



National Apartment Association Education Institute

Certificate for Apartment Maintenance Technicians (CAMT)

Maintenance Career Fast Facts

Skill Standards

Course Syllabus



Maintenance Career Fast Facts

Current economic data indicates that the need for apartment maintenance technicians will only increase in the next decade:

- Approximately 35% of U.S. households are renter households, a 4% increase from 2004
- It is predicted that over the next decade the percentage of renter households is likely to rise by 360,000 - 470,000 annually
- The apartment industry employs over 1 million professionals
- The employee turnover rate for apartment maintenance professionals is 35%
- The apartment industry will continue to need new employees for the following reasons:
 - ◊ Replacement of retiring employees
 - ◊ Replacement of employees who leave the industry
 - ◊ Expansion of the number of apartment renters and new apartment development and construction (after over three years of no new commercial real estate development, currently, the only commercial real estate segment significantly involved in new development is the apartment industry)
 - ◊ Redevelopment of aging apartment communities
 - ◊ Smart growth bringing workers closer to places of employment
 - ◊ Increase in seniors opting for age-restricted retirement or senior communities

Apartment maintenance is a career path with unlimited potential:

- The national median for total compensation for a maintenance technician is \$32,300 and for a maintenance manager is \$42,200
- Maintenance technicians are often on call evenings and weekends and earn overtime pay
- Most maintenance technicians receive benefits such as: medical, dental, vision, life insurance and a 401K plan
- Some maintenance technicians are required to live at the apartment community where they work or have the opportunity to live at another community managed by the company. Companies may offer a rent benefit that can range from a 20% discount to free rent (if required to live at an apartment community)
- Most companies offer training opportunities to help employees advance in their career to Maintenance Manager, Maintenance Supervisor and even regional and corporate maintenance positions

The profile of a typical Apartment Community is:

- 260 apartment homes
- Six onsite staff positions
 - ◊ Apartment Manager
 - ◊ Assistant Manager
 - ◊ 2-3 Maintenance Technicians
 - ◊ 1-2 Leasing Consultants
- An annual budget of \$2.7 million
- A real estate asset valued at over \$20 million

Apartment maintenance technicians are the backbone of every apartment community!

- The **NUMBER 1** reason why an apartment resident renews a lease is satisfaction with the maintenance team's quick and accurate response to service requests.

The ANSI accredited Certificate for Apartment Maintenance Technicians (CAMT) is the first step to launching a career in apartment maintenance.

The NAA Education Institute provides the curriculum, online exam and local apartment industry contacts that will lead to careers in apartment maintenance. Attached are Apartment Maintenance Skill Standards and the CAMT Course Syllabus. To learn more contact Kim McCrossen at 703/797-0610 or kimberlymccrossen@naahq.org.



Skill Standard for

Maintenance Technicians

Critical Work Function 1	
COMPLIANCE	
Performance Indicators	
<p><i>Key Activity 1.1</i> Performs maintenance activities in a safe and healthful manner.</p>	<ul style="list-style-type: none"> ➤ Safety records show that the employee implements company policies and procedures concerning safety (e.g., fire, emergency response, first-aid, universal precautions, utility shutoffs, eye wash stations, safety showers, Material Safety Data Sheets) ➤ Safety records indicate vendors are required to comply with regulations and company safety requirements ➤ Documentation indicates consistent compliance with regulations (e.g., lock-out tag-out, personal protective equipment, respiratory protection) ➤ Documentation indicates consistent compliance with regulations pertaining to swimming pools and spas
<p><i>Key Activity 1.2</i> Abides by company policies and fair housing regulations.</p>	<ul style="list-style-type: none"> ➤ Documentation indicates consistent compliance with regulations (e.g., apartment modifications, accommodations, communication, service requests, vendor services) ➤ Observations indicate appropriate response to residents and prospects
<p><i>Key Activity 1.3</i> Implements current local, state, and national codes when performing maintenance.</p>	<ul style="list-style-type: none"> ➤ Documentation indicates consistent compliance with permitting requirements ➤ Documentation indicates consistent compliance with applicable building codes (e.g., local, state, national) ➤ Documentation indicates consistent compliance with regulations (e.g., HVAC, plumbing, electrical, appliances) and requirements for licensure or certification in trades ➤ Safety records show periodic fire sprinkler inspections
<p><i>Key Activity 1.4</i> Complies with local, state, and federal regulations concerning environmental issues</p>	<ul style="list-style-type: none"> ➤ Documentation indicates consistent compliance with environmental regulations (e.g., Environmental Protection Agency (EPA), waste management, storm and waste water management) ➤ Observations indicate regular and appropriate use of MSDS ➤ Documentation indicates appropriate response when spills and other problems occur ➤ Documentation indicates essential precautions are taken for handling, using, storing, and disposing of hazardous materials ➤ Documentation indicates that residents are appropriately educated on the requirements for disposing of hazardous materials and caring for surfaces containing lead-based paint



<p><i>Key Activity 1.5</i> Identifies, recommends, and implements corrective measures that minimize personal and property damage.</p>	<ul style="list-style-type: none"> ➤ Documentation indicates consistent compliance with regulations, company policy and procedure, and insurance requirements ➤ Documentation indicates regular property inspections using established checklists and communication protocols ➤ Documentation indicates consistent compliance with the company key control policy and procedures
<p><i>Key Activity 1.6</i> Reports and documents maintenance activities in adequate detail</p>	<ul style="list-style-type: none"> ➤ Files contain sufficient documentation of inspections, incidents, service requests, and maintenance activities ➤ Files contain logs for pools, snow and ice removal, lights, vehicles, mold, and refrigerants

Critical Work Function 2	
FACILITIES OPERATIONS	
Performance Indicators	
<p><i>Key Activity 2.1</i> Actively Participates in daily meetings of the maintenance team to organize and assign duties</p>	<ul style="list-style-type: none"> ➤ Actively participates in daily meetings of the maintenance team to organize and assign duties ➤ Meeting agendas indicate appropriate topics are addressed, adequate knowledge of facility needs, company policy and objectives, and effective time management ➤ Observation indicates leadership ability and knowledge of staff capabilities
<p><i>Key Activity 2.2</i> Maintains curb appeal</p>	<ul style="list-style-type: none"> ➤ Appearance of the facility(ies) is consistent with company standards ➤ Documentation indicates that opening and closing procedures are followed routinely ➤ Documentation indicates that issues related to safety and hazards are observed, noted, and dealt with appropriately
<p><i>Key Activity 2.3</i> Maintains recreational facilities</p>	<ul style="list-style-type: none"> ➤ Documentation indicates that recreational facilities are inspected and maintained so they operate as intended ➤ Documentation indicates consistent compliance with policies for operating and maintaining lighting, locks, and other components of common areas ➤ Documentation indicates that water in pools, spas, and other water features are treated appropriately
<p><i>Key Activity 2.4</i> Responds to maintenance requests competently</p>	<ul style="list-style-type: none"> ➤ Service request records indicate that corrective measures are consistent with the basic principles of electrical, plumbing, mechanical, irrigation, HVAC, carpentry, painting and drywall, roofing, flooring, and appliance systems ➤ Observation of the facility(ies) indicates safe and effective pest control ➤ Observation of the facility(ies) indicates that landscaping adheres to company policy and requirements for the safe and effective use of landscaping chemicals and equipment ➤ Follow-up records with residents indicate satisfactory customer service ➤ Documentation indicates consistent compliance with company policies concerning locks and keys



<p><i>Key Activity 2.5</i> Manages vendors and vendor services</p>	<ul style="list-style-type: none"> ➤ List of company-approved vendors is kept up to date with evaluation of quality and timeliness of vendor services ➤ Documentation indicates compliance with company procedures for specifying work to be performed by vendors ➤ Documentation indicates inspection of vendor projects with appropriate feedback to vendors
<p><i>Key Activity 2.6</i> Brings apartment homes to ready-to-rent status</p>	<ul style="list-style-type: none"> ➤ Brings apartment homes to ready-to-rent status ➤ Documentation indicates consistent compliance with company policy, procedure, and standards related to ready-to-rent maintenance services ➤ Records indicate that ready-to-rent services are consistent with the basic principles of electrical, plumbing, mechanical, irrigation, HVAC, carpentry, painting and drywall, roofing, flooring, pest control, landscaping, appliance, electronic device, and locking systems ➤ Documentation and observation indicate appropriate use of parts, materials, and tools ➤ Documentation indicates appropriate management of timelines, vendors, and maintenance staff
<p><i>Key Activity 2.7</i> Manages a program of preventive maintenance</p>	<ul style="list-style-type: none"> ➤ Documentation indicates consistent compliance with the company's policy and procedure related to preventive maintenance ➤ Documentation indicates consistent compliance with pertinent codes and regulations and manufacturer guidelines ➤ Records indicate that preventive maintenance services are consistent with the basic principles of electrical, plumbing, mechanical, irrigation, HVAC, carpentry, painting and drywall, roofing, flooring, pest control, landscaping, appliance, electronic device, and locking systems

Critical Work Function 3	
TRAINING AND TEAM MANAGEMENT	
Performance Indicators	
<p><i>Key Activity 3.1</i> Follows an ongoing program that builds professional and technical skills</p>	<ul style="list-style-type: none"> ➤ Documentation indicates training offered by competent sources addresses the needs of the individual and company ➤ Observation indicates ethical dilemmas are resolved in accordance with prevailing standards of conduct ➤ Observation indicates patterns of behavior are appropriate within the apartment community ➤ Observation indicates that newly acquired knowledge and skill are applied on the job



<p><i>Key Activity 3.2</i> Automates work when possible</p>	<ul style="list-style-type: none"> ➤ Observation indicates compliance with company policy and procedures concerning the use of computers ➤ Observation indicates facility with word processors, spreadsheets, databases ➤ Observation indicates facility with the Internet, including search engines, accessing credible Web sites, common procedures for ordering equipment and supplies online, and online training ➤ Observation indicates facility with electronic mail systems ➤ Observation indicates facility with common computer hardware
<p><i>Key Activity 3.3</i> Serves as a positive role model</p>	<ul style="list-style-type: none"> ➤ Observation indicates support for the company's mission, vision, culture, and core values ➤ Team member comments indicate appropriate leadership and sound, mature judgment
<p><i>Key Activity 3.4</i> Demonstrates appropriate patterns of behavior, communication, and appearance</p>	<ul style="list-style-type: none"> ➤ Observation indicates support for the company's mission, vision, policies, procedures, and prevailing standards for behavior and appearance ➤ Observation indicates a positive attitude about compliance with Fair Housing, EEOC, and other employment laws and regulations ➤ Clothing, behavior, and communication are appropriate for job responsibilities, including supervisory duties
<p><i>Key Activity 3.5</i> Communicates effectively with various internal and external customers</p>	<ul style="list-style-type: none"> ➤ Observation indicates communication is appropriate for different situations and individuals ➤ Feedback from various individuals (residents, co-workers, supervisors) indicates clear understanding and productive relationships are achieved ➤ Observation indicates that company standards for communication are met consistently
<p><i>Key Activity 3.6</i> Cooperates with and demonstrates respect for team members</p>	<ul style="list-style-type: none"> ➤ Observation indicates behavior is consistent with company policy, procedure, culture, and core values ➤ Observation indicates behavior is consistent with owner's objectives ➤ Feedback from team members indicates effective team building, motivation, coaching, and mentoring ➤ Observation indicates effective leadership
<p><i>Key Activity 3.7</i> Provides targeted and effective on-the-job training</p>	<ul style="list-style-type: none"> ➤ Documentation indicates that on-the-job training meets the skill deficits of team members ➤ Feedback indicates on-the-job training is individualized to team members' learning styles ➤ Observation indicates effective use of a variety of teaching styles (e.g., learning by doing, hands-on learning) ➤ Observation indicates effective coaching and mentoring ➤ Observation indicates effective assessment of team member needs and learning through on-the-job training



<p><i>Key Activity 3.8</i> Builds effective team by participating in the hiring process</p>	<ul style="list-style-type: none"> ➤ Observation indicates that employment recommendations are consistent with the owner's goals and objectives, company policy, procedure, culture, and core values ➤ Documentation indicates consistent compliance with the company's established hiring and interviewing process ➤ Documentation indicates consistent compliance with applicable employment laws and regulations ➤ Observation indicates that hiring recommendations meet the skill needs of the team
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Critical Work Function 4	
PROJECT MANAGEMENT	
Performance Indicators	
<p><i>Key Activity 4.1</i> Coordinates capital projects effectively</p>	<ul style="list-style-type: none"> ➤ Project documentation indicates knowledgeable analysis of existing assets, materials and systems ➤ Specifications indicate understanding of materials and methods that are appropriate to capital needs and objectives ➤ Observation indicates competent reading of blueprints and other project documents ➤ Observation indicates effective communication of project elements to owner
<p><i>Key Activity 4.2</i> Estimates time and material effectively</p>	<ul style="list-style-type: none"> ➤ Project documentation indicates consistent verification of measurements and materials specified by contractors and team members ➤ Observation indicates knowledge of market conditions as they affect the availability and pricing of goods and services ➤ Documentation indicates knowledge of specialized equipment and regulations ➤ Documentation indicates consistent compliance with budget limitations
<p><i>Key Activity 4.3</i> Manages the bidding process fairly and effectively</p>	<ul style="list-style-type: none"> ➤ Documentation indicates consistent compliance with prevailing business ethics, bidding process and bidding procedures ➤ Observation indicates familiarity with qualified and experienced contractors in the community ➤ Documentation indicates correct implementation of prequalification procedures ➤ Observation indicates the evaluation of bids relative to the expressed scope of work and selection criteria ➤ Observation indicates effective use of negotiation strategies ➤ Observation indicates reasonable understanding of common terms of contracts
<p><i>Key Activity 4.4</i> Displays permits as required</p>	<ul style="list-style-type: none"> ➤ Documentation indicates permits are displayed in compliance with codes and regulations ➤ Documentation indicates appropriate preinspections to ensure projects meet codes and regulations



<p><i>Key Activity 4.5</i> Checks material specifications to confirm deliveries</p>	<ul style="list-style-type: none"> ➤ Documentation indicates compliance with procedures for confirming and accepting deliveries ➤ Observation indicates deliveries are communicated appropriately ➤ Documentation indicates essential knowledge of project specifications, material needs and schedules
<p><i>Key Activity 4.6</i> Supervises projects and contractors effectively</p>	<ul style="list-style-type: none"> ➤ Observation indicates frequent inspection of projects relative to the planned scope of work, quality requirements and deadlines ➤ Documentation indicates communication with contractors is sufficiently frequent and focused on issues and concerns ➤ Documentation indicates appropriate response when safety violations occur ➤ Observation indicates skill in managing contractors, vendors and team members
<p><i>Key Activity 4.7</i> Communicates with project stakeholders to ensure understanding and resolve issues</p>	<ul style="list-style-type: none"> ➤ Communication indicates thorough knowledge of project components ➤ Observation indicates communication is appropriate for different individuals, purposes and settings ➤ Observation indicates thorough understanding of company objectives, requirements, risks and standards ➤ Documentation indicates concern for appropriate management of risk and liability ➤ Observation indicates a desire to solve problems
<p><i>Key Activity 4.8</i> Approves final payments after inspection of completed project</p>	<ul style="list-style-type: none"> ➤ Documentation indicates thorough inspection of completed projects, using project specifications and contract documents, before authorizing payment ➤ Observation indicates a desire to solve problems ➤ Observation indicates ability to communicate effectively with various individuals in a variety of settings ➤ Documentation indicates consistent compliance with established approval procedures

Critical Work Function 5	
FINANCIAL MANAGEMENT	
Performance Indicators	
<p><i>Key Activity 5.1</i> Identifies trends, researches new technologies and makes informed recommendations</p>	<ul style="list-style-type: none"> ➤ Observation indicates facility with computers ➤ Observation indicates understanding of the components of a budget, construction practices, current technologies, property history and trends, and owner's goals and objectives ➤ Documentation indicates consistent compliance with established procedures for recommending projects ➤ Documentation indicates ability to extract meaningful information from property history and trends and make realistic forecasts about economic trends and the needs of the property and company ➤ Documentation indicates accuracy in performing typical budget calculations



<p><i>Key Activity 5.2</i> Manages the maintenance budget effectively</p>	<ul style="list-style-type: none"> ➤ Documentation indicates accuracy in tracking expenditures ➤ Observation indicates accurate interpretation of common financial reports ➤ Documentation indicates careful monitoring, accurate forecasting, and reasonable decision making as adjustments are required ➤ Observation indicates consistent application of the owner's goals and objectives ➤ Observation indicates reasonable control over expenses and inventory
<p><i>Key Activity 5.3</i> Makes cost effective repair/replace decisions</p>	<ul style="list-style-type: none"> ➤ Observation indicates thorough understanding of company policy and procedure, quality standards, and the needs of residents ➤ Documentation indicates well reasoned analysis of the cost of parts, repairs, scheduling options, and labor relative to the life expectancy of various options and products ➤ Documentation indicates reasonable decision making that balances the needs and concerns of stakeholders





Certificate for Apartment Maintenance Technicians (CAMT)

Inside the Apartment Business (Online)

- Maintaining the Community
- Safety First
- Compliance Matters
- Customer Service
- Practice Scenarios

People, Projects and Profits (Online)

- People
- Projects
- Profits
- Practice Scenarios

The Future of Air Conditioning in the Apartment Industry (Online)

- Save it or Replace it?
- EPA: What You Should Know about Refrigerants
- 13 SEER
- HCFC-22
- R-410a
- R407c
- Oils
- Clean Air Act

Interior and Exterior Maintenance and Repair

- Make-ready maintenance
- Caulking
- Ceilings and walls
- Locks
- Tile
- Other interior maintenance topics identified during discussions
- Curb appeal
- Swimming pool area safety
- Inspections of building exteriors



Certificate for Apartment Maintenance Technicians (CAMT) Continued

Electrical Maintenance and Repair

- Roles and responsibilities in electrical maintenance and repair
- Electrical basics and terms
- Electrical safety
- Tools and equipment for electrical repairs
- Electrical wires
- Main service panels
- Wall switches
- Receptacles
- Incandescent and fluorescent light fixtures
- Smoke alarms

Plumbing Maintenance and Repair

- Role and responsibilities in plumbing maintenance and repair
- Plumbing basics and terms
- Plumbing safety
- Tools and equipment for plumbing repairs
- Shut off valves
- Plumbing pipes and fittings
- Faucets and sinks
- Garbage disposals
- Tubs and showers
- Toilets
- Drains
- Water heaters

Air Conditioning Maintenance and Repair

- Roles and responsibilities in air conditioning maintenance and repair
- Air conditioning safety
- Tools and equipment for air conditioning repairs
- Refrigerants and their special properties
- The air conditioning system
- Simple fixes
- Refrigerant system repairs
- Electrical system repairs
- Air distribution system repairs



Certificate for Apartment Maintenance Technicians (CAMT) Continued

Heating Systems Maintenance and Repair

- Roles and responsibilities in maintaining and repairing heating systems
- Heating safety
- Tools and equipment for heating repairs
- Air distribution
- Electric furnaces
- Electric baseboard heating
- Gas furnaces
- Hydronic heating

Appliance Maintenance and Repair

- Roles and responsibilities in appliance maintenance and repair
- Diagnosing appliance problems
- Appliance safety
- Tools and equipment for appliance repairs
- Clothes dryers
- Clothes washers
- Ovens and cooktops
- Dishwashers
- Refrigerators



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