

SPACE UTILIZATION AND SPACE NEEDS GENERATION FACTORS, FORMULAS, AND STANDARDS. The purpose of this section is to provide space utilization and space needs generation factors, formulas, and standards for use by community college boards when planning new and evaluating existing educational, auxiliary, and ancillary facilities. They may be used for determining space needs, developing program facility lists, conducting educational plant surveys, writing survey recommendations, developing educational specifications, recording facilities inventory data, and conducting space utilization studies.

A. SPACE UTILIZATION FOR INSTRUCTIONAL SPACE CATEGORIES

UTILIZATION FACTORS

DEFINITIONS

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|----|--------------------|--|
| 1. | WRH | Weekly room hours |
| 2. | RUR | Room utilization rate |
| 3. | SOR | Student station occupancy rate |
| 4. | COFTE | Capital outlay full-time-equivalent student enrollment |
| 5. | WSH / COFTE | Average weekly student hours per COFTE |
| 6. | UI | Utilization index |
| 7. | UIR | Utilization index reciprocal |
| 8. | SS | Student stations |

UTILIZATION FORMULAS

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|----|--|----|--|
| 1. | $\frac{\text{WRH} \times \text{RUR} \times \text{SOR}}{\text{WSH} / \text{COFTE}} = \text{UI}$ | 2. | $\frac{1.00}{\text{UI}} = \text{UIR}$ |
| 3. | $\text{UI} \times \text{SS} = \text{COFTE}$ | 4. | $\text{UIR} \times \text{COFTE} = \text{SS}$ |

I. CLASSROOM UTILIZATION STANDARDS

1. WRH = 40
2. RUR = 1.00
3. SOR = 0.60
4. COFTE = All COFTE (including nonvocational and vocational)
5. WSH / COFTE = 12
6. UI = 2.00
7. UIR = 0.50

USING THE CLASSROOM UTILIZATION FORMULAS

The classroom utilization index of 2.00, times a given number of classroom student stations, tells the number of COFTE students that number of classroom stations will accommodate.

The classroom utilization index reciprocal of 0.50, times a given number of COFTE students, tells the number of classroom student stations needed to accommodate that number of COFTE.

II. NONVOCATIONAL LABORATORY UTILIZATION STANDARDS

1. $WRH = 30$
2. $RUR = 1.00$
3. $SOR = 0.80$
4. $COFTE = \text{Nonvocational COFTE}$
5. $WSH / COFTE = 6$
6. $UI = 4.00$
7. $UIR = 0.25$

USING THE NONVOCATIONAL LABORATORY UTILIZATION FORMULAS

The nonvocational laboratory utilization index of 4.00, times a given number of nonvocational laboratory student stations, tells the number of nonvocational COFTE students that number of laboratory stations will accommodate.

The nonvocational laboratory utilization index reciprocal of 0.25, times a given number of nonvocational COFTE students, tells the number of nonvocational laboratory student stations needed to accommodate that number of COFTE.

III. VOCATIONAL LABORATORY UTILIZATION STANDARDS

1. $WRH = 30$
2. $RUR = 1.00$
3. $SOR = 0.80$
4. $COFTE = \text{Vocational COFTE}$
5. $WSH / COFTE = 12$
6. $UI = 2.00$
7. $UIR = 0.50$

USING THE VOCATIONAL LABORATORY UTILIZATION FORMULAS

The vocational laboratory utilization index of 2.00, times a given number of vocational laboratory student stations, tells the number of vocational COFTE students that number of laboratory stations will accommodate.

The vocational laboratory utilization index reciprocal of 0.50, times a given number of vocational COFTE students, tells the number of vocational laboratory student stations needed to accommodate that number of COFTE.

B. SPACE NEEDS GENERATION FOR INSTRUCTIONAL SPACE CATEGORIES**GENERATION FACTORS****DEFINITIONS**

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|----|--------------------|--|
| 1. | WRH | Weekly room hours |
| 2. | RUR | Room utilization rate |
| 3. | SOR | Student station occupancy rate |
| 4. | COFTE | Capital outlay full-time-equivalent student enrollment |
| 5. | WSH / COFTE | Average weekly student hours per COFTE |
| 6. | NSF | Net square feet |
| 7. | SS | Student stations |
| 8. | NSF / SS | Average net square feet per student station (including classroom or laboratory space and related spaces) |
| 9. | NSF / COFTE | Net square feet per COFTE |

NEEDS GENERATION FORMULAS

$$1. \quad \frac{\text{NSF / SS}}{\text{WRH} \times \text{RUR} \times \text{SOR}} \times \text{WSH / COFTE} = \text{NSF / COFTE}$$

$$2. \quad \text{NSF / COFTE} \times \text{COFTE} = \text{NSF}$$

I. CLASSROOM NEEDS GENERATION STANDARDS

1. WRH = 40
2. RUR = 1.00
3. SOR = 0.60
4. COFTE = All COFTE (including nonvocational and vocational)
5. WSH / COFTE = 12
6. NSF / SS = 27
7. NSF / COFTE = 13.50

USING THE CLASSROOM NEEDS GENERATION FORMULAS

The classroom NSF / COFTE of 13.50, times the number of COFTE for a given site, tells the approximate total amount of NSF in the classroom space category needed to accommodate the COFTE at that site.

II. NONVOCATIONAL LABORATORY NEEDS GENERATION STANDARDS

1. WRH = 30
2. RUR = 1.00
3. SOR = 0.80
4. COFTE = Nonvocational COFTE
5. WSH / COFTE = 6
6. NSF / SS = 55
7. NSF / COFTE = 13.75

USING THE NONVOCATIONAL LABORATORY NEEDS GENERATION FORMULAS

The nonvocational laboratory NSF / COFTE of 13.75, times the number of nonvocational COFTE for a given site, tells the approximate total amount of NSF in the nonvocational laboratory space category needed to accommodate the nonvocational COFTE at that site.

III. VOCATIONAL LABORATORY NEEDS GENERATION STANDARDS

1. WRH = 30
2. RUR = 1.00
3. SOR = 0.80
4. COFTE = Vocational COFTE
5. WSH / COFTE = 12
6. NFS / SS = 137
7. NSF / COFTE = 68.50

USING THE VOCATIONAL LABORATORY NEEDS GENERATION FORMULAS

The vocational laboratory NSF / COFTE of 68.50, times the number of vocational COFTE for a given site, tells the approximate total amount of NSF in the vocational laboratory space category needed to accommodate the vocational COFTE at that site.

C. SPACE NEEDS GENERATION FOR OTHER TYPES OF SPACE

Methods used to generate needs for non-instructional space categories include one or a combination of the following factors: minimum allowance, allotment per enrollment, and percentage of other types of space.

GENERATION FACTORSDEFINITIONS

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|--|--|
| <ol style="list-style-type: none"> 1. MIN 2. NSF / COFTE 3. % NSF | <p>Minimum allowance</p> <p>Allotment per enrollment</p> <p>Percentage of other types of space</p> |
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ABBREVIATIONSTYPES OF SPACE

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|---|---|
| <ol style="list-style-type: none"> 1. CR 2. NL 3. VL 4. L/S 5. AV 6. A/E 7. StuS 8. PE 9. Ofc 10. SupS 11. SSF | <p>Classroom space category</p> <p>Nonvocational Laboratory space category</p> <p>Vocational Laboratory space category</p> <p>Library / Study space category</p> <p>Audiovisual space category</p> <p>Auditorium / Exhibition space category</p> <p>Student Services space category</p> <p>Physical Education space category</p> <p>Office space category</p> <p>Support Services space category</p> <p>Student sanitation facilities</p> |
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