

# FACILITIES EVALUATION AND PLANNING GUIDE

Revised by the Interinstitutional Committee of Space Officers  
representing the public four-year colleges and universities  
in the state of Washington

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Committee Members:

*James Korski, Chair, Western Washington University*  
*Mark Baker, Eastern Washington University*  
*Jon Collier, The Evergreen State College*  
*Roberta Hopkins, University of Washington*  
*Bill Julius, State Board for Community and Technical Colleges*  
*Al Mousseau, Washington State University*  
*Duane Skeen, Central Washington University*  
*Steven Swant, University of Washington*

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# INTRODUCTION

The Facilities Evaluation and Planning Guide (FEPG) was originally completed in 1976 by representatives from each of Washington's public four year colleges and universities. They were assisted in its development by representatives of the Office of Financial Management (OFM), the Higher Education Coordinating Board (HECB) and the State Board for Technical and Community Colleges, who have also participated in the subsequent revisions. In 1990, the Interinstitutional Committee of Space Officers began revising the FEPG and completed the first phase revisions of classrooms, laboratories, offices, and study facilities in 1992. The completed document was submitted in October 1994 for the Interinstitutional Committee of Business Officers' approval.

The topology of the FEPG is based on the U.S. Department of Education Facilities Inventory and Classification Manual, 1992 revision. The FEPG is intended for use by state-level policy and capital outlay planners, college and university administrators, campus planners, facilities planning and budgeting staff and project architects, to allow consistent and objective evaluation of space use and space planning in the four-year universities and colleges. The FEPG contains space planning guidelines and standards for translating educational programs and support services to a set of physical facility requirements. The FEPG can serve as both a management tool for allocating existing space and as a guide in determining future physical facility requirements. Its square footage standards for space can also be used in the planning and design of new or remodeled physical facilities.

## Applications of the FEPG

### ***Program Planning and Analysis***

The first step in an overall planning process for a college or university is to define the future direction of both its academic program and support services. This program planning will confirm or refine the institution's mission statement and will probably identify areas for change or future emphasis.

Planning for academic and support services also provides the foundation for achieving validity in space analysis and planning. When present and future operational objectives are agreed upon, facility needs can be accurately established and described in quantitative terms. This information, in combination with building condition reports, can be developed into a capital improvement plan in support of capital budget requests. The FEPG thus plays a key role in defining space needs and developing a capital plan.

### ***Long-Range Capital Planning***

Reinforcing the need for each institution to plan its space needs and capital projects is OFM's current policy of requiring that a ten-year capital improvement plan be submitted by each institution as a component of its biennial capital budget requests. This plan identifies the major and minor capital projects for which state funding is sought. Typical projects within the ten-year plan are new buildings, renovation or remodeling of existing buildings, and an array of safety projects, utilities improvements, miscellaneous repairs and improvements, and land acquisition. The FEPG is a useful tool in the overall space planning and analysis conducted by Washington's four-year educational institutions.

## ***Predesign***

Predesign serves as the first phase for any major capital project. The purpose of predesign as mandated by Section 59 of EHSB 1427 of the 1991 Capital Appropriation Bill is "...to define and balance the elements of scope, master plan, schedule, budget, location, etc..." for any capital improvements over \$5 million for which construction funding will be requested in a subsequent biennium. A predesign program is thus required. Predesign documents must also undergo a technical review by OFM.

The Facilities Evaluation Planning Guide planning guidelines are an essential element of the predesign analysis and are useful in evaluating proposed projects.

## ***Space Management***

The FEPG's space planning guidelines and standards are also useful in the day-to-day management of space by a college or university. Space managers can use the FEPG to establish levels of space required for each teaching and support operation. They will also find it helpful in evaluating the many factors that affect space use, including:

1. Evolving technology and applications in teaching;
2. The quantity and quality of existing space and whether it is functionally adequate;
3. Evolving research proposals and applications, grants and contracts and potential increases in faculty, post doctorates, graduate research assistants and research technicians involved in this endeavor;
4. Comparisons of space standards used by other institutions in planning and design.

## **Conclusion**

The roles of space management in higher education are to ensure that existing physical facilities are used effectively and efficiently in their support of programs and activities and to assist with the planning of new construction or remodeling. The Facilities Evaluation and Planning Guide will be an important and effective tool in these roles, but persons using it should endeavor to maintain a balance between optimal planning and actual conditions. The FEPG contains "planning guidelines" which are useful in determining overall space needs, but which are not intended as "design standards" for specific facility projects.

CATEGORY: Classroom Facilities  
REVISED: April 30, 1991  
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## **100 - CLASSROOM FACILITIES**

This category aggregates classroom facilities as an institution-wide resource, even though these areas may fall under different levels of organizational control. The term "classroom" includes not only general purpose classrooms, but also lecture halls, recitation rooms, seminar rooms, and other rooms used primarily for scheduled nonlaboratory instruction. Total classroom facilities include any support rooms that serve the classroom activity (e.g., 110 plus 115 as defined below). A classroom may contain various types of instructional aids or equipment (e.g., multimedia or telecommunications equipment) as long as these do not tie the room to instruction in a specific subject or discipline. (For treatment of such space, see 200-Laboratory Facilities).

Institutions may use extension codes to distinguish control over classroom areas, discipline use, type of instruction, contained equipment or other classroom variables (e.g., 120/125 departmental classroom). These extension codes should be capable of aggregation to total classroom space (110) as needed.



CATEGORY: Classroom Facilities  
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## CLASSROOM FACILITIES

### A. General

Classroom facilities are potentially an institution-wide resource. Even though these areas may fall under different levels of organizational control, the need for this type of space should be evaluated for the entire campus. The term "classroom" includes not only general purpose classrooms, but also lecture halls, auditoria, seminar rooms, and other rooms used primarily for scheduled non-laboratory instruction. Classroom facilities include any support rooms that serve the classroom activity. A classroom may contain various types of instructional aids or equipment (e.g., multimedia or telecommunications equipment) which do not tie the room to instruction in a specific subject or discipline (see 200--Laboratory Facilities).

### B. Room Use Classifications and Definitions

1. **110 CLASSROOM:** 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 room.

*Description:* Includes rooms generally used for scheduled instruction that require no special, restrictive equipment or configuration. These rooms may be called lecture rooms, lecture-demonstration rooms, seminar rooms, and general purpose classrooms. A classroom may be equipped with tablet armchairs (fixed to the floor, joined in groups, or flexible in arrangement), tables and chairs (as in a seminar room), or similar types of seating. These rooms may contain multimedia or telecommunications equipment. A classroom may be furnished with special equipment (e.g., globes, maps) appropriate to a specific area of study, if this equipment does not render the room unsuitable for use by classes in other areas of study.

*Limitations:* This category does not include Conference Rooms (350), Meeting Rooms (680), Assembly (610), or Class Laboratories (210). Conference rooms and meeting rooms are distinguished from seminar rooms according to primary use; rooms with chairs and tables that are used primarily for meetings (as opposed to classes) are conference rooms or meeting rooms (see categories 350 and 680 for distinction). Assembly facilities are distinguished from lecture rooms based on primary use. A large room with seating oriented toward some focal point, and which is used for dramatic or musical productions, is an Assembly (610) facility (e.g. an auditorium normally used for purpose other than scheduled classes). A class laboratory is distinguished from a classroom based on equipment in the room and by its restrictive use. If a room is restricted to a single or closely related group of disciplines *by special equipment or room configuration*, it is a laboratory (see 200 series).

2. **115 CLASSROOM SERVICE:** A room that directly serves one or more classrooms as an extension of the activities in that room.

Description: Includes projection rooms, telecommunications control booths, preparation rooms, coat rooms, closets, storage areas, etc., if they serve classrooms.

Limitations: Does not include projection rooms, coat rooms, preparation rooms, closets or storage areas, if such rooms serve laboratories, conference rooms, meeting rooms, assembly facilities, etc. A projection booth in an auditorium (not used primarily for scheduled classes) is classified as Assembly Service (615).

### C. Classroom Utilization Assumptions and Guidelines

Only formally scheduled hours of instruction are reflected in the utilization standards for classrooms. These standards provide an allowance for nonscheduled and informal use of classroom facilities.

#### 1. Utilization Assumptions

- a. Classroom facilities are usually scheduled by a central scheduling office.
- b. The assignable square feet per student station in any particular classroom is determined by the type of instruction (lecture, seminar) and seating (e.g., movable tablet armchair, fixed pedestal tablet armchair, table and chairs).
- c. The utilization of rooms may fluctuate due to room size or campus location.

#### 2. Utilization Guidelines

The following guidelines are indicators of fullness in classroom facilities. Utilization levels that reach or exceed these levels on a campus-wide basis may signal a need for additional facilities to accommodate regularly scheduled classes.

- a. Average Standard Room Use: 30 hours of scheduled weekday, daytime use per week. (Based on a 9-hour period beginning with the first hour for regularly scheduled classes).
- b. Average Standard Room Fullness: 60 percent of stations occupied during hours of scheduled daytime use.
- c. Average Weekly Hours Per Station: 18 hours of scheduled weekday, daytime use per station per week. (30 hours x 60 percent fullness = 18 hours per station.)

## D. Space Planning Formulae for Classrooms

The formulae below can be used for:

- \* Determining student capacity within existing classrooms.
- \* Determining classroom stations required for an existing enrollment.
- \* Determining the classroom space required for either an existing or projected enrollment.

1. <u>Components</u>	<u>Number</u>
a. Existing Day-On-Campus FTE Student Enrollment	
b. Total Student Lecture Contact Hours*	
c. Average Lecture Contact Hours Per FTE Student (Line b ÷ Line a)	
d. Number of Classroom Stations (Existing)	
e. Projected Day-On-Campus FTE Student Enrollment	

**NOTE:** Data provided in the components section of the worksheet can range from the department to institution-wide level, depending on the magnitude of planning or analysis.

***\*Total regularly scheduled student contact hours per week in classrooms during fall term. The most basic contact hour is calculated based on one student in a classroom for one 50-minute period. Thus a course with 10 students that meets five times a week for 50 minutes per day is said to have 50 student contact hours (10 students x 1 - 50-minutes hour x 5 meetings).***

2. Calculation Formulae

**Student Capacity Within Existing Classrooms**

	x	18	+		=	
Line D		Wkly Hrs/Station		Line C		Student Capacity

**Classroom Stations Required for Existing Enrollment**

	x		+	18	=	
Line A		Line C		Wkly Hrs/Station		Stations Required

**Classroom Space Required for Existing Enrollment**

	x	16	=	
Stations Required (From Above)		Average ASF/Station		Existing Space Required

**Classroom Space Required for Projected Enrollment**

	x		x		=	
.889		Line E		Line C		Projected Space Required

The multiplier .889 is an index that indicates the square feet of classroom space required for each scheduled lecture contact hour (B). It is computed through the following equation:

$$16 + (30 \times .60) = .889$$

16 = Average ASF per station.

30 = Average hours per week classrooms are to be used.

60 = Average percent of time each station is occupied during room use.

**E. Design Standards for Classrooms**

Table 1 below is intended for the following applications:

1. The square feet per station shown for the various types of seating can be used to determine the total assignable square feet (ASF) required within a room to achieve a desired seating capacity.
2. The square feet per station can also be used to determine the seating capacity within an existing room.
3. When doing general campus-wide classroom space projections, use 16 ASF as a space factor. See Section D (Classroom Space Required) for space calculation formula.

<b>TABLE 1 Classroom Assignable Square Feet Per Station Criteria (Includes Classroom Service)</b>							
Room Capacity	Movable Chairs w/Tablet Arm (TA)		Fixed Pedestal or Riser Mounted Seating w/TA	Auditorium Seating w/TA		Movable Table & Chairs	Pedestal Table and Chair
	Under 15" Arm	15-20" Arm		Folding	Non-Folding		
0 - 25	18	20	17	--	--	16 - 26	20 - 22
26 - 49	16	18	17	--	--	16 - 26	18 - 20
50 - 99	14	16	13	14	17	16 - 22	18 - 20
100 - 149	--	--	12	14	15	16 - 22	18 - 20
150 - 299	--	--	--	14	15	16 - 22	17 - 19
300+	--	--	--	14	15	16 - 22	16 - 18
Overall Average	16		14	14	15	20	18

CATEGORY: Laboratory Facilities  
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## **200 - LABORATORY FACILITIES**

A laboratory is a facility characterized by special purpose equipment or a specific room configuration which ties instructional or research activities to a particular discipline or a closely related group of disciplines. These activities may be individual or group in a nature, with or without supervision. Laboratories may be found in all fields of study including letters, humanities, natural sciences, social sciences, vocational and technical disciplines, etc. Laboratory facilities can be subdivided into three categories: class, open, and research/nonclass laboratory. A class laboratory is used for scheduled instruction. An open laboratory supports instruction but is not formally scheduled. A research/nonclass laboratory is used for research, experimentation, observation, research training, or structured creative activity which support extension of a field of knowledge. Institutions may wish to further distinguish various types of class, open, and research laboratories through the use of extension or special codes.

NOTE: Within comprehensive research universities, it is difficult to draw precise lines between instruction and research activities. At institutions with medical and health science programs, it is even more complicated because of the difficulty in distinguishing between patient care and instruction or research activities. The problem of joint activities makes the classification of space very difficult.

The complexity of "research" and how it may affect room use classification decisions needs discussion at the institutional level. In general, there are three categories of research activities: externally budgeted or funded projects or centers, and separately organized centers or projects that are funded from institutional resources; departmental research activities that are neither separately budgeted or organized; and creative and intellectual activities of faculty in some disciplines that are the equivalent of departmental research (e.g., visual and performing arts are common examples).

When this complexity exists, institutions may elect to use standard room use codes for laboratories, office space, etc., and rely upon the actual activities of the faculty and staff housed within the space to determine the distinction between instruction and research. The room inventory data elements include a designation of function as a separate code for each room. If combined with financial and activity information, the combination of function and room use code can accurately represent allocations of space for research more effectively and accurately than reliance upon only the room use code.

CATEGORY: Laboratory Facilities  
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## CLASS LABORATORY FACILITIES

### A. General

A class laboratory is a facility characterized by special purpose equipment or a specific room configuration which ties scheduled instructional or research activities to a particular discipline or a closely related group of disciplines.

These activities may be individual or group in nature, with or without supervision. Class laboratories may be found in all fields of study including letters, humanities, natural sciences, social sciences, vocational and technical disciplines.

### B. Room Use Classifications and Definitions

1. **210 CLASS LABORATORY:** A room used primarily 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.

*Description:* A class laboratory is designed for or furnished with equipment to serve the needs of a particular discipline for group instruction in formally or regularly scheduled classes. The design of the space or equipment in the room normally limits or precludes its use by other disciplines. Included in this category are rooms generally called teaching laboratories, instructional shops, typing or computer laboratories, drafting rooms, band rooms, choral rooms, (group) music practice rooms, language laboratories, (group) studios, theater stage areas used primarily for instruction, instructional health laboratories, and similar specially designed or equipped rooms, *if they are used primarily for group instruction in formally or regularly scheduled classes*. Computer rooms used primarily to instruct students in the use of computers are classified as class laboratories if that instruction is conducted primarily in formally or regularly scheduled classes.

*Limitations:* Does not include Classrooms (110). Does not include informally or unscheduled laboratories (see 220) or computer labs (see 230). This category does not include rooms generally defined as Research Laboratories (250). It does not include gymnasia, pools, drill halls, laboratory schools, demonstration houses, and similar facilities that are included under Special Use Facilities (500 series).

- 2. 215 CLASS LABORATORY SERVICE:** A room that directly serves one or more class laboratories as an extension of the activities in those rooms.

Description: Includes any room that directly serves a class laboratory. Included are projection rooms, telecommunications control booths, coat rooms, preparation rooms, closets, material storage, balance rooms, cold rooms, stock rooms, dark rooms, equipment issue rooms, etc., if they serve class laboratories.

Limitations: Does not include service rooms that support classrooms (see 115), Open Laboratories (225), Computer Laboratories (235) or Research Laboratories (255). Animal Quarters (570) and Greenhouses (580) are categorized separately.

## C. Components

Total space required for class laboratory facilities is determined by considering a number of factors: Average Station Utilization and Student Contact Hours; Students; ASF per Station requirements; and Number of Stations required. A methodology for calculating total space needs for class laboratory facilities follows the brief description/definition of these factors found in the following section.

### 1. Station Utilization

Only formally scheduled hours of instruction are included in the study of class laboratory utilization. However, laboratory classes often require blocks of preparation and dismantling times, and student make-up and extra laboratory experiment time which preclude the use of the class laboratory for scheduled instruction. Sufficient allowance for these essential nonscheduled time periods must be made when setting and analyzing class laboratory utilization rates.

Class laboratories are normally not interchangeable between fields of study and utilization rates of these rooms are meaningful only when used in relationship to a single discipline. Averaging the utilization of several fields of study will result in misleading and inconclusive results.

The per station utilization is calculated using standards for the average weekly hours of scheduled daytime use for class laboratories and the standard for the average room occupancy. For planning purposes, it is assumed that 20 hours of scheduled, day-time use per week constitutes full room use. It is also assumed that full occupancy is achieved when an average of 80 percent of the class laboratory stations are used per week. Average Station Utilization is thus calculated to be 16 hours, as shown below:

Average Room Use x Average Room Fullness = Average Station Utilization

$$(20 \text{ hours} \times 80\% = 16 \text{ Hours})$$

### 2. Student Contact Hours

The most basic contact hour is calculated based on one student in a class laboratory for one 50-minute period. Thus a course with 10 students that meets five times a week for 50 minutes per day is said to have 50 student contact hours (10 students x 1 - 50-minute hour x 5 meetings).



### 3. ASF Per Station

The ASF per station guideline numbers which follow establish an order of magnitude for class laboratory space within the major Classification of Instructional Programs (CIP) categories. (Appendix A shows square feet per station data for those specific disciplines within each major CIP group that had data. However, it is only the CIP group average that is intended to be meaningful within the arrayed data.)

The guidelines are for both research and regional institutions of higher education and all levels of study (i.e., lower division, upper division and graduate course levels). The guidelines include both space classified in category 210 (Class Laboratory) and space in category 215 (Class Laboratory Service). Justification is necessary if space requirements vary significantly from the guidelines. Such justification must be supported by the curricular and/or pedagogical requirements of the discipline(s).

Major CIP Groups*	Recommended ASF per Station Planning Guidelines	Range	
		Low	High
Area Studies	35	35	40
Law	35	30	40
Letters	35	N/A	40
Library Science	35	30	40
Mathematics	35	30	40
Public Administration	35	35	40
Business	35	35	40
Foreign Languages	45	40	50
General Studies	45	40	50
Social Sciences	45	30	70
Education	50	35	150
Psychology	50	30	70
Natural Sciences	60	25	70
Communications	60	35	96
Computer Sciences	60	50	60
Agricultural Business	65	50	125
Biological Sciences	65	25	80
Health Professions	65	40	175
Home Economics	70	45	100
Agricultural Sciences	75	55	160
Architecture	75	60	85
Physical Sciences	80	40	90
Arts	90	50	175
Engineering	120	35	180

**\*See Appendix A at the conclusion of this section for specific disciplines included within each major CIP group, and comparative standards from nine higher education systems or institutions.**

4. Class Laboratory Stations

The number of stations provided in class laboratories should be determined based on the specific course curriculum and pedagogy, and number of students to be served by the class laboratory. For planning purposes, the number of class laboratory stations to be provided in a new or remodeled facility should be based on extensive and in-depth consultations with individual faculty teaching the courses that will use the class laboratories, administrative personnel, institutional architects and project managers and professional laboratory planning consultants,

For those institutions with reliable data on student class lab contact hours, an estimate of the number of student class laboratory stations that are required can be calculated as shown below. This formula assumes continuing levels of students and unchanging curriculum requirements.

$$\text{Total Student Contact Hours*} \quad \boxed{\phantom{000}} \quad \div 16^* = \boxed{\phantom{000}} \quad \text{Total Stations required}$$

**\* Total student contact hours are the sum of all student contact hours generated in regularly scheduled class sections accommodated by the class lab(s).**

**D. Evaluation Criteria**

In general, total space required for class laboratories can be estimated using the formulas presented in the previous sections. However, when dealing with small academic departments with small number of student contact hours will in many cases result in an inadequate total class laboratory space requirement. In these cases, class laboratory and class laboratory service space should be determined based on specific curricular requirements. Standards of utilization, total student contact hours, estimated number of stations and ASF per station are the data elements required to complete the calculation.

- |    |  |       |
|----|--|-------|
| 1. | Average Station Utilization<br>Average Room Use x Average Room Fullness<br>(20 hours x 80% = 16 Hours)   | 16    |
| 2. | Student Contact Hours<br>(50-minutes period x 1 student = 1 Contact Hour)  | _____ |
| 3. | Assignable square feet per station including room type 215<br>(from Planning Guidelines)   | _____ |
| 4. | Number of stations<br>(to be determined by planning process or following formula)  | _____ |
| 5. | Total assignable square feet of Class<br>Laboratory and Class Laboratory Service<br>(ASF/station (step 3) x number of stations (step 4) = total ASF) | _____ |

CATEGORY: Laboratory Facilities  
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## OPEN LABORATORY

### A. General

An open laboratory is a facility characterized by special purpose equipment or a specific room configuration which ties unscheduled instructional or research activities to a particular discipline or a closely related group of disciplines. These activities may be individual or group in nature, with or without supervision. Open laboratories may be found in all fields of study including letters, humanities, natural sciences, social sciences, vocational and technical disciplines.

### B. Room Use Classifications and Definitions

1. **220 OPEN LABORATORY:** A room used primarily for individual or group instruction that is informally scheduled, unscheduled, or open.

*Description:* An open laboratory is designed for or furnished with equipment that serves the needs of a particular discipline or discipline group for individual or group instruction where: (1) use of the room is not formally or regularly scheduled, or (2) access is limited to specific groups of students. Included in this category are rooms generally called music practice rooms, language laboratories used for individualized instruction, studios for individualized instruction, special laboratories or learning laboratories if discipline restricted, individual laboratories.

*Limitations:* Laboratories with formally or regularly scheduled classes are Class Laboratories (210). This category also does not include rooms defined as Computer Laboratories (230) or Research Laboratories (250). A room that contains equipment (e.g., typewriters) which does not restrict use to a specific discipline or discipline group, and which is typically used at a student's convenience, should be classified as a Study Room (410). *A room that contains microcomputers/equipment should be classified as Open Computer Laboratory (230).*

2. **225 OPEN LABORATORY SERVICE:** A room that directly serves one or more open laboratories as an extension of the activities in those rooms.

*Description:* Includes only those rooms that directly serve an open laboratory. Included are projection rooms, telecommunications control booths, coat rooms, preparation rooms, closets, material storage, balance rooms, cold rooms, stock rooms, dark rooms, equipment issue rooms, and similar facilities, *if they serve open laboratories.*

*Limitations:* Does not include service rooms that support classrooms (see 115), Class Laboratories (215), Computer Laboratories (230) or Research Laboratories (255). Animal Quarters (570) and Greenhouses (580), and Central Service (750) facilities are categorized separately. *Does not include Open Computer Laboratory (230) or Open Computer Laboratory Service (235).*

**C. Assumptions**

1. Open Class Laboratories, while often used in conjunction with Class Laboratories (210), have special and unique factors and serve an extended variety of academic functions that precludes the establishment of general planning guidelines for different disciplines or fields of study.
2. Space for new Open Class Laboratories should be determined based on the specific course curriculum and pedagogy, number of students to be served by the open class laboratory, and support space required. For planning purposes, the number of open class laboratories and the number of stations in each laboratory should be based on extensive and in-depth consultations with individual faculty teaching the courses that will use the open class laboratories, administrative personnel, institutional architects and project managers and professional laboratory planning consultants.
3. Total space required for open laboratory facilities is determined by factoring in ASF per Station and Number of Stations requirements. Average Station Utilization and Student Contact Hours cannot be derived due to the informal and unscheduled use of the facility.

**D. Space Formula**

1. Assignable square feet per station including room type 225  
(to be determined by planning process) \_\_\_\_\_
2. Number of stations  
(to be determined by planning process) \_\_\_\_\_
3. Total assignable square feet of Open  
Laboratory & Open Laboratory Service  
(ASF/station (step 1) x number of stations (step 2) = total ASF) \_\_\_\_\_

CATEGORY: Laboratory Facilities  
REVISED: December 17, 1991  
ICSO APPROVED: September 22, 1994

## COMPUTER LABORATORY

### A. General

A computer laboratory is a facility characterized by special purpose computer equipment used in academic instruction. These activities may be individual or group in nature, with or without supervision. Computer laboratories may be found in all fields of study including letters, humanities, natural sciences, social sciences, vocational and technical disciplines.

### B. Room Use Classifications and Definitions

1. **230 COMPUTER LABORATORY:** A room used primarily for individual or group instruction that is informally scheduled, unscheduled, or open and which contains microcomputer equipment.

*Description:* A computer laboratory is designed for or furnished with microcomputer equipment and is not formally or regularly scheduled. Included in this category are both rooms having restrictive software or where access is limited to specific categories of students, and rooms with nonrestrictive software or where access is open to all students. Under the 1992 Higher Education Facilities Inventory and Classification Manual these room types would be classified as either 410 (nonrestrictive use) or 220 (restrictive use).

*Limitations:* Does not include laboratories with formally or regularly scheduled classes (Class Laboratory 210) or laboratories without formally or regularly scheduled classes that are not equipped with microcomputer equipment (Open Laboratory 220). This category also does not include rooms defined as Research Laboratories (250).

2. **235 COMPUTER LABORATORY SERVICE:** A room that directly serves one or more computer laboratories as an extension of the activities in those rooms.

*Description:* Includes only those rooms that directly serve a computer laboratory. Included are printer rooms, control booths, closets, stock rooms, and similar facilities, *if they serve computer laboratories.*

*Limitations:* Does not include service rooms that support classrooms (see 115), Class Laboratories (215), Open Laboratories (220) or Research Laboratories (255).

**C. Assumptions**

1. Computer Laboratories, while often used in conjunction with Class Laboratories (210), classrooms (110) and Open Class Laboratories (220), have special and unique factors and serve an extended variety of academic disciplines. However, similarities of equipment and purpose for computer laboratories allows for the establishment of a general planning guideline for computer laboratories covering different disciplines or fields of study.
2. Space for new Computer Laboratories should be determined based on the curricular requirements, number of students to be served by the computer laboratory, and support space required. For planning purposes, the number of computer laboratories and the number of stations in each laboratory should be based on extensive and in-depth consultations with individual faculty teaching the courses that will use the computer laboratories, administrative personnel, institutional architects and project managers and professional laboratory planning consultants.
3. Total space required for computer facilities is determined by factoring in ASF per Station and Number of Stations requirements. Average Station Utilization and Student Contact Hours cannot be derived due to the informal and unscheduled use of the facility.
4. A planning guideline of 60 square feet per computer station has been accepted by institutions of higher education covered by this document for Computer Laboratory rooms. This guideline, like those for Class Laboratories, is for both research and regional institutions of higher education and all levels of study (i.e., lower division, upper division and graduate course levels). However, there are no guidelines for the number of stations that should be provided in Computer Laboratories. This component of the space requirements for total Computer Laboratory space needs must be based on institutional policies and individual situations.

**D. Space Formula**

- |    |  |           |
|----|--|-----------|
| 1. | Assignable square feet per station<br>(includes room type 235)   | <u>60</u> |
| 2. | Number of stations<br>(to be determined by planning process)   | _____     |
| 3. | Total assignable square feet of Computer<br>Laboratory and Computer Laboratory Service<br>(ASF/station (step 1) x number of stations (step 2) = total ASF) | _____     |

CATEGORY: Laboratory Facilities  
REVISED: December 17, 1991  
ICSO APPROVED: September 22, 1994

## RESEARCH LABORATORY

### A. General

A research laboratory is a facility characterized by special purpose equipment or a specific room configuration which ties research activities to a particular discipline or a closely related group of disciplines. Research laboratories may be found in all fields of study including letters, humanities, natural sciences, social sciences, vocational and technical disciplines.

### B. Room Use Classifications and Definitions

1. **250 RESEARCH LABORATORY:** A room used for laboratory experimentation, research or training in research methods; or professional research and observation; or structured creative activity within a specific program.

*Description:* A research laboratory is designed or equipped for faculty, staff, and students for the conduct of research and controlled or structured creative activities. These activities are generally confined to faculty, staff and assigned graduate students and are applicable to any academic discipline. Activities may include experimentation, application, observation, composition, or research training in a structured environment directed by one or more faculty or principal investigator(s). These activities do not include practice or independent study projects and activities which, although delivering "new knowledge" to a student, are not intended for a broader academic (or sponsoring) community (e.g., a presentation or publication). This category includes labs that are used for experiments or "dry runs" in support of both instructional and research activities.

*Limitations:* Student *practice* activity rooms should be classified under Open Laboratory (220). A combination office/music or art studio or combination office/research laboratory should be coded according to its primary use if only a single room use code can be applied. Determination also should be made whether the "studio" or "research lab" component involves developing new knowledge (or extending the application or distribution of existing knowledge) for a broader academic or sponsoring community (and not merely for the practitioner), or the activity is merely practice or learning within the applied instructional process. Primary use should be the determining criterion in either case. Does not include testing or monitoring facilities (e.g., seed sampling, water or environmental testing rooms) that are part of an institution's Central Service (750) system. Also does not include the often unstructured, spontaneous or improvisational creative activities of learning and practice within the performing arts, which take place in (scheduled) Class Laboratories (210) or, if not specifically scheduled, (practice) Open Laboratories (220). Does not include Computer Laboratories (230). Such performing arts (and other science and non-science) activities, which are controlled or structured to the extent that they are intended to produce a specific research or experimental outcome (e.g., a new or advanced technique), are included in the Research Laboratory (250) category.

2. **255 RESEARCH LABORATORY SERVICE:** A room that directly serves one or more research laboratories as an extension of the activities in those rooms.

Description: Includes only those rooms that directly serve a research laboratory. Included are projection rooms, telecommunications control booths, coat rooms, preparation rooms, closets, material storage, balance rooms, cold rooms, stock rooms, dark rooms, equipment issue rooms, temporary hazardous materials storage areas and similar facilities, if they serve research laboratories.

Limitations: Does not include service rooms that support classrooms (see 115), Class Laboratories (215), Open Laboratories (225) or Computer Labs (235). Animal Quarters (570) and Greenhouses (580), and Central Service (750) facilities are categorized separately.

### C. Assumptions

1. Research laboratories have special and unique factors and serve an extended variety of research functions that preclude the establishment of general planning guidelines for different disciplines or fields of study.
2. Space for new research laboratories should be determined based on the specific research and support space requirements for the different disciplines or fields of study. For planning purposes, the number of research laboratories and the special attributes found in each laboratory should be based on extensive and in-depth consultations with individual faculty using the laboratories, administrative personnel, institutional architects and project managers and professional laboratory planning consultants..
3. At a minimum, research laboratory facilities should be planned and designed to:
  - Provide Flexibility: building expansion capability, ability to convert space from one activity to another, ability to adapt to changing and new technologies and procedures.
  - Enhance Communication: communication through spatial requirements, understanding the role of communication in accomplishing research.
  - Ensure Safety: code compliance/regulatory guidelines, fire and environmental hazards, personal security.
  - Provide Adequate Building Systems: structural, mechanical, electrical, communication.
4. Planning of research laboratories should be based on a modular concept that provides flexibility, ensures safety and environmental conditions, promotes communication and maintains project cost controls. There is no single planning module that will satisfy all research laboratory needs. Data from modules used in other facilities, while providing valuable comparisons, should not be used without validation testing to see how they would accommodate the specific needs of the current research laboratory project.



5. Factors that affect designs are:
  - a. Number of people to be accommodated in the space.
  - b. Modes of communication and traffic patterns.
  - c. Number and type of work and research spaces.
  - d. Special equipment and building design features.
  - e. Future trends in the field.
  - f. Special support systems and controls required for the research.
  - g. Overall building construction methods.

**D. Space Formula**

Research facilities are provided as program funding permit.

CATEGORY:	<u>Office Facilities</u>
REVISED:	<u>August 27, 1994</u>
ICSO APPROVED:	<u>September 22, 1994</u>

### **300 - OFFICE FACILITIES**

Office facilities are individual, multi-person, or workstation space specifically assigned to academic, administrative, and service functions of a college or university. While some institutions may wish to classify all office space as Office (310), others may wish to differentiate academic, administrative, staff, secretarial, clerical, or student assistant offices, etc., by applying additional codes.

CATEGORY: Office Facilities  
REVISED: August 27, 1991  
ICSO APPROVED: September 22, 1994

## OFFICE FACILITIES

### A. General

Office facilities are individual, multi-person, or workstation spaces specifically assigned to academic, administrative, and service functions of a college or university. While some institutions may wish to classify all office space as Office (310), others may wish to differentiate through additional codes for academic, administrative, staff, secretarial, clerical, or student assistant offices, etc.

### B. Room Use Classifications and Definitions

1. **310 OFFICE (GENERAL):** A room housing faculty, staff or students working at one or more desks, tables or workstations.

*Description:* An office is typically assigned to one or more persons as a station or work area. It may be equipped with desks, chairs, tables, bookcases, filing cabinets, computer workstations, microcomputers, or other office equipment. Included are faculty, administrative, clerical, graduate and teaching assistant, student offices, etc.

*Limitations:* Any other rooms, such as glass shops, printing shops, study rooms, classrooms, research laboratories, etc., that incidentally contain desk space for a technician or staff member, are classified according to the primary use of the room, rather than an office. Office areas do not need to have clearly visible physical boundaries; examples include open reception areas and library staff areas which would not otherwise be classified as Processing Rooms (440). In such cases, logical physical boundaries (phantom walls) may be assigned to calculate square footage. An office is differentiated from Office Service (315) by the latter's use as a casual or intermittent workstation or service room. For example, a room with a microcomputer intermittently used by one or more people separately assigned to an office should be coded as Office Service (315). A combination office, studio or research laboratory should be coded according to its primary use if multiple room use codes with prorations are not used. A receptionist room that includes a waiting area should be coded as Office (314).

The following classifications are recommended for use by the public higher education institutions in the State of Washington.

2. **311 ACADEMIC OFFICE:** An office occupied by full-time and part-time instructional and research personnel, including offices of the deans, chairpersons and directors of academic units.

3. **312 ADMINISTRATIVE OFFICE:** An office occupied by personnel engaged in the planning, management and operation of business and academic affairs of the institution, including offices of the central administration and directors of nonacademic units.
4. **313 STUDENT ASSISTANT OFFICE:** An office occupied by a student on a teaching or research appointment providing support for an instructional or research program, including those students appointed as a teaching assistant, research assistant, trainee, counseling assistant, student activity assistant, program assistant, curator assistant, or nonmedical intern.
5. **314 SECRETARIAL/CLERICAL OFFICE:** An office used primarily by clerical and secretarial staff as well as general office space where files, office machines, or reception space are in the same room with clerical personnel.
6. **315 OFFICE SERVICE:** A room that directly serves an office or group of offices as an extension of the activities in those rooms.

*Description:* Includes file rooms, break rooms, kitchenettes serving office areas, copy and FAX rooms, vaults, closets, private rest rooms, records rooms, office supply rooms, and private (restricted access) circulation areas.

*Limitations:* Waiting, interview, and testing rooms are included as office service if they serve a specific office or office area and not a classroom or laboratory. A receptionist room that includes a waiting area should be coded as Office (314). Lounges which serve specific office areas and which are not generally available to the public should be coded as Office Service (315). Centralized mail rooms, shipping or receiving areas, and duplicating or printing shops that serve more than one building (or department or school, etc.) or that are campus-wide in scope should be classified Central Service (750).

7. **316 STAFF OFFICE:** An office occupied by academic or administrative staff below the directors of either academic or administrative units, including offices of accountants, architects, assistants to directors, coordinators, graphic arts specialists, advisors, managers, etc.
8. **317 OTHER OFFICE:** An office occupied by personnel not directly affiliated with the institution, such as State Auditor, State Attorney General, USDA, etc.

**C. Planning Guidelines for an Instructional Department/Program Office**

1. ASF Per FTE

The ASF guideline numbers which follow have been provided in order to establish an order of magnitude. Some requests may require less or more than these guidelines. When projects reach the fourth planning year, the attached work sheet should be used to determine space requirements.

INSTITUTION	<u>Allowance per FTE*</u>
	Recommended Guideline
Research	195 ASF
Regional	180 ASF

2. ASF for an Instructional Department/Program

RESEARCH INSTITUTIONS

195 ASF x total projected FTE faculty, student assistants and post-doctoral fellows.	=	Total projected office ASF required for an instructional unit.*
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REGIONAL INSTITUTIONS

180 ASF x total projected FTE faculty, student assistants and post-doctoral fellows	=	Total projected office ASF required for an instructional unit.*
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**\* Total ASF includes room types 310-316.**

**D. Project Design Standards for Office Space**

1. Space requirements per full time equivalent (FTE)

The assignable square feet (ASF) numbers listed below are average numbers. Some projects may require more or less space than these averages.

<u>Office Type</u>	<u>ASF per FTE</u>
312 Executive	As required
311 & 312 Vice President, Dean and Equivalent	minimum 200 ASF
311 & 312 Chairs, Directors and Equivalents	175 ASF
311 Faculty and Equivalents	140 ASF
313 Student Assistants **	140 ASF
314 Secretarial, clerical	140 ASF
316 & 317 Staff and Other	120 ASF
315 Office service, per FTE secretarial, clerical position	100 ASF

**\*\* Assumes a minimum of two student assistants per office.**

2. ASF for Instructional and Administrative Office Space

The work sheet following the next section on Conference Rooms can be used to determine the total office ASF required for an instructional or administrative department or program.

CATEGORY: Office Facilities  
REVISED: August 27, 1991  
ICSO APPROVED: September 22, 1994

## CONFERENCE ROOMS

### A. Room Use Classifications and Definitions

1. **350 CONFERENCE ROOM:** A room serving an office complex and used primarily for staff meetings and departmental activities other than instructional activities.

*Description:* A conference room is typically equipped with tables and chairs. Normally it is used by a specific organizational unit or office area, whereas Meeting Rooms (680) are used for general purposes such as community or campus group meetings not associated with a particular department. If a room is used for both conference and meeting room functions, then the room should be classified according to its principal use. A conference room is distinguished from facilities such as seminar rooms, lecture rooms, and Classrooms (110) because it is used primarily for activities other than scheduled classes. A conference room is intended primarily for formal gatherings whereas a lounge is intended for relaxation and casual interaction. This category includes teleconference rooms.

*Limitations:* Does not include classrooms, seminar rooms, lecture rooms (see 110), auditoria (see 610), department lounges (see 315), open lounges (see 650), and meeting rooms (680).

2. **355 CONFERENCE ROOM SERVICE:** A room that directly serves one or more conference rooms as an extension of the activities in those rooms.

*Description:* Includes kitchenettes, storage rooms, telecommunications control booths, projection rooms, sound equipment rooms, etc., if they serve conference rooms.

*Limitations:* Excluded are service rooms that support meeting rooms (see 685) or offices (see 315).

### B. Planning Guidelines and Design Standards

1. Conference rooms should be planned for a maximum of 25 persons. It is assumed that conferences planned for over 25 persons will be held in meeting rooms or classrooms.
2. The allocation standard is one square foot of conference space for each 12 square feet of combined space in room use codes 311 through 316, excluding 315. The standard for each station is 20 square feet, including service area.

### C. Procedure

1. Calculate the office space in 311 through 316, excluding 315, by totalling room use codes.
2. Calculate the total space needed in conference facilities.

Total Office Space      ÷      12      =      Total Conference Room Space Required

CATEGORY: Study Facilities  
REVISED: November 19, 1991  
ICSO APPROVED: September 22, 1994

## **400 - LIBRARY/STUDY FACILITIES\***

Study space is classified into five categories: study room, stack, open-stack study room, processing room, and study service. Offices used for library activities are coded as office facilities. A study room may contain equipment or materials which aid the study or learning process (e.g., microcomputers, computer terminals, multimedia carrels, typewriters, records and tapes) and which do not restrict the room to a particular academic discipline or discipline group. Whereas a Study Room (410) may appear in almost any type of building on campus (e.g., academic, residential, student service), Stacks (420), Open-Stack Study Rooms (430), and Processing Rooms (440) are typically located in, but not limited to, central, branch, or departmental libraries. Identification of library space should be made through the use of function codes, and departmental space through the combined use of academic discipline and function codes.

CATEGORY: Study Facilities  
REVISED: November 19, 1991  
ICSO APPROVED: September 22, 1994

## LIBRARY/STUDY FACILITIES

### A. General

The purpose of this guide is to assist in evaluating the space capacity of library/study facilities and projecting long-range needs. The guide presents a method for classifying and quantifying library space and for assessing the various space classifications against a set of accepted standards. Library collections, by their nature, grow continually. It is important that this growth be accommodated through long-range planning. It should also be understood that analyses of library facilities must take into consideration important variations appropriate to a particular library or library system.

Library facilities contain space for: library collections in their various formats; library users; staff to process library materials and make them available to users; and, for interaction between users and staff. Office, conference, assembly, lounge, and other areas are classified in other room use categories in the Facilities Evaluation and Planning Guide. These sections of the FEPG should be obtained before beginning the space evaluation defined below. Areas which serve two or more functions should be classified according to primary use.

The use of this guide is not necessarily a substitute for formal space programming, although many of the formulas presented here can be helpful in the detailed programming process.

### B. Room Use Classifications and Definitions

1. **410 STUDY:** A room or area used by individuals to study at their convenience, which is not restricted to a particular subject or discipline by contained equipment.
2. **411 LIBRARY STUDY:** Library areas used by individuals to study materials from library collections or other sources.

*Description:* Included in this category are areas generally referred to as library reading rooms, study rooms, individual study stations, study booths, and similar spaces that are intended for general study purposes in libraries. Study stations may be grouped (as in a library reading room) or individualized (as in a carrel) and may border on or be interspersed with collection space (see 420). Study stations in a reading area may include typewriters, remote terminals of a computer, electronic display equipment, equipment to facilitate study by the disabled, and other listening and viewing devices.

*Limitations:* This category does not include Open laboratories (220) that are restricted to a particular discipline or discipline group. This category does not include Lounges (650) that are intended for relaxation and casual interaction or any non-library study space (412).

User seats in the User Assistance classification are not included (see 441).



3. **412 NON-LIBRARY STUDY:** Areas used by individuals to study at their convenience, not located in areas assigned to libraries.

*Description:* Included are study rooms located in residential facilities, academic and student service facilities. Study facilities may be grouped or individualized. Also includes rooms commonly termed "learning labs" or "computer labs" if they are not restricted to specific disciplines by contained equipment or software. Study rooms are primarily used by students or staff for learning at their convenience, although access may be restricted by a controlling unit (e.g., departmental study room).

*Limitations:* This category does not include Open laboratories (220) that are restricted to a particular discipline or discipline group. This category does not include Lounges (650) that are intended for relaxation and casual interaction or any library study space (411).

4. **420 COLLECTIONS:** Spaces that include library collections and all access or transverse aisles.

*Description:* Collection spaces typically appear in central, branch, or departmental libraries and are characterized by accessible, arranged, and managed collections. Collections can include books, periodicals, micro-materials, electronic storage media (e.g., tapes, disks, etc.), slides, musical scores, maps, and other educational materials. Any separate area housing collections whose primary purpose is for instruction or research are classified as collections space. Collection space may border on or be interspersed with library study space (see 411).

*Limitations:* Does not include general storage areas for such materials that serve a particular room or area; such rooms would take the appropriate service code. Examples of these service rooms include tape storage rooms for language laboratories (see 225), book storage rooms for classrooms (see 115), music for general listening enjoyment (see 675). Also does not include collections of educational materials, regardless of form or type (i.e., from books to soils collections), which are for exhibition use as opposed to a study resource (see 620).

5. **430 OPEN COLLECTION STUDY:** THIS IS NOT A RECOMMENDED CLASSIFICATION FOR WASHINGTON STATE.

Space that combines study and collection areas, generally without physical boundaries between the two. It is recommended that institutions separate and code the seating or study areas (410) and collection areas (420) separately.

*Description:* Seating areas include those types of station and seating arrangements described under Study (410). These collections areas may include any of the educational material collections described under collections (420).

*Limitations:* Does not include Study (410) which have no collection areas. Those collections areas that have only a few incidental chairs or other seating, without a formally arranged study seating area, should be coded collection (420). Institutions may wish to separate and code the seating or study areas (see 410) and collection areas (see 420) into separate room records. As with Collection (420) and Processing Rooms (440), Open Collection Study (430) appear primarily in central, branch, and departmental libraries.

6. **440 PROCESSING:** A room or area devoted to processes and operations in support of library functions.

(Note: The totals of 441 and 442 should amount to the total 440 for the purposes of national reporting of university space allotment.)

7. **441 USER ASSISTANCE:** Areas where users gain assistance in accessing library collections and resources.

*Description:* Included in this category are reference and information desks, index tables, circulation and reserve desks, on-line and card catalogs, CD ROM stations, on-line bibliographic database terminals, bibliographic instruction areas, microform viewing areas, etc.

*Limitations:* This category does not include staff work or technical processing spaces associated with these areas (442). Areas which serve both as office stations and processing rooms should be coded according to primary use. Small incidental processing areas in larger stack or study areas should be included within the large primary activity category (see 411, 420). Does not include typical support rooms that serve study and other primary activity areas, such as storage rooms, copy rooms, closets, and other service-type rooms (see 455).

8. **442 TECHNICAL PROCESSING:** A processing room is intended for specific library operations which support the overall library mission, that is space occupied by library staff to prepare materials for use.

*Description:* Included in this category are technical services (e.g., cataloging, acquisitions, serials); circulation (e.g., discharging and sorting); book mending and preservation work areas; interlibrary loan; multimedia materials processing areas; and spaces where audio-visual record-playback equipment transmits to individual study stations.

*Limitations:* This category does not include User Assistance Areas (441). Areas which serve both as office stations and processing rooms should be coded according to primary use. Small incidental processing areas in larger stack or study areas should be included within the large primary activity category (see 411, 420). Does not include typical support rooms that serve study and other primary activity areas, such as storage rooms, copy rooms, closets, and other service-type rooms (see 455).

9. **455 LIBRARY/STUDY SERVICE:** Areas which act as direct extensions of the activities within collection, study, or processing areas.

*Description:* Included are storage rooms, copy rooms, closets, locker rooms, coat rooms, and other typical service areas that support a primary library/study facilities room (see 410, 420, 430, 440).

*Limitations:* Does not include Processing Rooms (440) that house specific library support processes and operations (e.g., bookbinding rooms, multimedia processing rooms).

### C. Components

The data required by individual libraries to calculate their space evaluations.

1. Fall term head count enrollment for the institution.
2. Assignable square feet of user/study space (411).
3. Number of existing user/study spaces (411).
4. Number of volumes in the collection.\*
5. Square feet of collection space (420).\*
6. Average annual net growth rate of collections over 6 years (3 biennia).\*
7. Square feet of user assistance space (441).
8. Square feet of technical processing space (442).
9. Square feet of library/study service space (455).
10. Square feet of office space (300).

*\* Each collection format should be calculated separately.*

### D. Evaluation Criteria

1. The library should provide seats in library study spaces (411) for 15 percent of the institution's fall head count: A greater percentage should be considered for those institutions where 50 percent or more of the students reside on campus.
2. Library study stations should average 30 square feet per station.
3. For the purposes of general collections space evaluation, volume capacity serves as the indicator of adequacy. For the foreseeable future, bound volumes will dominate the area needed for collections space. At 85 percent capacity 18.2 volumes per square foot is the standard. See Appendix C for inches per aisle, shelves per section, volumes per linear feet, etc. When 85 percent is reached, new space for collections should be available.  
  
For compact shelving at 85 percent capacity, the standard is 36.4 volumes per square foot. This standard is based on a capacity increase over regular shelving of 100 percent. This percentage also pertains to industrial type shelving normally used for Archives. Note that building floor loading capacity must be appropriate for compact shelving.
4. Combined total of user assistance, technical processing, library/study service and office facilities spaces should be 25 percent of the combined total of library study and collection spaces.
5. Nonbook formats. See table of items per square foot in Appendix D.

## **E. Capacity Evaluation**

1. Head count is used rather than FTE in order to account for faculty and off-campus users of the library. A single average of floor space per reader station is used and should allow for a variation in the types of reader stations. If desired, the institution may subdivide library study spaces among faculty (35 sq. ft.), graduate (30 sq. ft.), and undergraduate (25 sq. ft.)\* spaces.
2. Because this guide considers user assistance space and its related seats separately from library study space, the evaluation criteria used for the number of seats are lower than those recommended by the 1986 ACRL standards.
3. User assistance space is a function of organization and philosophy of service and has not been standardized for the purpose of this guide.
4. The figures derived from the formulas in this guide are to indicate how many years it will be until a library has reached its collection space working capacity of 85 percent. When 85 percent of capacity is reached, new space will ideally be available. Based on the growth rate of the institution's library, the formal planning and design phase should begin seven years before 85 percent capacity is reached.
5. The analysis created through use of this guide should be accompanied by a projection of library growth requirements for 20 years.
6. If use of this guide indicates that there is a significant space deficit in one or more classifications, it may be possible to convert one type of space to another.
7. Library facilities which are managed by the central campus library system should be evaluated separately from facilities under other administrative authority.

**\* Based on ACRL standards in "Standards for college libraries, 1986." C&RL News, vol. 47, no. 3, 1986, p. 197.**

## APPENDIX B

### LIBRARY/STUDY FACILITIES CHAPTER

**A. Components:** The data required by individual libraries to calculate their space evaluations.

- |     |   |       |
|-----|---|-------|
| 1.  | Fall term head count enrollment for the institution.                      | _____ |
| 2.  | Assignable square feet of library study space. (411)                      | _____ |
| 3.  | Number of existing library study seats. (411)                             | _____ |
| 4.  | Number of volumes in the collection.**                                    | _____ |
| 5.  | Square feet of collection space. (420)**                                  | _____ |
| 6.  | Average annual net growth rate of collections** over 6 years (3 biennia). | _____ |
| 7.  | Square feet of user assistance space. (441)                               | _____ |
| 8.  | Square feet of technical processing space. (442)                          | _____ |
| 9.  | Square feet of library study service space. (455)                         | _____ |
| 10. | Square feet of office space. (300)  | _____ |

**B. Formulas for Evaluating Library Study Space**

1. Seating

a.

	x		=	
Head count enrollment		Percentage of fall term head count to be provided seating		Required number of seats

b.

	-		=	
Number of existing seats		Required number of seats		Seating surplus or deficit

\* *All square footage figures represent assignable square feet, which includes chair, table, carrel or other study furniture, space user to be seated, and access aisles.*

\*\* *Each collection format should be calculated separately. For other collection formats see Appendix D.*

## Appendix B

### 2. Square Feet

a.

$$\boxed{\text{Required number of seats}} \times \boxed{\text{Area standard per seating space}} = \boxed{\text{Required square feet of library study area}}$$

b.

$$\boxed{\text{Square feet of existing library study area (411)}} - \boxed{\text{Required square feet of library study area}} = \boxed{\text{Library study area surplus or deficit}}$$

### C. Formulas for Evaluating Collection Space+

1.

$$\boxed{\text{existing collections}} \div \boxed{18.2+ \text{ at 85\% working capacity}} = \boxed{\text{Number of volumes in existing collections}} \div \boxed{\text{Volumes per square feet}}$$

2.

$$\boxed{\text{Annual average net growth in volumes}} \div \boxed{18.2+ \text{ Volumes per square feet at 85\% (working) capacity}} \times \boxed{7 \text{ Years in new space planning cycle}} = \boxed{\text{Minimum square feet of growth room to remain before new space planning begins}}$$

3.

$$\boxed{\text{Square feet of existing collection space (420)}} - \boxed{\text{Square feet required to house existing collections}} = \boxed{\text{Minimum square feet of growth room to remain before space planning begins}} - \boxed{\text{Collection space surplus or deficit in square feet}}$$

**D. Formulas for Evaluating Staff and User Assistance Space**

1.  $\square + \square = \square - \square - \square$

Square feet of user assistance space (441) + Square feet of technical processing space (442) = Square feet of library service space (455) - Square feet of office facilities space (300's) - Square feet of existing staff and user assistance space

2.  $\square + \square \times 25\% = \square$

Required square feet of study space (411) + Required square feet of collection space\* (420)  $\times$  Ratio of Staff and user assistance area to library study and collection space = Required square feet of staff and user assistance space

3.  $\square - \square = \square$

$\square$  and user assistance space - Square existing user assistance space =  $\square$  feet of staff surplus or deficit - Required square feet for staff and

**E. Formula for Summarizing Library Facilities Area**

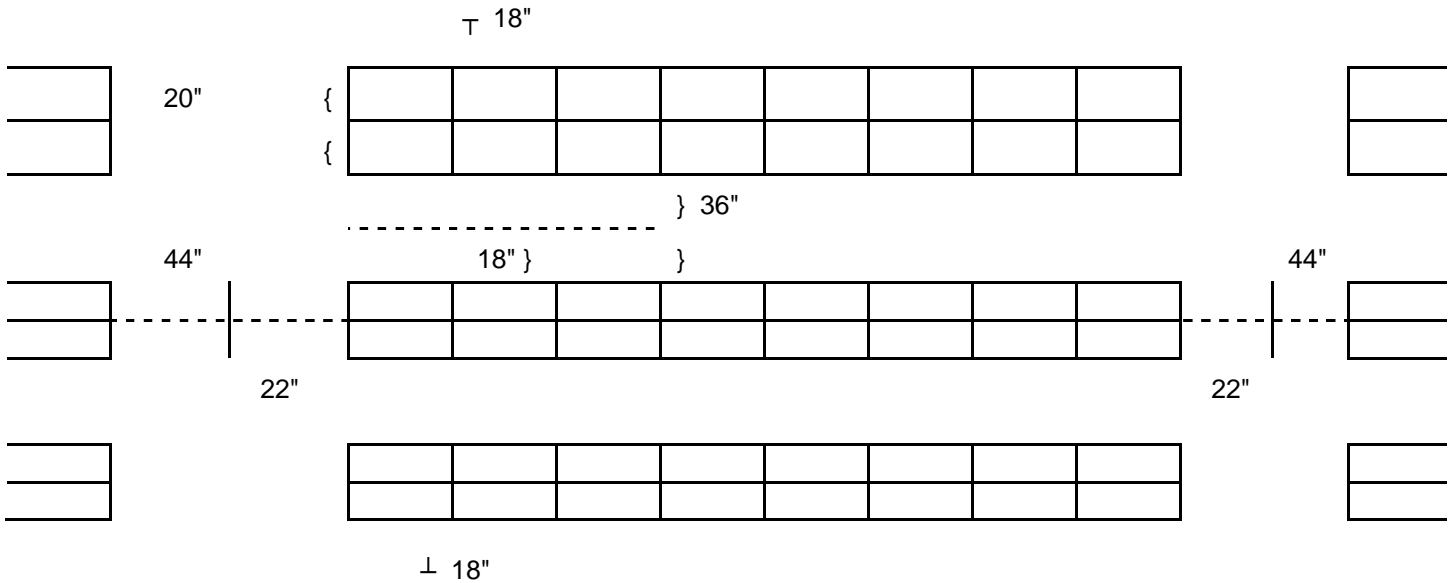
1.  $\square + \square = \square - \square$

Library study space surplus or deficit + Collection space\* surplus or deficit = Staff and user assistance space surplus or deficit - Total library space surplus or deficit

\* Includes all collection formats here.

## APPENDIX C

### VOLUMES PER SQUARE FOOT IN TYPICAL STACK LAYOUT



#### Parameters:

1. All sections are 90 inches high with 7 shelves, each 3 feet long, to a section (base shelf plus 6 additional).
2. Double-faced ranges have a nominal depth of 20 inches (end panels may be slightly wider).
3. Aisles parallel to shelving ranges are 36 inches wide.
4. Aisles transverse to range ends are 44 inches wide.
5. Perimeter parallel aisles are 18 inches and perimeter transverse aisles are 22 inches.

#### Variables:

- A. Range length in sections.
- B. Average number of volumes per linear foot of shelving when 85 percent full.

### VOLUMES PER SQUARE FOOT

<u>Range Length</u>	<u>@ 7 Vols./Lin. ft.</u> (85% capacity)	<u>@ 8 Vols./Lin. Ft.</u> (85% capacity)
5 sections (15 ft.)	16.9	19.3
*8 sections (24 ft.)	18.2	20.8
10 sections (30 ft.)	18.7	21.4
12 sections (36 ft.)	19.0	21.3

**\*See drawing above.**



## APPENDIX D

### COMMENTS ON EVALUATING COLLECTION SPACE

Most libraries will be able to utilize their collection space for bound volumes as an indicator in evaluating the adequacy of overall collection space, supplemented by the figures provided in Table I for their nonbook collections. However, for those specialized libraries where bound volumes do not dominate the collection space, a more detailed analysis of space requirements for nonbook formats may be necessary in order to satisfactorily evaluate and plan space needs.

Table I outlines the space requirements for selected nonbook materials. The calculated standards are based on figures compiled by J. Alan Bruffey in his Space Utilization and Facilities Requirement of University Libraries, 1976-1986 (see Table II). Although Bruffey did not include general access area in his calculations, general access area as defined for collection space (Classification 420 of the FEFG) has been included in the calculations for Table I.

It was stated in Section D, Standards for Evaluation, that space for bound volumes will dominate the area needed for collection space and serve as the indicator. Parameters defined in Appendix C resulted in a standard of 18.2 bound volumes per square foot (85% full) and 8.1 square feet per shelving unit. Allowing for general access area diminishes the number of volumes per square foot and increases the per unit area. Comparing the figures, which include access area in Table I, to the equivalent ones without access in Bruffey's table, establishes a ratio of 0.67 for volumes per square foot and 1.20 for unit area.

Applying these ratios to the figures assembled by Bruffey produces the results in Table I. Comparison of selected examples from this table (labelled "Modified Bruffey") to other published standards is shown in Table III. The literature displays little agreement on the subject of space requirements for nonbook materials, but the number detailed in Table I are representative among the other standards and serve well as guidelines.

**TABLE I**

**SPACE REQUIREMENTS FOR NON-BOOK MATERIALS INCLUDING GENERAL ACCESS AREA**

<u>Item</u>	<u>Storage</u>	<u>Sq. Ft.</u>	<u>Items/Sq. Ft.</u>	<u>Per Unit</u>	<u>85% Full</u>
Bound Volumes	shelf		8.1		18.2 volumes
Architectural Drawings		shelf		16.5	242 drawings
Audio Cassettes	shelf		8.1		62 cassettes
Audio Tape Reels	shelf		8.1		39 types
Compact Disks	shelf		7.5		110 disks
Dial Photos - 3.5" x 5.5"	file		10.5		1,154 photos
Disk Records					
- LP Albums	shelf		8.1		58 records
- 78 Albums	shelf		8.1		58 records
- Single LPs	shelf		8.1		76 records
Films - 8mm	shelf		8.1		34 films
Films - 16mm	shelf		8.1		8 films
Film Cassettes	shelf		8.1		18 cassettes
Government Documents	shelf		8.1		195 documents
Manuscripts	shelf		16.8		2.54 lin. ft.
Maps	file		37.8		34 maps
Microcards	file		7.2		2,734 cards
Microfiche	file		8.2		1,993 sheets
Multimedia Kits	shelf		8.1		6 kits
Music Scores	shelf		8.1		32 scores
Original Prints & Drawings	special case			variable	
Oversize Reproductions	special case			variable	
Photo Negatives					
- 4" x 5" film	files		8.2		1,373 negatives
- 6.5" x 8.5" glass	files		8.2		59 negatives
- 11" x 14" nitrocellulose	files		11.1		181 negatives
Photo Positive Prints		files		8.2	113 prints
Photo Slides - 35mm		shelf		8.1	526 slides
Photo Slides - 3.25" x 4" glass	files		8.2		247 slides
Pictures & Reproductions	file		9.9		87 items
Technical Reports	shelf		8.1		115 reports
Video Cassettes	shelf		8.1		13 cassettes
Video Tape Reels	shelf		8.1		18 reels

**TABLE II**

**CHARACTERISTICS AND SPACE REQUIREMENTS OF LIBRARY STORAGE FACILITIES  
EXCLUDING GENERAL ACCESS AREA**

<u>Type of Collection</u>	<u>Type of Storage Unit</u>	<u>Dimensions Including User Space</u>	<u>Area Per Unit</u>	<u>Number of Items Per Sq. Ft. Full</u>	<u>Number of Items Per Sq. Ft. 85% Full*</u>
Bound Volumes	shelf	3.0' x 2.25'	6.75	32 volumes	27
Microfilm - 35mm	file	20" x 66"	9.2	58 reels	49
Microfilm - 16mm	file	20.5" x 66"	9.3	104 reels	88
Microprint	shelf	3.0' x 2.25'	6.75	3,455 cards	2,937
Microcards	file	13" x 66"	6.0	4,800 cards	4,080
Microfiche - 4" x 6" sheets	file	15" x 66"	6.9	3,500 sheets	2,975
Microfiche - 4" x 6" boxed	file	15" x 66"	6.9	2,300 sheets	1,955
Music Scores	shelf	3' x 2.25'	6.75	57 scores	48
Manuscripts	shelf	3.5' x 4'	14.0	3.0 lineal ft.	3.8
Maps	file	4.5' x 7'	31.5	60 maps	51
Photo Positive Prints	files	15" x 66"	6.9	200 prints	170
Dial Photos - 3.5" x 5.5"	file	19" x 66"	8.75	2,028 photos	1,723
Photo Negatives					
- 4" x 5" film	files	15" x 66"	6.9	2,412 negatives	2,050
- 6.5" x 8.5" glass	files	15" x 66"	6.9	105 negatives	89
- 11" x 14" nitrocellulose	files	20" x 66"	9.3	319 negatives	271
Photo Slides - 35mm	shelf	3' x 2.25'	6.75	924 slides	786
Photo Slides - 3.25" x 4" glass	files	15" x 66"	6.9	436 slides	370
Films - 8mm	shelf	3' x 2.25'	6.75	61.6 films	52
Films - 16mm	shelf	3' x 2.25'	6.75	14.5 films	12
Film Cassettes	shelf	3' x 2.25'	6.75	30 cassettes	26
Original Prints & Drawings	special case	variable			
Pictures & Reproductions	file	18" x 66"	8.3	154 reproductions	131
Oversize Reproductions	special case				
Architectural Drawings	shelf	2.75' x 5'	13.8	426 drawings	362
	shelf	2.75' x 5'	13.8	14 boxes	12
Disk Records					
- Single LPs	shelf	3' x 2.25'	6.75	133 records	113
- LP Albums	shelf	3' x 2.25'	6.75	101 records	86
- 78 Albums	shelf	3' x 2.25'	6.75	102 records	87
Video Tape Reels	shelf	3' x 2.25'	6.75	31 reels	26.4
Video Cassettes	shelf	3' x 2.25'	6.75	23.9 cassettes	20
Audio Tape Reels	shelf	3' x 2.25'	6.75	68 tapes	58
Audio Cassettes	shelf	3' x 2.25'	6.75	111.1 cassettes	94
Interfiled Audio Tapes & Cassettes	shelf	3' x 2.25'	6.75	72.6 tapes/cassettes	62
Multimedia Kits	shelf	3' x 2.25'	6.75	10.7 kits	9
Government Documents	shelf	3' x 2.25'	6.75	342 documents	291
Technical Reports	shelf	3' x 2.25'	6.75	201 reports	171

***\*Considered saturation level***

**TABLE III**

**NON-BOOK MATERIALS--ITEMS/SQUARE FOOT**

<u>Item</u>	<u>Bruffey<sup>1</sup></u>	<u>Modified Bruffey<sup>2</sup></u>	<u>Oregon<sup>3</sup></u>	<u>WICHE<sup>4</sup></u>	<u>Illinois<sup>5</sup></u>	<u>Maryland<sup>6</sup></u>	<u>Colorado<sup>7</sup></u>
Bound Volume	27	18.2	9-16	* 14.4	10-12	10-11	* 10-12 *
Microfilm Reels	49 (35mm) 88 (16mm)	33 (35mm) 59 (16mm)	60	46	42	36	36
Microfiche	2,975	1,993	1,400	-		924 -	-
Government Documents	291	195	50	115	120	110	-
Maps	51	34	50	24	84	-	96
Recordings (LP Albums)	86	58	75	57	60	55	60
Pamphlets	-	-	150	115	120	110	96
Microprint	2,937	1,968	1,400	-		924 -	-
Microcards	4,080	2,734	6,000	-		- -	-
Video Cassettes	20	13	-	-	-	-	12
Slides	786	527	700	294	240	-	-
Tape Reels	58	39	30	-	-	-	-

<sup>1</sup>Bruffey, J. Alan. Space Utilization and Facilities Requirements of University Libraries, 1976-1986. Office of Space Planning and Analysis, University of Washington, 1978. These figures are based on 85% full, but do not account for general access.

<sup>2</sup>Bruffey data updated to include general access. See Appendix C for bound volume standard. Providing general access resulted in a standard of 67% of Bruffey's figure. The modified Bruffey version for non-book materials is calculated at this same 67%.

<sup>3</sup>Oregon State System of Higher Education. Planning and Procedures Handbook for Campus and Building Development, 1980. Cited in: Metcalf, Keyes D. Planning Academic and Research Library Buildings. Second edition by Philip D. Leighton and David C. Weber. Chicago: ALA, 1986.

<sup>4</sup>Western Interstate Commission for Higher Education. Higher Education Facilities Planning and Management Manuals, 1971. Also cited in Metcalf, second edition.

<sup>5</sup>Illinois University Space Formula. Cited in: Boss, Richard W. Information Technologies and Space Planning for Libraries and Information Centers. Boston: G.K. Hall Publishers, 1987. Illinois gives conversion factors for these materials, which were then utilized to calculate items/square foot.

<sup>6</sup>Maryland Council for Higher Education. Higher Education Space Utilization Standards Manual: Manual II. Also cited in Boss. Also calculated from a conversion table.

<sup>7</sup>Colorado Academic Library Master Plan. Revised Edition. Johns, Claude, Jr., Ed.; Moore, Beverly, Ed. University of Southern Colorado, Pueblo; March, 1985. Calculated from volume equivalents.

**\*Variable averages, wherein the volumes/square foot increases as the collections grow.**

CATEGORY: Special Use Facilities  
REVISED: March 8, 1994  
ICSO APPROVED: September 22, 1994

## **500 - SPECIAL USE FACILITIES**

This category includes several room use categories that are sufficiently specialized in their primary activity or function to merit a unique room code. Areas and rooms for military training, athletic activity, media production, clinical activities (outside of separately organized health care facilities), demonstration, agricultural field activities, and animal and plant shelters are included here. Although many of these special use facilities provide service to other areas, their special use or configuration dictates that these areas not be coded as service rooms.

CATEGORY: Special Use Facilities  
REVISED: March 8, 1994  
ICSO APPROVED: September 22, 1994

## ARMORY

### A. General

Armory facilities are unique facilities used by a limited number of students for specialized training. Their availability will depend primarily upon the size of institutions, the number of Reserve Officer Training units on campus such as Naval and/or Military Sciences and Aerospace Studies and whether Intercollegiate Athletics has competitive rifle or pistol teams. Institutions that established Reserve Officer Training Corps when the institutions were established or during World War II are more likely to still offer such programs. Indoor drill areas and rifle ranges are often used by college and university club sports, community rifle and pistol teams and hunter education programs. Construction standards for such facilities are very rigid and emphasize safety and environmental health.

### B. Room Use Classifications and Definitions

1. **510 ARMORY:** A room or area used by Reserve Officer Training Corps (ROTC) and ancillary units for military training and/or instructional activities.

*Description:* Rooms that are obviously designed or equipped for use in a military training or instructional program, such as indoor drill areas, indoor rifle ranges, and specially designed or equipped military science rooms, are included in this category. Ancillary units may include special rifle and drill teams.

*Limitations:* Conventional room use types such as Classroom (110), Class Laboratories (210), Offices (310), and Study Rooms (410) are designated as such, even though they are located in an armory building. Military supply and weapons rooms are coded Armory Service (515).

2. **515 ARMORY SERVICE:** Definition: A room that directly serves an armory facility as an extension of the activities in that facility.

*Description:* This category includes supply rooms, weapons rooms, and military equipment storage rooms.

*Limitations:* Rooms directly serving conventional primary activity areas are classified with the appropriate corresponding service code (e.g., 115-Classroom Service, 215-Class Laboratory Service, 315-Office Service, and 455-Study Service).

**C. Components**

1. Square feet of armory and armory service space taken from the facilities inventory file.
2. Verify that existing armory and armory service facilities comply with all applicable code requirements.

**D. Evaluation Criteria**

The extent of the armory facilities required will depend on the size of programs offered on campus in Aerospace Studies, Military Sciences, Naval Sciences or whether intercollegiate athletics has varsity rifle or pistol teams.

**E. Capacity Evaluation**

The capacity evaluation is not relevant for this type of facility. To receive accreditation stringent standards must be met to meet minimum qualifications and safety requirements especially for indoor rifle ranges.

**F. Comments**

An excellent resource document for the planning, design and construction of indoor rifle ranges is available through the U.S. Army Corps of Engineers entitled "USACE Design Manual for Indoor Rifle Ranges", publication number CEHND 1110-1-18, June, 1990. It includes sections on the a) indoor firing range; b) design guidelines; c) specialized range equipment; d) safety requirements and e) retrofitting existing ranges.

Another resource is the National Rifle Association(NRA). Plans for an indoor regulation rifle and pistol range are included in "Architectural Graphic Standards" by Ramsey/Sleeper, published by John Wiley and Sons.

CATEGORY: Special Use Facilities  
REVISED: March 8, 1994  
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## ATHLETIC OR PHYSICAL EDUCATION

### A. General

In most cases, athletic or physical education facilities are so specialized that each activity area requires its own unique space. Evaluation of the current utilization level of an activity area should be completed room by room rather than evaluating all facilities under a generalized approach. The level of activity and intensity of use during all hours that the activity area is open should determine its utilization level and the demand for the facility. This should include regularly scheduled (if applicable) physical education classes, intercollegiate athletics, intramural and recreational use whether organized or unscheduled.

### B. Room Use Classifications and Definitions

1. **520 ATHLETIC OR PHYSICAL EDUCATION:** A room or area used by students, staff, or the public for athletic or physical education activities.

*Description:* Includes gymnasias, basketball courts, handball courts, squash courts, wrestling rooms, weight or exercise rooms, racquetball courts, indoor swimming pools, indoor putting areas, indoor ice rinks, indoor tracks, indoor stadium fields, and field houses. This category includes rooms used to teach dancing and bowling only if their primary use is for physical education instruction.

*Limitations:* This room use code does not distinguish instructional from intercollegiate, intramural, or recreational use of these areas. Additional classification through function and academic discipline codes makes this distinction.

Classroom Facilities (100 series), Laboratory Facilities (200 series), Office Facilities (300 series) and other primary room use categories are coded as such, even though these areas may be located in an athletic or physical education building. Permanent spectator seating area associated with athletic facilities are coded 523. Outdoor athletic areas, such as outdoor tennis and basketball courts, archery ranges, golf courses, and other outdoor fields, do not meet the definition of buildings and, therefore, are not assignable area. Recreational or amusement areas such as billiards room, game or arcade rooms, bowling alleys, table tennis rooms, ballrooms, chess and card playing rooms, and hobby and music listening areas are classified Recreation (670), if they are not used primarily for instructional purposes.



2. **523 ATHLETIC FACILITIES SPECTATOR SEATING:** The seating area used by students, staff, or the public to watch athletic events.

*Description:* Includes indoor permanent or fixed seating areas in gymnasias, field houses, ice arenas, covered stadia, natatoria, and cycling arenas and the area occupied by collapsible, telescopic, or retractable seating in the closed position.

*Limitations:* Does not include temporary or movable seating areas (e.g., movable bleachers). Outdoor permanent seating is not assignable space although it may contain assignable areas under it (e.g., locker rooms, offices, etc.).

3. **525 ATHLETIC OR PHYSICAL EDUCATION SERVICE:** A room that directly serves an athletic or physical education facility as an extension of the activities in that facility.

*Description:* Includes locker rooms; shower rooms; non-office coaches' rooms; ticket booths; and rooms for dressing, equipment, supply, storage, first-aid, skate-sharpening, towels, concessions, etc.

*Limitations:* Does not include public rest rooms which should be classified as nonassignable building service space. Rooms which directly serve offices, classrooms, laboratories, etc., are classified with the appropriate corresponding service code. Cashiers' desks serving multiple recreational facilities (see 670) are classified Recreational Service (675). Central ticket outlets serving multiple facilities or services are classified as Merchandising (660).

### C. Components

Total number of weekly student contact hours in activity classes utilizing indoor athletic/physical education facilities. Does not include lecture contact hours.

### D. Evaluation Criteria

1. The need for athletic/physical education facilities is affected by an institution's recreational policies and geographic location.
2. The same facilities may be used for physical education classes, intramural activities, recreation, intercollegiate athletics, and instruction. Noninstructional demands on facilities may necessitate space beyond that generated by instruction.

### E. Capacity Evaluation

Data shown below are from the original FEFG and have not been reviewed. Institutional programs that need athletic or physical education facilities vary in size and mission and may affect the type and number of facilities needed.

1. Facilities Data Required
  - a. Average assignable square feet per student contact hour in athletic/physical education facilities including service area.
  - b. Average assignable square feet and station count by specific activity area (see Table IV).

## 2. Program Data Required

- a. Total weekly day-on-campus student contact hours in physical education activity classes.
- b. Total weekly (daytime and evening) hours scheduled in noninstructional activities that require P.E. facilities (e.g., intramurals, recreation and varsity athletics).

## 3. Procedure

Requirements for physical education facilities can vary widely among institutions depending on the level of instructional and noninstructional activities. The institutional variation can also extend to the types of activity space required (e.g., gymnastics facilities may be required on one campus but not another).

A calculation of physical facilities requirements should be made both from the viewpoint of instructional use (part "a" below) and noninstructional use (part "b" below). The larger of the two requirements should be used in determining the total physical education space.

### a. Calculation of P.E. Space for Instructional Use

Institutions which require P.E. credits for graduation and/or offer degrees in P.E. must plan their space needs in accordance with student contact hours generated in P.E. activity classes. This data is then translated into assignable area through the following formula:

$$\begin{array}{l} \text{Total P.E.} \\ \text{Instructional} \\ \text{Space} \\ \text{Required} \end{array} = \begin{array}{l} \text{Total P.E.} \\ \text{Activity} \\ \text{Contact Hours} \end{array} \times 14.00^* \text{ ASF}$$

**\* The 14.00 ASF planning factor is based on:**

- (1) 337 ASF per station, including service area (96 sq. ft. per station)
- (2) 30 hours per week average room use for instruction
- (3) 80 percent station occupancy

$$14.00 = \frac{337}{30 \times .80}$$

- (4) See the ATHLETIC/PE FACILITIES WORKSHEET for additional space and station planning formulae.

The foregoing formula assumes that noninstructional activities will be accommodated through coordinated scheduling of open hours. Table IV standards can be used to help determine the distribution of formula space by activity area.

b. Calculation of P.E. Space for Noninstructional Use

Institutional with minimal or no accredited P.E. course offerings may still require activity space for intramurals and recreation. This would particularly apply to campuses with a majority of students in resident-living status. The general need for space to support noninstructional activities can be found by combining the results of the following formulae.

- (1) Twelve point one (12.1) assignable square feet (including service) of activity area for each on-campus head count undergraduate.

$$\begin{array}{l} \text{Indoor Activity} \\ \text{and} \\ \text{Service Space} \end{array} = \begin{array}{l} \text{Total head count on} \\ \text{campus undergraduate} \\ \text{enrollment} \end{array} \times 12.1$$

- (2) Three (3.0) assignable square feet of activity and service space for each head count on-campus graduate.

$$\begin{array}{l} \text{Indoor Activity} \\ \text{and} \\ \text{Service Space} \end{array} = \begin{array}{l} \text{Total head count on} \\ \text{campus graduate} \\ \text{enrollment} \end{array} \times 3.0$$

- (3) One point eight (1.8) assignable square feet of activity and service space for each head count on-campus staff member (academic and nonacademic).

$$\begin{array}{l} \text{Indoor Activity} \\ \text{and} \\ \text{Service Space} \end{array} = \begin{array}{l} \text{Total head count on campus staff} \end{array} \times 1.8$$

c. Calculation of Activity Space for Intercollegiate Athletics

Physical facilities (both activity and service areas) needed for various intercollegiate athletic programs may have to be added to the formula space for instructional or noninstructional activities. This will have to be determined on the basis of scheduling commitments for all facility uses and the extent to which an institution is involved in varsity athletics. See Table IV for space planning guidelines.

d. Spectator Seating

Provision of space for spectator seating must be in addition to formula space and the standards in Table IV. The need for spectator seating will vary among institutions; therefore, analysis or projection is not attempted.

## **F. Comments**

Physical education indoor activity classes are scheduled in a manner that varies from term to term depending on seasonal changes in weather. Activity contact hour data for all terms should be studied and compared to insure that the period of peak indoor activity classes is used for computing student contact hours.

Efficient space planning requires examination of alternatives to new construction when resolving space shortages in P.E. facilities. The following alternatives are offered for consideration:

1. A reduction in scope of noninstructional activities or programs.
2. A need for different space management techniques (e.g., abandonment of specific time blocks for each program to obtain greater flexibility in space scheduling).
3. Rental of community facilities.
4. Remodeling of existing P.E. space.

FIELD-OF-STUDY: Physical Education

ATHLETIC/P.E. FACILITIES WORKSHEET

A.	<u>COMPONENTS</u> (field-of-study only)		<u>NUMBER</u>
	1. Day-on-campus FTE student enrollment		
	2. Weekly day-on-campus Physical Education activity contact hours		
	3. Average activity contact hours per FTE student (line 2 ÷ line 1)		
	4. Number of existing stations in Athletic/P.E. facilities (Table IV)		
	5. Projected day-on-campus FTE student enrollment		
	6. A.S.F./station		<u>337</u>
	7. A.S.F./weekly activity contact hour		<u>14</u>

B.	<u>STUDENT</u>		<u>CAPACITY</u>		<u>FORMULA</u>		
		x		÷		=	FTE STUDENT CAPACITY EXISTING FACILITIES
	<input style="width: 50px; height: 20px;" type="text"/>		<input style="width: 50px; height: 20px; text-align: center; value: 24;" type="text"/>		<input style="width: 50px; height: 20px;" type="text"/>		(line 4) (line 3)
C.	<u>STATION</u>		<u>REQUIREMENT</u>		<u>FORMULA</u>		
		x		÷		=	STATIONS REQUIRED
	<input style="width: 50px; height: 20px;" type="text"/>		<input style="width: 50px; height: 20px;" type="text"/>		<input style="width: 50px; height: 20px; text-align: center; value: 24;" type="text"/>		(line 1) (line 3)
D.	<u>STATION</u>		<u>PROJECTION</u>		<u>FORMULA</u>		
		x		÷		=	PROJECTED STATIONS REQUIRED
	<input style="width: 50px; height: 20px;" type="text"/>		<input style="width: 50px; height: 20px;" type="text"/>		<input style="width: 50px; height: 20px; text-align: center; value: 24;" type="text"/>		(line 5) (line 3)
E.	<u>SPACE</u>		<u>PROJECTION</u>		<u>FORMULA</u>		
		x		÷		=	PROJECTED SPACE REQUIRED
	<input style="width: 50px; height: 20px;" type="text"/>		<input style="width: 50px; height: 20px;" type="text"/>		<input style="width: 50px; height: 20px; text-align: center; value: 337;" type="text"/>		Projected stations (line 6) (SEE "D" above)

TABLE IV  
INDOOR P.E. ACTIVITY SPACE MODELS

<u>Facility</u>	<u>Student Stations</u>	<u>Activity Area</u>	<u>Recommended Service Area</u>
Single Gym	30	7,200	Maximum:
Double Gym	60	15,480	40% of
Triple Gym	90	23,600	Activity Area
Squash Court	4	592	
Handball	4	800	Minimum:
Body Mechanics (weight lifting)	20	2,000	15% of Activity Area
Wrestling	20	3,840	
Gymnastics	40	7,200	
Fencing	15	1,600	
Tennis Practice	2	600	
Golf Practice	4	600	
Dance Studio	20	2,400	
Standard Pool	30	7,600	
Swimming & Diving Pool	60	11,460	
Olympic Pool	90	17,160	
Field House (1/10 mile track)	90	34,100	
Field House (1/8 mile track)	120	52,000	

CATEGORY: Special Use Facilities  
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## MEDIA PRODUCTION

### A. General

This category provides space for educational communication on a campus-wide basis in support of the teaching, research and public service functions of an institution. This category includes space for resource personnel, equipment, maintenance and distribution of instructional aid services.

The variation among institutions of the types and amounts of audio-visual facilities required and organization covers a wide range and changes rapidly as the technology becomes increasingly more sophisticated and flexible. Therefore, as the result of these variations, no explicit methods or standards can be developed. Space must be planned to meet the audio visual services provided and the demand required by each institution depending on its organization and emphasis.

### B. Room Use Classifications and Definitions

1. **530 MEDIA PRODUCTION:** A room used for the production or distribution of multimedia materials or signals.

*Description:* Includes rooms generally called TV studios, radio studios, sound studios, photo studios, video or audio cassette and software production or distribution rooms, and media centers. These rooms have a clearly defined production or distribution function that serves as a broader area (e.g., department , entire campus) than would a typical service room.

*Limitations:* Does not include rooms that merely store media materials and equipment. Such rooms would be coded as Media Production Service (535) rooms if serving the primary production or distribution room (see 530), or the appropriate service category for the room(s) they serve. Radio or TV broadcasting areas and other media rooms used for teaching broadcasting to students for instructional purposes should be coded as laboratories (see 210, 220). This classification also does not include centralized computer-based data processing and telecommunications equipment facilities (see 710).

2. **535 MEDIA PRODUCTION SERVICE:** A room that directly serves a media production or distribution room as an extension of the activities in that facility.

*Description:* The primary criterion here is that the room should serve a media production or distribution room and not another primary activity room. Examples include film, tape, or cassette libraries or storage area; media equipment storage rooms; recording rooms; engineering maintenance rooms; darkrooms; preparation rooms; studio control booths; and other support areas that specifically serve a media production or distribution room (see 530).

*Limitations:* Those rooms containing media materials, equipment or operations which serve a primary activity room other than a 530 should be assigned the appropriate corresponding service code.

**C. Components**

Dependent upon demand.

**D. Evaluation Criteria**

Dependent upon demand.

**E. Capacity Evaluation**

Dependent upon demand.



CATEGORY: Special Use Facilities  
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## CLINIC

### A. General

The need for these unique, one-of-a-kind facilities is based on demand and practical experience and not on a review of space standards. There is little probability that they will be duplicated anywhere else on campus. They are designed and built to serve a particular combination of needs such as instruction, experimentation, research or community service.

### B. Room Use Classifications and Definitions

1. **540 CLINIC:** A room used for providing diagnosis, consultation, treatment, or other services to patients or clients in facilities other than those separately organized health care facilities related to medicine, veterinary medicine, dentistry, or student health care.

*Description:* Included are patient or client examination rooms, testing rooms, and consultation rooms. Clinics are typically associated with such educational areas as psychology, law, speech, hearing, and similar areas.

*Limitations:* Does not include clinics associated with student health care, student counseling services, or clinics for the medical or dental treatment of humans or animals (see 800 series). Also does not include rooms used for remedial instruction which should be classified as classrooms or laboratories (see 100 and 200 series) or testing or counseling rooms in non-health or nondiscipline-related programs (see 315).

2. **545 CLINIC SERVICE:** A room that directly serves a clinic facility as an extension of the activities in that facility.

*Description:* Included are waiting rooms, observation rooms, control rooms, records rooms, and similar supporting rooms.

*Limitations:* Does not include rooms that serve separately organized health care facilities (see 800 series). Also does not include first-aid treatment rooms that serve other primary activity areas (e.g., 525-Athletic Or Physical Education Service, 645-Day Care Service).

### C. Components

Dependent upon demand.

### D. Evaluation Criteria

Dependent upon demand.

### E. Capacity Evaluation

Dependent upon demand.

CATEGORY: Special Use Facilities  
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## DEMONSTRATION

### A. General

Demonstration facilities provide practical, hands-on experiences for students. Such experiences may include observation, demonstration, participation, experimentation and research. Facilities should enhance the opportunity to achieve these goals.

### B. Room Use Classifications and Definitions

1. **550 DEMONSTRATION:** A room or group of rooms used to practice, within an instructional program, the principles of certain disciplines such as teaching, child care or development, and home management or economics.

*Description:* The key criterion here is practice activity within an instructional program which closely simulates a real-world or occupational setting. Includes demonstration day care and development centers, laboratory schools, and home economics or management houses, when these facilities are used for practice as part of collegiate training or instruction.

*Limitations:* Does not include day care and development centers which are not used as part of an instructional program (see 640). This category also does not include laboratories (see 200 series) that are used for direct delivery of instruction as opposed to practice. Demonstration schools, laboratory schools, day care centers, and home management houses in which students serve as the subjects for a research study are classified as Research/Non-class Laboratories (250).

2. **555 DEMONSTRATION SERVICE:** A room that serves a demonstration facility as an extension of the activity in that facility.

*Description:* Includes facilities generally called storerooms, pantries, etc., in a home demonstration facility; and kitchens, lockers, shower rooms, etc., in a laboratory school. Similar support rooms which directly serve primary care and training areas in demonstration day care center (see 550) are included in this category.

*Limitations:* Generally, the primary activity area-such as kitchen, dining room, living room (in a home-demonstration house), or classrooms, laboratories, gymnasias that serve nursery, elementary, or secondary school students (in a laboratory school) should be designated as Demonstration (550). Primary care and training areas in a (practice) day care center are also Demonstration (550) rooms. Kitchen and food preparation room in a demonstration day care facility are classified as service area; eating or training rooms for children are classified as primary activity areas (see 550).

**C. Components**

Dependent upon demand.

**D. Evaluation Criteria**

Dependent upon demand.

**E. Capacity Evaluation**

Dependent upon demand.

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## FIELD BUILDING

### A. General

Field buildings serve a unique need and will vary in size and function at each institution based on differences in the services provided and demanded.

### B. Room Use Classifications and Definitions

1. **560 FIELD BUILDING:** A barn or similar agricultural structure used for animal shelters or for the handling, storage, or protection of farm products, supplies, vehicles, or implements.

*Description:* Includes barns, animal and poultry shelters, sheds, silos, feed units, and hay storage. Structures are typically of light-frame construction with unfinished interiors and are frequently located outside the central campus area. Also includes storage space for farm vehicles and implements. Service areas that support field buildings are classified within this category.

*Limitations:* Animal quarters directly supporting research or instructional laboratories should be coded 570. Location of a building, on or off the main campus, is not sufficient justification for classification as a field building. Finished rooms with other uses (e.g., laboratories, classrooms, etc.) should be coded as appropriate. Does not include buildings that house non-agricultural or non-farm related vehicles (see 740).

### C. Components

Dependent upon demand.

### D. Evaluation Criteria

Dependent upon demand.

### E. Capacity Evaluation

Dependent upon demand.

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## ANIMAL QUARTERS

### A. General

This category includes facilities for housing animals. This facility should allow for humane animal care in professional terms. Animal Quarters are typically subject to the rules and regulations regarding the care and use of laboratory animals (e.g., requirements of the American Association for Accreditation of Laboratory Animal Care [AAALAC]).

### B. Room Use Classifications and Definitions

1. **570 ANIMAL QUARTERS:** A room that houses animals used for research or instructional purposes.

*Description:* Includes animal rooms, cage rooms, stalls, wards, and similar rooms for instruction and research.

*Limitations:* Does not include areas for treatment of veterinary patient animals (see Health Care Facilities-800 series). Does not include agriculture field buildings sheltering animals that do not directly support instruction or research (see 560).

2. **575 ANIMAL QUARTERS SERVICE:** A room that directly serves an animal quarters facility as an extension of the activities in that facility.

*Description:* Includes feed storage rooms, feed mixing rooms, cage washing rooms, non-patient surgery rooms, casting rooms, or instrument rooms.

*Limitations:* Does not include areas that directly serve facilities used for the treatment of veterinary patient animals (see Health Care Facilities-800 series).

### C. Components

Determine the species and number of animals to be housed, whether domestic, laboratory or wildlife animals, in support of teaching or research functions.

### D. Evaluation Criteria

To be developed based on most current state and federal animal care guidelines available.

**E. Capacity Evaluation**

Review capacity based on most current state and federal animal care guidelines available.

**F. Comments**

1. Refer to the "Guide for the Care and Use of Laboratory Animals" (1992) available through Animal Resources Program, Division of Research Resources, National Institute of Health, Bethesda, Maryland 20205.
2. Refer to the "Guide for the Care and Use of Agricultural Animals in Agriculture Research and Teaching", (March, 1988) available through the Division of Agriculture, NASULGC, One Dupont Circle, NW., Suite 710, Wash., DC. 20036-1191 or from Association Headquarters, 309 West Clark Street, Champaign, Illinois 61820 (\$5.00/copy).
3. Refer to Animal Care guidelines published by the American Association for Accreditation of Laboratory Animal Care (AAALAC).

CATEGORY: Special Use Facilities  
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## GREENHOUSE

### A. General

Greenhouses are unique facilities that become increasingly more sophisticated as technology changes.

### B. Room Use Classifications and Definitions

1. **580 GREENHOUSE:** A building or room, usually composed chiefly of glass, plastic, or other light-transmitting material, which is used for the cultivation or protection of plants or seedlings for research, instruction, or campus physical maintenance or improvement purposes.

*Description:* The primary criterion here is the combination of structural design as a greenhouse and the use for cultivation or protection. An example would be a greenhouse that serves as a laboratory or service area for a botany or vocational (e.g., horticulture) educational program. This category includes any facility serving the greenhouse function (e.g., warehouse facilities equipped with special lighting controls for the cultivation or protection of plants).

*Limitations:* Greenhouses that are not used for plant cultivation or protection should be classified according to specific use (e.g., a greenhouse used for central storage should be coded 730).

2. **585 GREENHOUSE SERVICE:** A room that directly serves a greenhouse facility as an extension of the activities in that facility.

*Description:* Includes equipment of materials storage areas and rooms generally called headhouses.

*Limitations:* Excludes storage areas that do not directly serve greenhouses.

### C. Components

1. Review the current intensity of use, age, and controlled environment capabilities of existing greenhouses.
2. Determine size, style, height, surface covering (glass, polycarbonate, acrylic, double polyethylene), and the controlled environment required for each greenhouse.
3. Determine the number of greenhouses required.

**D. Evaluation Criteria**

Determine the age, condition, quality and control of greenhouse environment, intensity of use, temperature control limitations, lighting, availability of greenhouse support services then determine need based on current greenhouse standards in the industry.

**E. Capacity Evaluation**

Not required.

**F. Comments**

Greenhouse companies offer a wide variety of standard greenhouses as well as customized enclosures for specialized requirements such as teaching and research. Company sales and engineering staff offer full consulting services to architects. These services, as well as the availability of pre-engineered components, typical detail and specifications, can reduce the cost of design.



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## **600 - GENERAL USE FACILITIES**

General use facilities are characterized by a broader availability to faculty, students, staff, or the public than are Special Use Facilities (500 series), which are typically limited to a small group or special population. General use facilities comprise a campus general service or functional support system (assembly, exhibition, dining, relaxation, merchandising, recreation, general meetings, day care) for the institutional and participant community populations.

CATEGORY: General Use Facilities  
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## ASSEMBLY

### A. General

Assembly facilities exemplify a space need for which there is no single controlling indicator. Theaters, auditoria, coliseums, pavilions, and other assembly facilities often must satisfy a wide variety of institutional and community needs. They shelter such diverse activities as assemblies and colloquia, theatrical/dramatic productions, musical presentations, organizational meetings, commencement exercises, lectures, formal scheduled instructional activities, and public meetings.

### B. Room Use Classifications and Definitions

1. **610 ASSEMBLY:** A room designed and equipped for assembly of many persons for such events as dramatic, musical, livestock judging, or commencement activities.

*Description:* Includes theaters, auditoria, concert halls, arenas, and livestock judging pavilions that are used primarily for general presentations (speakers) and performances (dramatic, musical, dance). Seating areas, orchestra pits, arenas, aisles, and stages (if not used primarily for instruction) are included in and usually aggregated into the assembly space. (This category also includes chapels located in health care or other facilities.) Institutions may wish to separate the seating area from the stage and other specially configured areas through the use of additional codes.

*Limitations:* Stage areas used *primarily* for instruction or practice (dance, music, drama) are typically coded separately as laboratory space (210, 220). Assembly facilities that are used primarily as instructional lecture halls are classified as classroom space (110).

2. **615 ASSEMBLY SERVICE:** A room or area that directly serves an assembly facility as an extension of the activities in that facility.

*Description:* Includes check rooms, coat rooms, ticket booths, dressing rooms, projection booths, property storage, make-up rooms, costume and scenery shops and storage, green rooms, multimedia and telecommunications control rooms, etc.

*Limitations:* Entrance lobbies and other circulation areas surrounding or adjacent to the outside of the primary assembly room are classified as nonassignable (circulation) space. A concession stand in an assembly facility is classified as Merchandising (660). Lounge areas that are remote from the assembly area within an assembly facility are classified by the appropriate service code or the Lounge (650) code.

**C. Components**

5

1. Number of FTE students at the institution.
2. Assignable square feet of assembly and assembly service facilities by type of facility: Recital Hall, Open Theater, Proscenium Theater, Auditorium Theater, and Music Hall.

**D. Evaluation Criteria Procedure**

1. Refer to appropriate facility square footage and institutional Student FTE
2. From Assembly Facility chart (see below) obtain appropriate square footage requirements for assembly facility being evaluated.
3. Evaluate character and adequacy of existing facilities assuming average use of like facilities. Assemble space from other room types (student activities, health, physical education, etc.) and other space such as large lobbies may be taken into consideration in the evaluation process.
4. Formula:

$$\begin{array}{rcccl}
 \boxed{\begin{array}{c} \text{Number of Seats} \\ \text{(determined by} \\ \text{user)} \end{array}} & \times & \boxed{\begin{array}{c} \text{ASF per Seat} \\ \text{(from Chart)} \end{array}} & = & \boxed{\begin{array}{c} \text{Total ASF} \\ \text{(Estimated)} \end{array}} \\
 \\
 \boxed{\begin{array}{c} \text{Total ASF} \\ \text{(Estimated)} \end{array}} & - & \boxed{\begin{array}{c} \text{Existing ASF} \\ \text{(from Inventory)} \end{array}} & = & \boxed{\begin{array}{c} \text{Deficit/Overage} \\ \text{(Est. vs. Existing)} \end{array}}
 \end{array}$$

5. Community/public service function as well as total campus enrollments may also affect the need and size of assembly facilities. The following chart, with ranges of assignable square feet per seat, is provided for general planning purposes. Additional standards from current architectural planning standards for assembly facilities should be included in planning for institutional assembly facilities.

**Assembly Facilities**

<u>Assembly Facility</u>	ASF/Seat* (Low)	to	ASF/Seat* (High)
Auditorium Theater	15		16
Recital Hall	18		23
Open Theater ("Black Box")	19		37
Proscenium Theater	33		33

*\* Includes space for Seating, Staging, Ancillary and Administrative areas within the facility.*

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## EXHIBITION

### A. General

Museums, art galleries, and similar types of exhibition facilities generally are institutionally unique in size, content and operation. Because of their unique characteristics, no particular methods or planning criteria are available which can be applied to all types.

Exhibition facilities are intended to serve as extensions of the instructional processes, providing visual and tactile experience with natural objects (geological, botanical, and zoological specimens), artifacts of ancient and modern human culture, and works of art. In varying degrees, college and university museums and galleries also serve the research and public service programs of the institution.

### B. Room Use Classifications and Definitions

1. **620 EXHIBITION:** A room or area used for exhibition of materials, works or art, artifacts, etc., and intended for general use by faculty, students, staff and the public.

*Description:* Includes both departmental and institution-wide museums, galleries, and similar exhibition areas which are used to display materials and items for viewing by *both* the institutional population *and* the public.

*Limitations:* Displays that are intended only for instructional purposes and not for general exhibitions (e.g., departmental instructional displays of anthropological, botanical, or geological specimens) should be classified as laboratory or laboratory service (see 200 series). Does not include bulletin boards and similar temporary or incidental displays in hallways, student centers, etc. Also does not include collections of educational materials, regardless of form or type (e.g., books, tapes, soils collections), which are for *study resource* as opposed to *exhibition* use (see 420).

2. **625 EXHIBITION SERVICE:** A room that directly serves an exhibition facility as an extension of the activities in that facility.

*Description:* Includes preparation workrooms, storage rooms, vaults, etc., that serve general exhibition areas (see 620).

*Limitations:* Research areas in museums, are classified as Research Laboratory (250) or Research Laboratory Service (255). Service areas for displays that are part of an instructional program are classified as classroom service or laboratory service areas.

**C. Components**

Assignable square feet of exhibition and exhibition service area by department.

**D. Evaluation Criteria**

1. The amount of facilities needed is dependent on the size, scope and rate of growth of collections; the amount of institutional and public use of the facilities; and degrees to which curatorial functions are required.
2. The amount of exhibition space available at an institution depends on the amounts and sources of funds provided for construction of these facilities. This type of space is institutionally unique and requires guidance from experts on exhibition space needs.

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## FOOD FACILITY

### A. General

Food facilities provide goods and services to a user group drawn from members of the campus community. The extent to which these facilities must be provided by the institution is not based upon any particular characteristics of student major or level, number of faculty, or staff.

### B. Room Use Classification and Definitions

#### 1. **630 FOOD FACILITY:** A room used for eating.

*Description:* Includes dining halls, cafeterias, snack bars, restaurants, and similar eating areas, including such areas in residence halls, faculty club, etc. This category includes facilities open to students, faculty, staff and the public at large. The primary distinction of a Food Facility (630) area is the availability of some form of accommodation (seating, counters, tables) for eating and drinking. This is, therefore, an area intended for the actual consumption of food and drink. Vending areas with seating, counters or tables are included in this category.

*Limitations:* Vending areas not provided with seating, counters or tables are classified as Merchandising (660) or with the appropriate service code if the vending directly supports or is adjacent to a specific room for consuming the products (e.g., a 635 vending room service a 630 dining hall).

Public Lounges (650) and nonpublic lounges (651) with vending machines that are incidental to the primary use of the room (i.e., relaxation) are coded as part of the lounge, if within the room, or as Lounge Service (655) if separate from and directly supporting the main lounge facility (see 650). Break rooms serving specific office areas are classified as Office Service (315). Eating areas for children in demonstration or day care facilities are classified as primary activity categories within these respective areas (see 550, 640); staff-only eating or break rooms in these facilities are classified as service areas (see 555, 645).

#### 2. **635 FOOD FACILITY SERVICE:** A room that directly serves a food facility as an extension of the activities in that facility.

*Description:* Includes kitchens and other preparation areas, cold storage and freezer refrigeration rooms, dish washing rooms, food serving areas, cleaning areas, etc. Includes vending areas that directly serve food facilities, as well as vending rooms adjacent to an eating area.

*Limitations:* Does not include any type of food preparation room which does not serve a food facility or eating area (see 630). Kitchenettes in residence facilities that do not serve a dining area are classified as Sleep/Study Service (935). Service areas for vending rooms (see 660) are classified as Merchandising Service (665). Kitchens and food preparation areas in demonstration or day care facilities are classified as service areas to those facilities (see 555, 645).

**C. Components**

None

**D. Evaluation Criteria**

Food facilities are provided as demand and funds are available.

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## DAY CARE

### A. General

Day care facilities accommodate day or night care for dependents of students, faculty and staff.

### B. Room Use Classification and Definitions

1. **640 DAY CARE:** A room used to provide day or night, child or elderly adult care as a nonmedical service to members of the institutional community.

*Description:* Includes all primary activity rooms that accommodate developmental training and general personal care for assigned children or adults (e.g., play areas, non-staff eating areas, and child training rooms).

*Limitations:* Does not include those support rooms (e.g., storage rooms, closets, and pantries) typically used as service rooms (see 645). Does not include medical care facility (i.e., medical attention is strictly limited to maintaining prescribed medication schedules and providing first aid). This category also does not include demonstration houses, laboratory schools or other facilities with a primary function of providing practicum experience (see 550). Also excluded from this category are those service areas classified as Central Service (750), and Laboratory Facilities (200 series) that directly support instruction (e.g., vocational training programs for parent education and early childhood education.)

2. **645 DAY CARE SERVICE:** A room that directly serves a primary activity room in a day care facility as an extension of the activities in that room.

*Description:* Includes storage rooms, closets, kitchens, pantries, private or staff rest rooms, and other typical service rooms that support a primary activity area.

*Limitations:* Does not include those rooms (e.g., child training rooms, playrooms - see 640) where primary day care activities are conducted. Rest rooms designed for child training should be coded 640; staff-only rest rooms should be coded 645. Kitchen or food preparation areas in a day care facility are classified as service areas. (see 645) Staff eating or break areas should be coded 645, whereas eating or training areas for children are classified as primary activity space (see 640). Staff office areas should be coded 310.



**C. Components**

None

**D. Evaluation Criteria Procedure**

Day Care facilities are provided as space and funds are available.

**F. Comments**

There are numerous publications available to assist in developing space planning guidelines and design for various levels of child care facilities for infants, toddlers and young children a sample of which are listed below:

1. "Recommended for Child Care Centers", Moore, Hill, Cohen & McGinty, 1979; Center for Architectural & Urban Planning, University of Wisconsin-Milwaukee, P.O. Box 413, Milwaukee, Wisconsin, 53201-0413.
2. "Guide to Accreditation" by the National Academy of Early Childhood Programs, 1987; edited by Sue Bredekamp, National Association for the Education of Young Children, 1509 16th Street NW, Washington, D.C., 20036-1426. (Phone: 1-800-424-2460.)
3. "Developmentally Appropriate Practice in Early Childhood Programs Service Children from Birth through Age 8". 1987; Expanded Edition, Sue Bredekamp, Ed. National Association for the Education of Young Children, 1509 16th Street NW, Washington, D.C., 20036-1426. (Phone: 1-800-424-2460.)
4. "Minimum Licensing Requirements for Child Day Care Centers", WAC 388-150, Washington Department of Social and Health Services, 1990.

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## LOUNGE

### A. General

Lounge facilities are provided to serve as areas for informal gathering and informational sharing activities for students, faculty and staff. Furnishings may vary depending on both campus policy and what is judged conducive to a comfortable and relaxing atmosphere.

### B. Room Use Classifications and Definitions

1. **650 PUBLIC LOUNGE:** A room used for rest and relaxation that is not restricted to a specific group of people, unit or area.

*Description:* A public lounge facility is typically equipped with upholstered furniture, draperies, or carpeting, and may include vending machines. A general use public lounge (see 650) differs from an office area or break room lounge (see 315 and 651) by virtue of its public availability. If a room is open for use by people visiting or passing through a building or area, it is coded Public Lounge (650). Such a room may have vending machines if the primary use of the room is rest, relaxation, informal socializing and for eating (see 630).

*Limitations:* A public lounge facility is distinguished from a Conference Room (350) and a Meeting Room (680), both of which are intended for formal meetings, by its more informal function of rest, relaxation or casual interaction *and* its public availability. A general public lounge differs from a nonpublic lounge based on its public availability. A lounge area associated with a public rest room is included with the rest room as nonassignable (building service area) space. A room devoted to vending machines without accommodation (seating, counters or tables) for local food or drink consumption is classified as Merchandising (660). A lounge that directly serves a specific or restricted area is classified by the appropriate corresponding service code (e.g., a lounge serving an assembly facility is classified 615-Assembly Service). A public lounge differs from a lobby (nonassignable circulation area) in placement, use, and intent. A lobby is generally located at a major entrance with openings to hallways on more than one side; and although it may have seating furniture, it is designed more for walking through (or having standing conversations) than for sitting and relaxing. Separate waiting rooms in other than health care facilities are classified with the appropriate service code according to the room or area they serve. A receptionist room that includes a waiting area should be classified as Office (310). Public waiting areas in health care facilities are coded as 880.

2. **651 NONPUBLIC LOUNGE:** A room used for rest and relaxation that is restricted to a specific group of people, unit or area. (Washington State institutional classification.)

*Description:* A nonpublic lounge facility is typically equipped with upholstered furniture, draperies, or carpeting, and may include vending machines. A nonpublic lounge (651) differs from a general use public lounge (650) by virtue of its restricted availability. A nonpublic lounge may have vending machines, refrigerators, microwaves, if the primary use of the room is rest, relaxation, informal socializing and for eating (see 630).

*Limitations:* If a room is open for use by people visiting or passing through a building or area, it is coded Public Lounge (650). A lounge area associated with a public rest room is included with the rest room as nonassignable (building service area) space. A room devoted to vending machines without accommodation (seating, counters or tables) for local food or drink consumption is classified as Merchandising (660). A public lounge differs from a lobby (nonassignable circulation area) in placement, use, and intent. A lobby is generally located at a major entrance with openings to hallways on more than one side; and although it may have seating furniture, it is designed more for walking through (or having standing conversations) than for sitting and relaxing. Separate waiting rooms in other than health care facilities are classified with the appropriate service code according to the room or area they serve. A receptionist room that includes a waiting area should be classified as Office (310). Public waiting areas in health care facilities are coded as 880.

3. **655 PUBLIC LOUNGE SERVICE:** A room that directly serves a general use lounge facility.

*Description:* Includes kitchenettes, storage areas, and vending rooms that directly serve a general use public lounge facility (see 650).

*Limitations:* This category does not include kitchenettes, storage rooms, and small vending areas that directly serve other room use types (e.g., a small vending area serving a dining hall eating area should be classified as 635-Food Facility Service). This category does not include nonpublic lounge service (656).

4. **656 NONPUBLIC LOUNGE SERVICE:** A room that directly serves a nonpublic lounge facility.

*Description:* Includes kitchenettes, storage areas, and vending rooms that directly serve a nonpublic lounge facility (see 651).

*Limitations:* This category does not include kitchenettes, storage rooms, and small vending areas that directly serve other room use types (e.g., a small vending area serving a dining hall eating area should be classified as 635-Food Facility Service). This category does not include general use public lounge service (655).

**C. Components**

(Note: Need for general use lounge space is dependent upon demand and institutional policies. The following formula may be used for general planning purposes only.)

1. Number of average annual FTE students, faculty, and staff.
2. Assignable square feet of existing lounge and lounge service facilities.
3. Space guideline of 1.5 square feet per total FTE identified above.

**D. Evaluation Criteria Procedure**

Both Public and Nonpublic Lounge facilities are provided as demand requires and resources are available.

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## MERCHANDISING

### A. General

Merchandising facilities are generally included in student services buildings that would normally be associated with the student union building. Merchandising facilities would include such services as bookstores, campus food stores, barber shops, post offices, banks, etc.

### B. Room Use Classifications and Definitions

1. **660 MERCHANDISING:** A room used to sell products or services to students, faculty, staff and the general public.

*Description:* Includes product and service sales areas such as bookstores, student supply stores, barber or beauty shops, post offices, campus food stores, walk-away vending machine rooms, and central ticket outlets servicing multiple facilities or activities.

*Limitations:* Does not include dining rooms, restaurants, snack bars, and similar Food Facilities (630). A vending machine room that directly serves a dining, lounge or other primary activity area is classified with the appropriate service code; a vending machine area within a general use lounge is included in the Lounge (650) space. Vending areas that include accommodations (seating, counters or tables) for consuming the products are classified as Food Facility (630).

2. **665 MERCHANDISING SERVICE:** A room that directly serves a merchandising facility as an extension of the activities in that facility.

*Description:* Includes storage rooms and closets, sorting rooms, private rest rooms, and other support rooms if they directly serve a Merchandising (660) facility.

*Limitations:* Storage rooms, sorting rooms, and private rest rooms that do not serve a merchandising area should be classified using the appropriate service code for the corresponding room use type.

### C. Components

None

### D. Evaluation Criteria Procedure

Merchandising facilities are provided as demand permits.

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## RECREATION

### A. General

Recreation facilities are used primarily for informal relaxation, amusement-type activities and are often found in the student union buildings, or specialty recreational activity facilities.

### B. Room Use Classifications and Definitions

1. **670 RECREATION:** A room used by students, staff or the public for recreational purposes.

*Description:* Includes exercise and general fitness rooms, billiards rooms, game and arcade rooms, bowling alleys, table tennis rooms, dance or ballrooms, chess rooms, card playing rooms, hobby rooms, TV rooms, reading (non-study) rooms, and music listening rooms that are used for recreation and amusement and not for instructional purposes. Recreation rooms and area are used for relaxation, amusement-type activities, whereas Athletic or Physical Education (520) facilities are typically used for more vigorous pursuits within physical education, intercollegiate athletics and intramural programs.

*Limitations:* Does not include gymnasias, basketball courts, weight rooms, racquetball courts, handball courts, squash courts, wrestling rooms, indoor swimming pools, indoor ice rinks, indoor tracks, indoor stadium fields, indoor golf and other areas primarily used for physical education, intramural or intercollegiate athletic activities (see 520). This category also does not include bowling alleys, dance rooms, or any other activity areas which are primarily used for instruction. Reading or media use rooms that are designed and intended as study rooms are also excluded from this category (see 410).

2. **675 RECREATION SERVICE:** A room that directly serves a recreation facility as an extension of the activities in that facility.

*Description:* Includes storage rooms, closets, equipment issue rooms, cashiers' desks, and other support areas that directly serve a Recreation (670) facility.

*Limitations:* Does not include kitchens, snack bars, or other Food Facilities (630) and Food Facility Service (635) area. Locker rooms shower rooms, ticket booths, dressing rooms, equipment rooms, and other areas directly serving Athletic or Physical Education (520) facilities are classified as service rooms (see 525) to those facilities. Central ticket outlets serving multiple facilities or services are classified as Merchandising (660).

### C. Components

None

### D. Evaluation Criteria Procedure

Recreation facilities are provided as demand and funds are available.

CATEGORY: General Use Facilities  
REVISED: March 8, 1994  
ICSO APPROVED: September 22, 1994

## MEETING ROOM

### A. General

A meeting room is a room available for general campus and noninstitutional meeting use.

### B. Room Use Classifications and Definitions

1. **680 MEETING ROOM:** A room that is used for a variety of nonclass meetings. Meeting rooms may be configured like classrooms and may be equipped with a variety of furniture types in various combinations and arrangements.

*Description:* Although it may be assigned to a specific organizational unit, a meeting room is more available and open to groups, boards, community groups, non-employees of the institution, and various combinations of institutional and community members. Meeting rooms generally have a capacity of 25 or more. For-fee meeting rooms are included in category 680.

*Limitations:* Rooms serving an office complex and used primarily for staff meetings are classified as Conference Room (350). Seminar and lecture rooms used primarily for scheduled classes are classified as Classroom (110). Rooms designed and equipped for the assemble of many persons for such events as dramatic, musical, etc., should be classified as Assembly (610).

2. **685 MEETING ROOM SERVICE:** A room that serves a meeting room as an extension of the activities in that room.

*Description:* Includes kitchenettes, multimedia storage and control rooms, furniture storage rooms, and other support rooms that directly serve a meeting room.

*Limitations:* Does not include kitchenettes, storage rooms, and other support areas that serve a Conference Room (355) or Assembly Facility (615).

### C. Components

None

### D. Evaluation Criteria Procedure

Meeting room facilities are provided as demand requires.

CATEGORY: Support Facilities  
REVISED: July 28, 1993  
ICSO APPROVED: September 22, 1994

## **700 - SUPPORT FACILITIES**

Support facilities, which provide centralized space for various auxiliary support systems and services of a campus, help keep all institutional programs and activities operational. While not as directly accessible to institutional and community members as General Use Facilities (600 series), these areas provide a continuous, indirect support system to faculty, staff, students, and the public. Support facilities are centralized in that they typically serve an area ranging from an entire building or organizational unit to the entire campus. Included are centralized areas for computer-based data processing and telecommunications, shop services, general storage and supply, vehicle storage, central services (e.g., printing and duplicating, mail, shipping and receiving, environmental testing or monitoring, laundry, or food stores), and hazardous materials areas.



CATEGORY: Support Facilities  
REVISED: July 28, 1993  
ICSO APPROVED: September 22, 1994

## CENTRAL COMPUTER OR TELECOMMUNICATIONS

### A. General

Computer facilities in colleges and universities primarily serve three functions: instruction, research, and institutional support, i.e., computing services for administration, student services, library operation, and public service programs.

In small institutions one computer installation may serve all three programs. In large institutions, separate installations of computer equipment may be used. Variations in equipment type and size must be considered when evaluating space requirements for separate computer installations.

### B. Room Use Classifications and Definitions

- 710 CENTRAL COMPUTER OR TELECOMMUNICATIONS:** A room used as a computer-based data processing or telecommunications center with applications that are broad enough to serve the overall administrative or academic primary equipment needs of a central group of users, department, college, school, or entire institution.

*Description:* A Central Computer or Telecommunications room may be one of a *group* of rooms which constitute a *center* for delivering computer-based data processing or telecommunications services to various levels of user groups. Although the ongoing *primary activity* of this category is tied more closely to equipment than human activity, these areas require technical support staff and physical access may be restricted to these personnel. These central equipment rooms appear most frequently at the campus-wide and large organizational unit levels and are generally subject to environmental and security controls and procedures limiting users to electronic terminal, telephone or modem access. Includes rooms housing a center's computer or computers (e.g., large mainframe, minicomputers, etc.), peripheral input (e.g., data entry terminals, input tape or disk drives, data reading equipment, etc.) and output (e.g., printers, output tape or disk drives, etc.) devices. This category also includes rooms in a central computer complex which are primarily or exclusively dedicated to data or program code entry or job submissions through one or more terminals.

Computer-based telecommunications equipment rooms, ranging from micro-driven LAN (local area) to the larger PBX (private branch) network centers, including rooms housing satellite signal reception or transmission equipment, should be assigned the 710 code. This equipment may be dedicated to data, audio or telephone, video or any combination of these electronic transmissions.

Limitations: Does not include office space (see 310) assigned to programmers, analysts, engineers, data entry personnel, and other technical staff even though these rooms usually contain an access terminal. Also does not include instructional laboratories and study rooms equipped with personal computers or terminals (see 210, 220, 410), or offices with data processing equipment used as office tools (see 310, 315). Personal computer or terminal work rooms and printer rooms that serve an office area should be coded Office Service (315). Does not include "electronic classrooms" equipped to originate or receive televised instruction, meetings, etc. Does not include nonassignable, nonprogrammatic building/campus distribution systems' spaces (See: Mechanical classification).

2. **715 CENTRAL COMPUTER OR TELECOMMUNICATIONS SERVICE:** A room that directly serves a central computer or telecommunications facility as an extension of the activities in that facility.

Description: Includes paper and forms storage, off-line tape and disk storage, separate control or console rooms or booths, tool and parts rooms, bursting and decollating rooms, areas used to store only inactive support equipment (e.g., multiplexers, modems, spoolers, etc.), and separate areas used for delivery tapes or picking up printouts. Also includes the repair and assembly rooms that directly serve the central computer or telecommunications facility.

Limitations: Does not include office areas for personnel (e.g., technicians, engineers, analysts, programmers) assigned to the central computer facility (see 310), primary equipment (computer, I/O device) rooms (see 710), and office areas containing data processing or networking office service equipment or materials (see 310, 315). Also does not include rooms directly supporting study rooms (see 455) or laboratories (see 215, 225, 255) that contain special computer equipment used for study, instruction or research. A non-office workroom containing a remote printer or data/job entry terminal that is part of an office area, and not the central computer facility, should be coded Office Service (315). A printer room serving a general purpose terminal room in a dormitory should be classified as Study Service (455).

**C. Components**

Dependent upon demand.

**D. Evaluation Criteria**

Dependent upon demand.

**E. Capacity Evaluation**

Dependent upon demand.

CATEGORY: Support Facilities  
REVISED: July 28, 1993  
ICSO APPROVED: September 22, 1994

## SHOP

### A. General

Shop facilities house the operational and maintenance requirements of an institution's physical plant. Their existence is dependent upon many factors, among which are operational style, size, and location of the institution. Such factors all tend to play a role in determining the amount of space necessary to take care of the custodial, maintenance, and repair functions of the institution.

### B. Room Use Classifications and Definitions

1. **720 SHOP:** A room used for the manufacture, repair, or maintenance of products or equipment.

*Description:* Includes carpenter, plumbing, HVAC, electrical and painting shops, and similar physical plant maintenance facilities. This category also includes centralized shops for construction or repair of research or instructional equipment, and repair and maintenance of multimedia equipment and devices. Special purpose shops (e.g., glass blowing, machining) that support multiple disciplines for scientific instruction and research are included in this category.

*Limitations:* Does not include instructional "shops" (i.e., industrial arts or vocational/technical shops used for instruction), which should be classified as Laboratory Facilities (200 series). Facilities used for producing and distributing multimedia materials and signals are classified as Media Production (530). Architectural and engineering drafting rooms serving the physical plant operation are classified as Office (310). Blueprint storage rooms are classified as Office Service (315). Small, incidental equipment repair, assembly or cleaning rooms that directly serve an adjacent or nearby primary activity room should be classified according to the appropriate corresponding service code. This category also does not include areas used for the repair and maintenance of institution-owned vehicles (see 745) or rooms directly serving media production or distribution areas (see 535). Also excludes costume and scene "shops" serving theater areas (see 615). Greenhouses used for campus physical maintenance or improvements should be coded 580.

2. **725 SHOP SERVICE:** A room that directly serves a shop facility as an extension of the activities in that facility.

*Description:* Includes tool storage rooms, materials storage rooms, and similar equipment or material supply or storage rooms. Locker, shower, and similar nonpublic areas that serve the shop facility should be included.

*Limitations:* Does not include service areas for class laboratories (see 215) or research laboratories (see 255). Also does not include vehicular repair facilities (garages) classified as Vehicle Storage Service (745). Blueprint storage rooms should be classified as Office Service (315). Rooms directly serving media production or distribution facilities are coded 535. Sit-down lunch or vending rooms that serve a shop facility are classified Food Facility (630).

**C. Components**

1. Assignable square feet of existing shop and shop service space from the facilities inventory.
2. Gross square feet of facilities to be serviced.
3. Ratio of assignable square feet of shop facilities space to gross square feet of facilities to be serviced.

**D. Evaluation Criteria**

1. Gross area (because the entire building must be maintained and serviced).
2. The use of contract services for maintenance and repair functions will reduce the institution's total need for shop facilities.
3. Extreme climatic conditions will affect the nature and extent of shop facilities required.

**E. Capacity Evaluation**

Neither utilization nor capacity are particularly useful concepts for evaluating such facilities. Shop facilities may be considered to be operating in excess of capacity if it is obvious that current facilities are much too limited to serve the need imposed by the institution. No single measurement devised to judge adequacy of shop facilities will be suitable for all institutions.

3. Procedures

An understanding of the need for shop facilities will come from comparing several elements of information: (1) existing shop space, (2) the perceived need for shop space (the apparent adequacy of existing space), (3) the amount of space at similar institutions.

- a. Obtain the shop-facilities data from the institutional space inventory.
- b. Establish the program-based requirements for shop space.
- c. Compute a benchmark target for shop space.
- d. Compare the three amounts of shop space generated in (1) to (3) above to the institutional comparative data in the table below.
- e. Establish a planning target for needed shop facilities, reflecting the institution's size, the specific requirements for campus and grounds maintenance, and the nature of services provided.

F. Comments

The amount of shop facilities space generated by the above procedure may exceed or fall below the institution's demonstrated need for building maintenance activities. The formula also does not respond specifically to an institution's specific requirements for campus grounds maintenance and upkeep, and this additional factor must be considered in computing the total space needed in shop facilities. Size of institution and nature of the services provided are other determinants.

Refer to comparison chart below (March 3, 1993).

**SUPPORT 700 FACILITIES  
COMPARISON OF SHOP SPACE TO GROSS SQUARE FEET**

INSTITUTION	TOTAL GROSS SQUARE FEET	ASSIGNABLE SQUARE FEET		= % TO GROSS
		720	725	
UW	13,035,047	194,899	104,686	2.30%
WSU	8,341,080	114,613	72,031	2.24%
WWU	2,619,507	23,254	3,248	1.01%
CWU	2,604,240	25,256	7,607	1.26%
EWU	2,147,590	8,267	4,647	.60%
TESC	1,210,154	13,533	5,286	1.56%
<b>TOTAL</b>	<b>29,957,618</b>	<b>379,822</b>	<b>197,505</b>	
Averages				
Research Universities				2.27%
Regional				1.06%
All 4-Yr. Institution				1.93%

CATEGORY: Support Facilities  
REVISED: July 28, 1993  
ICSO APPROVED: September 22, 1994

## CENTRAL STORAGE FACILITIES

### A. General

Central storage facilities are an integral part of the plant space required for the maintenance and operations functions of an institution. Central storage includes space for the receipt and the holding of supplies, materials, and mail on a campus pending distribution to other parts of a campus. The distinction between "storage" and "service" functions may be noted in the room use definitions which follow. Only a very general planning method will be suggested here to indicate to the planner the overall needs for these types of facilities.

### B. Room Use Classifications and Definitions

1. **730 CENTRAL STORAGE:** A room or building that is used to store equipment or materials and that serves multiple room use types, organizational units, or buildings.

*Description:* The concept of *central* or *general* is key to applying this code correctly. The vast majority of storage rooms on a campus are service rooms (e.g., 115, 215, 355, 615, etc.) that directly support a primary activity room or room group; for example, a paper storage room (see 315) can serve several offices (see 310) in an area. Service storage rooms are somewhat close to the areas they serve and are used more than occasionally. Central storage areas include areas commonly called warehouses, surplus storage, central campus supply or storage and inactive storage. A storage room incidentally used to store janitorial supplies would remain in this category. It also includes storage rooms in a building or building area that serve multiple room use types and which are used for general or surplus (e.g., furniture, equipment) collection or storage. The 730 code can usually be used for all storage areas that do not qualify as service rooms.

*Limitations:* Does not include a storage room directly serving a primary room use type or group of such rooms (i.e., a room that is clearly a service room). Also, this category does not include nonassignable area (circulation, building service, or mechanical areas). Offices within warehouses or other central storage buildings are coded as Office (310). Centralized food stores and laundries are classified Central Service (750).

2. **735 CENTRAL STORAGE SERVICE:** A room that directly serves a central storage facility as an extension of the activities in that facility.

*Description:* Central storage service rooms are typically limited to support rooms associated with the transporting of materials in and out of large central storage facilities and warehouses. Storage rooms for hand trucks and other moving equipment, shelving storage, and other rooms supporting the central storage function are included.

*Limitations:* Only those rooms directly supporting the (usually) larger Central Storage (730) area should be classified with this code.

**C. Components**

1. Assignable square feet of storage and storage service space taken from the facilities inventory.
2. Gross square feet of facilities to be serviced.
3. Ratio of assignable square feet of storage and storage service space to gross square feet of facilities to be serviced.

**D. Evaluation Criteria**

1. The extent of the storage facilities required by an institution depends in part on its location and accessibility to major suppliers.
2. Budgetary implications of large volume purchasing and seasonal availability of some supplies are factors to be considered in planning central storage facilities.

**E. Capacity Evaluation**

Capacity of storage facilities can best be determined through a careful analysis of peak purchasing loads, rate-of-turnover of inventory, and general ability of the storage facilities to accommodate the present load imposed upon them. No single measurement devised to judge adequacy of storage facilities will be suitable for all institutions.

3. Procedures

An understanding of the need for storage facilities will come from comparing several elements of information: (1) existing storage space, (2) the perceived need for storage space (the apparent adequacy of existing space), and (3) the amount of space at similar institutions.

- a. Obtain the storage-facilities data from the institutional space inventory.
- b. Establish the program-based requirements for storage space.
- c. Compute a benchmark target for storage space.
- d. Compare the three amounts of storage space generated in (1) to (3) above to the institutional comparative data in the table below.
- e. Establish a planning target for needed storage facilities, reflecting the institution's size, the specific requirements for central storage, and the nature of storage and disposal services provided.

F. Comments

The amount of storage facilities space generated by the above formula may not equal the institution's demonstrated need for these facilities. The formula establishes a benchmark and may not respond to storage requirements of a campus. Size of institution and the nature of the services performed are other determinants.

Refer to comparison chart below (March 3, 1993).

**SUPPORT 700 FACILITIES  
COMPARISON OF STORAGE SPACE TO GROSS SQUARE FEET**

INSTITUTION	TOTAL GROSS SQUARE FEET	ASSIGNABLE SQUARE FEET		= % TO GROSS
		730	735	
UW	13,035,047	53,183	5,589	.45%
WSU	8,341,080	94,493	1,632	1.15%
WWU	2,619,507	46,426	954	1.81%
CWU	2,604,240	66,475	5,433	2.76%
EWU	2,147,590	24,466	-	1.14%
TESC	1,210,154	20,072	-	1.66%
<b>TOTAL</b>	<b>29,957,618</b>	<b>305,115</b>	<b>13,608</b>	
Averages				
Research Universities				.72%
Regional				1.91%
All 4-Yr. Institution				1.06%



CATEGORY: Support Facilities  
REVISED: July 28, 1993  
ICSO APPROVED: September 22, 1994

## VEHICLE STORAGE

### A. General

An institution normally seeks to answer the need for institutional-vehicle storage through one or both of the following methods: (a) lot storage in the open, either on or off campus; and (b) in separate structures or room areas specifically designed for that purpose. An institution may elect to classify general (public) parking structures as described on page 36 of the 1993 Post Secondary Inventory and Classification Manual.

### B. Room Use Classifications and Definitions

1. **740 VEHICLE STORAGE:** A room or structure that is used to house or store institutional-vehicles.

*Description:* Includes structures, buildings, and rooms generally called garages, boathouses, and airplane hangars. The definition of "vehicle" is broadly interpreted here to include forklifts, moving equipment, and other powered transport devices or equipment.

*Limitations:* This category does not include public parking structures or unroofed surface parking lots. It also does not include structures that house or store farm vehicles and implements (see 560).

2. **745 VEHICLE STORAGE SERVICE:** A room that directly serves a vehicle storage facility as an extension of the activities in that facility.

*Description:* Includes any areas or rooms directly serving a vehicle storage facility, such as storage rooms and areas used for maintenance and repair of automotive equipment, boats, airplanes, and other vehicles as defined in Vehicle Storage (740).

*Limitations:* Does not include shops as defined in Shop (720) above (e.g., carpenter, plumbing, electrical, painting, etc.). Offices within a Vehicle Storage facility should be classified as such (see 310).

**C. Components**

Dependent upon demand.

**D. Evaluation Criteria**

Dependent upon demand.

**E. Capacity Evaluation**

Dependent upon demand.

CATEGORY: Support Facilities  
REVISED: July 28, 1993  
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## CENTRAL SERVICE

### A. General

Most institutions have central facilities for printing and duplicating services, central mail facilities, central shipping and receiving areas, and central environmental testing or monitoring facilities.

### B. Room Use Classifications and Definitions

1. **750 CENTRAL SERVICE:** A room or area that is used for the processing, preparation, testing, or delivery of a complex-central or campus-wide support service.

*Description:* The central service delivery may be provided by special equipment, human activity, the special availability of space, or any combination of these elements. Includes centralized food storage and laundries which serve the occupants or activities of more than one building. Institutions may wish to differentiate individual central services through the use of additional codes in this series. Most of these centralized areas have a campus-wide service scope.

*Limitations:* Does not include those rooms providing the above listed functions if they support other primary activity rooms in the same building. For example, a food storage area in a cafeteria should be coded 635; a laundry room in a residence hall should be coded 935; a copy or mail room in an office area is coded 315. Media Production (530) or distribution facilities and computer-based data processing and telecommunications equipment centers (see 710) are coded separately. Facilities used for the manufacture, repair, or maintenance of products or equipment should be coded Shop (720). Central Storage (730) or supply facilities and Vehicle Storage (740) facilities also have separate codes.

2. **755 CENTRAL SERVICE SUPPORT:** A room that directly serves a central service facility as an extension of the activities in that facility.

*Description:* The central service support rooms are typically limited to extension storage rooms for supplies, parts, and moving or nonactive equipment; and adjacent, directly supporting repair and maintenance areas.

*Limitations:* Offices within a central service area or complex should be coded Office (310). Centralized physical plant repair and maintenance facilities that do not directly support a Central Service (750) facility should be coded Shop (720).

**C. Components**

Dependent upon demand.

**D. Evaluation Criteria**

Dependent upon demand.

**E. Capacity Evaluation**

Dependent upon demand.

CATEGORY: Support Facilities  
REVISED: July 28, 1993  
ICSO APPROVED: September 22, 1994

## HAZARDOUS WASTE/MATERIALS

### A. General

Institutions use hazardous materials in a variety of settings including laboratories, art departments, theaters, medical facilities, and physical plant departments. These hazardous materials must be stored properly both as new materials and as wastes. Hazardous materials may include chemical, biological, or radioactive materials.

### B. Room Use Classifications and Definitions

1. **760 HAZARDOUS WASTE:** A centralized facility used for the storage, treatment, or disposal of hazardous or toxic waste materials.

*Description:* Includes facilities devoted to the treatment or disposal of toxic or hazardous waste.

*Limitations:* Does not include temporary storage or disposal sites located near or adjacent to instructional or research facilities.

2. **765 HAZARDOUS WASTE SERVICE:** A facility that services a centralized facility in the storage, treatment, or disposal of hazardous or toxic waste materials.

*Description:* Includes those facilities that directly serve the Hazardous Waste (760) facility.

*Limitations:* Does not include facilities that serve temporary storage or disposal sites located near or adjacent to instructional or research facilities.

3. **770 HAZARDOUS MATERIALS:** A centralized facility used for the storage of new or wanted hazardous or toxic materials.

*Description:* Includes facilities devoted to the storage of chemicals, radioactive, or biological materials.

*Limitations:* Does not include temporary storage or facilities affiliated exclusively with individual departments within an institution.

4. **775 HAZARDOUS MATERIALS SERVICE:** A facility that services a centralized facility in the storage of new or wanted hazardous or toxic materials.

*Description:* Includes those facilities that directly serve the Hazardous Materials (770) facility.

*Limitations:* Does not include temporary storage facilities or facilities affiliated exclusively with individual departments within an institution.

**C. Components**

As appropriate by code.

**D. Evaluation Criteria**

As appropriate by code.

**E. Capacity Evaluation**

As appropriate by code.

**F. Comments**

As appropriate by code.

CATEGORY: Health Care Facilities  
REVISED: May 13, 1994  
ICSO APPROVED: September 22, 1994

## **800 - HEALTH CARE FACILITIES**

This series provides room use classifications for patient care rooms that are located in separately organized health care facilities: student infirmaries, teaching hospitals and clinics, and veterinary and medical schools. Room codes and definitions apply to both human and animal health care areas; excluded are clinic facilities located outside of separately organized health care facilities (see 540). Whereas the codes in this series are confined to the settings listed, these facilities usually house areas that are classified using applicable codes from the other use classification series (e.g., classroom, laboratory, office, special use, general use, supporting facilities, etc.).

Refer to the Postsecondary Education Inventory and Classification Manual (November 1992) published by the National Center for Education Statistics for further information on health care facilities.

CATEGORY: Residential Facilities  
REVISED: May 13, 1994  
ICSO APPROVED: September 22, 1994

## **900 - RESIDENTIAL FACILITIES**

Residential facilities include housing for students, faculty, staff, and visitors to the institution. Hotel or motel and other guest facilities are included in this series, if they are owned or controlled by the institution and used for purposes associated with defined institutional missions (i.e., excluding commercial investment).

Note: Not all space in residential facilities is coded using the 900 series. Conventional primary activity and service codes, as with libraries, apply to specific areas. Included are Offices (310), Lounges (650), Study Rooms (410), dining areas (see 630), recreational rooms (see 670), and their corresponding service codes. Service rooms that typically appear in residential facilities are specified in the Sleep/Study Service (935) description.

Refer to the Postsecondary Education Inventory and Classification Manual (November 1992) published by the National Center for Education Statistics for further information on health care facilities.



CATEGORY:	<u>Unclassified Facilities</u>
REVISED:	<u>May 13, 1994</u>
ICSO APPROVED:	<u>September 22, 1994</u>

## **000 - UNCLASSIFIED FACILITIES**

Unclassified facilities include those assignable areas that are inactive or unassigned; in the process of being altered, renovated, or converted; or in an unfinished state.

Refer to the Postsecondary Education Inventory and Classification Manual (November 1992) published by the National Center for Education Statistics for further information on health care facilities.