

# Custodial Services

The Fundamentals  
in 60 Minutes



1

---

---

---

---

---

---

---

---

**This course is part of The American Institute of Architects Continuing Education Systems**

AIA  
Continuing  
Education  
Provider

Credit(s) earned on completion of this course will be reported to American Institute of Architects (AIA) Continuing Education Session (CES) for AIA members.

Certificates of Completion for both AIA members and non-AIA members are available upon request.

This course is registered with AIA CES for continuing professional education. As such, it does not include content that may be deemed or construed to be an approval or endorsement by the AIA of any material of construction or any method or manner of handling, using, distributing, or dealing in any material or product.



Questions related to specific materials, methods, and services will be addressed at the conclusion of this presentation.

2

---

---

---

---

---

---

---

---



AIA  
Continuing  
Education  
Provider

## Course Description

### 204 Custodial Services APPAU201909D

Discuss the contemporary approaches to managing an effective custodial services operation. The presentation will include ideas on organization and staffing, equipment and supplies, and employee training. Special issues such as medical waste, hazardous materials, MSDS, and recycling will be included in the discussion. Explore customer relations, quality control, scheduling and shift alternatives, and contract alternatives.

Faculty: Lynne Finn

### Learning Objectives

1. Learn what equipment is necessary to maintain higher education buildings.
2. Learn what is required when handling medical waste, hazardous materials, and recycled goods.
3. Learn how custodial staff relate to students.
4. Learn what is needed for staff training.

3

---

---

---

---

---

---

---

---

## Fundamentals in 60 minutes

Motivation  
Equipment  
Supplies/Materials  
Staffing  
Organization  
Training  
Communication  
Assessment



APPA Institute for Facilities Management

---

---

---

---

---

---

---

---

4

## Fundamentals of Custodial Services



APPA Institute for Facilities Management

---

---

---

---

---

---

---

---

5

## Fundamental: Motivation

**Don't underestimate  
the power of DIRTY!**

- The meaning of the word "custodian"
- Extends facilities useful life
- Identifies building maintenance problems
- Contributes to "green" campus environment
- Creates safe environment
- Impacts customer satisfaction
- Ensures success of programs
- Influences campus life on a daily basis
- Comprises large % of total PP operation \$\$

APPA Institute for Facilities Management

---

---

---

---

---

---

---

---

6

# Fundamentals of Custodial Services



APPA Institute for Facilities Management

7

---

---

---

---

---

---

---

---

## Fundamental: Equipment

- Inventory
- Repairs
- Routine replacement schedule
- Automate where possible

APPA Institute for Facilities Management

8

---

---

---

---

---

---

---

---

## Cost/Payback Analysis – Rider Floor Machine

Operation Times	Time now (min)	Time w/ Rider (min)
Biostress	150	64
Rotunda	90	26
NFA	45	28
Admin	105	59
CHE	115	55
DM	90	33
Minutes Daily	585	265
Hrs Daily	9.75	4.42
Hrs Annually	2525.25	1143.92
Cost of Labor	\$50,505	\$22,873

**+ \$27,627**

APPA Institute for Facilities Management

9

---

---

---

---

---

---

---

---

### Cost/Payback Analysis – Rider Floor Machine

Labor Savings	\$27,627
Rider Cost	\$10,200
Trailer	\$5,000
Extra Deck	\$2,500
Total Investment	\$17,700
Payback in Months	7.69

APPA Institute for Facilities Management

10

---

---

---

---

---

---

---

---

---

---

### Cost/Payback Analysis – Rider Floor Machine

Soap Scrubbing Operation – Typical Hallway

Time Now	Time with Rider
3 people	1 person
Steps: Dust mop Water spin Scrubber Wet dry Rinse water Wet dry	Steps: Tire Damp reload
360 minutes	33 minutes

91%  
reduction  
in labor  
time

APPA Institute for Facilities Management

11

---

---

---

---

---

---

---

---

---

---

### Cost/Payback Analysis – Rider Floor Machine

Other Considerations:

- Saved hours of use on other equipment
- Consistent quality level of clean
- Emphasis on the “first impression” – halls
- Potential reduction in injuries
- Increase intervals between complete stripping operations

APPA Institute for Facilities Management

12

---

---

---

---

---

---

---

---

---

---

Examples of Potential Savings				
Automated Scrubbing Operation - Seamans Center Hallways				
		Before	After	% Saved
Estimated Annual Labor		\$ 69,261	\$ 13,319	81%
Projected Total Cost over Service Life		\$ 346,064	\$ 82,193	76%
Automated Burnishing Operation - Seamans Center Hallways				
		Before	After	% Saved
Estimated Annual Labor		\$ 4,828	\$ 2,331	52%
Projected Total Cost over Service Life		\$ 27,900	\$ 23,126	17%
Automated Vacuuming Operation - USB Second Floor Carpeted Circulation Area				
		Before	After	% Saved
Estimated Annual Labor		\$ 16,550	\$ 2,748	83%
Projected Total Cost over Service Life		\$ 83,396	\$ 21,797	74%

13

13

---

---

---

---

---

---

---

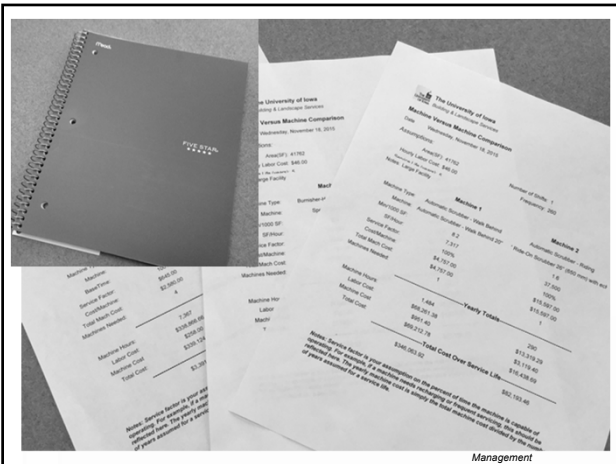
---

---

---

---

---



Management

14

---

---

---

---

---

---

---

---

---

---

---

---

### Fundamental: Equipment

- Inventory control
- Repairs
- Employee accountability and involvement
- Routine replacement schedule
- Automate where possible
- Use properly/training
- What's new?
- "Green" equipment

APPA Institute for Facilities Management

15

---

---

---

---

---

---

---

---

---

---

---

---

# Fundamentals of Custodial Services



APPA Institute for Facilities Management

16

---

---

---

---

---

---

---

---

## Fundamental: Supplies and materials

- Working relationship (not marriage 😊) with vendors
- Try new products (but informed change)
- Benefits of standardization
- Bulk vs pre-packaged
- Inventory and control
- Understand the science
- Right products for the right job
- “Green” supplies and materials

APPA Institute for Facilities Management

17

---

---

---

---

---

---

---

---

# Fundamentals of Custodial Services



APPA Institute for Facilities Management

18

---

---

---

---

---

---

---

---

**Fundamental:  
Staffing**

*The PEOPLE will  
determine your level of  
success!*

- For new facilities?
- Looking at efficiency measures?
- “Green” staffing considerations
- Under cutback pressure?
- Is outsourcing under consideration?

Staffing matters.....The 80/20 Rule

APPA Institute for Facilities  
Management

19

---

---

---

---

---

---

---

---

**Staffing  
Calculation Methods**

- By square foot
- By fixture
- By similar space
- By task/frequency/service level

Any system is not exact....beware of the “extras”!  
Other tasks either assigned or unassigned that  
will take away from available “cleaning” hours

APPA Institute for Facilities  
Management

20

---

---

---

---

---

---

---

---

**Use formulas or estimates to  
answer staffing questions**

How many square feet should each  
of the employees be cleaning?

With the staff that you have assigned are you  
achieving the results  
as shown by industry standard?

How do we increase our cleaning results from  
one level to another?

APPA Institute for Facilities  
Management

21

---

---

---

---

---

---

---

---

**Staffing Levels and Results**

Clean?  
Cleaner?  
Cleanest?

A successful staffing plan will define results

Defining clean

Clean = Frequencies

APPA Institute for Facilities Management

22

---

---

---

---

---

---

---

---

**APPA Appearance Levels**

Level 1 – Orderly Spotlessness

Level 2 – Orderly Tidiness

Level 3 – Casual Inattention

Level 4 – Moderate Dinginess

Level 5 – Unkempt Neglect

APPA Institute for Facilities Management

23

---

---

---

---

---

---

---

---

**APPA Appearance Levels**

Level 1 – Orderly Spotlessness

- Floors and base molding shine and/or are bright and clean; colors are fresh. There is no buildup in corners or along walls.
- All vertical and horizontal surfaces have a freshly cleaned or polished appearances and have no accumulation of dust, dirt, marks, streaks, smudges or fingerprints. Lights all work and fixtures are clean.
- Washroom and shower fixtures and tile gleam and are odor-free. Supplies are adequate.
- Trash containers and pencil sharpeners hold only daily waste, are clean and odor-free.

APPA Institute for Facilities Management

24

---

---

---

---

---

---

---

---



## APPA Appearance Levels

### Level 2 – Ordinary Tidiness

- Floors and base molding shine and/or are bright and clean. There is no buildup in corners or along walls. But there can be up to two days worth of dust, dirt, stains or streaks.
- All vertical and horizontal surfaces are clean, but marks, dust, smudges and fingerprints are noticeable upon close observation. Lights all work and fixtures are clean.
- Washroom and shower fixtures and tile gleam and are odor-free. Supplies are adequate.
- Trash containers and pencil sharpeners hold only daily waste, are clean and odor-free.

APPA Institute for Facilities  
Management

25

---

---

---

---

---

---

---

---

## APPA Appearance Levels

### Level 3 – Casual Inattention

- Floors are swept or vacuumed clean, but upon close observation there can be stains. A buildup of dirt and/or floor finish in corners and along walls can be seen.
- There are dull spots and/or matted carpet in walking lanes. There are streaks or splashes on base molding.
- All vertical and horizontal surfaces have obvious dust, dirt, marks, smudges, and fingerprints. Lamps all work and fixtures are clean.
- Trash containers and pencil sharpeners hold only daily waste, are clean and odor-free.

APPA Institute for Facilities  
Management

26

---

---

---

---

---

---

---

---

## APPA Appearance Levels

### Level 4 – Moderate Dinginess

- Floors are swept or vacuumed clean, but are dull, dingy, and stained. There is a noticeable buildup or dirt and/or floor finish in corners and along walls.
- There is a dull path and/or obviously matted carpet in the walking lanes. Base molding is dull and dingy with streaks or splashes.
- All vertical and horizontal surfaces have conspicuous dust, dirt, marks, smudges, and fingerprints. Lamp fixtures are dirty and some lamps (up to 5% are burned out)
- Trash containers and pencil sharpeners have old trash and shavings. They are stained and marked. Trash containers smell sour.

APPA Institute for Facilities  
Management

27

---

---

---

---

---

---

---

---

## APPA Appearance Levels

### Level 5 – Unkempt Neglect

- Floors and carpets are dull, dirty, scuffed and/or matted. There is a conspicuous buildup of old dirt and/or floor finish in corners and along walls. Base molding is dirty, stained and streaked. Gum, stains, dirt, dust balls and trash are broadcast.
- All vertical and horizontal surfaces have major accumulations of dust, dirt, smudges, and fingerprints, all of which will be difficult to remove. Lack of attention is obvious.
- Light fixtures are dirty with dust balls and flies, Many lamps (more than 5% are burned out).
- Trash containers and pencil sharpeners overflow. They are stained and marked. Trash containers smell sour.

APPA Institute for Facilities Management

28

---

---

---

---

---

---

---

---

## Fundamentals of Custodial Services



APPA Institute for Facilities Management

29

---

---

---

---

---

---

---

---

## Fundamental: Organization

- Match shifts to potential work force and work to be done
- Union vs non-union
- Special Crews
- Team Cleaning/Modified Team Cleaning/Zones
- Academic....athletic....residential life....food service....commons....laboratory....agriculture facilities...special facilities.....
- In-house vs outsourced or combination

APPA Institute for Facilities Management

30

---

---

---

---

---

---

---

---

**Organization  
At the top . . . . . the Manager**

- A Student – never stop learning and asking questions
- An Advocate/Teacher – tell the story and tell it well
- A Barometer
- A Consultant – develop relationships with construction side
- A Communicator – 360 degrees
- An Assessor – defining expectations
- A Facilitator – developing relationships

APPA Institute for Facilities Management

31

---

---

---

---

---

---

---

---

**Organization  
Next level . . . . . the Supervisor**

- Must receive initial and continuing training
- Must be in the know
- Can be barricade or bridge in disciplinary actions
- Day to Day and Hour to Hour quality assurance
- Will filter/translate departmental and manager priorities
- Working or not? Assigned area to clean?
- Responsible for training/coordinated with trainer?
- Must be given and accept responsibility

APPA Institute for Facilities Management

32

---

---

---

---

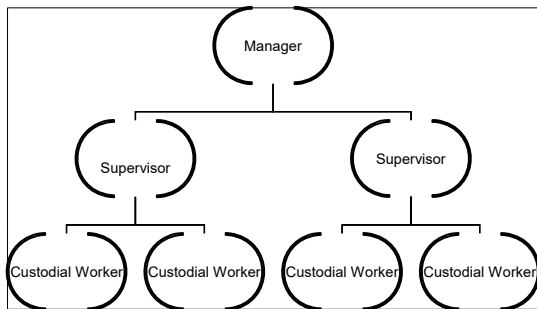
---

---

---

---

**Organization Options**



APPA Institute for Facilities Management

33

---

---

---

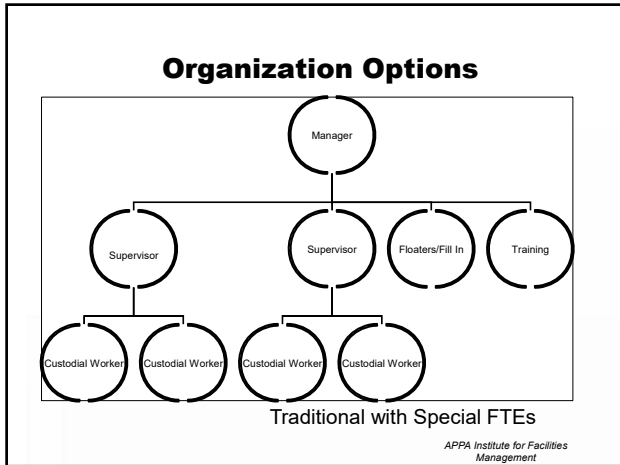
---

---

---

---

---



34

---

---

---

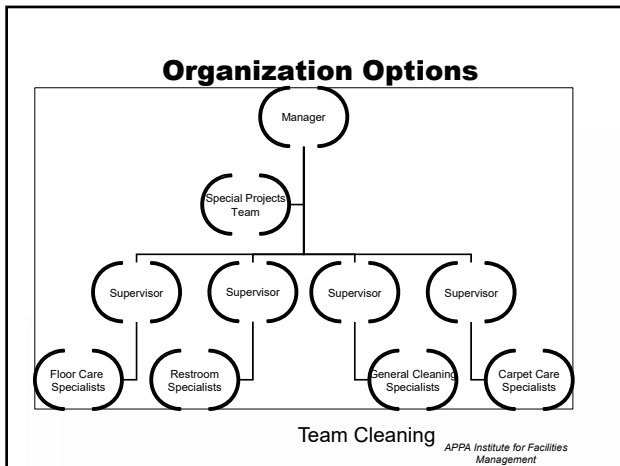
---

---

---

---

---



35

---

---

---

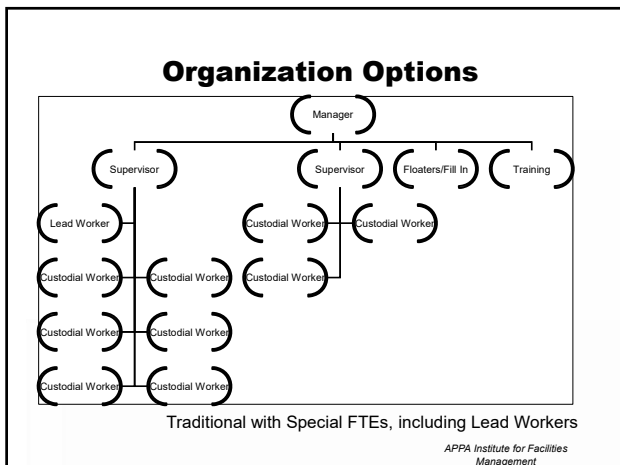
---

---

---

---

---



36

---

---

---

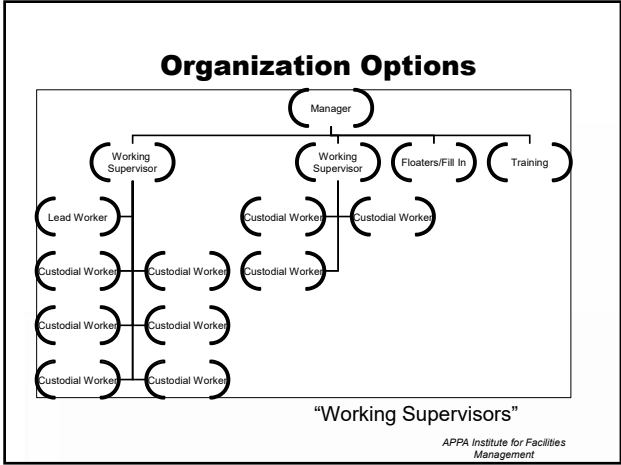
---

---

---

---

---



37

---

---

---

---

---

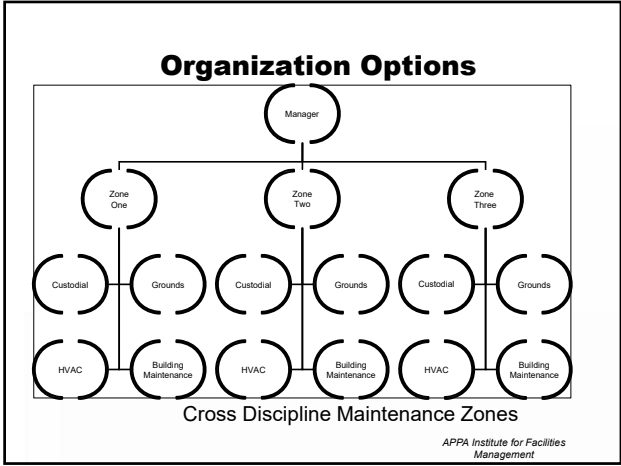
---

---

---

---

---



38

---

---

---

---

---

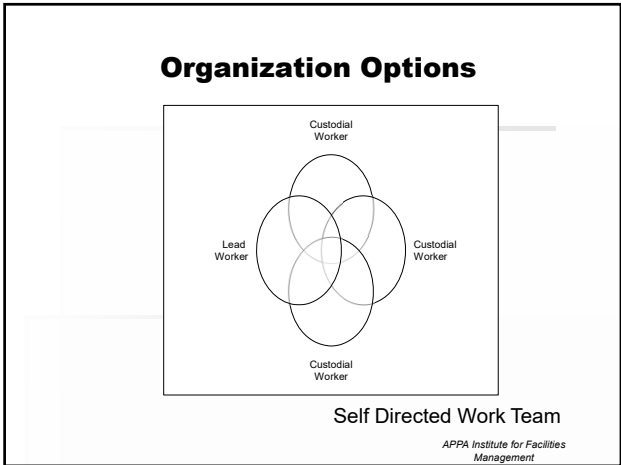
---

---

---

---

---



39

---

---

---

---

---

---

---

---

---

---

## Fundamentals of Custodial Services



APPA Institute for Facilities Management

40

---

---

---

---

---

---

---

---

## Fundamental: Training

- Integrate frequencies/standards
- The importance of supervisory training
- Assign as an accountability
- Not just about new products/equipment
- Requires resources and commitment
- Safety training (MSDS, PSE, lab safety, etc)

APPA Institute for Facilities Management

41

---

---

---

---

---

---

---

---

## More on Training

- Timely and Specific
- Consistent and Frequent
- Use both hands-on and classroom setting
- Use both text and pictures
- Program for new employee's training and continuing education

APPA Institute for Facilities Management

42

---

---

---

---

---

---

---

---

# Fundamentals of Custodial Services



APPA Institute for Facilities Management

43

---

---

---

---

---

---

---

---

## Fundamental: Communication

- With employees
- With customers
- With decision makers
- In correct form and content



APPA Institute for Facilities Management

44

---

---

---

---

---

---

---

---

# Fundamentals of Custodial Services



APPA Institute for Facilities Management

45

---

---

---

---

---

---

---

---

**Fundamental:  
Assessment**

- Are service levels documented and published?
- Are cleaning frequencies defined?
- Have we defined “clean”? (quality control)
- Do we have the right equipment job?
- Can we “quantify” our work?
- What are our “green” standards?

APPA Institute for Facilities Management

46

---

---

---

---

---

---

---

---

**Green Cleaning**

LEED Credits for Green Credits

- High Performance Cleaning Program
- Custodial Effectiveness Assessment
- Sustainable Cleaning Products and Materials
- Sustainable Cleaning Equipment
- Entryway Systems
- Indoor Integrated Pest Management

*(from LEED Standards for Existing Buildings)*

APPA Institute for Facilities Management

47

---

---

---

---

---

---

---

---

**Fundamental:  
Assessment**

- Is there a system in place for ongoing operational auditing?
- Are good (automated?) assessment tools in place to make it easy to gather data?
- Are employee performance evaluations done well? Includes goal setting?
- Are job descriptions accurate and understood?
- Do your employees feel valued?

APPA Institute for Facilities Management

48

---

---

---

---

---

---

---

---



**Fundamental:  
Assessment**

**PERCEPTIONS are  
reality!**

- How are we viewed within the university community?
- Do our efforts match public priorities?
- Are customers aware of custodial services? Too aware for the wrong reasons?
- Are we considered mission critical?
- Are we watching for.... ready for change?

APPA Institute for Facilities Management

49

---

---

---

---

---

---

---

---

**Group Exercise One**

The VP needs a proposal for a 20% reduction in staff by Friday.

What ideas do you investigate?  
What do you propose?

What facts can you provide to document the ideas in your proposal?

APPA Institute for Facilities Management

50

---

---

---

---

---

---

---

---

**Group Exercise Two**

The VP gives Custodial Services a one-time fund source of \$50,000 providing that you can demonstrate a significant impact.

How do you use the money?

APPA Institute for Facilities Management

51

---

---

---

---

---

---

---

---

### Group Exercise Three

A new office building has just been approved by the legislature.  
The VP needs an estimate for annual Custodial Services allocation.

How do you determine staffing and budget needs?

APPA Institute for Facilities Management

52

---

---

---

---

---

---

---

---

### Group Exercise Four

A proposed reorganization of facilities services includes reassignment of athletic custodial services (previously an independent operation) to your section (previously serving only academic type space)  
The VP needs an estimate for annual Custodial Services allocation increase.

What do you need to provide the estimate?  
What facts are important?

APPA Institute for Facilities Management

53

---

---

---

---

---

---

---

---

### Group Exercise Five

The Custodial Services has a 25% vacancies for over six months.

What do you do?

APPA Institute for Facilities Management

54

---

---

---

---

---

---

---

---

## Group Exercise Six

You have determined that many of your personnel situations and operational problems are linked back to the poor quality of supervision.

What do you do?

APPA Institute for Facilities Management

55

---

---

---

---

---

---

---

---

## Group Exercise Seven

In a recent reorganization, you have just been assigned to manage Custodial Services. Although you have been in facilities for years, you have not been directly involved with custodial services.

What do you do to get started?

APPA Institute for Facilities Management

56

---

---

---

---

---

---

---

---

## Fundamentals in 60 minutes

Motivation  
Equipment  
Supplies/Materials  
Staffing  
Organization  
Training  
Communication  
Assessment



APPA Institute for Facilities Management

57

---

---

---

---

---

---

---

---

# Custodial Services

The Fundamentals in 60 Minutes

**Thank you!**



58

---

---

---

---

---

---

---

---

**THIS CONCLUDES THE AMERICAN INSTITUTE OF  
ARCHITECTS CONTINUING EDUCATION SYSTEMS  
COURSE**



AIA  
Continuing  
Education  
Provider

59

---

---

---

---

---

---

---

---