

DACUM Research Chart for Firefighter

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Duties		Tasks				
A	Respond to Emergencies	A-1 Respond to process fires (e.g., compressor units, piping)	A-2 Respond to tank fires	A-3 Respond to structural fires	A-4 Respond to marine jetty fires	A-5 Respond to mutual aid requests
		A-13 Respond to oil spills	A-14 Respond to extrication rescues	A-15 Respond to trench rescues	A-16 Assist paramedics	A-17 Respond to medical emergencies
B	Participate in Training Activities	B-1 Complete NFPA 1081 training (industrial fire fighter)	B-2 Complete NFPA 1670 training (technician level)	B-3 Complete NFPA 472 training (technician level)		B-4 Complete NFPA 1001 fire fighter 1 training
		B-11 Complete breathing air compressor training	B-12 Complete NIMS training (incident command system)	B-13 Complete VTA training	B-14 Conduct ERT training	B-15 Participate in emergency response drills
C	Maintain Emergency Response Equipment	C-1 Complete daily vehicle inspection checklist	C-2 Complete emergency vehicle inspection checklist	C-3 Complete vehicle daily inventory checklist	C-4 Inspect PPE	C-5 Inspect SCBA
		C-11 Inspect rope rescue equipment (e.g., hardware, software, ropes)	C-12 Complete hazardous materials inspection equipment checklist (e.g., PPE, absorbent pads, spill kits)		C-13 Inspect hose appliances & adapters	C-14 Perform flow test on fire apparatus
		C-22 Inspect foam equipment	C-23 Inspect fire training field equipment (e.g., propane tanks, control panel, draining system)			
D	Inspect Plant Safety Equipment/ Systems	D-1 Complete weekly inspection package (e.g., water storage, fire pumps, foam skid pumps)		D-2 Complete monthly inspection package (e.g., decom showers, portable fire extinguishers, eye wash stations)		D-3 Complete 6-month inspection package (e.g., hydrants, fixed dry chemical, CO2 systems)
		D-9 Update rescue pre-plans	D-10 Conduct hazard surveys			
E	Conduct Training Activities	E-1 Conduct fire extinguisher training	E-2 Conduct respiratory fit testing	E-3 Conduct SCBA training	E-4 Conduct firefighter turnout gear training	E-5 Prepare fire field
F	Execute Administrative Tasks	F-1 Participate in daily briefings	F-2 Post safety bulletins	F-3 Complete timecards/time sheets	F-4 Complete training records	F-5 Complete inspection reports

A-6 Respond to jungle fires	A-7 Respond to confined space rescues	A-8 Respond to rope rescues	A-9 Respond to vehicle accidents	A-10 Respond to water rescues	A-11 Respond to vapor releases	A-12 Respond to chemical spills
A-18 Respond to trauma emergencies	A-19 Respond to building collapses	A-20 Respond to mass casualties	A-21 Respond to offshore emergencies	A-22 Respond to public safety requests		
B-5 Complete NFPA 1001 fire fighter 2 training	B-6 Complete NFPA 1002 training (driver operator level)	B-7 Complete NFPA 1006 training (e.g., water rescue, extrication)	B-8 Complete NFPA 1041 training (instructor level training)	B-9 Complete basic life support training (e.g., CPR, AED, oxygen)	B-10 Participate in RIT training	
C-6 Inspect personal rescue equipment (e.g., hardware, software)	C-7 Inspect hand tools (e.g., axes, shovels, hydrant keys)	C-8 Inspect portable power equipment (e.g., chainsaws, generators, fans)	C-9 Inspect first aid equipment (e.g., oxygen, AED, trauma bags)	C-10 Inspect extrication equipment (e.g., hydraulic tools, air bags, cribbing)		
C-15 Test radio equipment	C-16 Inspect ground ladders	C-17 Inspect fire hoses	C-18 Inspect master stream equipment (e.g., Despit tool, ambassador)	C-19 Inspect breathing air compressor	C-20 ????	C-21 Perform foam test
D-4 Complete annual inspection package (e.g., deluge system, fire main block valves, respiratory fit test)	D-5 Complete NFPA life safety code inspections (e.g., exit egress, emergency lighting)		D-6 Update tank fire pre-plans	D-7 Update building fire pre-plans	D-8 Update hazardous materials mapping	
E-6 Prepare burn pre-plan	E-7 Assist lead instructor	E-8 Assist safety department with training	E-9 Conduct fire training (e.g., advanced interior, exterior)	E-10 Conduct rescue training		
F-6 Complete vacation requests	F-7 Complete STOP cards	F-8 Perform housekeeping tasks				

General Knowledge and Skills

Basic algebra	Hazard analysis
Basic geometry	Rescue techniques
Basic chemistry	Fire fighting strategies & tactics
Basic electrical	Scene size-up
Basic instrumentation	Fire fighting terminology
Basic mechanical theory & principles	3-dimensional thinking
Hydraulics and pneumatics	Fire truck driving/operation
Fire behavior	Fire equipment
Weather behavior	Problem solving skills
Fire codes	Communication skills
OSHA requirements	Prioritizing skills
Fire training standards	Troubleshooting skills
EPA requirements	Rigging skills
NIMS standards	Driving skills
Grounding theory	Analytical skills
Building construction methods & standards	Safety practices
Risk analysis	Short term memory skills
	Time management skills
	Interpersonal skills

Worker Behaviors

Common sense	Desire to serve
Good judgment	Traditional
Dedicated	Respectful
Team player	Selfless
Dependable	Good hygiene
Physically fit	Mechanical aptitude
Stable	Loyal
Knowledgeable	Able to take orders
Courage	Proud
Honor	Command presence
Sense of duty	Leader
Camaraderie	Self motivated
Positive attitude	Proactive
Creative	Detail oriented
Initiative	

Tools, Equipment, Supplies and Materials

Computer & related peripherals	Piles poles
Communication equipment	Axes
Basic hand tools	Halogen tools
Fire trucks	Forcible entry tools
Utility vehicles	Portable monitors
Lighting equipment	Master streams
Hose lines (attack and water supply)	Foam eductors
Hydrant wrenches	Fire fighting foam
Extrication tools	Foam trailers
Ropes (rescue, utility)	Rescue trailers
Tripods	Hazmat trailers
Hose trailers	Portable fire pumps
Respirators	Oil spill kits
Ladders	Air bags
Cutting torches	Cribbing
Portable power tools	Supplied air carts
Fire training props	Thermal imaging cameras
Fans	Fire extinguishers
Proximity suits	First aid kits
Breathing apparatus	Air monitors
Hose appliances and adapters	AEDs
Life vest	Hazmat suits
Recue boat	High expansion foam generator
Nozzles	Bunker gear

Future Trends and Concerns

Concern for liability issues to individuals & department

Distance from family/home

Shared services

Contract stability as it affects fire fighters

Cultural differences

Movement toward computer based training

Personal performance development planning

Trend toward self-certification

Increasing workload/impact on response readiness

12 hour work schedules

Personal risk

Acronyms

AED	Automatic Electronic Defibrillator
CPR	Cardio Pulmonary Resuscitation
EPA	Environmental Protection Agency
ERT	Emergency Response Team
NFPA	National Fire Protection Association
NIMS	National Incident Management System
OSHA	Occupational Safety & Health Administration
PPE	Personal Protective Equipment
RIT	Rapid Intervention Team
SCBA	Self Contained Breathing Apparatus
STOP	Safety Takes everyOnes Participation
TIC	Thermal Imaging Camera