

Classrooms Adult Education Facilities

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Code/Section	2012 IBC Sections 303.4, 305, 1004 and 1607
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Issue:

For grades K through 12, the International Building Code (IBC) classifies the occupancy of classrooms as E regardless of occupant load. The IBC classifies adult education facilities such as colleges and universities as B occupancies. In adult education facilities, however, the IBC changes the occupancy classification from B (classroom) to A-3 (lecture hall) if the occupant load of the classroom exceeds 49.

For classrooms, IBC Table 1004.1.2 provides an occupant load factor of 20 square feet per person for exiting purposes. The Table does not list a category for lecture halls, but using the Assembly category, without fixed seats, unconcentrated (tables and chairs), one could determine the occupant load for such a lecture hall at 15 square feet per person.

IBC Table 1607.1 calls for a 100 psf uniform live load for assembly areas with movable seats; the Table calls for 40 psf uniform live load for classrooms in schools.

The IBC does not define the terms **school** and **classroom**. Nor does there appear to be a direct correlation between the occupant load factors in IBC Table 1004.1.2 and the live load requirements of IBC Table 1607.1, however, IBC Section 1607.3 requires that the maximum loads expected by the intended use or occupancy be used when determining the floor live load.

School – There are multiple definitions of school in the dictionary; the definitions are broad and encompass university, college and all other education levels and interest categories, including scholarly, social and theological pursuits.¹

Classroom – a place for conducting formal instruction of students by a teacher in a school or university.1

Interpretation:

Under the following conditions, it is acceptable for adult education facilities to use 40 psf uniform live load² for classrooms where the occupant load of the classroom exceeds 49 people:

- 1. The maximum occupant load of the classroom is based on 20 square feet per person in accordance with Table 1004.1.2.
- 2. The Team Leader has worked with the applicant to determine how the owner intends for the space to be used. This analysis shall include additional floor plans drawn to scale showing the intended uses for the space. If uses in addition to that of classroom are intended, the floor live load must be determined by the structural design professional based on the maximum loads expected by the intended use or occupancy.
- **3.** The structural code consistency coordinator agrees that the uniform live load is appropriate for the proposed design.

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¹ Webster's Third New International Dictionary of the English Language Unabridged.

² 2012 IBC Table 1607.1, Use 27. Schools, Classrooms.