

**Dry Lab/Computational Research
Technical Associate I & II
JOB LEVEL GUIDE**

		Technical Associate I Exempt	Technical Associate II Exempt
Position Overview Statement		<p>Performs coding/programming and laboratory research experiments.</p> <p>Analyzes data using statistical methodology and records results.</p> <p>Maintains computer database(s) and improves data utilization.</p> <p>Ensures inventory of appropriate lab supplies.</p> <p>May coordinate multiple research-related projects.</p>	<p>Performs complex coding/programming and a broad range of research experiments.</p> <p>Analyzes data using statistical methodology and records results.</p> <p>Designs and maintains computer database(s) and improves data utilization.</p> <p>Utilizes both routine and specialized techniques in research area.</p> <p>May coordinate multiple research-related projects.</p>
Principal Duties & Responsibilities	Research Techniques and Protocols	<p>Performs independent research.</p> <p>Conducts standard and/or specialized lab techniques and functions to support lab and/or research project or protocol.</p> <p>Participates in modification of protocols and experimental strategies.</p> <p>May recruit participants in research study.</p>	<p>Performs independent research.</p> <p>Modifies and/or develops protocols, procedures, techniques or applications of technology.</p> <p>Advises on experimental design and applicability.</p> <p>Participates in formulating research methods and suggesting options for improving quality and recommending solutions.</p> <p>May recruit participants in research study.</p> <p>Oversees protocol implementation and renewals (CAC, COUHES).</p> <p>Assists with writing and coordination of proposal components and progress reports.</p> <p>Develops standard operating procedures for lab.</p>
	Data / Analysis	<p>Collects and/or cleans data.</p> <p>Performs data coding/programming.</p> <p>Performs statistical analysis on large-scale quantitative and qualitative datasets to determine findings.</p> <p>Evaluates experiment results using statistical and multivariate analysis.</p> <p>Analyzes and interprets varying situations. Utilizes approaches based on understanding of policies, precedents, past practices and scientific knowledge to resolve issues.</p> <p>Creates databases using FileMaker Pro, Excel, Access, and/or databases specific to a department, lab, or center.</p>	<p>Performs complex data coding/programming.</p> <p>Performs complex statistical analysis on large-scale quantitative and qualitative datasets to determine findings.</p> <p>Evaluates experiment results using statistical and multivariate analysis.</p> <p>Analyzes and interprets widely varying situations. Utilizes approaches based on deep understanding of policies, precedents, past practices and scientific knowledge to resolve issues.</p> <p>Creates databases using FileMaker Pro, Excel, Access, and/or databases specific to a department, lab, or center.</p>

Duties listed at lower levels may also be expected in higher-level positions.

		Technical Associate I Exempt	Technical Associate II Exempt
		Implements and maintains analysis software.	Implements and maintains analysis software. Researches, gathers and cleans data from multiple sources for highly complex research projects.
	Research and Document Production	Summarizes and documents research results and findings to researchers. Presents research findings at laboratory meetings. Researches and provides content for manuals, presentations, grant and fellowship proposals, sponsor reports as well fulfilling internal request for information. Initiates and recommends changes to manuals and procedures for own area. May co-author articles and/or manuscripts. May conduct literature reviews.	Analyzes, synthesizes, interprets and documents experimental results. Publishes project results through writing reports, case studies, and/or articles. Presents research findings at laboratory meetings. Prepares and/or collaborates on articles for submission to scientific journals and publications. Co-authors manuscripts/articles for publications. May conduct literature reviews.
	Lab Administration	Participates in planning and execution of lab events including lab meetings. Assesses equipment needs and schedules maintenance and repairs of equipment. Maintains vendor relationships and equipment service contracts/records. May assist in the preparation and submission of salary certification and effort reports. May make recommendations for new and/or revisions to policies and procedures for the laboratory.	Coordinates meetings with external and internal research collaborators. Manages expenditures, ensures funds are spent in accordance with federal laws and budget guidelines. Ensures lab adheres to MIT financial policies, record retention, and other research administration policies. Develops, revises and/or implements policies and procedures for the laboratory. Maintains vendor relationships and equipment service contracts/records. Assesses equipment needs and schedules maintenance and repairs of equipment. May assist in the preparation and submission of salary certification and effort reports.
	Supplies & Equipment	Ensures appropriate inventory of lab supplies for work area. Monitors conditions of orders and service contracts to ensure that deals/purchases are appropriate based on budget. Researches and recommends the purchase of specialized equipment. Trouble-shoots and makes recommendations to solve equipment issues. Liaises with facilities as needed.	Oversees lab ordering systems ensuring spending is compliant with budget guidelines and within budgetary constraints. Identifies and liaises with departmental administration on the purchase of complex equipment. Responsible for the allocation of equipment and supplies. Trouble-shoots and makes recommendations to solve complex equipment issues. Liaises with facilities as needed.

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	Environmental Health & Safety	<p>Ensures safety standards and procedures are followed.</p> <p>Prepares lab for inspections and corrects problems.</p> <p>May serve as EHS representative for laboratory.</p>	<p>Has deep understanding of safety policies and procedures. Ensures safety standards and procedures are followed.</p> <p>Prepares lab for inspections and corrects problems.</p> <p>Provides safety training for others in the lab/work area.</p> <p>May serve as EHS representative for laboratory.</p>
	Other	Performs other related duties as required, including work performed at lower levels, when necessary.	Performs other related duties as required, including work performed at lower levels, when necessary.
Supervision Received		<p>Receives minimal supervision from supervisor, manager or faculty member(s).</p> <p>Work is reviewed at key stages by supervisor, manager, or faculty member(s).</p>	<p>Receives minimal supervision from supervisor, manager or faculty member(s).</p> <p>Work is reviewed at key stages by supervisor, manager, or faculty member(s).</p>
Supervision Exercised		<p>Trains and coordinates work of lower-level staff, student employees, and/or temporary staff.</p> <p>Ensures that others comply with established standards, applicable regulations, and laboratory procedures.</p> <p>May be responsible for onboarding new staff to the lab and training users in equipment operation.</p>	<p>Responsible for onboarding new staff to the lab. Trains and mentors new staff.</p> <p>Ensures that others comply with established standards, applicable regulations, and laboratory procedures.</p> <p>Provides guidance and leadership in non-routine tasks.</p> <p>Trains users in equipment operation and research techniques.</p> <p>May directly supervise staff or provide input in performance reviews of staff.</p> <p>May provide input into the hiring of staff.</p>
Education		Bachelor's degree in specialized or related field, based on hiring lab is required.	<p>Bachelor's degree in specialized or related field based, on hiring lab is required.</p> <p>Master's degree preferred.</p>
Experience		Minimum 2 years' specialized experience with qualitative data analysis, research methods, social sciences (which may include experience gained as an undergraduate).	<p>Minimum 4 years' specialized experience with qualitative data analysis, research methods, social sciences (which may include experience gained as an undergraduate).</p> <p>Prior supervisory experience preferred.</p>
Knowledge		<p>Requires specific understanding of research own work and broad knowledge of work of the lab(s).</p> <p>Ability to recognize needs of unit.</p> <p>Knowledge of technical programming/coding for specific lab required.</p>	<p>Requires deep understanding of own work and work of the lab(s).</p> <p>Ability to recognize needs of unit.</p> <p>Knowledge of technical programming/coding for specific lab required.</p> <p>Experience in conducting on-line research in field of study and applying information to projects based on scientific area of study.</p>

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	Experience in conducting on-line research in field of study and applying information to projects based on scientific area of study.	
Critical Thinking and Problem Solving	Identifies and selects appropriate tools, data, and analysis techniques to diagnose problems and develop solutions. Makes recommendations to solve and resolve highly complex problems.	Recognizes problems or situations that are new or without precedent. Finds solutions using a systematic, multi-step approach.
Decision Making	Decision making guided by varied and less defined instructions and practices requiring broader interpretation.	Makes decisions on issues and priorities for own work area.
Impact	Work may affect multiple areas. Communicates, interprets and trains others on lab/departmental policies. Accountable for the end product of own work. Maintains confidentiality of information.	Work may affect multiple areas. Determines and may develop lab procedures and recommends changes to work area processes. Communicates, interprets and trains others on lab/departmental policies. Accountable for the end product of own work as well as work of others. Maintains confidentiality of information.
Collaboration	Collaborates with team; shares relevant information with those who may be affected by decisions. Participates in formal or informal group problem solving for immediate issues. Identifies and resolves issues in own work group	Collaborates with team; shares relevant information with those who may be affected by decisions. Participates in formal or informal group problem solving for immediate issues. May provide basic facilitation for group discussions. Identifies and resolves issues in own work group. Assists with issues that impact other areas.
Communication Effectiveness	Excellent interpersonal and communication skills in order to represent the work area and the larger MIT community. Able to answer complex questions. Conveys information to others and takes steps to ensure understanding. Shares information in a clear and concise manner.	Excellent interpersonal and communication skills in order to represent the work area and the larger MIT community. Conveys complex information to others and takes steps to ensure understanding. Shares information in a clear and concise manner. Tailors communication to different audiences.
Work Environment	Staff may be subject to hazards including proximity to mechanical parts, electrical current or exposure to high heat or chemicals.	Staff may be subject to hazards including proximity to mechanical parts, electrical current or exposure to high heat or chemicals.

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Physical Requirements	Work may require exerting light to medium amount of force to move objects (10 – 20lbs). Use of arms and/or legs to push, pull and lift objects. Work may require mobility to accomplish some tasks, particularly for long distances or moving from site to site.	Work may require exerting light to medium amount of force to move objects (10 – 20lbs). Use of arms and/or legs to push, pull and lift objects. Work may require mobility to accomplish some tasks, particularly for long distances or moving from site to site.

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