

**Space Audit Report
Laucala Campus
Semester 2 2014 - DRAFT 1
Property & Facilities Section**



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1. Purpose

This report provides an analysis of the teaching space usage at USP's Laucala Campus for Semester 2 2014. The space utilization analysis includes the lecture theatres, tutorial rooms and laboratories which are timetabled for teaching and the non-time tabled.

2. Key Definitions

Room Frequency

- 1) Planned Room Frequency – Is the number of hours the room is in use divided by the number of hours the room is available for use. This data is obtained from the central timetable.
- 2) Audited Room Frequency – Is the number of hours the room is in use during the audit period divided by the number of hours the room is available for use during the audit period.
(Data for this report was for the week 11th – 23rd August, 2014. Audits included Saturdays)

Room Occupancy

- 1) Planned Room Occupancy – represents the average number of students (enrolled students) in the room when the room is in use, compared to the total room capacity. This data is obtained from student enrollment data and room capacity data from the central time table.
- 2) Audited Room Occupancy– represents the average number of students counted (during the audit period) in the room when the room is in use compared to the total room capacity. (Audit period was from 11th – 23rd August, 2014.)

Room Utilization

- Utilization combines Room Occupancy and Room Frequency data to give an indication of how the room is being used. It is an abstract measure that is a useful indicator for rooms that require further investigation of usage patterns, and comparative assessments.

3. Key Formulae

1) Room Frequency (RF)

$$\text{RF} = \frac{\text{Hours Used}}{\text{Hours Available}}$$

2) Room Occupancy (Occ)

$$\text{Occ} = \frac{\text{Total Students}}{\text{Capacity} \times \text{Hours Used}}$$

3) Utilization (U %)

$$U\% = RF \times \text{Occ}$$

4. Approach for this Report

This Space Utilization assessment is a two-stepped process, the first involving the collection of the following information from their sources.

- a. Semester 2 2014 timetable¹ collected from the timetabler.
- b. Class enrollment data collected from Student Administrative Services

1. Using the time table and class enrollment data, the Planned Room Frequency, Planned Room Occupancy and Planned Room Utilization Rates are calculated for each lecture theatre, tutorial room and laboratory. These calculated figures are then compared with the Space Management Policy benchmarks. They represent the Planned Utilization Rates of USP facilities.

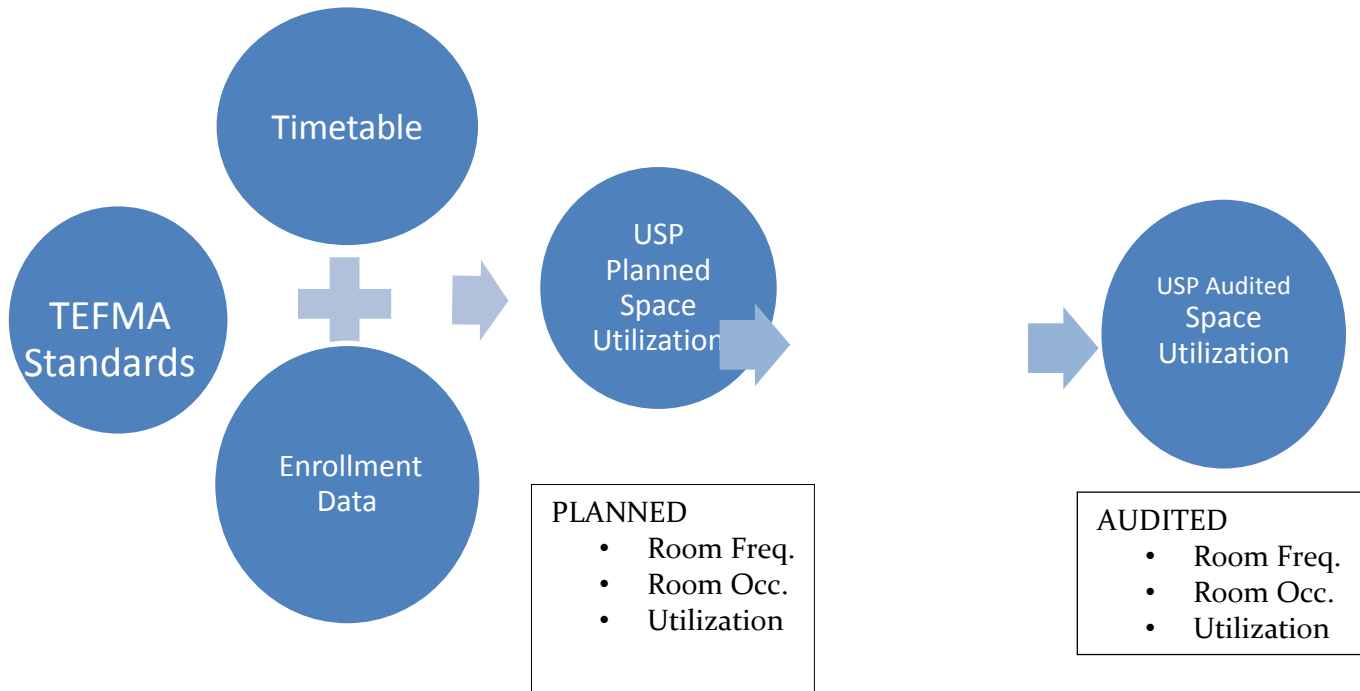
2. Following step one, a space audit is then conducted of all USP teaching facilities. The Section of P & F performs an audit once per semester over an audit period of 2 weeks. The faculties perform their own independent audit of the teaching spaces using excel spreadsheets developed for the auditing process. The data collected during the audits is then used to calculate the Audited Room Frequency and Audited Room Occupancy Rates for the University. They represent the Audited Utilization Rates of USP facilities.

This report presents the calculated Planned and Audited Utilization data alongside Space Management Policy standards. Comparison of the three should give an overview of the university planned use of its facilities in semester 2 2014 (Planned Data) against how the university is actually using its facilities during semester 2 2014 (Audited Data).

The Space management Policy allows for benchmarking to give USP some indication of where it needs to focus its planning and resources.

¹ This was provided by Kaylash Chaudhary of SCMIS who is responsible for timetabling all courses offered in the semester.

5. The Process: Space Utilization Assessment



6. The Audit Method

P & F perform the space audit as recommended in the TEFMA and the Space Management Policy guidelines. Room auditing involves the counting of the number of students using the various teaching facilities within the Laucala Campus. This is taken over all the operating hours for the campus for a two week period each semester. Auditors are instructed to begin audits 5 mins after the start of each class. This is to allow late comers coming in for class. Auditors are instructed to perform head counts, take photos and identify what class or subject.

P & F performed the space audit for semester 2 2014 in week 4 and 5 (11th – 23rd August, 2014.). The audit data for this period is then analysed using the key formulae shown earlier in this report. Because this data contains head counts for each class, it is used to calculate the Audited Room Occupancy rates for this report.

7. Summary of Key Findings

7.1 Frequency of Use

Lecture Theatres Timetabled on the Central Timetable Planned Room Use (Timetabling) is found to be higher than actual room use (audited), which is a finding consistent with historical trends. However, the difference for semester 2 2014 is 12 % of total availability. The university used its lecture spaces on average 45 % of the time for which they were available for use, lower than the benchmarked 90 % as specified in the universities space policy and 75 % as used by TEFMA.

- The highest used lecture room is AusAid 092-001 (51%) and the least used lecture room is the SSED Room 014-025 (35%)

Tutorial Rooms Timetabled on the Central Timetable

- Planned Room Use (Timetabling) is on average found to be higher than actual room use (audited), which is a finding consistent with historical trends. (55% compared to 45%)
- The university used its tutorial spaces on average 39 % of the time for which they were available for use, lower than the benchmarked 90 % as specified in the universities space policy and 75 % as used by TEFMA.
- The highest used tutorial room is FBE 014-009A (55%) and the least used tutorial room is the Statham Campus B202-112 (added to the central timetable this year)

Teaching and Learning Spaces Not Centrally Timetabled. (Includes ITS Labs, Tutorial and Lecture Rooms)

- Actual room use (audited) is averaged at 36%, which is lower than centrally timetabled lecture theatre spaces at 45% and tutorial spaces at 38%. Centrally Timetabled spaces are more frequently used.
- The highest used room was Statham AusAid Computer Lab 093-008(84%) and the least used tutorial room is Statham Campus 206-MBA Lecture Rm2 (2 %)

Laboratories

- Planned lab Use (Timetabling) is on average found to be higher than actual lab use (audited), which is a finding consistent with historical trends. (33% compared with 21%)
- The university used its labs on average 21 % of the time for which they were available for use, lower than the benchmarked 50 % as specified in the universities space policy and TEFMA guidelines.
- The highest used lab is FSTE 010-032 (35%) and the least used lab is Engineering 009-120 (6%)

7.2 Occupancy

Lecture Theatres Timetabled on the Central Timetable

- Planned Room Occupancy is found to be higher than actual room occupancy (audited). However, the difference for semester 2 2014 is 8 % of total capacity.
- The university on average had occupancy rates of 20 % of the of capacity of its theatres lower than the benchmarked 90 % as specified in the universities space policy and 75 % as used by TEFMA.
- The highest occupied lecture room is Com 020-102 (31%) and the least occupied lecture room is SSED 014-025 (11%)

Tutorial Rooms Timetabled on the Central Timetable

- Planned Room Occupancy is on average found to be similar to actual room occupancy (audited), (44% compared to 43%)
- The university on average occupied its centrally timetabled tutorial rooms at 43 % of capacity. (Benchmarked 90 % as specified in the universities space policy and 75 % as recommended by TEFMA.)
- The room with the highest occupancy is Old CFS 003-001 (124%) and the tutorial room with the least occupancy is Main marine Studies 134-107A (18%)

Teaching and Learning Spaces Not Centrally Timetabled. (Includes ITS Labs, Tutorial and Lecture Rooms)

- Actual room occupancy (audited) is averaged at 18%, which is lower than centrally timetabled lecture theatre spaces at 20% and tutorial spaces at 43%. Centrally Timetabled spaces contain classes with larger numbers compared with non-centrally timetabled spaces.
- The highest occupancy rates were AusAid 093-102 (49%) and AusAid 093-106 (49%) and room with the least occupancy rate is SSED 014-Post Grad Lecture (0 %)

Laboratories

- Planned lab occupancy is on average found to be higher than actual lab occupancy (50% compared with 46%)
- The university has labs with occupancy rates on average at 46 % of their capacity, which is lower than the benchmarked 75% as recommended in the universities space policy and TEFMA guidelines.

- The lab with the highest occupancy rate is Main Marine Studies 134-124 (99%) and the lab with the least occupancy rate is Engineering 009-TECH (13%)

7.3 Overcrowding

- The space audit semester 2 2014 also reveal individual classes being over crowded at particular times. A total of 213 classes were observed to be over crowded during the audit period, 3.8% (5602 classes during the audit period).
- The room showing the highest rate of overcrowding was AusAid 093-004 with a total of 41 classes observed to be over crowded in the audit period.

8. Recommendations

8.1 The University continues to monitor all its teaching and learning spaces to ensure efficient use of these spaces.

8.2 The University makes a conscious effort through the timetable to bring into balance the utilization of its various learning and teaching spaces. The results show several spaces attracting significantly higher utilization rates than others which, among other things, impact wear and tear rates on facilities.

8.3 The university currently incurs significant expense in the hire of halls, gyms and external venues for the purposes of exam operations. In addition to these hire charges; the university does significant spending on logistics (transport, labor for cartage of furniture, set up, take down and storage) and significant wear and tear on furniture due to the frequent movements. It is recommended that a re-examination of spaces currently being used for learning and teaching be made, with select spaces offered for the purposes of exam operations to reduce these expenses to the university.

PROPERTY & FACILITIES

OCTOBER 2014

9. Appendices

9.1 USP SPACE MANAGEMENT POLICY AND TEFMA Standards

Target Space Utilization Rates:						
USP SPACE MANAGEMENT POLICY				TEFMA STANDARDS		
Space Type	Target Room Frequency	Target Seat Occupancy	Target Utilization	Target Room Frequency	Target Room Occupancy	Target Utilization
Lecture Theatres	90%	90%	81%	75%	75%	56%
Teaching Rooms	90%	90%	81%	75%	75%	56%
Computer Laboratories	90%	90%	81%	75%	75%	56%
Specialist Laboratories	50%	75%	37.5%	50%	75%	38%
Workshops	50%	75%	37.5%	50%	75%	38%
Studios	75%	75%	56%	75%	75%	56%
Practice Rooms	80%	75%	60%	80%	75%	60%
Meeting Rooms	45%	75%	34%	45%	75%	34%

The Space Utilization Rates shown in the table above are indicative only and are based on a typical overall week of 79.0 hours. Typical daytime sessions are 8.00 am to 5.00 pm and typical evening sessions from 5.00 pm to 10.00pm. It should be noted here that USP utilization rates are based on a 79 hour week with a normal day starting at 8.00 am and ending at 10.00 pm. The timetable includes Saturday hours as directed by the SMT.

9.2 The Analysis

Room Frequency (RF)

9.2.1 Lecture Theatres

USP's planned use of lecture theatres (Planned Room Frequency), its actual use of lecture theatres (Audited Room Frequency) and the benchmark for comparison (TEFMA standards) are listed in the table below.

The Audited Room Frequency data is taken from Faculty Audit data from the period 11TH August to 23rd August 2014.

No.	Building	Room No.	Semester 2 2014		Semester 1. 2014		Space Management Policy
			Audited Room Frequency	Planned Room Frequency	Audited Room Frequency	Planned Room Frequency	
1	Ausaid	092-001	51%	56%	69%	71%	90%
2	Ausaid	092-003	50%	57%	66%	70%	90%
3	Humanities	019-101	37%	61%	49%	61%	90%
4	Main SPAS	010-111	49%	61%	53%	66%	90%
5	Marine Studies	136-001	45%	41%	39%	38%	90%
6	SSED	014-024	47%	67%	52%	61%	90%
7	SSED	014-025	35%	56%	45%	53%	90%
8	SSED	014-028	49%	63%	58%	57%	90%
9	U8	018-001	46%	48%	53%	56%	90%
10	Com	020-102	44%	43%	28%	32%	90%
	TOTAL		45%	55%	51%	56%	90%

The analysis showed a decrease in Planned Lecture Room use for Semester 2, 2014. It can be compared with historical EFTS data on 2nd term 2014 against 2nd term of 2013. (Semester 2 2014 EFTS 8557.8, Semester 2 2013 EFTS 8850.5 for fee and non-fee paying students data from DIBS 21/10/14).

The Audit data shows higher use of the lecture rooms was initially planned as compared to the actual audit period.

It should also be noted that SSED 014-024 has the highest Planned Frequency for Semester 2, 2014 however the highest audited room frequency is for AusAid 092-001.

9.2.2 Tutorials

No.	Building	Room No.	Semester 2 2014		Semester 1. 2014		Space Management Policy
			Audited Room Frequency	Planned Room Frequency	Audited Room Frequency	Planned Room Frequency	
1	Ausaid	093-001	51%	76%	57%	73%	90%
2	Ausaid	093-002	56%	80%	61%	78%	90%
3	Ausaid	093-003	60%	69%	56%	68%	90%
4	Ausaid	093-004	56%	79%	59%	73%	90%
5	Ausaid	093-007	55%	67%	62%	70%	90%
6	Ausaid	093-201	57%	77%	52%	68%	90%
7	Ausaid	093-202	45%	70%	56%	75%	90%
8	Ausaid	093-203	44%	70%	49%	61%	90%
9	Ausaid	093-204	50%	70%	51%	54%	90%
10	Ausaid	093-205	48%	76%	44%	66%	90%
11	Ausaid	093-206	46%	69%	49%	65%	90%
12	Ausaid	093-207	39%	61%	58%	68%	90%
13	Ausaid	093-208	45%	66%	60%	70%	90%
14					39%	22%	90%
	Humanities	019-104A	46%	63%			
15	Humanities	019-104B	49%	70%	40%	61%	90%
16	Humanities	019-105	36%	61%	50%	41%	90%

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17	Main Marine Studies	134-107A	51%	63%	46%	67%	90%
18	Main Marine Studies	134-107B	44%	56%	47%	53%	90%
19	Main Marine Studies	134-GEO01	41%	51%	42%	48%	90%
20	Old CFS Block	003-001	36%	59%	44%	47%	90%
21	Old CFS Block	003-002	47%	63%	37%	62%	90%
22	Old CFS Block	003-032	30%	64%	51%	61%	90%
23	Old CFS Block	003-041	35%	61%	47%	63%	90%
24	Old CFS Block	003-042	49%	61%	44%	59%	90%
25	SSED	014-009A	62%	57%	62%	63%	90%
26	SSED	014-009B	56%	81%	65%	66%	90%
27	SSED	014-014A	46%	67%	49%	71%	90%
28	SSED	014-014B	56%	70%	51%	67%	90%
29	SSED	014-023	55%	83%	62%	65%	90%
30	SSED	014-027	39%	30%	49%	71%	90%
31	SSED	014-111	50%	67%	48%	63%	90%
32	SSED	014-112	48%	80%	57%	29%	90%
33	SSED	014-113	51%	77%	59%	56%	90%

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34	SSED	014-114	38%	63%	58%	56%	90%
35	SSED	014-115	38%	69%	56%	66%	90%
36	SSED	014-116	42%	73%	61%	67%	90%
37	SSED	014-117	33%	63%		67%	90%
38	Statham Campus	202-103	24%	43%		72%	90%
39	Statham Campus	202-111	52%	43%		61%	90%
40	Statham Campus	202-112	12%	13%		15%	90%
	TOTAL		45%	63%	46%	55%	90%

9.2.3

Room Frequency for Not Centrally Timetabled Rooms

No.	Building	Room No.	Semester 2	Semester 1	Space Management Policy	Type of Space
			2014	2014		
			Audited Room Frequency	Audited Room Frequency		
1	Old CFS	003-029		9%	90%	Teaching Room
2	Main SPAS (FSTE)	010-131	7%	2%	50%	Specialized Lab
3	SSED (FBE)	014-Glass	11%	16%	90%	Teaching Room
4	SSED (FBE)	014-Tourism Room	34%	31%	90%	Teaching Room
5	SSED (FBE)	014-Post Grad Lecture Rm	4%	15%	90%	Teaching Room
6	Humanities (FALE)	019-300	17%	16%	90%	Teaching Room
7	Humanities (FALE)	019-301	18%	23%	90%	Teaching Room

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8	Humanities (FALE)	019-401	22%	16%	90%	Teaching Room
9	CELT	091-113	11%	9%	90%	Teaching Room
10	Main Marine Studies	118-GE101	4%	1%	90%	Teaching Room
11	Main Marine Studies	134-FIO LAB	51%	42%	90%	Computer Lab
12	Main Marine Studies	118-GIS1	67%	39%	90%	Computer Lab
13	Main Marine Studies	118-GIS2	51%	38%	90%	Computer Lab
14	Stham Campus	201-Com Lab	47%	31%	90%	Computer Lab
15	Stham Campus	201-Lecture rm	44%	44%	90%	Lecture Theatre
16	Stham Campus	201-Moot Court	4%	3%	90%	Teaching Room
17	Stham Campus	202-105	29%	35%	90%	Teaching Room
18	Stham Campus	202-113	30%	5%	90%	Teaching Room
19	Stham Campus	206-MBA Lab 1	19%	36%	90%	Computer Lab
20	Stham Campus	206-MBA Lab 2	20%	3%	90%	Computer Lab
21	Stham Campus	206-MBA Conference	10%	27%	90%	Teaching Room
22	Stham Campus	206-MBA Lecture Rm1	16%	23%	90%	Lecture Theatre
23	Stham Campus	206-MBA Lecture Rm2	2%	16%	90%	Lecture Theatre
24	Communication	020-ITS 19	34%	59%	90%	Computer Lab
25	Communication	020-ITS 20	34%	32%	90%	Computer Lab
26	ICT A	047- G.Lab A1	76%	51%	90%	Computer Lab
27	ICT A	047- G.Lab A2	79%	3%	90%	Computer Lab
28	AusAid	093-008	84%	49%	90%	Computer Lab

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29	AusAid	093-101	74%	54%	90%	Computer Lab
30	AusAid	093-102	77%	58%	90%	Computer Lab
31	AusAid	093-105	76%	59%	90%	Computer Lab
32	AusAid	093-106	77%	61%	90%	Computer Lab
33	Engineering	009-Electronics	15%	6%	50%	Specialized Lab
	TOTAL		36%	28%		

9.2.4 Laboratories

No.	Building	Room No.	Semester 2 2014		Semester 1. 2014		Space Management Policy	Type of Space
			Audited Room Frequency	Planned Room Frequency	Audited Room Frequency	Planned Room Frequency		
1	Engineering	009-120	6%	8%	8%	13%	50%	Specialized Lab
2	Engineering	009-FLUID	9%	42%	6%	34%	50%	Specialized Lab
3	Engineering	009-INTEL	15%	11%	0%	4%	50%	Specialized Lab
4	Engineering	009-TECH	14%	49%	12%	15%	50%	Specialized Lab
5	Chemistry	090-007	28%	44%	34%	44%	50%	Specialized Lab
6	Chemistry	090-010	29%	44%	37%	25%	50%	Specialized Lab
7	Main SPAS (FSTE)	010-030	17%	29%	35%	44%	50%	Specialized Lab
8	Main SPAS (FSTE)	010-032	35%	46%	49%	61%	50%	Specialized Lab
9	Main SPAS (FSTE)	010-053	11%	25%	19%	23%	50%	Specialized Lab
10	Main SPAS (FSTE)	010-102	18%	41%	34%	43%	50%	Specialized Lab
11	Main SPAS (FSTE)	010-120	20%	25%	32%	38%	50%	Specialized Lab
12	Main SPAS (FSTE)	010-142	27%	34%	26%	20%	50%	Specialized Lab

13	Main SPAS (FSTE)	010-152	15%	29%	23%	27%	50%	Specialized Lab
14	ICT B	048-324	34%	41%	28%	37%	90%	Computer Lab
15	ICT B	048-327	25%	20%	41%	23%	90%	Computer Lab
16	Main Marine Studies	134-124	27%	46%	25%	39%	50%	Specialized Lab
TOTAL			21%	33%	24%	31%	55%	

In comparison with use and planned use of the lecture theaters, the tutorial rooms generally saw a reduction.

Also noted is that AusAid Tutorial Rooms gets the highest planned room frequency.

Teaching spaces listed in 8.1.3 are listed on the timetable but are not scheduled by the timetabling software. They are done by individual faculty administrators which manage the space.

9.3 Room Occupancy (OCC)

9.3.1

Room Occupancy for Lecture Theater							
No.	Building	Room No.	Semester 2 2014 Audited Room Occupancy	Semester 2 2014 Planned Room Occupancy	Semester 1 2014 Planned Room Occupancy	Space Management Policy	Type of Space
1	AusAid	092-001	23%	31%	36%	90%	Lecture Theatre
2	AusAid	092-003	20%	35%	31%	90%	Lecture Theatre
3	Humanities (FALE)	019-101	18%	25%	28%	90%	Lecture Theatre
4	Main SPAS (FSTE)	010-111	23%	29%	29%	90%	Lecture Theatre
5	Marine Studies	136-001	16%	21%	22%	90%	Lecture Theatre
6	SSED (FBE)	014-024	19%	28%	28%	90%	Lecture Theatre
7	SSED (FBE)	014-025	11%	20%	32%	90%	Lecture Theatre

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8	SSED (FBE)	014-028	19%	31%	29%	90%	Lecture Theatre
9	U8	018-001	16%	31%	26%	90%	Lecture Theatre
10	Communication	020-102	31%	28%	26%	90%	Lecture Theatre
	TOTAL		20%	28%	30%	90%	

Lecture theatres Audited Occupancy Rates were shown to be lower than the Planned Occupancy Rates.

9.3.2

Room Occupancy for Tutorial Rooms

No.	Building	Room No.	Semester 2 2014		Semester1 2014		Space Management Policy	Type of Space
			Audited Room Occupancy	Planned Room Occupancy	Audited Room Occupancy	Planned Room Occupancy		
1	AusAid	093-001	56%	47%	50%	48%	90%	Teaching Rooms
2	AusAid	093-002	45%	48%	64%	43%	90%	Teaching Rooms
3	AusAid	093-003	63%	50%	56%	45%	90%	Teaching Rooms
4	AusAid	093-004	51%	47%	63%	46%	90%	Teaching Rooms
5	AusAid	093-007	52%	48%	59%	49%	90%	Teaching Rooms
6	AusAid	093-201	48%	49%	59%	44%	90%	Teaching Rooms
7	AusAid	093-202	43%	49%	57%	43%	90%	Teaching Rooms
8	AusAid	093-203	37%	42%	50%	42%	90%	Teaching Rooms
9	AusAid	093-204	40%	42%	54%	38%	90%	Teaching Rooms
10	AusAid	093-205	37%	44%	39%	29%	90%	Teaching Rooms
11	AusAid	093-206	39%	40%	43%	37%	90%	Teaching Rooms
12	AusAid	093-207	42%	50%	64%	48%	90%	Teaching Rooms
13	AusAid	093-208	39%	48%	50%	47%	90%	Teaching Rooms

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14	Food and Textiles Building	FT-FT			28%	42%	90%	Teaching Rooms
			19%	39%				
15	Humanities (FALE)	019-104A			32%	35%	90%	Teaching Rooms
			33%	48%				
16	Humanities (FALE)	019-104B			43%	45%	90%	Teaching Rooms
			31%	42%				
17	Humanities (FALE)	019-105			44%	47%	90%	Teaching Rooms
			36%	42%				
18	Main Marine Studies	134-107A			30%	37%	90%	Teaching Rooms
			18%	28%				
19	Main Marine Studies	134-107B			45%	50%	90%	Teaching Rooms
			42%	49%				
20	Main Marine Studies	134-GEO01			58%	50%	90%	Teaching Rooms
			51%	50%				
21	Old CFS Block	003-001			48%	48%	90%	Teaching Rooms
			124%	48%				
22	Old CFS Block	003-002			34%	49%	90%	Teaching Rooms
			59%	48%				
23	Old CFS Block	003-032			38%	47%	90%	Teaching Rooms
			21%	46%				
24	Old CFS Block	003-041			43%	49%	90%	Teaching Rooms
			28%	48%				
25	Old CFS Block	003-042			21%	49%	90%	Teaching Rooms
			26%	46%				
26	SSED (FBE)	014-009A			61%	50%	90%	Teaching Rooms
			78%	62%				
27	SSED (FBE)	014-009B			62%	49%	90%	Teaching Rooms
			48%	50%				
28	SSED (FBE)	014-014A			41%	47%	90%	Teaching Rooms
			35%	48%				
29	SSED (FBE)	014-014B			51%	48%	90%	Teaching Rooms
			35%	48%				
30	SSED (FBE)	014-023			61%	49%	90%	Teaching Rooms
			43%	50%				
31	SSED (FBE)	014-027			29%	42%	90%	Teaching Rooms
			47%	46%				
32	SSED (FBE)	014-103			40%	34%	90%	Teaching Rooms
			33%	31%				

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33	SSED (FBE)	014-111			34%	34%	90%	Teaching Rooms
			25%	28%				
34	SSED (FBE)	014-112			35%	29%	90%	Teaching Rooms
			23%	34%				
35	SSED (FBE)	014-113			55%	109%	90%	Teaching Rooms
			40%	48%				
36	SSED (FBE)	014-114			56%	49%	90%	Teaching Rooms
			39%	46%				
37	SSED (FBE)	014-115			54%	46%	90%	Teaching Rooms
			36%	49%				
38	SSED (FBE)	014-116			53%	45%	90%	Teaching Rooms
			34%	49%				
39	SSED (FBE)	014-117			49%	48%	90%	Teaching Rooms
			35%	48%				
40	SSED (FBE)	014-FBEA01			71%	30%	90%	Teaching Rooms
			53%	21%				
41	SSED (FBE)	014-FBEA023			29%	32%	90%	Teaching Rooms
			36%	33%				
42	Stham Campus	202-103					90%	Teaching Rooms
			39%	47%				
43	Stham Campus	202-111					90%	Teaching Rooms
			56%	41%				
44	Stham Campus	202-112					90%	Teaching Rooms
			50%	40%				
45	Stham Campus	202-204A			117%	104%	90%	Teaching Rooms
			51%	35%				
46	Stham Campus	202-204B			20%	133%	90%	Teaching Rooms
			71%	41%				
47	ICT	048-317			35%	30%	90%	Teaching Rooms
			51%	28%				
	TOTAL		43%	44%	48%	48%	90%	

9.3.3

Room Occupancy for Not Centrally Timetabled Rooms						
No	Building	Room No.	Semester 2 2014	Semester 1 2014	Space Management Policy	Type of Space
			Audited Room Occupancy	Audited Room Occupancy		

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1	Old CFS	003-029		3%	90%	Teaching Room
2	Main SPAS (FSTE)	010-131	1%	42%	90%	Teaching Room
3	SSED (FBE)	014-Glass	3%	44%	90%	Teaching Room
4	SSED (FBE)	014-Tourism Room	27%	28%	90%	Teaching Room
5	SSED (FBE)	014-Post Grad Lecture Rm	0%	2%	90%	Teaching Room
6	Humanities (FALE)	019-300	10%	9%	90%	Teaching Room
7	Humanities (FALE)	019-301	10%	10%	90%	Teaching Room
8	Humanities (FALE)	019-401	10%	6%	90%	Teaching Room
9	CELT	091-113	5%	70%	90%	Teaching Room
10	Main Marine Studies	118-GE101	2%	1%	90%	Teaching Room
11	Main Marine Studies	134-FIO LAB	32%	21%	90%	Computer Lab
12	Main Marine Studies	118-GIS1	38%	22%	90%	Computer Lab
13	Main Marine Studies	118-GIS2	25%	22%	90%	Computer Lab
14	Statham Campus	201-Com Lab	14%	17%	90%	Computer Lab
15	Statham Campus	201-Lecture room	9%	24%	90%	Lecture Theatre
16	Statham Campus	201-Moot Court	1%	2%	90%	Teaching Room
17	Statham Campus	202-105	9%	20%	90%	Teaching Room
19	Statham Campus	202-113	12%	6%	90%	Teaching Room

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20	Statham Campus	206-MBA Lab 1	2%	6%	90%	Computer Lab
21	Statham Campus	206-MBA Lab 2	8%	1%	90%	Computer Lab
22	Statham Campus	206-MBA Conference	4%	12%	90%	Teaching Room
23	Statham Campus	206-MBA Lecture Rm1	2%	11%	90%	Lecture Theatre
24	Statham Campus	206-MBA Lecture Rm2	1%	6%	90%	Lecture Theatre
25	Communication	020-ITS 19	13%	30%	90%	Computer Lab
26	Communication	020-ITS 20	13%	17%	90%	Computer Lab
27	ICT A	047- G.Lab A1	43%	40%	90%	Computer Lab
28	ICT A	047- G.Lab A2	46%	2%	90%	Computer Lab
29	AusAid	093-008	44%	40%	90%	Computer Lab
30	AusAid	093-101	43%	39%	90%	Computer Lab
31	AusAid	093-102	49%	39%	90%	Computer Lab
32	AusAid	093-105	46%	46%	90%	Computer Lab
33	AusAid	093-106	49%	42%	90%	Computer Lab
34	Engineering	009-Electronics	0%	4%	75%	Specialized Lab
		TOTAL	18%	20%		

9.3.4

Room Occupancy for Laboratory

			Semester 2 2014		Semester 1 2014			
No.	Building	Room No.	Audited Room Occupancy	Planned Room Occupancy	Audited Room Occupancy	Planned Room Occupancy	Space Management Policy	Type of Space

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1	Engineering	009-120	55%	50%	35%	43%	75%	Specialized Lab
2	Engineering	009-FLUID	13%	47%	9%	44%	75%	Specialized Lab
3	Engineering	009-INTEL	35%	44%	0%	50%	75%	Specialized Lab
4	Engineering	009-TECH	13%	51%	64%	39%	75%	Specialized Lab
5	Chemistry	090-007	41%	50%	54%	50%	75%	Specialized Lab
6	Chemistry	090-010	32%	50%	82%	50%	75%	Specialized Lab
7	Main SPAS (FSTE)	010-030	30%	50%	58%	49%	75%	Specialized Lab
8	Main SPAS (FSTE)	010-032	59%	50%	62%	21%	75%	Specialized Lab
9	Main SPAS (FSTE)	010-053	32%	50%	24%	50%	75%	Specialized Lab
10	Main SPAS (FSTE)	010-102	32%	46%	66%	47%	75%	Specialized Lab
11	Main SPAS (FSTE)	010-120	64%	50%	65%	55%	75%	Specialized Lab
12	Main SPAS (FSTE)	010-142	41%	50%	84%	50%	75%	Specialized Lab
13	Main SPAS (FSTE)	010-152	60%	50%	98%	50%	75%	Specialized Lab
14	ICT B	048-324	40%	47%	43%	86%	90%	Computer Lab
15	ICT B	048-327	93%	70%	131%	73%	90%	Computer Lab
16	Main Marine Studies	134-124	99%	50%	94%	49%	75%	Specialized Lab
	TOTAL		46%	50%	61%	50%		

Room Occupancy represents the average number of students (enrolled students) in the room when the room is in use, compared to the total room capacity. (See formula below)

$$\text{Occ} = \frac{\text{Total Students (Sum of students for each class the room was in use)}}{\text{Maximum Capacity of the Room} \times \text{Total Number of Hours the room was in use}}$$

Tutorial Audited Occupancy Rates were shown to be lower than the Planned Occupancy Rates. Student attendance at Face to Face tutorial for the audit period is shown to be less than 50% of the expected numbers. As tutorial attendance is normally required for about 80% of classes, with attendance being recorded, it is unclear why such low attendance was noted.

Teaching spaces listed in 8.2.3 are listed on the timetable but are not scheduled by the timetabling software. They are done by individual faculty administrators which manage the space. The data is showing the occupancy of these spaces is generally lower than those timetabled through the central timetabling software.

9.4 Tutorial Rooms Overcrowding

The following tutorial rooms were observed to have individual classes that were overcrowded during the audit period. Although the individual classes were overcrowded, the overall occupancy rates for the rooms were not above the TEFMA benchmarks. It is possible that students were temporarily changing tutorial slots during the audit period, contributing to an imbalance in the distribution of students over the available timetabled rooms.

Overcrowded Classes			
No.	Building	Room No.	No. of Overcrowded Class
1	AusAid	093-001	9
2	AusAid	093-002	11
3	AusAid	093-003	13
4	AusAid	093-004	16
5	AusAid	093-007	13
6	AusAid	093-201	9
7	AusAid	093-202	5
8	AusAid	093-203	3
9	AusAid	093-204	7

10	AusAid	093-205	4
11	AusAid	093-206	4
12	AusAid	093-207	10
13	AusAid	093-208	10
14	Marine Science	134-107B	1
15	Marine Science	134-GEO01	1
16	Marine Science	202-103	9
17	Marine Science	202-014	3
18	Marine Science	202-204B	4
19	Food and Textile	FTFT	1
20	Main SPAS	003-001	7
21	Main SPAS	003-002	8
22	Main SPAS	009-120	1
23	Main SPAS	010-053	3
24	Main SPAS	010-120	3
25	Main SPAS	019-104A	2
26	Main SPAS	019-104B	1
27	Main SPAS	010-032	8
28	Main SPAS	010-102	3
29	Main SPAS	010-111	1
30	Main SPAS	010-142	2
31	Main SPAS	010-152	13
32	SSED	014-009A	1
33	SSED	014-009B	1
34	SSED	014-014B	1
35	SSED	014-103	1
36	SSED	014-111	1
37	SSED	014-113	8
38	SSED	014-112	5
39	SSED	014-114	2
40	SSED	014-115	4
41	SSED	014-117	4

9.5 Room Utilization

Utilization combines Planned Room Occupancy and Planned Room Frequency data to give an indication of how the room is being used. Utilization, as an abstract measure, is only useful as an indicator of rooms requiring further investigation of usage patterns and comparative assessments.

9.5.1

Utilization rates are provided in this report to aid analysis trends in the future.

Utilization Rate for Lecture Theater in Semester 2 2014

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No.	Building	Audited			Planned			Utilization Rate (%)	Space Management Policy
		Room No.	Room Frequency	Room Occupancy	Room Frequency	Room Occupancy	Utilization Rate (%)		
1	AusAid	092-001	51%	23%	12%	56%	31%	17%	81%
2	AusAid	092-003	50%	20%	10%	57%	35%	20%	81%
3	Humanities (FALE)	019-101	37%	18%	7%	61%	25%	15%	81%
4	Main SPAS (FSTE)	010-111	49%	23%	11%	61%	29%	17%	81%
5	Marine Studies	136-001	45%	16%	7%	41%	21%	9%	81%
6	SSED (FBE)	014-024	47%	19%	9%	67%	28%	19%	81%
7	SSED (FBE)	014-025	35%	11%	4%	56%	20%	11%	81%
8	SSED (FBE)	014-028	49%	19%	9%	63%	31%	20%	81%
9	U8	018-001	46%	16%	8%	48%	31%	15%	81%
10	Communication	020-102	44%	31%	14%	43%	28%	12%	81%
	TOTAL		45%	20%	9%	55%	28%	15%	81%

9.5.2

Utilization Rate for Tutorial Rooms for Semester 2 2014

No.	Building	Room No.	Audited		Planned			Utilization Rate (%)	Space Management Policy
			Room Frequency	Room Occupancy	Room Frequency	Room Occupancy	Utilization Rate (%)		
1	AusAid	093-001						81%	
			45%	56%	25%	67%	47%	31%	
2	AusAid	093-002						81%	
			49%	45%	22%	71%	48%	34%	
3	AusAid	093-003						81%	
			53%	63%	33%	61%	50%	30%	

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4	AusAid	093-004							81%
			50%	51%	25%	70%	47%	33%	
5	AusAid	093-007							81%
			49%	52%	25%	59%	48%	28%	
6	AusAid	093-201							81%
			51%	44%	22%	68%	49%	34%	
7	AusAid	093-202							81%
			40%	43%	17%	62%	49%	31%	
8	AusAid	093-203							81%
			39%	37%	14%	62%	42%	26%	
9	AusAid	093-204							81%
			44%	40%	18%	62%	42%	26%	
10	AusAid	093-205							81%
			42%	37%	15%	67%	44%	30%	
11	AusAid	093-206							81%
			41%	39%	16%	61%	40%	25%	
12	AusAid	093-207							81%
			35%	42%	15%	54%	50%	27%	
13	AusAid	093-208							81%
			40%	39%	15%	58%	48%	28%	
14	Food and Textiles Building	FT-FT							81%
			17%	19%	3%	33%	39%	13%	
15	Humanities (FALE)	019-104A							81%
			41%	33%	13%	56%	48%	27%	
16	Humanities (FALE)	019-104B							81%
			44%	31%	14%	62%	42%	26%	
17	Humanities (FALE)	019-105							81%
			32%	36%	11%	54%	42%	23%	
18	Main Marine Studies	134-107A							81%
			46%	18%	8%	56%	28%	16%	
19	Main Marine Studies	134-107B							81%
			39%	42%	16%	49%	49%	24%	

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20	Main Marine Studies	134-GEO01							81%
			36%	51%-	18%	46%	50%	23%	
21	Old CFS Block	003-001							81%
			32%	124%	40%	52%	48%	25%	
22	Old CFS Block	003-002							81%
			42%	59%	25%	56%	48%	27%	
23	Old CFS Block	003-032							81%
			27%	21%	6%	57%	46%	26%	
24	Old CFS Block	003-041							81%
			31%	28%	9%	54%	48%	26%	
25	Old CFS Block	003-042							81%
			43%	26%	11%	54%	46%	25%	
26	SSED (FBE)	014-009A							81%
			55%	78%	43%	51%	62%	32%	
27	SSED (FBE)	014-009B							81%
			50%	48%	24%	72%	50%	36%	
28	SSED (FBE)	014-014A							81%
			41%	35%	15%	59%	48%	28%	
29	SSED (FBE)	014-014B							81%
			50%	35%	17%	62%	48%	30%	
30	SSED (FBE)	014-023							81%
			49%	43%	21%	73%	50%	36%	
31	SSED (FBE)	014-027							81%
			35%	47%	16%	27%	46%	12%	
32	SSED (FBE)	014-103							81%
			29%	33%	10%	35%	31%	11%	
33	SSED (FBE)	014-111							81%
			44%	25%	11%	59%	28%	16%	
34	SSED (FBE)	014-112							81%
			42%	23%	10%	71%	34%	24%	
35	SSED (FBE)	014-113							81%
			45%	40%	18%	68%	48%	33%	
36	SSED (FBE)	014-114							81%
			34%	39%	13%	56%	46%	26%	
37	SSED (FBE)	014-115							81%
			34%	36%	12%	61%	49%	30%	

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38	SSED (FBE)	014-116	37%	34%	13%	65%	49%	32%	81%
39	SSED (FBE)	014-117	29%	35%	10%	56%	48%	27%	81%
40	SSED (FBE)	014-FBEA01	25%	53%	13%	15%	21%	3%	81%
41	SSED (FBE)	014-FBEA023	35%	36%	13%	30%	33%	10%	81%
42	Statham Campus	202-103	22%	39%	8%	38%	47%	18%	81%
43	Statham Campus	202-111	46%	56%	26%	38%	41%	16%	81%
44	Statham Campus	202-112	11%	50%	5%	11%	40%	5%	81%
45	Statham Campus	202-204A	26%	51%	46%	23%	35%	3%	81%
46	Statham Campus	202-204B	28%	71%	64%	27%	41%	5%	81%
47	ICT	048-317	14%	51%	46%	10%	28%	1%	81%
	TOTAL		38%	43%	17%	52%	44%	23%	81%

9.5.3

Utilization Rate for Not Centrally Timetabled Rooms Semester 2.2014

No	Building	Room No.	Audited		Audited Utilization Rate (%)
			Room Frequency	Room Occupancy	
1	FSTE	010-131	7%	1%	0%
2	SSED (FBE)	014-Glass	11%	3%	0%
3	SSED (FBE)	014-Tourism Room	34%	27%	9%
4	SSED (FBE)	014-Post Grad Lecture Rm	4%	0%	0%

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5	Humanities (FALE)	019-300	17%	10%	2%
6	Humanities (FALE)	019-301	18%	10%	2%
7	Humanities (FALE)	019-401	22%	10%	2%
8	CELT	091-113	11%	5%	1%
9	Main Studies Marine	118-GE101	4%	2%	0%
10	Main Studies Marine	134-FIO LAB	51%	32%	16%
11	Main Studies Marine	118-GIS1	67%	38%	26%
12	Main Studies Marine	118-GIS2	51%	25%	13%
13	Stham Campus	201-Com Lab	47%	14%	6%
14	Stham Campus	201-Lecture rm	44%	9%	4%
15	Stham Campus	201-Moot Court	4%	1%	0%
16	Stham Campus	202-105	29%	9%	3%
17	Stham Campus	202-113	30%	12%	4%
18	Stham Campus	206-MBA Lab 1	19%	2%	0%
19	Stham Campus	206-MBA Lab 2	20%	8%	1%
20	Stham Campus	206-MBA Conference	10%	4%	0%
21	Stham Campus	202-113 MBA Lecture Rm1	16%	2%	0%
22	Stham Campus	206-MBA Lecture Rm2	2%	1%	0%
23	Communication	020-ITS 19	34%	13%	4%
24	Communication	020-ITS 20	34%	13%	5%
25	ICT A	047- G.Lab A1	76%	43%	32%
26	ICT A	047- G.Lab A2	79%	46%	36%
27	AusAid	093-008	84%	44%	37%
28	AusAid	093-101	74%	43%	32%
29	AusAid	093-102	77%	49%	38%
30	AusAid	093-105	76%	46%	35%

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31	AusAid	093-106	77%	49%	38%
32	Engineering	009-Electronics	15%	0%	0%
TOTAL			36%	18%	11%

9.5.4

Utilization Rate for Lab Semester 2 2014

No.	Building	Room No.	Room Frequency	Audited			Planned		
				Room Occupancy	Utilization Rate (%)	Room Frequency	Room Occupancy	Utilization Rate (%)	Space Management Policy
1	Engineering	009-120	6%	55%	3%	8%	50%	4%	37.5%
2	Engineering	009-FLUID	9%	13%	1%	42%	47%	19%	37.5%
3	Engineering	009-INTEL	15%	35%	5%	11%	44%	5%	37.5%
4	Engineering	009-TECH	14%	13%	2%	49%	51%	25%	37.5%
5	Chemistry	090-007	28%	41%	12%	44%	50%	22%	37.5%
6	Chemistry	090-010	29%	32%	9%	44%	50%	22%	37.5%
7	Main SPAS (FSTE)	010-030	17%	30%	5%	29%	50%	15%	37.5%
8	Main SPAS (FSTE)	010-032	35%	59%	21%	46%	50%	23%	37.5%
9	Main SPAS (FSTE)	010-053	11%	32%	4%	25%	50%	13%	37.5%
10	Main SPAS (FSTE)	010-102	18%	32%	6%	41%	46%	19%	37.5%
11	Main SPAS (FSTE)	010-120	20%	64%	13%	25%	50%	13%	37.5%
12	Main SPAS (FSTE)	010-142	27%	41%	11%	34%	50%	17%	37.5%
13	Main SPAS (FSTE)	010-152	15%	60%	9%	29%	50%	15%	37.5%
14	ICT B	048-	34%	40%	14%	41%	47%	19%	81%

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		324							
15	ICT B	048-327	25%	93%	23%	20%	70%	14%	81%
16	Main Marine Studies	134-124	27%	99%	27%	46%	50%	23%	37.5%
	TOTAL		21%	46%	10%	33%	50%	17%	