decreasing the amount of office space in the new Information Commons would place the office surplus in a much more reasonable range.

There are other assumptions that also contribute to this surplus of office space: a new visitor center and business building contribute to the surplus in 2020, but the program does not dictate what happens to vacated office space from the current Business Building and Livermore. How vacated or replaced space is used will be determined by University direction and need. Office space supply and demand will fluctuate greatly as UNCP improves and expands its campus, thus making future office space projections a moving target. As UNCP sharpens its strategic facility direction a better assessment of office space can be determined.

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The following table summarizes the space required to accommodate all new faculty and staff as a result of growth. These tables also highlight the difference between the UNC and CEFPI office guideline.

**Table 3.1.d: Additional Office Space Needed as a Result of Enrollment Growth**

<b>UNC Guidelines</b>				
Type of Staff	Module asf	2011 Staff	2020 Additional Staff	2020 Space Needs
Faculty	190	379	86	16,340
Clerical & Secretarial	140	152	35	4,900
Exec/Admin & Mgmt	275	52	12	3,300
Technical & Professional	190	204	46	8,740
<b>Total</b>				<b>33,280</b>

<b>CEFPI Guidelines</b>				
Type of Staff	Module asf	2011 Staff	2020 Additional Staff	2020 Space Needs
Faculty	155	379	86	13,330
Clerical & Secretarial	135	152	35	4,725
Exec/Admin & Mgmt	240	52	12	2,880
Technical & Professional	155	204	46	7,130
<b>Total</b>				<b>28,065</b>

The difference between the UNC standard and CEFPI standard is 5,215 asf. In the big picture this may seem like a small amount of space, but consider this amount in the context of the UNC standard building cost of \$345 per asf.\* An adjustment of office space standard could potentially save UNCP approximately \$1.8 million.

\*Pg. 61, "Facilities Inventory and Utilization Study, Fall 2009: For the State of North Carolina, 43<sup>rd</sup> Edition" September 2010

### **3.1.4 Office Space Stations vs. Employees**

The number of office stations also plays a role in office space utilization. Graph 3.1a illustrates the number of current and future faculty and staff members against the current number of available office stations. Currently, it appears that there are enough office stations for the current number of faculty and staff, although some of these available stations are located in "temporary" trailers.

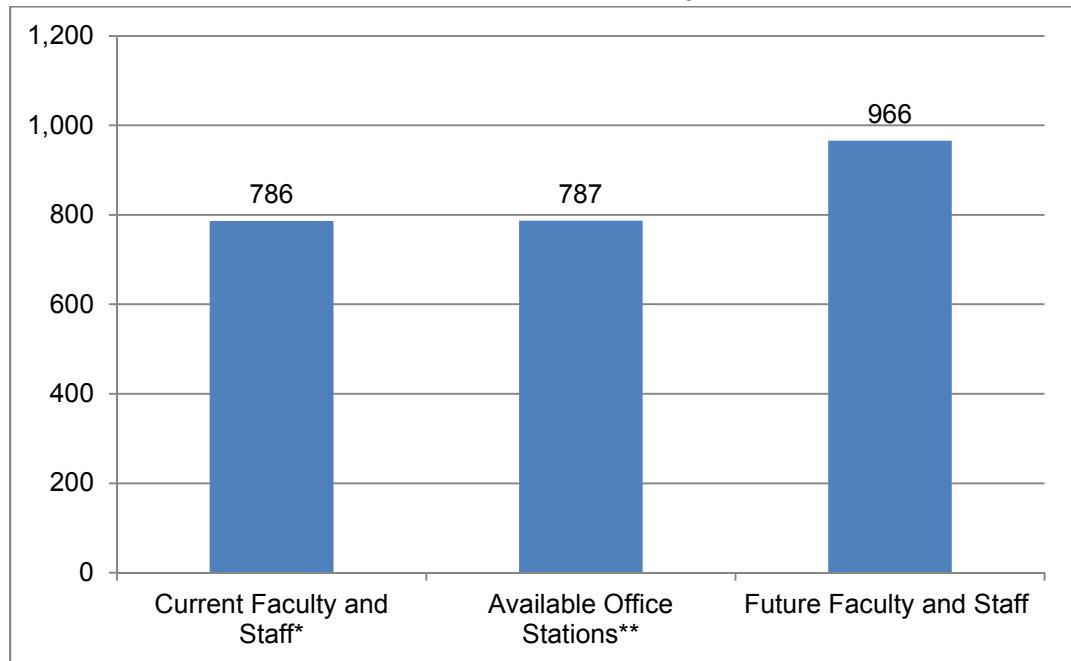
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While these numbers are statistically accurate according to the space database, they could be misleading for a number of reasons. Faculty and staff numbers are measured in FTE and therefore may not capture the need of temporary employees in various departments.

It is also assumed that employees classified as “crafts and trades” or “maintenance” do not need office space. This may not be accurate as some workers in these fields do have office needs. UNCP should carefully consider the quality, condition and location of these stations as they plan for building growth and reconditioning.

**Graph 3.1a: Number of Office Stations vs. Faculty and Staff Need (FTE)**



\*Current faculty and staff are counted in full time equivalent (FTE), assuming that crafts, trades and maintenance do not need offices.

\*\* This does not include 52 additional office stations in the Allied Health Building (total office stations will be raised to 839 once the building comes online).

### **3.1.5 Office Space Needs Conclusions**

There are cases where individual office sizes are inadequate as well as cases where individual offices, excluding supplemental space and office service space (315, 350 and 355 categories), exceed the recommended module size (see below).

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**Table 3.1.e: Existing Average Office Size per building**

<b>Building</b>	<b>AVG. Office Station Size</b>
<b><i>Executive*</i></b>	<b>275</b>
JACOBS HALL	234
WELLONS HALL	215
AUXILARY SERVICES	209
JAMES CHAVIS CENTER	204
CANTON FIELD HOUSE	199
LUMBEE HALL	196
MOORE HALL	196
CARTER HALL	192
<b><i>Faculty*</i></b>	<b>190</b>
<b><i>Technical and Professional*</i></b>	<b>190</b>
SRMC	181
NURSING	176
INTERNATIONAL HOUSE	175
Old Main	171
PINCBECK MAINT.	169
EDUCATION BUILDING	162
MAGNOLIA HOUSE	155
ENGLISH E. JONES BLD	155
CHAVIS ANNEX	148
LIVERMORE LIBRARY	146
REGIONAL CENTER	143
BUSINESS ADMIN	143
<b><i>Clerical and Secretarial*</i></b>	<b>140</b>
D F LOWRY	140
SAMPSON CLASSROOM	135
OXENDINE SCIENCE BLD	135
PINE HALL	134
MIMOSA	128
DIAL HUMANITIES	125
SIRIUS	125
WEST OFFICE BLDG	124
DOGWOOD OFFICE BLDG	121
LOCKLEAR	121
GIVENS PERF ARTS CTR	115
NORTH HALL	111
BELK HALL	93
STUDENT HEALTH SVCS	91
<b>Overall Average Station Size</b>	<b>155</b>

\* UNC Office Guideline



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Opportunities for greater efficiency are limited due to existing building configuration and condition. After discussion and observation, it is clear that office space quality varies greatly.

This is one factor that needs to be assessed as UNCP moves forward with building renovation and construction. As more buildings are built and repurposed, UNCP should be able to manage its office assets in a more equitable manner. This could be achieved by following and designing to an office space guideline appropriate for UNCP.

## 4.0 Library (HEGIS Category 400)

### 4.1.1 Category 400 Definition

Category 400 includes spaces serving library activities (except offices), including reading/study rooms serving individuals studying books or audio-visual materials, stack space serving to provide shelving for library and audio-visual materials, combined open stack and reading rooms, processing rooms (circulation desks, bookbinding and microfilm processing), and service areas directly serving one or more of these rooms as direct extensions of their activities.

**Table 4.1a: Category 400 Existing Locations**

<b>Building</b>	<b>ASF</b>
DIAL HUMANITIES	2,113
JAMES CHAVIS CENTER	716
LIVERMORE	34,276
MOORE HALL	689
SAMPSON	120
SRMC	108
<b>Total</b>	<b>38,022</b>

### 4.1.2 CEFPI Library Space Needs Formula

The CEFPI formula incorporates the following assumptions for Category 400: 1) Faculty and student FTE are primary users of library facilities and, therefore, generate the need for space; 2) stack space is determined based on the number of volume equivalents in the facility; and 3) service space needs are a function of the amount of study and stack space.

Allocation=

Reading Space + Stack Space + Service Space + Computer Space + Lounge & Merchandising Space

Where:

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- 1) Reading Space = (faculty FTE x 5%)+ (student FTE x 10%) x 25 asf/user
- 2) Stack Space = documents x .01 asf/volume (see "Conversion" below)
- 3) Service Space = (reading space + stack space) x 25 percent service multiplier
- 4) Computer Space = based on existing volumes per asf of computer space = 1 asf per 165 volumes.
- 5) Lounge & Merchandising Space = 3 asf/user x users (from "reading space" calc. above)

Existing Ref. Comp + ITS Lab space (asf) = 1,913  
 Total Volumes: 315,691  
 volumes per asf computers: 165

Conversion of media types into number of bound volumes (CEFPI methodology for determining space requirements):

- 1 bound volume book stock and bound periodicals
- 80 microforms (excluding reels, including duplicate titles) = 1 bound volume
- 3 microfilm reels (including duplicate titles) = 1 bound volume
- 12 periodicals = 1 bound volume
- 1 videotape and motion picture = 1 bound volume
- 8 other, flat library materials (flat pictures, study print sets, maps , charts, games) = 1 bound volume

### 4.1.3 Library Space Calculation Methodology

Conversion of Media Types into Volumes for current and target years

To convert all media types into volumes, a space factor is applied to the total number of "volumes," translating directly into shelf space required or "stack space."

**Table 4.1b: Estimated Number of Library Volumes**

	Count	Conversion Factor	Total "Volumes"	Volume Growth Rate of 2.0%* per year		
				2011	2015	2020
bound volumes	292,219	1	292,219			
microforms	772,921	80	9,662			
videotape & motion pic	12,682	1	12,682			
periodicals	12,750	12	1,063			
other, flat library material	528	8	66			
			315,691	315,691	341,714	377,280

\*Livermore staff assumes a 2.0% growth rate for FY 2012. Growth rate was applied for every year to 2020.  
 Source for all existing Library Information: Mary Livermore Staff

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**Table 4.1c: Estimated Reading Space\***

Year	FTE Students	% Users*	Subtotal	FTE Faculty	% Users	Subtotal	Total Users	ASF/User	Total ASF
2011	6,036	10%	604	379	5%	19	623	25	15,575
2015	6,351	10%	635	398	5%	20	645	25	16,125
2020	7,410	10%	741	465	5%	23	764	25	19,100

\*using space at any given time

**Table 4.1d: Estimated Stack, Service, Computer, Space and Lounge Space**

<b>Stack Space</b>			
	Media	asf/volume	Total asf
2011	315,691	0.08	25,255
2015	341,714	0.08	27,337
2020	377,280	0.08	30,182

<b>Service Space</b>			
	Reading + Stack	multiplier	Total asf
2011	40,830	25%	10,208
2015	43,462	25%	10,866
2020	49,282	25%	12,321

<b>Computer Space</b>			
	Volumes	Vol/asf ref. Comp	Total asf
2011	315,691	165	1,913
2015	341,714	165	2,071
2020	377,280	165	2,287

<b>Lounge and Merchandising</b>			
	Total Users	asf/user	Total asf
2011	623	3	1,869
2015	645	3	1,935
2020	764	3	2,292

**Table 4.1e: Summary of Space Needs for Current and Target Years**

<b>Summary</b>			
Year	2011	2015	2020
Reading Space	15,575	16,125	19,100
Stack Space	25,255	27,337	30,182
Service Space	10,208	10,866	12,321
Computer Space	1,913	2,071	2,287
Lounger & Merch	1,869	1,935	2,292
<b>Total asf</b>	<b>54,820</b>	<b>58,334</b>	<b>66,181</b>

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## 4.1.3 Library Space Needs Results:

**Table 4.1f: Library Space Needs**

ASF	2011		2015**		2020**	
	Guideline	Surplus (Deficit)	Guideline	Surplus (Deficit)	Guideline	Surplus (Deficit)
Available*	38,022	(16,798)	58,334	16,112	66,181	8,265

\* Includes all 400 space across campus.

\*\* Includes new 400 space added in Allied Health Building and Information Commons (400 space=74,446 asf). This variable also assumes that Livermore has been converted to office space and no longer contains any 400 space.

## 4.1.4 Library Space Needs Conclusion

The existing library facilities on the UNCP fall well short of meeting the current need. This shortfall will become more acute over time. A 97,500 asf Information Commons would yield enough space (65,000 asf) to prepare UNCP for its future projected enrollment. It should be noted that library design is changing rapidly as the result of digital media and educational delivery. Given the evolving nature of libraries and the activities they support, a separate study of the library would be beneficial.

## 5.1.0 Athletic or Physical Education (HEGIS Category 520)

### 5.1.1 Category 520 Definition

Category 520 includes rooms or areas used by student or staff for recreation or physical education activities, such as gymnasiums, handball courts, squash courts, wrestling rooms, swimming pools, ice rinks, indoor tracks, indoor “fields”, and field houses. It includes service rooms which serve as direct extensions of the activities conducted in such facilities, such as locker rooms, shower rooms, dressing rooms, equipment supply rooms, first-aid rooms, towel rooms, etc. It also includes facilities which are shared with intercollegiate athletic programs but excludes facilities which are exclusively athletic such as spectator seating.

Athletic or physical education spaces are located in the following buildings:

**Table 5.1a: Indoor Recreation Space (520)**

Building	ASF
CANTON FIELD HOUSE	8,793
ENGLISH E. JONES BLD	69,862
FOOTBALL PRESSBOX	1,010
<b>Grand Total</b>	<b>79,665</b>

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## 5.1.2 CEFPI Indoor Recreation Space Needs Formula

Allocation = Core + [(FTE-3,000) x (10)] + (Allowance for Intercollegiate Athletes) + *ad hoc*

## 5.1.3 Athletic or Physical Education Space Needs Results

**Table 5.1a Indoor Recreation Space Needs (Category 520)**

2011		2015		2020		
Available	Guideline	Surplus (Deficit)	Guideline	Surplus (Deficit)	Guideline	Surplus (Deficit)
79,665	85,360	(5,695)	88,510	(8,845)	99,100	(19,435)

## 5.1.4 Athletic or Physical Education Space Conclusions

The guidelines suggest a deficit of athletic and physical education space. This particular space guideline claims that this space can be assigned *ad hoc*, or by the discretion of the institution. Included in this calculation was a 5,000 asf allowance for active intercollegiate programs. If this allowance were removed, UNCP would currently be approximately on target with CEFPI guidelines. Based on observation, UNCP is well served by the Jones Center.

## 5.2.0 Audio/Visual/Television (HEGIS Category 530)

### 5.2.1 Category 530 Definition

Rooms used for the production and distribution of audiovisual, radio, and TV materials, and for the operation of equipment for the communication of these materials, such as TV studios, radio studios, sounds studios, graphics studios, and similar rooms. It includes service rooms which serve as direct extensions of the activities conducted in such facilities, such as film libraries, tape libraries, control rooms, videotape recorder rooms, property storage, recording rooms, engineering maintenance rooms, darkrooms, preparation rooms, and equipment storage rooms.

Currently space is allocated as follows:

**Table 5.2.a: Existing Category Space Needs (Category 530)**

Building	ASF
JACOBS HALL	1,045
OLD MAIN	2,631
<b>Grand Total</b>	<b>3,676</b>

### 5.2.2 CEFPI Audio/Visual/Television Space Needs Formula

The requirement for space in this category is represented by a basic core factor plus an additive factor. The core factor is 9,800 to serve an FTE of 4,000 students with an additive 1 asf per each additional FTE.

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Allocation (Less than 10,000 FTE) = 1.0 asf/FTE; minimum 5,000 asf

## 5.2.3 Audio/Visual/Television Space Needs Results

Table 5.2.b: Audio/Visual/ Television Space Needs (Category 530)

ASF	2011		2015**		2020**		
	Available*	Guideline	Surplus (Deficit)	Guideline	Surplus (Deficit)	Guideline	Surplus (Deficit)
	3,676	6,036	(2,360)	6,351	12,325	7,410	11,266

\*Guideline includes possible expansion of 530 space of 15,000 in the new Information Commons.

## 5.2.4 Audio/Visual/Television Space Needs Conclusions

The guidelines indicate that there is a current deficiency of Audio/Visual space. According to Table D-1, the new Information Commons calls for 15,000 asf of 500 space. This would create a surplus of audio/visual space. This is one particular type of space that needs special attention given the changing dynamics of educational delivery. Since the Information Commons program is an estimate, this particular projection is subject to adjustment.

## 6.0 Assembly and Exhibition Space (HEGIS Category 610/620)

### 6.1.1 Category 610/620 Definition

The Assembly and Exhibition Space guideline calculates the space required for an auditorium with related service spaces such as a stage, wings, control room, and storage. The formula used here is for a school with a minimum of 5,000 FTE and an active Fine Arts program with allocations for theatre and dance programs.

**Existing Assembly and Exhibition Facilities are located in:**

Table 6.1a: Existing Assembly and Exhibition Space

Building	ASF
CHAVIS ANNEX	6,024
DIAL HUMANITIES	873
GIVENS PERF ARTS CTR	22,717
JAMES CHAVIS CENTER	866
LIVERMORE LIBRARY	161
LOCKLEAR	1,240
MOORE HALL	3,702
Old Main	7,811
<b>Total</b>	<b>43,394</b>

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## 6.1.2 CEFPI Assembly and Exhibition Formula

The guidelines for categories 610/620 assume a basic core of space of 5,600 asf. The existence of a developed music program necessitates an additional 5,000 asf. According to CEFPI guidelines an allocation of 3 asf per FTE has been allotted.

Allocation = Core requirement + music option + theatre option+ 2 asf per FTE in excess of 5,000 FTE

## 6.1.3 Assembly and Exhibition Space Needs

**Table 6.1b: Assembly and Exhibition Needs**

ASF	2011		2015		2020*	
	Available	Guideline Surplus/(Deficit)	Guideline	Surplus/(Deficit)	Guideline	Surplus/(Deficit)
43,394	29,072	14,322	29,702	13,692	31,820	15,637

\*Assumes addition approximately 4,063 asf of assembly and exhibition space in new Visitor Center.

Using the revised guideline, there is a current estimated surplus of 14,322 asf for 2011 and 15,637 asf for 2020.

## 6.1.4 Assembly and Exhibition Space Needs Conclusion

The total current space appears to be adequate for current and future UNCP programs.

## 6.2.0 (HEGIS Category 630-635)

### 6.2.1 Dining Facilities

Food facilities include dining halls, cafeteria, snack bars and similar eating areas, plus kitchen, servery and dish room areas. UNCP has a total supply of 16,128 asf located in the Auxiliary Services Building, DF Lowry and James Chavis Center.

### 6.2.2 PSSHE Dining Services Formula

Allocation= 6 asf X FTE

### 6.2.3 Dining Facility Need

ASF	2011		2015		2020	
	Available*	Guideline Surplus (Deficit)	Guideline	Surplus (Deficit)	Guideline	Surplus (Deficit)
16,128	32,934	16,806	38,106	(21,978)	44,460	(28,332)

### 6.2.4 Dining Facility Space Needs

The Pennsylvania State System of Higher Education Capital Facilities Planning and Programming Criteria has been utilized as there are no CEFPI guidelines for dining space. The PSSHE guidelines for dining space recommend 44,460 asf for UNCP by the year 2020. This suggests that UNCP has a significant deficit of space that will grow worse as enrollment increases. Dining projections should be

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scrutinized as these projections fail to account for students who eat off campus or utilize other dining options in the surrounding Pembroke area.

## **6.3.0 Student Services (HEGIS Category 650-680)**

### **6.3.1 Student Services (650-680)**

Category 650-680 applies to student services in a student union and includes the lounges, merchandising, recreation rooms, meeting rooms, and locker areas. The formula also accounts for additional meeting rooms, non-athletic locker areas and recreational space in other buildings. It does not include student service space in residence halls.

### **6.3.2 CEFPI Student Services Formula**

Allocation= FTE students x 9 asf

### **6.3.3 Student Service Space Needs**

**Table 6.3a: Student Services Space Needs**

ASF	2011		2015		2020*	
	Guideline	Surplus (Deficit)	Guideline	Surplus (Deficit)	Guideline	Surplus (Deficit)
Available*	54,324	(10,727)	57,159	(13,562)	66,690	(14,968)

\*Assumes new lounge and meeting room space of approximately 8,125 asf added in proposed Visitor Center.

### **6.3.4 Student Service Space Needs**

The formula calls for student union and related space in other buildings of about 54,000 asf. Currently there is a small deficit of about 11,000 asf which will grow to approximately 13,500 asf by 2015. Even with the addition of approximately 8,125 asf of student service space in the new Visitor Center, UNCP will still have a deficit of approximately 15,000 asf. Program in new buildings, the Information Commons for example, could be adjusted to make up for the currently projected shortfall. Livermore will become a student services “one stop” facility.

## **7.0.0 Support Facilities (700)**

Support facilities provide continuous indirect services to the institution and its communication from a centralized location-serving a building, area or department.

Existing support facilities are located in the following buildings:



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**Table 7.1a Existing Support Facilities**

Building	ASF
Auxiliary Services	8,606
Pinchbeck Maintenance	42,494
<b>Total</b>	<b>51,100</b>

## 7.1.1 CEFPI Support Facilities

Allocation = Total existing ASF in all other categories x .06 percent multiplier

## 7.1.2 Support Facility Needs

ASF	2011		2015		2020	
Available	Guideline	Surplus/(Deficit)	Guideline	Surplus/(Deficit)	Guideline	Surplus/(Deficit)
51,110	33,986	17,124	43,523	7,587	45,945	5,165

## 7.1.3 Support Facility Conclusions

UNCP has enough support space for the foreseeable future. The placement of such support facilities may need to become more centralized as the core of campus grows, but it appears that there is enough space to support UNCP's growth well into the future.

## 8.0 Health Care Facilities (HEGIS Category 800)

### 8.1.1 Category Definition

Health care facilities are those that are provided for the day-to-day care and primary treatment of students and staff. This Room Use Code applies to patient care rooms located in student infirmaries, teaching hospitals, and veterinary and medical schools, and is further subdivided for Room Inventory purposes.

**Table 8.1a Existing Health Care Facilities**

Building	ASF
Student Health Services	2,612
<b>Grand Total</b>	<b>2,612</b>

### 8.1.2 Guideline Formula

Allocation = 2,000 asf core + .3 asf for FTE over 3,000

### 8.1.3 Health Care Facilities Space Needs

ASF	2011		2015		2020	
Available	Guideline	Surplus/(deficit)	Guideline	Surplus/(deficit)	Guideline	Surplus/(deficit)
2,612	2,910	(298)	3,005	(393)	3,323	(711)

## **8.1.4 Health Care Facilities Conclusion**

According to CEFPI standards, UNCP has a small deficit of health care space now and in the future. At this writing, an expansion is planned which should create a surplus depending on program.

## **Section 3: Summary of Recommendations**

The space needs analysis suggests several recommendations for the University of North Carolina Pembroke. Some of these are reflected in the physical master plan for the campus, while others require consideration of policy decisions.

**Assess opportunities to make more efficient use of classrooms:** While CEFPI guidelines suggest target classroom utilization and station occupancy rates of 65 percent, UNCP does not currently achieve these targets. This suggests that there may be opportunities to make more efficient use of classrooms, assuming all classroom space documented in the University's space inventory can be used and scheduled over a 45-hour week period.

**Improve the match between classroom supply and course offerings:** There is a mismatch between UNCP's classroom supply and course offerings which results in less than optimal utilization and occupancy rates, as well as greater competition for classrooms during peak periods. UNCP should investigate opportunities to strategically repurpose underutilized rooms to create spaces that are better matched to course delivery. Any newly built or renovated classroom should be designed to address the needed classroom sizes.

**Confirm office space needs:** The analysis suggests that UNCP has a surplus of office space. While this may be true in theory, after comprehensive discussion with deans and other members of the UNCP community it became clear that offices vary widely in their quality and size. So while there may be a surplus in actual asf, the amount of high quality, useful and well-ventilated office space most likely leaves UNCP with a need for offices. Prior to taking action on this issue, the University should review the current space inventory to confirm it accurately captures the current usage of space.

**Adopt and maintain an official office standard:** While the UNC system does have space standards for office space, it appears that the standard is loosely followed. UNCP could save a significant amount of resources by adopting and maintaining an office space standard across all University space.

**Meet the need for library and study space:** The space analysis reveals a significant shortage of library and study space which should be addressed. This shortfall could be addressed in many ways, one option includes building a new Information Commons in the heart of campus as illustrated in the master plan.

**Prepare a dining study:** The analysis suggests a significant need for dining space on campus, so it is recommended that the University perform a dining study to explore options for meeting the need.