

Carpet Care and Maintenance

Training Manual

August 2009

Disclaimer:

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C a r p e t C a r e a n d M a i n t e n a n c e

Notes:

Introduction/Pre-Test

This section will address:

- ☆ Introduction
- ☆ Training Objectives of the Course

Introduction

The New York State Office of General Services (OGS) designed this training course to provide instruction in the care and maintenance of carpet and rugs. The goal in developing this course is for participants to establish a basic understanding of, and requirements for, maintaining and caring for carpets and rugs.

Training Objectives

Terminal Objective

The terminal objective of this training course is to provide participants with an overarching knowledge of carpet maintenance and care.

Enabling Objectives

Upon training completion, participants will be able to list or describe:

- Reasons for implementing a carpet cleaning and maintenance program;
- Five elements of carpet maintenance;
- Carpet maintenance green cleaning principles and best practices;
- Worker safety;
- Typical carpet cleaning complaints;
- Common carpet care tools;
- General vacuum cleaning rules;
- Four steps in carpet maintenance;
- Routine carpet care procedures- vacuuming; and
- Interim and restorative carpet care procedures – carpet extraction.

Review of Section 1

This section presented an introduction of what the course will cover and course objectives were stated.

Notes:

Carpet Care and Maintenance

This section will address:

- ★ Reasons for Implementing a Carpet Green Cleaning and Maintenance Program
- ★ Five Elements of Carpet Maintenance
- ★ Carpet Maintenance Green Cleaning Principles and Best Practices
- ★ Worker Safety
- ★ Typical Carpet Cleaning Complaints
- ★ Common Carpet Care Tools
- ★ Four Steps in Carpet Maintenance Procedures
- ★ Routine Carpet Care
- ★ Interim and Restorative Procedures

Introduction

As stated from the Carpet and Rug Institute's (CRI) *Carpet Maintenance Guideline*:

“There is a big difference between cleaning a carpet and maintaining carpet. Cleaning is the removal of apparent soil.... Maintenance, in contrast to cleaning, is a scheduled on-going process of soil removal designed to maintain carpet's daily appearance at a consistent level of cleanliness.”

Reasons for Implementing a Carpet Cleaning and Maintenance Program

There are three main reasons for implementing a carpet cleaning and maintenance program:

- Carpeting is a significant financial investment for a facility;
- It improves the overall facility image; and
- It extends the life and preserves the appearance of the carpet.

Notes:

Five Elements of Carpet Maintenance

Based on CRI's *Carpet Maintenance Guidelines*, a maintenance plan has five elements:

1. Reducing Soil Entering the Building;
2. Vacuuming;
3. Removing Spots and Spills;
4. Interim Cleaning; and
5. Restorative Cleaning.

1. Reducing Soil Entering the Building

Preventing soil from entering the building will help to care for and maintain indoor carpets and rugs. In order to limit the amount of soil entering a facility, the facility needs to have an entryway maintenance policy and 12 to 15 feet of adequate walk-off matting at each main entryway. Entryways play a major part of any green cleaning program by helping to extend the time between more labor-intensive procedures for carpeted areas as well as hard flooring. An entryway maintenance policy sets day-to-day requirements for the upkeep of entryway matting and exterior areas leading up to the entryway. Without a policy in place, custodians may not clean and maintain entryways frequently enough, which can result in excess soil entering the facility.

2. Vacuuming

Vacuuming is the most important and cost-efficient element of an effective carpet maintenance program. Vacuuming reduces soil accumulation in carpet pile, prolongs the need for interim and restorative type cleaning, and extends the life of the carpet. Vacuuming can remove more than 80 percent of the soil that accumulates on a daily basis. Vacuuming is also effective in maintaining carpet appearance and preventing carpet pile from becoming matted. A good carpet care and maintenance program focuses on vacuuming carpets in heavy traffic areas daily, and in medium to lightly traffic areas every two to three days. Using a vacuum on the OGS-Approved Green Cleaning Products list not only prevents particles from being redistributed into the air but also has a positive impact on indoor air quality and, consequently, is healthier for building occupants.

Note:

- ✓ If your vacuum is performing poorly, the carpet nap will remain matted and compressed from foot traffic, which further hinders the removal of sand and grit. As sand, grit and soil build up in the carpet, it slowly wears and cuts the carpet fibers as it is walked on.
-

Notes:

3. Removing Spots and Spills

Facilities should have policies for reporting spills to the custodial staff, and procedures and supplies for spot and stain removal. Custodians should look for unreported spills and spots while cleaning and take action when they are found. The quick removal of spots and spills will reduce the likelihood of stains becoming permanent or requiring harsher and more aggressive chemical treatments. All custodians should be trained to use the spot and spill removal system at the facility.

4. Interim Cleaning

Interim cleaning is a scheduled cleaning conducted at set frequencies to improve carpet appearance. Interim cleaning focuses on heavy traffic areas that become matted and can no longer be restored by normal vacuuming. Custodians should perform interim cleaning before soils are visible, appearance is diminished and soiled traffic lanes appear. Carpet that becomes extremely soiled may be irreversibly damaged.

5. Restorative Cleaning

Restorative cleaning is the scheduled deep cleaning of carpets to remove residues and trapped soils left behind after vacuuming and interim restorative cleaning procedures. Restorative cleaning requires a self-contained extractor that combines a chemical solution, pressure, agitation, and solution recovery. Typically, custodians perform restorative cleaning activities at scheduled frequencies. If custodians maintain carpets properly, carpets should only need deep cleaning once a year for heavy to medium traffic areas and once every two years for light traffic areas.

Carpet Maintenance Green Cleaning Principles and Best Practices

- Phase out or replace older vacuums with those listed on the OGS-Approved Green Cleaning Products list located on the New York State Green Cleaning Website.
- Use extraction equipment that removes enough moisture to allow carpets to air dry completely within 24 hours. This efficient removal of moisture is vital to protecting against mold growth in carpets.
- Maintain vacuum cleaners and filters regularly. Follow manufacturers' recommended maintenance frequency and operations to ensure optimal vacuum performance.
- Use approved filters and bags for the vacuum and ensure they are properly installed. Always have a supply of replacement filters and bags in stock.
- Use wet vacuums and/or spray-and-vacuum systems for wet soil removal.
- Use OGS-approved carpet cleaners. A list of approved products can be found on the New York State Green Cleaning Program website.
- Use the least amount of moisture and cleaning product needed for spot cleaning.

Notes:

- Minimize the amount of cleaning product used by following the manufacturers' recommended dilutions. Using the manufacturers' recommended dilution ratio will eliminate product waste and reduce the amount of residual cleaner left on carpet fibers after cleaning.
- Vacuum clean carpets and rugs regularly to reduce the use of carpet cleaning chemicals.
- Always dry-vacuum before using carpet extraction cleaning methods.
- Use cleaning methods recommended by the carpet's manufacturer.
- Create a facility-wide policy for timely reporting of spills to custodial staff.
- Implement an entryway maintenance program that includes: removal of dirt/debris from the sidewalks and parking lots outside main entryways; redirecting pedestrian traffic away from areas with dirt and debris by roping off these locations; establishing and maintaining adequate walk-off matting at main entryways; and planting low maintenance vegetation that doesn't have berries, flowers or leaves.
- Focus cleaning efforts on high-traffic areas (usually within 30 to 50 feet of an entryway).

Worker Safety

- Be aware of the chemicals that are used in your work place.
- Make sure all chemical storage containers are properly labeled.
- Read Material Safety Data Sheets (MSDS) and labels for every product.
- Know how to read and understand MSDSs.
- Never mix chemicals unless directed by the manufacturer.
- Do not use chemicals on surfaces for which they are not intended.
- Always wear the recommended Personal Protection Equipment (PPE) when using chemicals.
- Read and understand your facility's written Hazard Communication Program.
- Use an automated chemical dispenser/dilution system whenever possible to reduce chemical exposure and provide accurate dilutions.
- Undergo adequate training for equipment use, chemical handling, and cleaning procedures.
- Never operate equipment you have not been trained to use.
- Never unplug electrical equipment by the cord, use the plug. Check cords for cuts and missing prongs.
- Never use a dry vacuum for a wet vacuum application.
- Make sure the equipment fits and is properly adjusted to reduce fatigue and physical injuries.
- Place wet floor signs near the carpets being extracted.
- After performing carpet extraction activities, dry soles of shoes before stepping on to hard flooring to prevent slipping.

Typical Carpet Cleaning Complaints

Typical complaints received after carpet maintenance include:

- Debris still on floor;

Notes:

- Baseboards and corners not vacuumed;
- Unplugged electrical equipment;
- Objects not returned to original location (i.e., trash cans, chairs, desks); and
- Damp or wet carpet after carpet extraction.

Common Carpet Care Tools

Non-powered Equipment

- Spot and stain remover kit –clean cloths, blunt spatula or spoon, carpet stain removal chart, different types of stain removal solutions, and carpet brush.
- Clean sponges or white terry cloth for wiping down equipment and blot liquids spilled on carpets.
- Blunt spatula or spoon for picking up non-liquid spills. Note: Do not use anything with a sharp edge like a knife. Sharp edges can harm the carpet's pile fibers.
- Wet/dry vacuum for picking up detergent solution applied to carpets in areas not accessible by floor machines or carpet extractors.
- Hand pump chemical sprayer for applying detergent solutions to carpets.
- Carpet rake for agitating detergent solution into carpet pile, lifting matted carpet fibers and loosening embedded soil.
- Absorbent bonnets/floor machine pads for picking up the detergent/soil solution from carpets.
- Caution signs for preventing foot traffic through the work area.

Powered Equipment

Vacuum cleaners

- Vacuum cleaners should be Green Label-certified. If they are not, then consider replacement. Green Label-certified vacuum cleaners are certified by the Carpet and Rug Institute and indicate they have superior cleaning ability and can trap very small particles that would otherwise become airborne.

Carpet extractor

- A carpet extractor is necessary for restorative cleaning, which focuses on removing soil that cannot be removed through vacuuming. Restorative cleaning requires a self-contained extractor that combines solution flow, pressure, agitation, and recovery. Depending on the size of your facility, consider a carpet machine with dual technologies including both an interim cleaning method as well as a means of accomplishing deep, restorative extraction.
- The carpet extractor should dispense cleaning solution with sufficient force to physically break apart compacted soils (150 to 300 pounds per square inch (psi) and 400 to 500 psi for heavily compacted soil).

Notes:

- The carpet extractor should provide enough suction to remove most of the soiled water thereby reducing drying time and mold or mildew growth. In addition, the room can be put back into service sooner.
- A significant slip hazard exists when people walk on carpeting just after extraction (wet) and then onto hard flooring. Always have a dry towel handy for drying the bottoms of work shoes before stepping on to hard floors.

Portable/commercial carpet spotter system

Low speed floor machine

Air blowers/movers(Fans)

Equipment Care and Maintenance

- Clean/wipe down equipment after each shift.
- Check power cords for exposed wires and broken prongs and replace if defective.
- Flush chemical holding tanks on equipment.

Table 2-1. Procedure and Tools Matrix

Procedure	Vacuum Cleaning	Spot Cleaning	Carpet Extraction Cleaning
Pump up chemical sprayer		✓	✓
Caution signs	✓	✓	✓
Vacuum cleaner	✓	✓	✓
Spare vacuum bags	✓	✓	✓
Towel			✓
Carpet extractor		✓	✓
Spot remover kit		✓	
Portable/commercial carpet spotter		✓	
Air movers/carpet blowers		✓	✓
Putty knife		✓	
Absorbent white cloths		✓	

Table 2-1 provides a matrix of various carpet care procedures and the tools needed for each.

General Vacuum Cleaning Rules

- Perform dry cleaning procedures before wet (i.e., carpet pre-treating) procedures.

Notes:

- Clean carpets at the furthest corner of the room and work toward the exit for open areas and clockwise or counterclockwise around small office with furniture.
- Slightly overlap each pass with the vacuum to ensure complete coverage.
- Move the vacuum slowly enough to allow enough time for the suction and brush to lift soil from the carpet.
- Heavily soiled areas may require two or more passes of the vacuum to remove the soil.
- Always follow the manufacturers' recommendations for using their products.
- Check the vacuum bag often and change it when it becomes full. Note: Refer to the manufacturer's recommendations for determining when the vacuum bag is full. Some consider the bag 'full' when it is actually half-full.

Four Steps in Carpet Maintenance Procedures

A successful green cleaning program includes proper daily carpet care using the right equipment. The four steps to carpet maintenance procedures are:

1. Preparing Equipment;
2. Performing cleaning task(s);
3. Verifying/inspecting work; and
4. Cleaning and storage of equipment.

Routine Carpet Care

Vacuum Cleaning

Notes:

- ✓ Users should read and understand the vacuum's Owners Manual and be trained on the proper use of all equipment before use.
- ✓ To maintain efficiency and vacuum performance, replace vacuum bags according to the recommendations by the manufacturer. Some vacuum models are equipped with a built in sensor that alerts the user the bag is full.
- ✓ Usually two passes are sufficient for removing soil from carpets.
- ✓ High traffic areas are often the dirtiest and require thorough vacuuming to remove soil and raise the carpet nap. Allow the suction action of the vacuum enough time to remove the soil.

Notes:

Notes:

- ✓ The vacuum's cord can present a safety hazard. To help avoid stepping on, tripping over, or passing the vacuum over the cord, work away from the outlet rather than towards it.
 - ✓ Some electronic devices in buildings may need to be plugged in at all times. Therefore, don't unplug electronic equipment in order to plug in your vacuum.
-

Preparation for Vacuuming

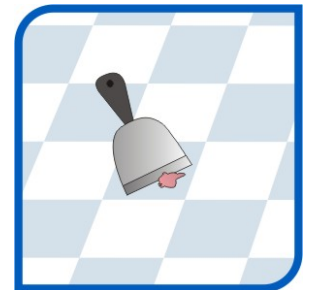
1. Gather equipment: vacuum, extra filters and bags.
2. Check filters and bags and replace and empty them if they are dirty or full.
3. Check cords for abrasions, exposed wires, cuts and missing ground plugs. Do not use a vacuum if the cord is damaged.
4. For backpack vacuums, make sure the straps are adjusted so that the vacuum fits properly.
5. Mobilize to the work area.

Vacuuming Procedure - Rooms with Furniture

1. Begin cleaning using overlapping push-pull strokes about 3 feet long. Vacuum so that the nap of the carpet is raised up during the pull stroke.
2. Move counter-clockwise around the room to prevent missing areas.
3. Leave slack in the cord to prevent the plug from being pulled out of the wall and possibly damaging the prongs.



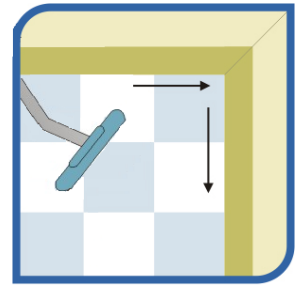
4. Pickup large pieces of debris by hand that may clog or damage the vacuum as you work.



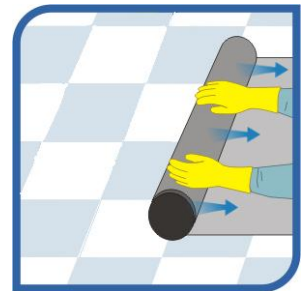
5. Move furniture and other objects as little as possible to reduce repositioning them in the wrong places.

Notes:

6. Make sure to vacuum corners, edges and underneath desks and trashcans.



7. Vacuum mats, then roll them up and vacuum the floor underneath.



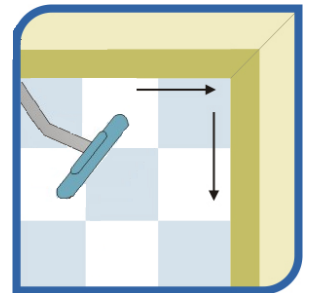
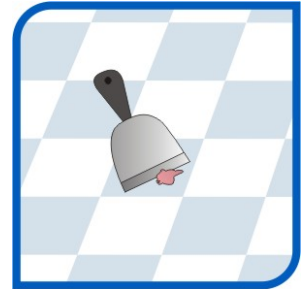
8. Vacuum under electrical wires by lifting them high enough off the ground that the vacuum cannot get caught on them.
9. When unplugging the vacuum, DO NOT pull the cord, pull from the plug.
10. Verify that all areas are adequately vacuumed.



Notes:

Vacuuming Procedure - Open Areas

1. Inspect the rug to be vacuumed and remove gum or other large deposits or debris.
2. Identify specific areas requiring spot or stain removal.
3. Vacuum along baseboards and corner areas.
4. Begin vacuuming operations at the corner farthest away from the door (if a room) or work area.
5. On the first pass, vacuum in a straight line in the direction the nap of the carpet lies. Then, go back over the same area in the opposite direction to raise the nap of the carpet.
6. Take a step either left or right, and repeat Step Five, making sure the path of the vacuum overlaps the previous path by one to two inches.
7. Continue to move across the room by repeating Steps Five and Six.
8. At the other side of the room/area, turn and face the opposite direction and begin vacuuming back across room following Steps Five and Six.
9. Continue repeating Steps Five through Eight until the area is completely vacuumed.



Notes:

10. Clean any heavy spot areas using the Spot Cleaning Procedure found on page 2-11.



Vacuum Cleanup and Storage of Equipment

1. After vacuuming is complete, return the equipment and supplies to their proper areas.
2. Wipe down and inspect the vacuum for damage. Check for dirty air filters and full vacuum bags or containers, and replace or empty as needed. Neatly wind the cord for storage.

Spot Cleaning Procedure

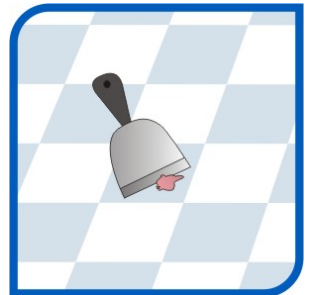
NOTE: NOT ALL SPOTS ON CARPETS CAN BE REMOVED.

Before spot cleaning:

1. Try to identify what material caused the stain.
2. If it has not been done so already, test and document the carpet fabric for color fastness. Provide test findings to all custodial staff for establishing future spot cleaning procedures.

Spot Cleaning

1. If solids or semi-solids are present, remove them with a spatula or spoon.

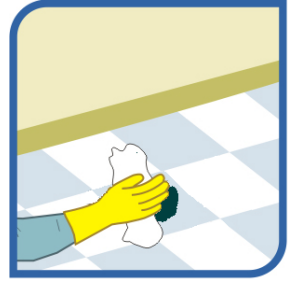


2. A wet/dry vacuum can be used to pick up liquids and solids as well.

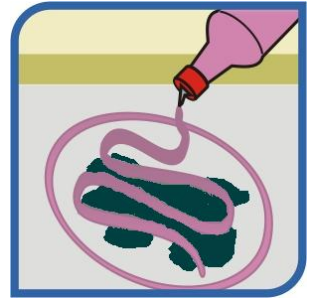


Notes:

- Using a clean absorbent towel, blot the stain to remove additional liquid.



- Select the proper spot removing agent and apply it to the stain.



- Using a white cloth, work the stain remover into the carpet starting from the edges of the stained areas and moving to the center of the stain.



- Using a clean cloth, blot the stained area to remove the stain and cleaner. Continue until the stain is no longer being transferred to the cloth and then apply the spot remover agent again to a new clean area of the cloth and repeat.



- Repeat the process until no more stain is being removed.
- Rinse area with water or a neutralizing agent and blot dry.

Notes:

9. If the first spot cleaning attempt fails to remove the stain, allow the area to dry completely before repeating. If the spot removal agent requires neutralization, then neutralize it and let the carpet dry.
10. If a second cleaning attempt does not remove the stain, it may be permanent or at least not removable by this method.

Notes:

- ✓ Avoid overusing spot cleaning chemicals.
 - ✓ Never scrub or brush a stain—this may damage the carpet and make stain removal more difficult.
 - ✓ Do not use tools with sharp edges to scrape solids from carpet—this may damage the carpet.
-

Interim and Restorative Cleaning Methods

There are four main carpet cleaning methods :

1. Absorbent compound (interim);
2. Bonnet cleaning (interim);
3. Dry foam cleaning (interim); and
4. Carpet extraction (interim and restorative).

The particular carpet cleaning method selected to clean a carpet will be based on the type of carpet, the carpet's use, and the condition of the carpet. Custodians should employ interim and restorative measures before soils are visible and appearance diminished. This course describes only the carpet extraction procedure because it is the most common and is used for both interim and restorative cleaning.

Notes:

Preparation for Carpet Extraction

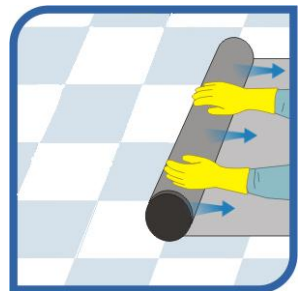
1. Assemble the needed equipment and supplies. Fill the solution tanks or portable buckets with properly-diluted carpet cleaning solution. Use PPE when working with chemicals.



2. Mobilize equipment to the work area.



3. Remove all obstructions from the work area. When possible, move furniture out of the work area. Remember to return objects and furniture back to their original positions.



Notes:

4. Place 'wet floor' warning signs at each end of the work area to prevent foot traffic through the work area.

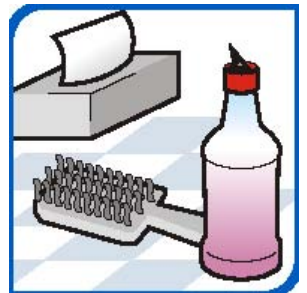


5. Thoroughly vacuum the area as the removal of surface soils prior to extraction will improve the final results.



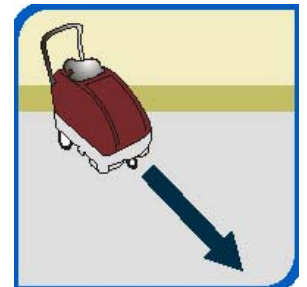
6. Perform spot removal procedures on any visible stains.

Note: Carpeting with heavily-soiled areas may require the spraying of a detergent solution over the area prior to extraction. Detergent solution is usually applied to the carpet, agitated with a carpet rake, and allowed to set for 10 to 20 minutes before the extraction process.



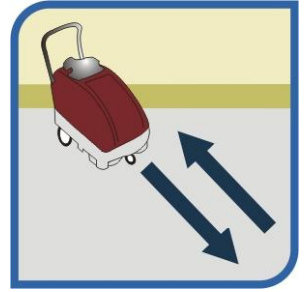
Carpet Extraction Procedure

1. Begin making passes back and forth across the carpet and injecting cleaning solution. Overlap each pass slightly and **do not over saturate** the carpet with solution. The detergent and soil solution should be lifted from the carpet moments after being injected into the carpet with little remaining after each pass.



Notes:

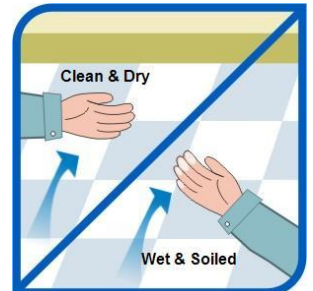
2. Make several passes over heavily-soiled areas (high traffic areas) to ensure soil is lifted from the carpet.



3. Turn off the solution dispenser and begin making passes back and forth with only the extractor's vacuum feature on to remove as much of the solution from the carpet as possible.
4. Let the carpet air dry or use air movers to speed up the drying time.



5. Verify the carpet is clean and let it dry for one to three hours.



6. Return objects and furniture back to their original positions. Place squares of aluminum foil or plastic wrap under the feet of the furniture to prevent them from becoming stained by moisture still present in the carpet.



Notes:

Carpet Extraction Cleanup Procedure

1. Drain all waste solutions from the tanks into a slop sink or proper floor drain.
2. Flush and rinse the drained tanks until no soil or residue remains.
3. Empty and flush the clean solution tank with water.
4. Flush all vacuum hoses with clean water.
5. Wipe down the exterior of the machine and the inside of domes and lids.
6. Wash and wipe the vacuum shoe and spray nozzle areas.

Notes:

Review of Section 2

Section 2 provided several topics on carpet care and maintenance including:

- The reasons for implementing a carpet cleaning and maintenance program;
- The five elements of carpet maintenance;
- Carpet maintenance green cleaning principles and best practices;
- Worker safety relating to carpet cleaning;
- Typical carpet cleaning complaints;
- Common carpet care tools;
- General vacuum cleaning rules;
- Four steps in carpet maintenance;
- Routine carpet care procedures—vacuuming; and
- Interim and restorative carpet care procedures—carpet extraction

Notes:

Post-Test/Course Evaluation

This section will address:

- ☆ Administration of the post-test
- ☆ Course evaluation

Please complete the post-test and course evaluation. Participants with a post-test grade of 75 percent or better will receive a Certificate of Completion. Findings from the post-test and course evaluation provide vital feedback to OGS for course content revision and improvement. **Please do not disregard the post-test and course evaluation!**