

Data required for a space audit, an assessment of space needs and space modelling

The preparation of a report detailing space utilisation levels or the modelling of an estate scenario may be based on the following information.

1. Current course listing

The course list should only include on-site, daytime courses. Daytime is defined as 9am and 5pm. Evening, weekend, vacation and off-site courses are not included in the calculation of space requirements. The spreadsheet contains the following data.

- 1.1 Code and title of all on-site daytime courses irrespective of funding source
- 1.2 Number of students enrolled at the date of the funding return or when courses have stabilised
- 1.3 Total on-site course weeks of required student attendance
- 1.4 Guided learning hours per student assuming completion of the course
- 1.5 Campus location: site or building
- 1.6 Department responsible for course
- 1.7 Mode of attendance

The following example illustrates the format of the required spreadsheet.

Code	Full Course Title	Enrol	Weeks	Student GLH	Bid	Dept	MOA
A0284A	Accounting Bookkeeping	16	19	45	CW	AA	05
A0284B	Accounting Bookkeeping	21	18	38	CW	AA	05
A0409D	Computerised Accounting	15	19	15	CW	AA	07
A0606D	Computerised Accounting	14	11	20	CW	AA	07
A0733	Accounting Professional	19	23	450	CW	AA	01
A0832	Revision unit AAT TE	2	2	9	CW	AA	07
A1041	Accounts Fast-Track	21	14	285	CW	AA	01
A1041A	Accounting Professional	0	23	330	CW	AA	01
A0028A	Add Unit Teamwork	51	36	17	CW	AB	07
A0028B	Add Unit Self Development	51	36	17	CW	AB	07
A0029	Business ADV Y1	73	38	450	CW	AB	01
A0030	Business ADV Y2	30	38	450	CW	AB	01

Courses described as being based on open, distance, online, electronic or flexible learning may involve the use of on-site computer facilities and staff supervision. Such courses are not, however, regarded as involving taught hours and do not contribute to the justified gross internal area of colleges and universities. The 10% of total space resources allocated to 'learning' include accommodation for this aspect of course provision.



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As regards NVQ courses the following guidelines are relevant.

- a. The on-site, daytime GLH for NVQs delivered entirely within the institution (mode 11) should be included in the course list.
- b. For NVQs delivered mainly by employers (mode 12) that proportion of GLH located in the college may be included in the course list.
- c. NVQs delivered entirely in the place of work are not credited to the college.

All courses irrespective of their funding source should be included in the course list if they involve only on-site, daytime guided learning hours that fall in the standard teaching year.

An alternate approach is to identify all courses that are off site during the week of the space utilisation survey.

2. Available teaching space

The details concerning teaching spaces should include the following data.

- 2.1 Room codes in a campus or building
- 2.2 Room descriptions and types
- 2.3 Room space norms and room areas in square metres
- 2.4 Room capacities identified by the college or university
- 2.5 Departments if sole users or having first call on rooms

The following data illustrates the format of the required spreadsheet.

Code	Rm ID	Rm Description	Rm type	Sp nm	Area m ²	Coll cap	Dept
BL	B122	Classroom	A2	2.1	48.4	23	AA
BL	B123	Classroom	A2	2.1	47.2	22	AA
BL	B124	Classroom	A2	2.1	47.2	22	AA
BL	B125	Classroom	A2	2.1	48.4	23	
BL	A114	Biology Lab	B1	3.5	71.5	24	SC
BL	A116	Physics Lab	B1	3.5	67.9	28	SC
BL	A15	Art Studio	B3	3.2	51.2	16	AD
BL	A17	Art Studio	C2	4.9	78.4	16	AD
BL	A19	Dressmaking	C2	4.9	98.1	20	AD

Timetables should be based on a specified slot or multiples of that slot. The most flexible and efficient time slot is one hour. Timetables normally begin on the hour. The use of a common slot enables the scheduling and co-ordinated use of space resources.

3. Space survey

Room list and raw data for the most recent space utilisation survey. Any differences between the room list and the survey room list should be identified and explained.

Room Number	Monday								Tuesday								Wednesday			
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2	3	4
B001		12	12	14		14	10	10	7	7		11		13	12					
B002	8	9		2		4	4	4	12	12										
B003		24	28						31											

Each one-hour slot in the 40 hour week contains the size of each group occupying each room when the room is in use. Splits in the timetable for morning and lunch breaks are not taken into account. The survey is based on an 8 hour day normally from 9am to 5pm.

The importance of the evening provision of courses is recognised. Taking evening class groups into account does, however, generate a relatively high number of available seat hour. This has the effect of reducing space utilisation levels. It is for this reason that evening classes are omitted.

4. Space inventory

A listing of college spaces, including offices, staff work areas and circulation spaces identified by unique room codes and accompanied by areas and brief descriptions. This data can be used if available but is not critical to the modelling of teaching and learning space. This requirement is not consistent with the advice given to universities by funding agencies which recommends that staff offices are considered to be teaching space.

Dept or site	Students			Total taught hours		
	Current	Planned	% growth	Current	% growth	Planned
Total						

5. Space costs

Details of energy and other utility costs, security and caretaking costs including salaries, contact rates, planned and contingency building maintenance, relevant contracts and costs insurance and waste disposal and ground maintenance, for colleges or universities. The data for each site can be detailed if available.

The space cost data should be accompanied by the gross internal area of the college and include the subtotals for any sites and buildings identified in the room, course or summary spreadsheets. In addition, state the total annual expenditure of the institution and its total annual income including annual fees per student.

6. Initial space needs assessment

The analysis is based on projected student enrolments and guided learning hours. The data, combined with space utilisation data, enables the estimation of the required area and capacity for the college and its departments or sites.

Growth levels estimated by the college management should take into account recent trends in college or university course provision and enrolment levels. Predicted changes should also be informed by reviews of demographic, social and labour market trends characterising the wider community and its economy.

The department or site output provides a context for the possible modelling of room profiles based on detailed course data.

7. Detailed space needs assessment

A sample space needs assessment spreadsheet assists the collection of relevant data. The following actions are recommended.

- 7.1 Populate the spreadsheet with the current course list, enrolment numbers and guided learning hours for a student with 100% attendance on each course.
- 7.2 Highlight the courses it is planned to close prior to the year of the space needs assessment.
- 7.3 Highlight additional courses it is planned to begin prior to the year of the space needs assessment.
- 7.4 Review student enrolment numbers and modify as appropriate. Highlight all changes in the 'project enrol' column.
- 7.5 Adjust the 'total GLH per student' to reflect planned course delivery. Highlight any entries, which differ from current course hours.
- 7.6 Enter the guided learning hours for one student in a typical course week according to room types.

Each room type has a standard space norm per student workplace but does not represent a standard facility. For example, room type E4 is a workshop with a space norm of 7.5 square metres. Actual facilities may, however, be designed for trowel trades, plastering or stonework. The same approach can be adopted for all space types. It is essential that the college defines any additional room types used on the space needs assessment spreadsheet.

In universities space norms should be based on existing space allowances. Note that the larger the space allocated for a space norm, the less choice is available to lecturers for teaching times and teaching rooms.

All data to be provided in the form of an Excel spreadsheet or other agreed format.

In a university room types and space norms can be agreed prior to analysis. The larger the space norms the higher the utilisation levels required to cover the costs of space. In further education the following space norms apply.

Accommodation types and space norms

Category	Description	Space norm
A	Flexible Use Teaching	
A1	Lecture Theatre (for close seating arrangements)	1.0
A2	Teaching in informal Groups	2.1
A3	Computers and Business (computer terminal rooms)	2.3
A4	Teaching with Demonstration Facilities	2.5
B	Small Scale Vocational	
B1	Science and Technology Laboratories, Language Labs	3.0
B2	Electronics/Computer workshops	3.2
B3	Desk based visual arts, floristry	3.2
B4	Music/Media (edit, recording)	3.2
C	Medium Scale Vocational	
C1	Bench based workshops (carpentry/joinery, furniture)	4.9
C2	Large scale visual arts (sculpture/ceramics, TV/photo studio, dressmaking)	4.9
C3	Hair salon	4.9
D	Large Scale Vocational	
D1	Catering	6.5
D2	Performance, sports	6.5
D3	Independent Living	6.5
D4	Beauty salons	6.5
E	Extra Large Vocational	
E1	Installation trades (gas, plumbing and electrical)	7.5
E2	Motor vehicles	7.5
E3	Engineering (large machine workshops)	7.5
E4	Brickwork/Masonry/Plaster	7.5
E5	Painting and decorating	7.5
O	Other categories	
O1	Nail bar	2.5
O2	Catering restaurant: space norm per cover	2.5
O3	Fashion cutting	6.5

Sample college

Sample spreadsheet detailing initial space needs assessment data

Curriculum area	% GLH										% GLH 2013-14
	2007-08	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2013-14	2013-14	
Art and Design	28.2%	949,881	987,755	1,000,991	999,790	1,018,328	1,032,420	1,032,420	1,032,420	1,032,420	27.8%
Business and Leisure Management	13.4%	450,508	468,471	474,749	474,179	482,971	489,655	489,655	489,655	489,655	13.2%
Engineering and Construction	25.0%	842,594	876,191	887,932	931,210	948,477	961,602	961,602	961,602	961,602	25.9%
Science and Humanities	10.0%	336,033	349,431	354,113	353,688	360,247	365,232	365,232	365,232	365,232	9.8%
Social and Personal Care	23.2%	781,492	812,652	823,542	822,554	837,803	849,400	849,400	849,400	849,400	22.9%
Engagement	0.4%	13,818	14,369	14,562	14,544	14,814	15,019	15,019	15,019	15,019	0.4%
Total	100.0%	3,374,327	3,508,870	3,555,889	3,595,965	3,662,643	3,713,327	3,713,327	3,713,327	3,713,327	100.0%
Overall growth		7.16%	1.47%	1.34%	1.13%	1.85%	1.38%	0.00%			
MNW		2,343	2,437	2,469	2,497	2,544	2,579	2,579	2,579	2,579	
Area per MNW = 13.51 m ²		31,658	32,920	33,361	33,737	34,363	34,838	34,838	34,838	34,838	
Core space allowance		1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	
Atria allowance of 10%		3,331	3,457	3,501	3,539	3,602	3,649	3,649	3,649	3,649	
Total (square metres)		36,639	38,027	38,512	38,926	39,614	40,138	40,138	40,138	40,138	

