

Space Assessment Models (SAMs)
and Space Profiles

User Guide

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# Introduction

This guide explains a method for developing Space Assessment Models and Space Profiles for HEIs.

As well as generating space profiles, the approach can assist HEIs in the development and implementation of their Carbon Management Plans by illustrating how choices about methods of delivery and space standards have an impact on predicted amounts of space, and as a consequence on projected levels of carbon emissions.

The Space Assessment Models (SAMs) and Space Profiles guidance are one part of the AUDE Toolkit for a Sustainable Estate, and are designed to be used alongside the Model of Estate Costs (MEC). The toolkit aims to provide HEIs with tools to assist them in planning and improving the management of space, in line with the national agenda for greater financial and environmental sustainability.

This guidance is provided to:

* Explain how examples of discipline-based space profiles (space assessment models) have been developed and how they can be used by individual HEIs for their own space analysis.
* Show how ratios can be applied to non-academic space to gain an insight into assessments of support space.
* Provide a link between the amount of space generated by a) and b) and predicted full space costs based on the estate cost model and predicted notional carbon emissions using data from EMS.

Space profiles provide an indication of how much and what type of space an institution may need based on its numbers of student and staff and range of activities. Space assessment models are spreadsheet based tools for assessing academic space needs. The ratios applied to support space are derived from EMS data. Together, the space profiles generated by space assessment models and the ratios for support space are the equivalent of non-residential net internal space as reported in EMS, excluding the two EMS categories of “other space” and “vacant space” as illustrated in Chart 1.

HEIs can use the principles described in the guidance to consider the whole of their estate or components within it, such as the space needs associated with an individual site or at the level of a faculty, school or department.

| Chart 1: Distribution of non-residential space by EMS category |
| --- |



Source: EMS 2009 report

# Building up the academic space profile

## Background to space assessment models

Space assessment models (SAMs) generate space profiles which are similar to the EMS definition of academic space.

SAMs are based on the same principles as the method used to calculate UGC and PCFC space norms. For a fuller explanation of how norms were developed, please refer to the SMG report A Review of Space Norms[[1]](#footnote-1).

In summary, norms were a function of a series of coefficients which varied according to academic discipline. They included:

* Total hours of on-campus contact or learning hours per week per student
* Breakdown of those hours into different types of activity, for example lectures or laboratory hours
* Total hours that the space is available per week to be used
* Predicted frequency and occupancy rates
* Space standards per workplace
* Staff:student ratios.

The Review of Norms report noted that because of the degree of variation in these coefficients across the sector since the norms were devised, it was inappropriate to select a single set of up to date coefficients for their calculation that would apply to all institutions. AUDE still considers that to be the position.

## Examples of space assessment models

Against this background and to help HEIs to build up their own space profiles, AUDE is now providing a series of SAM examples for academic disciplines to act as a starting point for HEIs to develop their own institutional profiles.

The examples are listed in **Error! Reference source not found.**. Spreadsheets supporting each example are available on the AUDE website[[2]](#footnote-2) and via a link from the SMG website[[3]](#footnote-3).

Each SAM example is linked to HESA JACS (Joint Academic Coding System) subject groups for ease of collecting data on staff and student numbers. A full list of the principal subjects in the HESA JACS subject groups is available on the HESA website[[4]](#footnote-4), and the current version is included in Appendix 1.

The HESA JACS codes include a number of individual subjects. The SAM examples relate to one subject within each main code. In some cases, there is a wide range of subjects within each main code, and the SAM example should not be assumed to be relevant to all the others within it. Using the common principles on which all the SAM examples are based, however, there is scope to derive additional models to generate space assessments for other subjects by changing the assumptions used and the input data as required. This can be done by taking the SAM example which most closely resembles the new subject to be assessed and modifying the figures in the example, such as the number of hours by type of space, the staff:student ratios and any specialist research space needs.

As noted earlier, the area per FTE is similar to the academic area per student FTE reported in EMS, including teaching and research core space and teaching and research office space. The academic area per student FTE given in the 2009 EMS report is included at the end of the table for information.

|  |
| --- |
| **Table 1: Space Assessment Model (SAM) examples by subject areas** |
| **JACS code** | **Subject areas** | **SAM subject group example**  | **NIA per FTE** |
| A | Medicine and dentistry | Pre-clinical medicine | 5.8 |
| B | Subjects allied to medicine | Nursing | 2.7 |
| C | Biologicial sciences | Molecular Biology, Biophysics and biochemistry | 5.3 |
| D | Veterinary science | Veterinary science | 8.2 |
| D | Agriculture and related subjects | Agriculture | 5.9 |
| F | Physical sciences | Chemistry | 5.8 |
| G | Mathematical sciences | Mathematics | 2.5 |
| G | Computer science | Computer science | 3.6 |
| H, J | Engineering and technology | Minerals technology | 5.9 |
| K | Architecture, building and planning | Architecture | 4.3 |
| L | Social studies | Economics | 1.9 |
| M | Law | Law | 1.7 |
| N | Business and administrative studies | Business studies | 2.2 |
| P | Mass communications and documentation | Journalism | 3.8 |
| Q, R, T | Languages | French studies | 2.7 |
| V | Historical and philosophical studies | History | 1.8 |
| W | Creative arts and design | Fine Art | 6.0 |
| X | Education | Training teachers | 2.4 |
| Y | Combined | ..... |  |
|  | **Average academic area per student FTE based on the above examples** |  | **4.0** |
|  | EMS 2009 report comparators (all HEIs) | Academic area per FTE median | 4.3 |
|  | EMS 2009 report comparators (all HEIs) | Academic area per FTE lower quartile | 3.3 |
|  | EMS 2009 report comparators (all HEIs) | Academic area per FTE upper quartile | 6.5 |

The examples of space per student FTE should not be regarded as norms. The area per FTE is generated by a combination of assumptions about volume of activity, hours of delivery, staff: student ratios and academic staff: support staff ratios. Changes to any of these factors will affect the resulting area per FTE: what is appropriate for one institution may not be for another. For instance, two HEIs with similar student and staff numbers and academic portfolios but different methods of delivery would generate different profiles of space need. The examples enable HEIs to tailor the calculations to reflect their own individual characteristics and methods of delivery. The way to do this is described in the following section.

When comparing the space profiles generated by SAMs with existing space, HEIs will need to take account of issues such as the constraints that the size and structure of existing buildings may place on achieving a good fit, particularly where these cannot easily be remedied by remodelling and alteration.

## Components of space assessment models

All the components of the SAM examples can be modified to reflect HEIs’ current practice or future plans.

The examples are provided in spreadsheets so that the calculations are transparent, and so that the effect of changing the input data can be tracked (for example to look at changes in teaching methods) and/or any of the coefficients (say to increase projected utilisation rates). They are not recommendations, nor are they set to generate maximum efficiency in space use. If HEIs wish, they can model the effect of using different assumptions to see what the effect might be on the amount of space predicted and as a consequence on the cost of space and on notional levels of carbon emissions.

The main components of the examples – student numbers; student hours; academic and support staff numbers; utilisation; workplace areas – are described in turn below.

#### Student numbers

The student FTE numbers in the examples are notional. HEIs will need to provide their own data. Some departments and schools provide service teaching for others. Where that it is the case, it will be necessary to capture all the student numbers to assess the full load on space.

#### Student hours

The student hours data in each SAM example draw on Higher Education Policy Institute findings on student workload by subject (reference). They also use Higher Education Academy National Subject Profiles and sources, such as the Review of the Student Learning Experience in Chemistry (reference). As a consequence, the current examples reflect available data on averages in terms of input data for teaching/learning hours. The SAM spreadsheet input for this can be changed to include individual institutional practice, and to ensure that where appropriate non-formal contact and private study time in academic-related spaces is also included. The data are presented on the basis of an average week – similar to HEPI/HEA approaches.

#### Academic and support staff numbers

Academic staff numbers are based on average HESA SSR data by cost centre. Support staff numbers are also drawn from HESA academic staff: support staff ratios.

#### Utilisation

The examples are based on a 40 hour core timetabled week.

The scheduled frequency and occupancy rates for the use of space are not intended to reflect actual levels of surveyed utilisation. They are based on assumptions about planned or timetabled use and not on actual or surveyed levels of utilisation. There is a wide range across the sector both in terms of planned or timetabled utilisation and actual levels of use. In many cases, there is the opportunity that exists to manage space more effectively and to improve levels of utilisation.

#### Workplace areas

The areas per workplace for teaching and learning spaces and offices are net internal areas. The coefficients for office provision include workplace standards plus allowance for sharing where FTE fractions are smaller than 0.5. There is provision for an allowance of research space per member of staff and research students where appropriate.

A list of the default factors most commonly used in the examples is given in Table 1.

| Table 1: SAM default factors and assumptions for academic factors |
| --- |
| **Factors** | **Assumptions** |
| **Parameters for time** |  |
| Core week timetabled hours  | 40 hours |
| **Planned (not surveyed) utilisation rates** |  |
| Frequency rate for general purpose and computing teaching | 80% |
| Frequency rate for labs, workshops, studios | 70% |
| Occupancy rate for general purpose teaching  | 70% |
| Occupancy rate for computing teaching  | 75% |
| Occupancy rate for labs, workshops, studios  | 70% |
| **Areas per workplace (NIA)** |  |
| Lecture theatres | 1m2 |
| Seminar rooms | 2.25m2 |
| Tutorial rooms | 2.25m3 |
| Computing | 2.75m2 |
| Workshops | 4m2 plus ancillary allowance of 10% |
| Studios  | 4m2 plus ancillary allowance of 10% |
| Laboratories | 4m2 plus ancillary allowance of 10% |
| Other | As required |
| **Office space standards for academic and support staff** |  |
| Large office with meeting space | 15m2 |
| Single office | 9m2 |
| Shared offices (per person) | 7.5m2 |
| Shared workplaces <0.5-0.2 FTE (share ratio of 2:1) | 7.5m2 |
| Shared workplaces <0.2 FTE (share ratio of 5:1) | 7.5m2 |
| Meeting rooms | 2m2  |
| **Research**  |  |
| Research student workplace for full time | 4.5m2 |
| Research student workplace for part time (share ratio of 2:1) | 4.5m2 |
|  |  |
| Specialist research area per academic member of staff engaged in research where specialist facilities are needed e.g. Engineering and Science | 15m2 |
| Specialist research area per research student where specialist facilities are needed e.g. Engineering and Science (please note the need to avoid double counting with the row above) | say 5m2 |
| **Other**  |  |
| Meeting rooms (per person) | 2.5m2  |
| Interview rooms (1 room per 6 members of academic staff) | 2.5m2 per place |
| Resource rooms and social learning space | HEIs to include if appropriate |
| *Note: There is scope to include other types of space which may be required but for which there is no standardised level of provision (equivalent to the former equipment dominated space in the UGC norms)* |  |
| **Office ancillary** |  |
| For example storage, copying and kitchens | HEIs to include as appropriate |

Note: This is a list of the main default factors and assumptions now incorporated in the SAM examples as a starting point for calculations - any of them can be changed by the user.

## How HEIs can modify the examples

This step explains step by step how HEIs can use and modify any of the examples to suit their own practice or model future plans based on the column and row references in each of the spreadsheets in terms of:

* Core teaching and learning space
* Office space
* Research areas
* Other types of space

#### Core teaching and learning space

Table 2 describes the approach to core teaching and learning space.

| Table 2: Core teaching and learning space inputs |
| --- |
| **Column** | **Heading** | **Comment** |
| A | Types of space | This column lists types of space including teaching and learning space. HEIs can change the space types or add in other types if they wish. The space is divided into centrally timetabled space and departmental space. This is for ease of comparison with HEIs’ own data. |
| B | Student numbers | Undergraduate and postgraduate student FTE numbers. |
| C | Average number of events per week. | This is the number of hours each student is likely to spend in different types of space. |
| D | Average number of total student event hours per week | This column generates the total student event hours per week by type of space. |
| E | Core week timetabled hours  | This column enables HEIs to see the effect of increasing or decreasing the length of the core daytime timetabled week. HEIs can keep the default coefficient or replace it with their own current practice, or a higher or lower number of hours. |
| F | Minimum number of workplaces | This column generates the minimum number of workplaces that would need to be provided to accommodate the total student event hours per week by different space types, assuming that all the places were used all the time, in effect a utilisation rate of 100%. The actual number to be provided will almost always be more than this, depending on the planned utilisation level HEIs aim to achieve (see Columns F-I below). |
| G | Target frequency of use | This is the target for how often HEIs plan to use the workplaces over the core timetabled day. Timetables can be a useful source. The higher the target frequency rate, the smaller will be the space prediction. |
| H | Target occupancy of space | This is their target for what proportion of workplaces HEIs predict to be occupied when rooms are in use. The higher the target occupancy rate, the smaller will be the space prediction. |
| I | Target utilisation rate | This is a function of HEIs’ choice of target frequency and occupancy rates. It is the planned utilisation rate. The actual utilisation rate based on surveys will usually be lower. |
| J | Number of study/workplaces  | This is generated from the minimum number of workplaces and the target utilisation rate. The higher the target utilisation rate, the fewer the number of workplaces that will be predicted. |
| K | Area per workplace (m²) (default provided) | This is the net internal area (NIA) in m² that is needed for each workplace. It will vary according to the type of space. The smaller the area per workplace, the smaller will be the space prediction. |
| L | Ancillary allowances where applicable (some defaults provided) | This is an additional allowance per workplace (NIA m²) for areas such as preparation areas associated with laboratories. HEIs can add them in, or exclude them for different types of space. |
| M | Area predicted (m²) | This is generated from the number of workplaces to be provided and the area per workplace and the ancillary allowances where applicable. |
| O-V | Area predicted by spaced type (m2) | These columns give a breakdown of the total area by space type. |
| W | Area predicted per student FTE (m²) | This is the total area predicted (available from Column M) divided by the total number of student FTEs. |

#### Office space

Rows 32-53 of the examples provide an indication of office based space needs associated with teaching, research and academic administrative activities. They exclude central institutional administration and support office needs which are addressed as part of the support space profile outlined later in the guide.

 HEIs can use this part of the examples either to look at current numbers of office occupants and types of space provided: or to model the potential effect of changes in the number of occupants on space need and/or of adopting different types of office space.

The academic staff numbers in each example are based on average HESA staff: student ratios for cost centres. The support staff numbers are based on average HESA academic staff: support staff ratios. HEIs can use their own data where the averages do not reflect their own levels of provision. It will also be necessary to check that all staff needing office space are included, such as research funded staff.

The key elements of the office space predictions are as follows:

| Table 3: Office space inputs |
| --- |
| **Column** | **Input data** | **Comment** |
| A | Types of office spaces. | This column lists a series of potential types of office space. |
| B | Area per workplace (m2) | This is the net internal area (NIA) in m² that is needed for each workplace. The smaller the area per workplace, the smaller will be the space prediction. |
| C | Shared workplace ratios | This allows HEIs to provide for sharing workspaces, for example where staff FTE fractions are below 0.5. |
| D | Number of office occupants | This column includes the total numbers of staff and research students. HEIs need to decide on the type and mix of office space you think is appropriate. For example, if HEIs want to have a mix of types, including a few cellular offices and some shared, it will be necessary to allocate the number of occupants to the relevant space types in the worksheet. |
| E | Area predicted by space type (m²)  | This gives a predicted area for each type of office workplace. |

#### Research areas

In some examples, rows 55-57 provide for an allowance to give an indication of needs for research space in addition to the office working area for staff and research students. This is a starting point only.

The key inputs to be considered are as follows:

| Table 4: Research area inputs |
| --- |
| **Column** | **Input data** | **Comment** |
| A | Research areas per member of staff and research students. | HEIs need to decide whether there is a need for a research area for staff and research students in addition to their office workplace. The examples include these for Science and Engineering disciplines. It may be appropriate for other subjects as well. |
| B | Area allowance per member of staff and research student. | This is an allowance (NIA m2) per research active person. This varies widely in practice, and HEIs will need to decide for themselves what appropriate basis to use as a guide. |
| C | Number of staff and research students. | This is the number of research active staff and students who require space for research in addition to their office workplace. |
| D | Area predicted (m²)  | This is generated by Column B and Column D. |

#### Other types of space

Meeting rooms: The space predicted for meeting rooms is a function of the number of meeting room workplaces required multiplied by an area per workplace.

Office ancillary spaces: The framework includes scope for HEIs to include other office-related spaces if desired, such as reception areas, although at this stage no default coefficients are supplied.

Additional types of space: There is provision to include areas needed for specialist equipment, resource and social or collaborative learning areas. The list of space types in the examples is not exhaustive. The existing ones can be replaced or other types added in as HEIs consider appropriate for their own circumstances.

# Building up the support space profile

Support space comprises between 25 to 30 per cent of net non-residential space. It includes a wide range of types of space, including libraries and learning centres, sports, catering, social areas and central administration. Because most of these do not easily fit into the method described above for developing academic space profiles, this guide outlines a different approach for many of the main components of support space summarised in Table 5 using EMS ratios where available.

| Table 5: Building up the support space profile |
| --- |
| **Support space category** | **EMS 2009 data** | **Approach** |
|  | 25% | 50% | 75% |  |
| Total support space per student FTE (NIA m2) | 1.6 | 2.2 | 3.0 |  |
| Library/learning centre space per student FTE (NIA m2) | 0.5 | 0.7 | 0.9 | Use EMS/SCONUL ratios as a guide |
| Catering space per student FTE (NIA m2) | 0.2 | 0.3 | 0.4 | Use EMS ratios as a guide |
| Non-academic support office space per student FTE (NIAm2) | 0.4 | 0.7 | 0.9 | Use SAM principles to assess office space needs |
| Balance of support space per student FTE (NIA m2)  | 0.4 | 0.5 | 0.8 | No further breakdown available within EMS |
| Other support space: e.g sport |  |  |  | Use of tools such as Sport England guidance for indoor facilities (www.sportengland.org) |

Libraries and learning centres: HEIs may choose to use EMS and/or SCONUL ratios for assessing central library and learning centre needs. Table 5 includes 2009 all HEIs reported ratios for library and learning space per student FTE. HEIs may wish to use these or EMS subgroup or peer group ratios as a guide. It is advisable to be aware of the definition for library and learning centres used by EMS to avoid double counting with other types of space:

In accordance with the definition used in the Society of College, National and University Libraries (SCONUL) annual statistics, Libraries/Learning Centres are defined as a systematic collection of information resources under the control of the Librarian or Director of Information Services, or equivalent, and having a separate entrance. These resources may be in print or other media. A storage facility, whether or not staffed, on or off-campus, counts as a separate library if it has a separate entrance. It also includes PC clusters, even large open access PC areas, housed within libraries, and photocopying services.

Include offices that are part of the Library/Learning centre, such as offices for the Head of the Resource Centre, section management, technical facilities staff, subject librarians, general librarians and resource administration.

Please note that this definition includes open access computing areas that are integral to the Library/Learning Centre, but would leave other dispersed open access rooms in the support category C9. (EMS data definitions)

Catering: Table 5 includes the 2009 ratios for catering space per student FTE. HEIs may wish to use these or EMS subgroup or peer group ratios as a guide.

Non-academic support office space: The SAM examples include provision for office areas for academic staff and academic support staff by discipline. The same principles can be used to assess the space profiles for non-academic support staff. Please see the guide in Table 3.

For comparative purposes, the area generated by this step is the equivalent of the support office area reported in EMS. Table 5 shows ratios for non-academic space per student FTE (to be updated).

Other support space – sport: (to include Sport England details when the website update now being undertaken is available.) Please note that some sports provision may have already been included in space assessment models in certain cases, for example in association with Education or Sports Science. Where this is the case and there is shared use of general HEI facilities, it will be necessary to avoid double counting.

# List of HESA JACS codes and SAM examples

A tick in the “SAM example given” column signifies that an example has been produced for the corresponding principal subject in the JACS subject groups.

| Table 6: List of HESA JACS subject groups and SAM examples |
| --- |
| **HESA JACS subject groups and principal subjects** | **SAM example given** |
|  A Medicine and dentistry |  |
| Broadly based programmes within medicine and dentistry |  |
| Pre-clinical medicine | 🗸 |
| Pre-clinical dentistry |  |
| Clinical medicine |  |
| Clinical dentistry |  |
| Others in medicine and dentistry |  |
| B Subjects allied to medicine |  |
| Broadly based programmes within subjects allied to medicine |  |
| Anatomy, physiology and pathology |  |
| Pharmacology, toxicology and pharmacy |  |
| Complementary medicine |  |
| Nutrition |  |
| Ophthalmics |  |
| Aural and oral sciences |  |
| Nursing | 🗸 |
| Medical technology |  |
| Others in subjects allied to medicine |  |
| C Biological sciences |  |
| Broadly based programmes within biological sciences |  |
| Biology |  |
| Botany |  |
| Zoology |  |
| Genetics |  |
| Microbiology |  |
| Sports Science |  |
| Molecular Biology, Biophysics and biochemistry | 🗸 |
| Psychology |  |
| Others in biological sciences |  |
| D Veterinary science |  |
| Pre-clinical veterinary medicine |  |
| Clinical veterinary medicine and dentistry |  |
| D Agriculture and related subjects |  |
| Broadly based programmes within agriculture and related subjects |  |
| Animal science |  |
| Agriculture | 🗸 |
| Forestry |  |
| Food and beverage studies |  |
| Agricultural sciences |  |
| Others in veterinary sciences, agriculture and related subjects |  |
| F Physical sciences |  |
| Broadly based programmes within physical sciences |  |
| Chemistry | 🗸 |
| Materials sciences |  |
| Physics |  |
| Forensic and archaeological science |  |
| Astronomy |  |
| Geology |  |
| Science and aquatic and terrestrial environments |  |
| Physical geographical sciences |  |
| Others in physical sciences |  |
| G Mathematical sciences |  |
| Broadly based programmes within mathematical sciences |  |
| Mathematics | 🗸 |
| Operational research |  |
| Statistics |  |
| Others in mathematical sciences |  |
| G Computer science |  |
| Broadly based programmes within computer science |  |
| Computer science | 🗸 |
| Information systems |  |
| Software engineering |  |
| Artificial intelligence |  |
| Others in computing science |  |
| H, J Engineering and technology |  |
| Broadly based programmes within engineering and technology |  |
| General engineering |  |
| Civil engineering |  |
| Mechanical engineering |  |
| Aerospace engineering |  |
| Naval architecture |  |
| Electronic and electrical engineering |  |
| Production and manufacturing engineering |  |
| Chemical, process and energy engineering |  |
| Others in engineering |  |
| Minerals technology | 🗸 |
| Metallurgy | 🗸 |
| Ceramics and glasses |  |
| Polymers and textiles |  |
| Materials technology not otherwise specified |  |
| Maritime technology |  |
| Industrial biotechnology |  |
| Others in technology |  |
| K Architecture, building and planning |  |
| Broadly based programmes within architecture, building and planning |  |
| Architecture | 🗸 |
| Building |  |
| Landscape design |  |
| Planning (urban, rural and regional) |  |
| Others in architecture, building and planning |  |
| L Social studies |  |
| Broadly based programmes within social studies |  |
| Economics | 🗸 |
| Politics |  |
| Sociology |  |
| Social policy |  |
| Social work |  |
| Anthropology |  |
| Human and social geography |  |
| Others in social studies |  |
| M Law | 🗸 |
| Broadly based programmes within Law |  |
| Law by area |  |
| Law by topic |  |
| Others in Law |  |
| N Business and administrative studies |  |
| Broadly based programmes within business and administrative studies |  |
| Business studies | 🗸 |
| Management studies |  |
| Finance |  |
| Accounting |  |
| Marketing |  |
| Human resource management |  |
| Office skills |  |
| Hospitality, leisure, tourism and transport |  |
| Others in business and administrative skills |  |
| P Mass communications and documentation |  |
| Broadly based programmes within mass communication and documentation |  |
| Information services |  |
| Publicity studies |  |
| Media studies |  |
| Publishing |  |
| Journalism | 🗸 |
| Others in mass communication and documentation |  |
| Q, R, T Languages |  |
| Broadly based programmes within languages |  |
| Linguistics |  |
|  Comparative literary studies |  |
| English studies |  |
| Ancient language studies |  |
| Celtic studies |  |
| Latin studies |  |
| Classical Greek studies |  |
| Classical studies |  |
| Others in linguistics, classics and related subjects |  |
| French studies | 🗸 |
| German studies |  |
| Italian studies |  |
| Spanish studies |  |
| Portuguese studies |  |
| Scandinavian studies |  |
| Russian and East European studies |  |
| Others in European languages, literature and related subjects |  |
| Chinese studies |  |
| Japanese studies |  |
| South Asian studies |  |
| Other Asian studies |  |
| African studies |  |
| Modern Middle Eastern studies |  |
| American studies |  |
| Australasian studies |  |
|  Others in Eastern, Asiatic, African, American and Australasian languages and related subjects |  |
| V Historical and philosophical studies |  |
| History | 🗸 |
| Archaeology |  |
| Philosophy |  |
| Theology and religious studies |  |
| Others in historical and philosophical studies |  |
| W Creative arts and design |  |
| Fine Art | 🗸 |
| Design studies |  |
| Music |  |
| Drama |  |
| Dance |  |
| Cinematics and photography |  |
| Crafts |  |
| Imaginative writing |  |
| Others in creative arts and design |  |
| X Education |  |
| Training teachers | 🗸 |
| Research and study skills in education |  |
| Academic studies in education |  |
| Others in education |  |

1. <http://www.smg.ac.uk/documents/spacenorms.pdf> [↑](#footnote-ref-1)
2. <http://www.aude.ac.uk/info-centre/aude_toolkit_forsustainableestate> [↑](#footnote-ref-2)
3. <http://www.smg.ac.uk/the_model.html> [↑](#footnote-ref-3)
4. <http://www.hesa.ac.uk/index.php/content/view/356/233/> [↑](#footnote-ref-4)