


- PROCESS
- IMPORTANCE
- DEFINITIONS
- INVENTORIES
- MANAGEMENT
- PROGRAM NEEDS
- ANALYSIS
- TRENDS

SPACE PLANNING AND MANAGEMENT

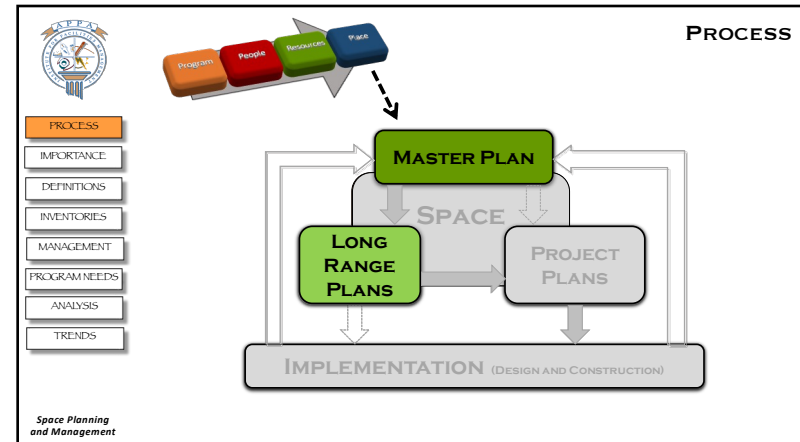


PROVIDENCE, RI
SEPTEMBER 2022


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JOE@JBA1.COM

Space Planning and Management

1




2



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WHY IS IT IMPORTANT?



HERMAN / Jim Unger

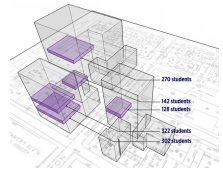
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3



- PROCESS
- IMPORTANCE
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- INVENTORIES
- MANAGEMENT
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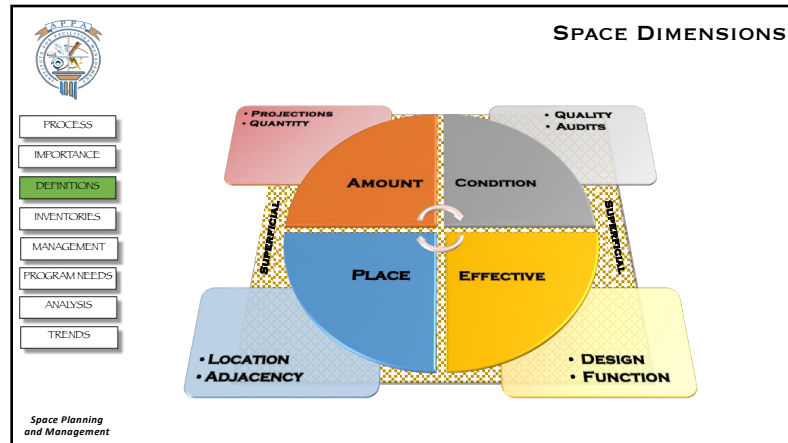
SPACE USE NEEDED FOR.....



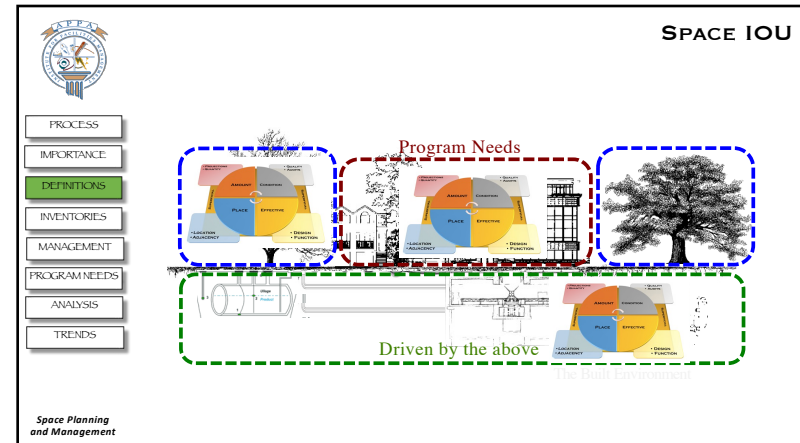
- Master Planning
- Long Range Planning
- Building Programming
- Accreditation Issues
- Budget/Funding Requests
- Maintenance/Repair and Replacement Issues
- Space Efficiency Studies
- Appropriate Space Allocations
- Understand Space Adjacencies
- Research Accountability
- Proper Space Use – Program Locations
- Operating Cost Allocations

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4



5



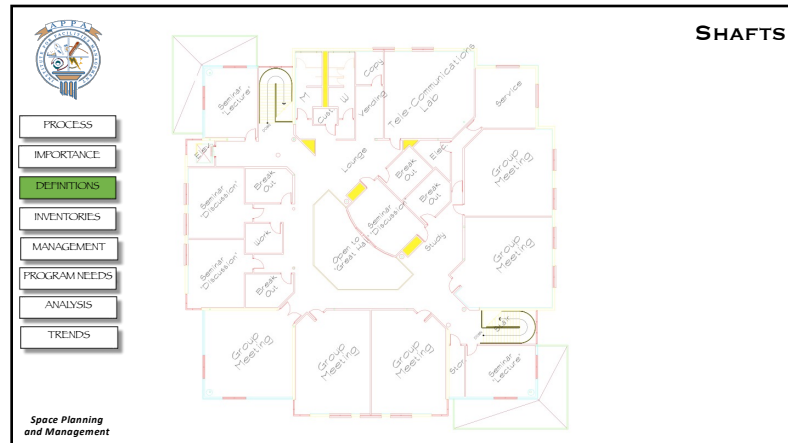
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12


SOME FUN SPACE FACTS

Percent of Useable ASF – GSF

- Office
- Classroom
- Library
- Research Laboratory
- Other

Largest Campuses

Percent Campus Space



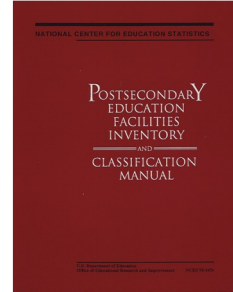
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13

FICM

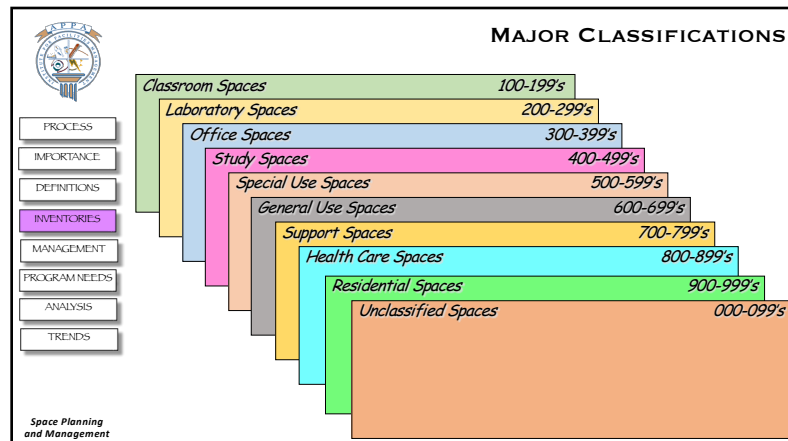
Post Secondary Education
Facilities Inventory and
Classifications Manual

National Center for Education
Statistics, Revised and Reprinted
April 1997, NCES (92-165r)
nces.ed.gov/pubs/92165.pdf



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14



15

CLASSROOM SPACES



110 Classroom
115 Classroom Service

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16

LABORATORY SPACES

210 Class Laboratory
 215 Class Laboratory Service
 220 Open Laboratory
 225 Open Laboratory Service
 250 Research/Nonclass Laboratory
 255 Research/Nonclass Laboratory Service

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17

OFFICE SPACES

310 Office
 315 Office Service
 350 Conference Room
 355 Conference Room Service

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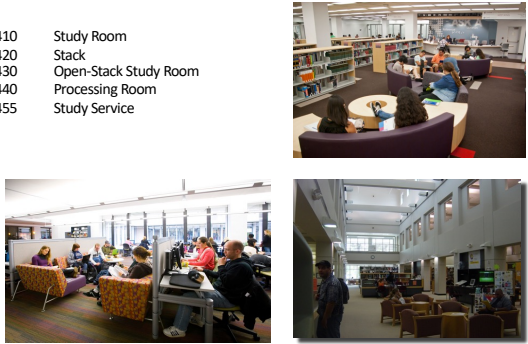


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STUDY SPACES

410 Study Room
 420 Stack
 430 Open-Stack Study Room
 440 Processing Room
 455 Study Service

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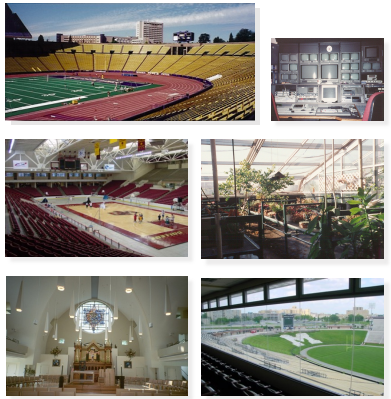


19

SPECIAL USE SPACES

510 Armory
 515 Armory Service
 520 Athletic or Physical Education
 523 Athletic Spectator Seating
 525 Athletic or PE Education Service
 530 Media Production
 535 Media Production Service
 540 Clinic
 545 Clinic Service
 550 Demonstration
 555 Demonstration Service
 560 Field Building
 570 Animal Facilities
 575 Animal Facilities Service
 580 Greenhouse
 585 Greenhouse Service
 590 Other (All Purpose)

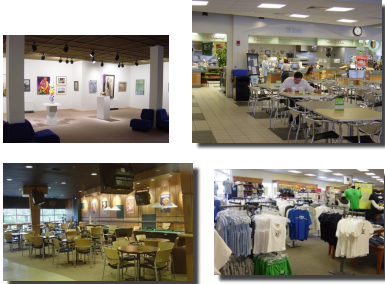
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20

GENERAL USE SPACE

610 Assembly
615 Assembly Service
620 Exhibition
625 Exhibition Service
630 Food Facility
635 Food Facility Service
640 Day Care
645 Day Care Service
650 Lounge
655 Lounge Service
660 Merchandising
665 Merchandising Service
670 Recreation
675 Recreation Service
680 Meeting Room
685 Meeting Room Service

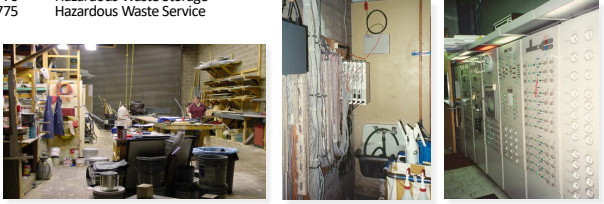


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21

SUPPORT SPACES

710 Central Computer or Telecommunications
715 Central Computer or Telecommunications Service
720 Shop
725 Shop Service
730 Central Storage
735 Central Storage Service
740 Vehicle Storage
745 Vehicle Storage Service
750 Central Service
755 Central Service Support
760 Hazardous Materials Storage
770 Hazardous Waste Storage
775 Hazardous Waste Service




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22

HEALTH SPACES

810 Patient Bedroom
815 Patient Bedroom Service
820 Patient Bath
830 Nurse Station
835 Nurse Station Service
840 Surgery
845 Surgery Service
850 Treatment/Examination Clinic
855 Treatment/Examination Clinic Service
860 Diagnostic Service Laboratory
865 Diagnostic Service Laboratory Support
870 Central Supplies
880 Public Waiting
890 Staff On-Call Facility
895 Staff On-Call Facility Service



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23

RESIDENTIAL SPACES


910 Sleep/Study Without Toilet or Bath
919 Toilet or Bath
920 Sleep/Study With Toilet or Bath
935 Sleep/Study Service
950 Apartment
955 Apartment Service
970 House




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24

NON-ASSIGNABLE AND UNCLASSIFIED SPACES



000 Unclassified Facilities
 050 Inactive Area
 060 Alteration or Conversion Area
 070 Unfinished Area
 WWW Circulation Area
 W01 Bridge/Tunnel
 W02 Elevator
 W03 Escalator
 W04 Loading Dock
 W05 Lobby
 W06 Public Corridor
 W07 Stairway
 XXX Building Service Area
 X01 Custodial Supply Closet
 X02 Janitor Room
 X03 Public Rest Room
 X04 Trash Room
 YYY Mechanical Area
 Y01 Central Utility Plant
 Y02 Fuel Room
 Y03 Shaft
 Y04 Utility/Mechanical Space




PROCESS
 IMPORTANCE
 DEFINITIONS
 INVENTORIES
 MANAGEMENT
 PROGRAM NEEDS
 ANALYSIS
 TRENDS


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25

MANAGING THE INVENTORY



Correct Classifications/Consistency
 Unclassified Spaces
 Multipurpose or Multi Use
 Level of Public Access
 Unique Sub-codes
 Don't Confuse User with Use




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 IMPORTANCE
 DEFINITIONS
 INVENTORIES
 MANAGEMENT
 PROGRAM NEEDS
 ANALYSIS
 TRENDS


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26

WAYS TO MANAGE SPACE



Team vs Office
 FM vs. Other
 Space Requests
 Perceptions Regarding Costs
 Evaluations
 Lease Back Programs




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 IMPORTANCE
 DEFINITIONS
 INVENTORIES
 MANAGEMENT
 PROGRAM NEEDS
 ANALYSIS
 TRENDS

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27

USE OF GUIDELINES



❖ University Space Planning Guidelines by Bariether & Schillinger
 ❖ WICHE Higher Education Facilities Planning and Management Manuals
 ❖ CEPPI Space Planning Guidelines for Institutions of Higher Education

❖ Association of Physical Plant Administrators
 ❖ Mandated Guidelines

❖ **CREATE YOUR OWN**

PROCESS
 IMPORTANCE
 DEFINITIONS
 INVENTORIES
 MANAGEMENT
 PROGRAM NEEDS
 ANALYSIS
 TRENDS

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28



PROCESS

IMPORTANCE

DEFINITIONS

INVENTORIES

MANAGEMENT

PROGRAM NEEDS

ANALYSIS

TRENDS

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PROGRAM VS. SPACE

Classroom Buildings

Research Centers

Libraries

Residence Halls


Clinics

Day Care Centers

Bookstores




29



PROCESS

IMPORTANCE

DEFINITIONS

INVENTORIES

MANAGEMENT


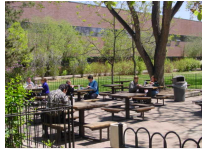




PROGRAM NEEDS

ANALYSIS

TRENDS

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OUTDOOR SPACE

30



PROCESS

IMPORTANCE

DEFINITIONS

INVENTORIES

MANAGEMENT

PROGRAM NEEDS

ANALYSIS

TRENDS

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RE-EVALUATING PROGRAM NEEDS




Writer and Semiotics Expert, Steve Johnson

Where do Good Ideas Come From?

http://www.ted.com/talks/steven_johnson_where_good_ideas_come_from.html

31



PROCESS

IMPORTANCE

DEFINITIONS

INVENTORIES

MANAGEMENT


PROGRAM NEEDS

ANALYSIS

TRENDS


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CLASSROOM AND INSTRUCTIONAL LAB ANALYSIS



**TIME
DEPENDENT**

- ❖ Contact Hours vs. Credit Hours
- ❖ Additional Uses
- ❖ Room Utilization
- ❖ Station Efficiency
- ❖ ASF per station
- ❖ Learning Methodologies



32

CLASSROOM ANALYSIS

CONTACT HOURS
 $\text{Weekly Hours} * \text{Room Utilization} * \text{Station Efficiency}$
 $= \text{Number of Stations}$
 $\# \text{ Stations} * \text{ASF per Station} =$
TOTAL ASF

600 stdnts * 2 credits * 1 contacts/day or 1200
 40 Hours * 75% Utilization * 67% Station Efficiency or 20.1
 $1200/20.1 = 59.7$ or 60 Stations
 60 Stations * 30 ASF per Station =
1800 TOTAL ASF

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33

LABORATORY ANALYSIS

CONTACT HOURS
 $\text{Weekly Hours} * \text{Room Utilization} * \text{Station Efficiency}$
 $= \text{Number of Stations}$
 $\# \text{ Stations} * \text{ASF per Station} =$
TOTAL ASF

600 stdnts * 2 credits * 4 contacts/day or 4800
 40 Hours * 50% Utilization * 80% Station Efficiency or 16
 $4800/16 = 300$ Stations
 300 Stations * 60 ASF per Station =
18,000 TOTAL ASF

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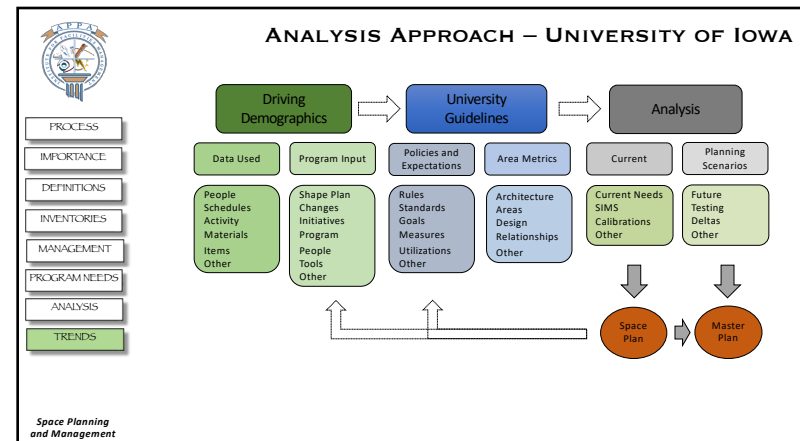
34

SPACE MODELING

❖ Scenario Planning
 ❖ Testing by Administration
 ❖ Testing Operations
 ❖ Data Driven Analysis
 ❖ Can Adjust as Campus Changes
 ❖ Multiple Uses
 ❖ NO REPORTS !

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35



36



PROCESS

IMPORTANCE

DEFINITIONS

INVENTORIES

MANAGEMENT

PROGRAM NEEDS

ANALYSIS

TRENDS



INCREASED USE

Session	A	Guest Lecture Series			1
Session	A	Guest Lecture (single community)			
Session	A	Session (all day, noncredit)			
Session	A	Special Conferences			
Session	A	Training Sessions			
Session	B	Symposiums			1
Session	B	Colloquia			24
Session	C	Conferences			
Session	C	Workshops			
Session	C	Exams, IQG's			
Session	C	IGG's			
Session	D	Administrative Meetings		1	1
Session	D	Academic Meetings			
Session	D	Research Meetings			
Session	D	IGG Meetings/IGGing		1	24
Session	D	Reading Group/IGG			
Session	D	Student/IGG Meetings		1	24
Session	E	Dept. Parties/Gatherings			
Session	E	Academic Conferences			
Session	E	Welcome/Receptions		4	16
Session	E	Graduation Event			
Session	E	Other Small Group Gatherings			
Session	F	Recruitment			
Session	F	Interviews			
Session	G	Poster Sessions			
Session	H	IGG's and Others (non-IGG)			
Session	H	Large Presentation (all students)			
Session	I	Other			

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37



PROCESS

IMPORTANCE

DEFINITIONS

INVENTORIES

MANAGEMENT

PROGRAM NEEDS

ANALYSIS


TRENDS



TEACHING AND LEARNING PEDAGOGIES

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38



PROCESS

IMPORTANCE

DEFINITIONS

INVENTORIES

MANAGEMENT

PROGRAM NEEDS



ANALYSIS

TRENDS

TEACHING AND LEARNING PEDAGOGIES



Seminar

Instructional space intended for focused group work. Instructor is typically part of the group and does not lecture for a few minutes per class period. The majority of the class time consists of interaction among the students. Teaming, collaboration, and discussion are most prevalent.


Lecture

The traditional classroom space supporting didactic pedagogies of varying class sizes. Space may include minor two-way communication using clickers or computers but its primary purpose is lecture based instruction. Larger rooms are tiered and are not very flexible.

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39



PROCESS

IMPORTANCE

DEFINITIONS

INVENTORIES

MANAGEMENT

PROGRAM NEEDS



ANALYSIS

TRENDS

TEACHING AND LEARNING PEDAGOGIES

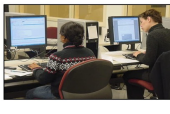

Grouping/Pods

Group learning spaces promote a combination of lecture based instruction with the capability of breaking out into small groups. Spaces promote a variety of pedagogies in class period. Project teaming and discussion occur periodically during a class period.


Computer

Instructional space that requires the use of computers for the majority of the class period. Computer classes can be used by a variety of programs. Space can also double as open lab time when classes are not being held. Hardware and software's are typically common amongst many programs.

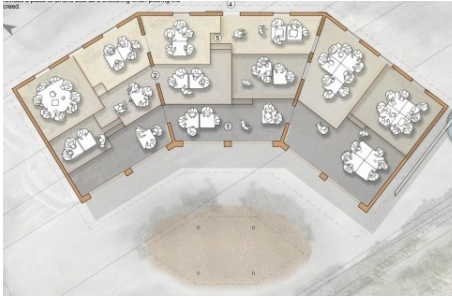
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40




- PROCESS
- IMPORTANCE
- DEFINITIONS
- INVENTORIES
- MANAGEMENT
- PROGRAM NEEDS
- ANALYSIS
- TRENDS

TEACHING AND LEARNING PEDAGOGIES



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41





- PROCESS
- IMPORTANCE
- DEFINITIONS
- INVENTORIES
- MANAGEMENT
- PROGRAM NEEDS
- ANALYSIS
- TRENDS

TEACHING AND LEARNING PEDAGOGIES


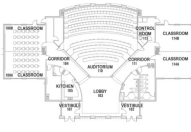
Flexible/Adaptable/Multi-Environment

Adaptable Spaces are those that can be configured in a variety of ways. These spaces are meant to support change within the hour. They are not conducive to any one type of pedagogy.

Lecture Breakout

A space where a large lecture would meet for part of the class time, then break out into private spaces, possibly meeting again as a large lecture before completing the class period.

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42



- PROCESS
- IMPORTANCE
- DEFINITIONS
- INVENTORIES
- MANAGEMENT
- PROGRAM NEEDS
- ANALYSIS
- TRENDS

TEACHING AND LEARNING PEDAGOGIES

Table Based

This is similar to a lecture space but has a large table, per person, for private and quiet (not teaming or group work) work when not lecturing.




Telepresence (video conference)

Smaller classrooms with video-conference capabilities. These spaces require connectivity with other locations on a continuous basis (almost every class period).




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43





- PROCESS
- IMPORTANCE
- DEFINITIONS
- INVENTORIES
- MANAGEMENT
- PROGRAM NEEDS
- ANALYSIS
- TRENDS

TEACHING AND LEARNING PEDAGOGIES



Presentation

This space is a sharable classroom with tools to train/teach proper presentation skills. Recording capability and feedback from the audience is essential.

Movement

This classroom is for instruction that requires physical movement of students but is not unique enough to be considered a laboratory. This can be seen in the arts, humanities, fitness, and other programs.

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44

2D VS 3D

PROCESS

IMPORTANCE

DEFINITIONS

INVENTORIES

MANAGEMENT

PROGRAM NEEDS


ANALYSIS

TRENDS

❖ Most Space Planning is One-Dimensional

❖ Master Planning vs. Project Planning

❖ Postage Stamp vs. Performance Hall



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49

2D VS 3D

PROCESS

IMPORTANCE

DEFINITIONS

INVENTORIES

MANAGEMENT

PROGRAM NEEDS

ANALYSIS

TRENDS

130 vs 6000

15X



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50

SPACE AUDITS

PROCESS

IMPORTANCE

DEFINITIONS

INVENTORIES

MANAGEMENT

PROGRAM NEEDS

ANALYSIS

TRENDS

Building Name: Trade Hall


Building Number: DBH

Net Sq. Ft.: 16,307

Gross Sq. Ft.: 20,094

Quality Level: **3.1289**

0-1 Repair and Replace
1-2 Major Improvements
2-3 Minor Improvements
3-4 Meets Program Needs
4-5 Exceed Program Needs



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Room Information			Design		Light		Equipment		Environment		Average Quality Level				
Room Number	Space Type (FTE/CA Code)	Room Area (sq. ft.)	Accessibility	Workstations	Layout	Flexibility	Finishes	Natural	Artificial	Technology		Equipment	Power	Air Quality	Acoustics
1	CIRC	365	3	3	3	3	3	3	3	3	3	3	3	3	3.00
1A	CIRC	152	3	3	3	3	3	3	3	3	3	3	3	3	3.00
1B	CIRC	56	3	3	3	3	3	3	3	3	3	3	3	3	3.00
1C	CIRC	12	3	3	3	3	3	3	3	3	3	3	3	3	3.00
1D	CIRC	171	3	3	3	3	3	3	3	3	3	3	3	3	3.00
2	CUST	338	4	3	2	3	4	4	4	4	4	4	2	4	3.50
3	MECH	83	4	4	4	4	4	4	4	4	4	4	2	4	3.83
4	CIRC	55	3	3	3	3	3	3	3	3	3	3	3	3	3.00
4A	CIRC	36	3	3	3	3	3	3	3	3	3	3	3	3	3.00
5	LBSV	219	3	3	3	3	3	3	3	3	3	3	3	3	3.00
6	CUST	79	3	3	3	3	3	3	3	3	3	3	3	3	3.00
7	OLAB	519	3	3	3	3	3	3	3	3	3	3	3	3	3.00
8	COML	47	3	3	3	3	3	3	3	3	3	3	3	3	3.00
9	OFF	136	3	3	3	3	3	3	3	3	3	3	3	3	3.00
9A	OLAB	80	3	3	3	3	3	3	3	3	3	3	3	3	3.00
10	ARCL	1461	4	4	4	4	4	4	4	4	4	4	3	4	3.75
11	OFF	164	2	2	2	2	2	4	3	4	4	2	2	3	2.67

Weighting (1-3, must add to 24) Total Weighting 24

51

STUDENT EXPECTATIONS

PROCESS

IMPORTANCE

DEFINITIONS

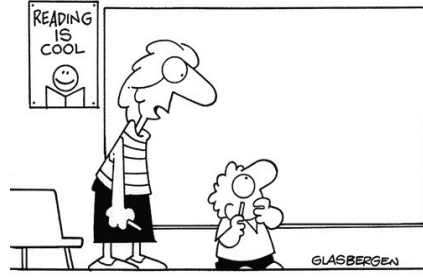
INVENTORIES

MANAGEMENT

PROGRAM NEEDS

ANALYSIS


TRENDS



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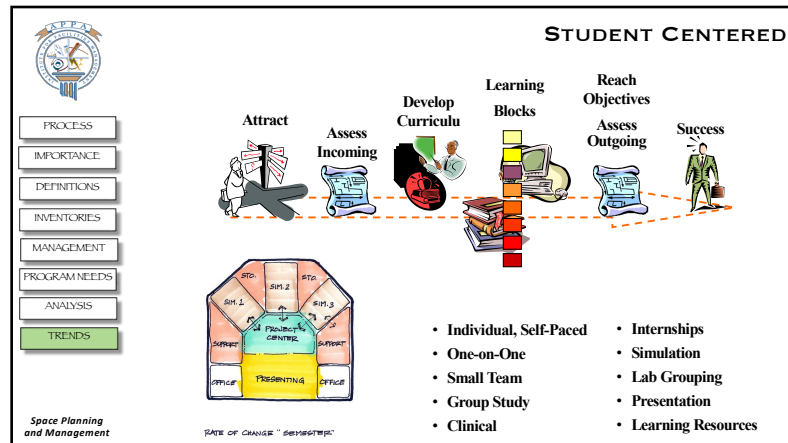
GLASBERGEN

"There aren't any icons to click. It's a chalk board."

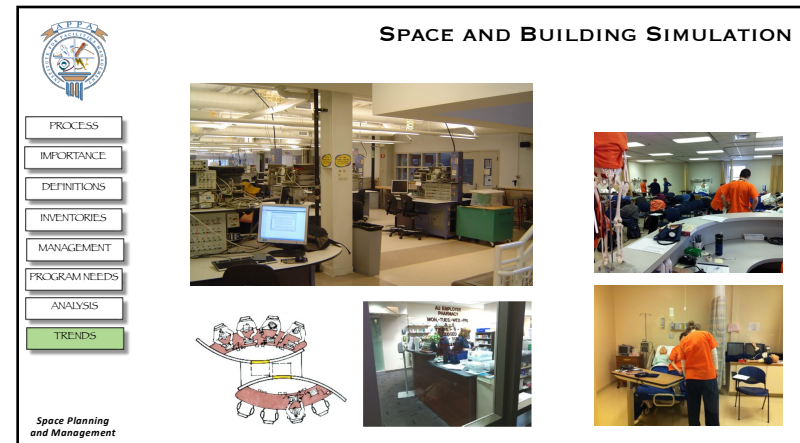


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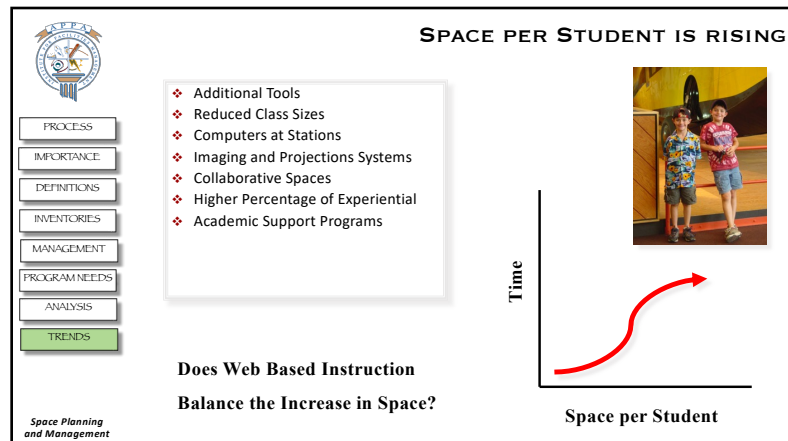
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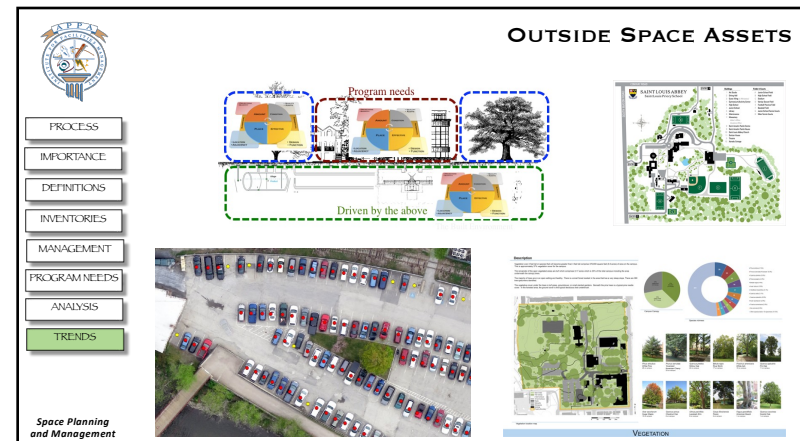
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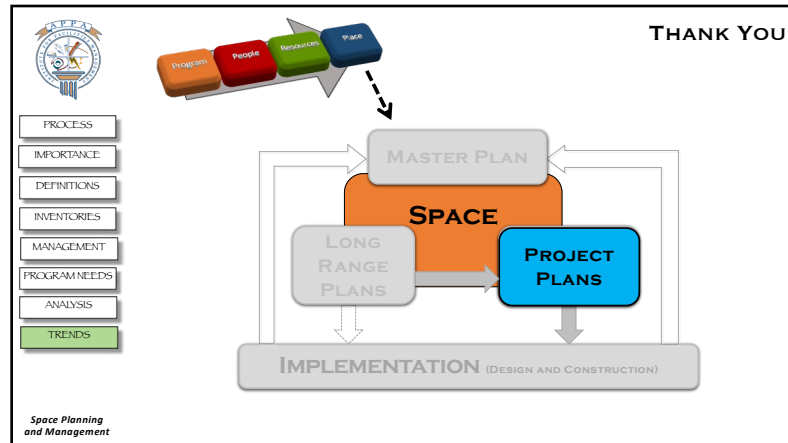
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55



56



57