

Knowledge, Skills Abilities -- Gap Analysis Tool

Mechanical Technologist Grade II	Do It All The Time	Limited Experience	Never Do This
200. Knowledge, skills and abilities identified on the Test Content Specifications for Plant Maintenance Grade I.			
201. Standard methods, theory, practices, materials, tools, and equipment used in installing, adjusting, maintaining, and repairing mechanical equipment common to a wastewater treatment plant and collection system.			
202. Safety practices and procedures pertaining to the work performed.			
203. Characteristics and capabilities of common metals and alloys; uses and operation of electric and gas cutting and welding equipment; and rigging principles and techniques.			
204. Use standard hand, electric, and pneumatic tools and equipment of the mechanical trades.			
205. Establish and maintain effective working relationships.			
206. Read and interpret mechanical drawings, plans, and specifications.			
207. Diagnose and troubleshoot a variety of mechanical equipment common to a water quality facility.			
208. Make repairs and perform routine preventive and predictive maintenance to the equipment used in the collection, transport, and water quality treatment.			
209. Estimate labor and materials for proposed work and keep and complete records.			
210. Effectively communicate in both written and oral form, in the English language.			
211. Provide training to maintenance personnel.			
Total Per Category			

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Mechanical Technologist Grade II	Do It All The Time	Limited Experience	Never Do This
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If you have mostly "do it all the time" boxes checked, you may want to explore the next higher grade.

If you have a mix of the "do it all the time" & "limited experience", this is likely the right grade.

If you have mostly "never do this," you may want to explore a lower grade or get more experience.

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Mechanical Technologist Grade III	Do It All The Time	Limited Experience	Never Do This
300. Knowledge, skills and abilities identified on the Test Content Specifications for Plant Maintenance Grade I, and Mechanical Technology Grade II.			
301. The operations, theory, methods, materials, tools, equipment, and safety practices involved in maintenance, construction and repair of mechanical components of potable water quality, and storm drainage systems.			
302. Supervisory principles and practices including training, planning and scheduling work, efficient use of personnel, equipment and materials.			
303. Methods and techniques of metal fabrication.			
304. Methods and techniques of handling and transporting hazardous waste and materials, chemicals and gases.			
305. Pertinent federal, state and local laws, codes and regulations.			
306. Interpret and explain policies, safety practices and standard operational procedures.			
307. Respond to and maintain order in emergency situations.			
308. Communicate clearly and concisely, both orally and in writing, in the English language.			
309. Establish and maintain effective working relationships.			
310. Handle public contacts with tact and diplomacy.			
311. Supervise, organize and review the work of staff.			
312. Hire, supervise, train and evaluate staff.			
313. Manage a predictive and preventive maintenance program.			
314. Assist in the management of a computerized maintenance management system.			
315. Interpret blueprints, specifications, maps, technical instructions, and information.			
316. Prepare reports and maintain records.			

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Mechanical Technologist Grade III	Do It All The Time	Limited Experience	Never Do This
Total Per Category			

If you have mostly "do it all the time" boxes checked, you may want to explore the next higher grade.
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Mechanical Technologist Grade IV	Do It All The Time	Limited Experience	Never Do This
400. Knowledge, skills and abilities identified on the Test Content Specifications for Plant Maintenance Grade I and Mechanical Technologist Grades II, and III.			
401. The methods, materials, equipment, and chemicals used in the maintenance, repair and construction of various types of mechanical, hydraulic, pneumatic, chemical, and electrical/instrumentation components in treatment plants, complex pumping stations, potable water facilities, and chemical handling.			
402. Safety principles and state OSHA requirements involved in all aspects of plant maintenance work, equipment usage, and confined space work performed.			
403. Supervisory principles and practices, which include training, planning, budgeting and scheduling effective use of personnel, equipment, and materials.			
404. Computer systems relevant to water quality treatment facilities.			
405. Pertinent federal, state and local laws, codes and regulations.			
406. Permit and regulatory requirements for the operation of a water quality facility.			
407. Principles of budget preparation and control.			
408. Establish and maintain effective working relationships with those contacted in the course of work including a variety of government officials and the general public. (20%)			
409. Direct operations of all mechanical, hydraulic, pneumatic, and electrical and instrumentation equipment used in water quality treatment plant operations. (40%)			
410. Communicate clearly and concisely, both orally and in writing in the English language. (30%)			
411. Supervise, direct and coordinate the work of staff.			
412 Hire, supervise, train and evaluate staff.			
413. Interpret and explain applicable policies and procedures.			
414. Prepare clear and concise reports.			
415. Plan and oversee complex jobs, including the utilization of personnel, materials, and equipment.			
416. Interpret and explain blueprints, specifications, and maps.			

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Mechanical Technologist Grade IV	Do It All The Time	Limited Experience	Never Do This
Total Per Category			

If you have mostly "do it all the time" boxes checked, you may want to explore the next higher grade.

If you have a mix of the "do it all the time" & "limited experience", this is likely the right grade.

If you have mostly "never do this," you may want to explore a lower grade or get more experience.