

ISA Certified Arborist Municipal Specialist Exam Outline

<b>I</b>		<b>Communication Skills</b>
I A		Oral communication/presentations: Communicate clearly with individuals and stakeholders.
I A 1		Audiences
I A 2		Topics
I A 3		Resources: Develop technical information for dissemination to non-technical audiences.
I B		Written communication
I B 1		Public notices
I B 2		Requests for bids/specifications: Create clear and concise specifications for work to be performed.
I B 3		Contracts
I B 4		Reports
I B 5		Training/technical documents
I B 6	x x 1	Grants: Identify applicable grant and funding opportunities.
I B 6	x x 2	Prepare grant applications to address specific issues or projects.
I C		Interactive
I C 1		Conflict resolution: Develop skills to manage conflict resolution for internal and/or external issues.
I C 2		Interagency communication: Coordinate plans and actions with other municipal divisions/departments.
I C 3		Media: Develop effective communication and relationships with the media in traditional and social platforms.
I C 4		Utilities: Coordinate plans and actions with local utilities.
I C 5		Public groups
<b>II</b>		<b>Public Relations and Education</b>
II A	x x x 1	Customer service: Monitor customer satisfaction.
II A	x x x 2	Customer service: Demonstrate effective customer relations with the public.
II A 1		Routine interactions/normal work schedule
II A 2		Service requests
II A 3		Internal
II B		Public participation: Communicate the minimum standards of a community forestry program.
II B 1		Tree Board: Coordinate with community tree boards or similar advisory bodies to achieve common goals.
II B 2		Grassroots issues/concerns
II B 3		Volunteer management: Implement a volunteer management program.
II B 4		Special events
II C		Public education: Implement a public education program that reaches a wide range of stakeholders.

<b>III</b>	<b>Administration</b>
III A	Budget and funding
	Development and management within: Monitor and make recommendation of
III A 1	department/program budgets.
III A 2	Identifying and utilizing alternate funding sources
III B	Policy Administration
III B 1	Maintenance of currency (reviewing and updating)
	Monitoring and enforcement: Implement/enforce community tree ordinance/policies in
III B 2	partnership with other municipal divisions/departments.
III C	Contracting: Monitor contractor performance and/or compliance.
III C 1	Evaluation of bids/awarding of contracts
III C 2	Adherence to specifications and standards
III C 3	Monitoring and payment management
III C 4	Enforcement and penalties
	Comparison of in-house versus contractor: Compare costs and effectiveness of in-house
III C 5	versus contractor provision of services.
III D	Personnel management
III D 1	Development of job descriptions
III D 2	Hiring/terminating, etc.
III D 3	Creating development plans
III D 4	Work plans/assignments: Create employee work tasks/assignments.
III D 5	Evaluations: Conduct employee evaluations.
III D 6	Managing employee relations
III E	Labor unions
III E 1	Knowledge/understanding of contracts
III E 2	Relationship with union representative
III E 3	Cooperation in development of policies, work plans, etc.
III F x x x 1	Safety and training: Implement workplace safety program/education.
III F x x x 2	Safety and training: Implement staff training/education program.
III F x x x 3	Safety and training: Evaluate workplace safety program/education.
III F 1	Compliance with standards and regulations
III F 2	Fostering a culture of safety
III F 3	Monitoring and enforcement
III F 4	Training program
III F 5	Maintaining currency
III G	Fleet and equipment
III G 1	Knowledge of industry tools and equipment
III G 2	Inspection, maintenance, and equipment
III G 3	Purchasing specifications
III H	Program justification: Advocate for tree management needs with decision makers.
III H 1	Cost/benefit analysis data
III H 2	Prepared statements/presentations
III H 3	Communication with decision-makers

<b>IV</b>		<b>Tree Risk Management</b>
IV A		Determine ownership of trees: Determine ownership of trees (public versus private).
IV B		Tree health management
IV B 1		Plant health care best practices
IV B 2		Pest management: Implement appropriate pest control strategies.
IV B 3		Abiotic disorders: Diagnose abiotic tree disorders common in urban areas.
IV C		Tree risk management
IV C 1		Duty of care/liability: Recognize the liability associated with municipal tree management and the duty to manage tree risk.
IV C 2		Types of risk
IV C 3		Risk assessment
IV C 4		Risk analysis
IV C 5		Prioritization of mitigation: Interpret tree inventory data to plan work to reduce risk associated with tree failures.
IV C 6		Mitigation: Prescribe mitigation measures to reduce tree risk.
IV D		Protection and Preservation: Administer tree protection ordinance/plan.
IV D 1		Protection
IV D 2		Damage
IV D 3		Post-damage management
<b>V</b>		<b>Arboricultural Practices</b>
V A	x x x 1	Tree inventories: Plan a tree inventory based on community and management needs.
V A	x x x 2	Tree inventories: Conduct a canopy cover analysis and/or tree inventory.
V A 1		Types
V A 2		Components
V A 3		Methods: Utilize current technology to execute tree inventory and manage the tree database.
V A 4		Utilization/purpose
V A 5		Data management and updating
V B		Pruning and pruning cycles
V B 1		Defining objectives:
V B 2		Adherence to standards and best practices: Prune trees according to applicable industry standards and best practices.
V B 3		Budgeting/scheduling: Differentiate between routine and response pruning.
V B 4		Pruning types
V B 5		Crew options
V C		Planting: Formulate an efficient and effective planting plan and stocking rate.
V C 1		Location: Identify species appropriate for planting in various situations/locations.
V C 2		Species/site considerations and selection: Assess site and soil conditions before planting.
V C 3		Standards and specifications: Identify the most effective planting methods/standards based on site conditions.
V C 4		Budgeting/scheduling
V C 5		Crew options
V C 6		Promotion

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V D x x x 1	Natural area management: Plan for conservation of natural areas.
	Natural area management: Consider the wildland urban interface in tree management
V D x x x 2	operations.
V D 1	Laws and regulations
V D 2	Management
V E	Soil/drainage management
V E 1	Soil sampling and types: Identify soil types.
V E 2	Modifications: Develop strategies for improving soil volume around urban trees.
V E 3	Structural soils/cells
V E 4	Irrigation: Recommend irrigation options for newly planted and/or existing trees.
V E 5	Drainage: Recommend drainage options for managing water around newly planted or existing trees.
V F	Regulation: Identify regulatory agencies affecting arboricultural practices in the community.
<b>VI</b>	<b>Policy and Planning</b>
VI A	Master management plan: Develop/implement an urban forest management plan.
VI A 1	Objectives: Employ industry standards and best practices for urban forestry.
VI A 2	Council: Recognize the political structure and/or processes of municipal management and policy development.
VI A 3	Roles and responsibilities: Identify the urban forester's role within the structure of municipal management.
VI A 4	Assessment: Analyze the assets and liabilities of the urban forest.
VI A 5	Planting plan
VI A 6	Maintenance plan
VI A 7	Wood/chips/debris disposal/recycling: Assess opportunities for wood reuse/recycling.
VI A 8	Tree protection: Interpret and evaluate site plans and/or specifications.
VI A 9	Evaluation
VI A 10	Reporting
VI B	Risk management plan: Develop a tree risk management plan.
VI B 1	Policy statement
VI B 2	Goals
VI B 3	Assessment frequency
VI B 4	Assessment/analysis methodology
VI B 5	Risk tolerance
VI B 6	Prioritization
VI C	Laws and ordinances
VI C 1	Write/revise: Make recommendations for community tree ordinances/policies.
VI C 2	Permits
VI C 3	Plan review
VI C 4	Criteria and specifications
VI D	Storm disaster emergency response: Make recommendations for emergency response protocol.
VI D 1	Plans/protocols
VI D 2	Support agreements
VI D 3	Government agency support