Research Scientist/Engineer Career Path Guidelines
Competencies Arranged by Function

	RSE Assistant	RSE 1	RSE 2	RSE 3	RSE 4	RSE Senior	RSE Principal	RSE Senior Principal
Function	**Technical Problem Solving and Innovation**							
Problem Solving	Solves well-defined problems using accepted methods and techniques. Performs assignments to develop professional work knowledge and ability.	Solves well-defined problems using accepted methods and techniques; defines and improves practices from experiences on small projects. Assignments require investigation of a limited number of variables with few complex features.	Evaluates, selects and applies standardized scientific/ engineering procedures and techniques requiring investigation of a limited number of variables.	Seeks continual improvement of work practices from experiences with moderate- sized projects. Assignments are of moderate complexity involving potentially conflicting requirements; identifies problems and related technical issues leading to long- term generic solutions.	Identifies root causes of technical or quality problems. Applies independent problem solving requiring the application of existing or emerging scientific/ engineering knowledge.	Independent problem solving requiring the application of existing and emerging scientific/ engineering knowledge.	Applies extensive and diversified knowledge of scientific research or engineering principles and practices in broad areas.	Applies extensive and diversified knowledge of scientific research or engineering principles and practices in broad areas.
Innovation		Makes technical contributions to project tasks; develops extensions to existing methods.	Contributes to ideas and methods for the expansion of existing, or development of, new research efforts. Contributes to intellectual development activities.	Develops extensions to existing methods/protocols. Contributes to intellectual development activities; may lead a portion of the activity.	Develops innovative extensions to accepted methods; may develop new research methods; extends technology into new application areas. Contributes or leads in major intellectual development activities.	Develops new research and engineering methods/ approaches; serves as a key leader in extending critical technical capabilities. Leads the development of intellectual property.	Develops unique approaches/ standards/methods for conducting research; develops highly advanced technologies, products, scientific principles, theories and concepts. Pushing existing technical/ scientific research into new frontiers; research has substantial impact that extends knowledge and understanding. Selects/identifies new areas of investigation in order to further the Department's/UW's research mission.	May create new science and/or technologies, and extend them into new applications; develops potential research areas. Contributes inventions, new designs or techniques that are of material significance in the solution of important problems. Identifies, proposes, and leads new strategies/ initiatives that are critical to the UW.
	Project Planning and Management							
Size and Complexity	Performs assigned tasks/projects under immediate supervision.	Performs tasks/projects of a limited scope under limited supervision; demonstrates ability to work independently.	Performs tasks/projects of a larger scope; may lead specific tasks within the project scope.	Manages projects of moderate size and scope; makes substantial contributions to determining feasibility of goals/objectives.	Manages multiple or significant projects which may require use of sophisticated project planning techniques.	Manages technically complex projects (high technical impact or risk) which involve multiple organizations and/or disciplines.	Manages projects of major strategic value to UW which enhance the university's reputation for technical expertise.	Manages projects of major strategic value to UW which enhance the university's reputation for technical expertise.
Funding Contributions	No defined role in identifying/securing research funding.	No defined role in identifying/securing research funding; successful performance of project related tasks provides support to on-going funding efforts.	Takes responsibility for assuring quality, cost effectiveness and timeliness for small projects. Assists in procurement of additional/new funding through contributions to technical proposal preparation and/or presentations.	Maintains external research relationships to identify and develop new funding sources.	Initiates new project concepts and seeks funding sources; identifies grant/project extensions and persuades customer/ grant sponsor to fund.	Identifies and leads research funding activities. Reputation leads to ability to attract significant funding.	Plays a lead role in the identification/acquisition of research funding. Reputation leads to ability to attract major funding.	Leads the development and implementation of new and/or expanded technical capabilities that will impact future research projects/ funding. Provides the University with a distinct competitive advantage in procuring major new/ continued funding.
Planning	Relies on instructions and pre-established guidelines to perform the functions of the job.	Implements established systems/ approaches for moderately difficult tasks.	Learns methods for planning, including assessment of cost, scope and schedule against plan.	Creates, monitors and implements effective plans; contributes to development of proposals, and may make presentations.	Develops technical proposals and makes presentations to potential customers/ grant sponsors.	Participates in strategic planning; directs/participates in major proposal preparation and presentation.	Directs the preparation of major proposals and presentations.	Proposes and leads new initiatives involving multidisciplinary and multi-jurisdictional initiatives; directs the preparation of proposals and presentations.
Project Scoping			Scopes tasks and develops approaches for moderately difficult tasks.	Takes lead for scoping tasks/projects; assembles research team members. Sets technical approach for solving problems and meeting customer/grantor needs.	Evaluates proposed or on- going projects; interfaces with customer/grant sponsor and UW management for existing/proposed projects. Project results may impact UW research mission; results are visible/ impactful in peer community.	Project results impact UW research mission; results are usually visible/ impactful at national level.	Widely recognized by key customers/grant sponsors as being central to their mission. Project results have significant impact on UW research mission; results usually visible/impactful at national/ international level.	Guides programs of national or international significance. Project results have significant impact on UW research mission; results usually visible/impactful at national/ international level.

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Function	**Leadership/Technical Influence/Networking**							
Team Participation	May guide the work of junior staff or students as necessary to achieve specific assignments. Establishes productive relationships with co-workers and customers to accomplish team objectives.	Works effectively as a member of a team under technical guidance of seasoned staff. May guide the work of co- workers, students, research aides/ assistants, technicians or other support staff to achieve specific assignments. Establishes productive relationships with co-workers and customers to accomplish team objectives.	Monitors the work of junior staff to ensure that correct procedures are followed; provides direction to assure completion of technical tasks and projects. Interacts in a collaborative manner with other team members to accomplish organizational goals.	Monitors the work of others and redirects efforts to achieve task/project objectives or enhance quality. Mentors junior staff in development of technical, project and business development skills.	Mentors/trains staff in development of technical skills. Provides major input to staffing of overall project teams; builds team and staff to optimize efficiency and cost effectiveness. Leads interdisciplinary project teams; identifies and evaluates candidates for research positions.	Provides intensive mentoring/training of senior research staff; utilizes individuals on projects to optimize their technical strengths to best meet customer/ grantor needs. Assists in defining staff needs, selection/ assessment criteria, and hiring process. Integrates project staffing decisions with overall technical strategy; uses national network to identify high caliber research talent.	Directs technical performance of several groups or teams which may be interdepart- mental and/or interdisciplinary; encourages staff innovation. Defines staff needs, selection/assessment criteria, and hiring process for senior research staff. Assists in defining the technical appraisal process for research staff.	Directs technical performance of multiple groups or teams which are interdepartmental and/or interdisciplinary; encourages staff innovation. Defines staff needs, selection/assessment criteria, and hiring process for senior research staff.
Technical Influence	Contributes data for use in reports and publications.	Contributes ideas and comments to proposals, plans and other research development activities. Contributes data/ findings for use in reports, documents, or oral/written presentations. May provide ideas to improve efficiency at group level.	Assists in preparation of reports, papers, presentations, new proposals, etc., and may collaborate on some; presents papers at technical meetings. Provides contributions which influence important customer decisions. Provides ideas to improve efficiency at group level.	Sought out for contributions to reports and publications; author/co-author on papers, proposals, presentations and reports; gives invited papers. Influences important customer and UW decisions. Provides ideas to improve organizational efficiency at group and department levels.	Chairs sessions at technical meetings; gives invited papers; participates in external seminars, workshops, professional societies and committees. Identifies, initiates and follows through on research opportunities; impacts customer decisions and strategies. Provides innovative problem- solving approaches to enhance organizational capabilities. Serves as a resource to Department and UW; influences strategic customer decisions; may influence decisions beyond immediate customer/grantor.	Organizes and chairs sessions at technical meetings and presents invited papers. Significant involvement in external seminars, workshops, professional societies and committees. Develops and initiates technical standards through interactions with professional societies and key customers. Serves as an influential resource to UW and its customers for problem resolution, meeting client needs, and for identifying research opportunities.	Presents papers, leads symposia and chairs committees; publications and presentations establish "national agenda" for research work in area of specialization. Participates on advisory/policy boards, journals and societies with national/ international focus. Serves as peer reviewer of major technical programs. Primary resource to UW and customers in identifying future problems, research trends and opportunities.	Frequently asked to present papers, lead symposia, and chair committees at national/ international levels. Establishes new scientific/technical direction resulting in new fields of study. Participates on advisory/policy boards, journals and societies with national/ international focus. Influences national/ international profession through significant scientific discovery, invention and technical innovation.
Networking	Networks primarily limited to own technical peer group.	Networks primarily within own technical peer group.	Has established network in internal peer group; starts becoming part of identifiable external peer network	Recognized for technical contributions by external peer network.	Uses peer network to expand technical capabilities and identify new research opportunities.	Networks nationally; may receive awards at national level.	Networks nationally and internationally; receives prestigious awards, rank, or position in technical societies.	Networks nationally and internationally; receives prestigious awards, rank, or position in technical societies.
	Technical Excellence							
Technical Excellence	Knows fundamental concepts, practices, and procedures of particular field of specialization. May also receive formal classroom or seminar-type training.	Knows the fundamental concepts, practices and procedures of a particular field of specialization.	Knows and effectively uses the fundamental concepts, practices and procedures of a particular field of specialization; continues development of technical expertise and knowledge through experience and application.	Establishing distinguishing technical expertise; has broad knowledge of principles, practices and procedures of field of specialization.	Recognized as a scientific/ engineering leader for relevant technical area; advances state- of-the-art research in field of specialization.	Applies advanced knowledge to the completion of complex assignments/projects. Developing as an authority with national recognition.	Applies extensive and advanced knowledge to the development of solutions to complex problems/projects that require innovation and ingenuity. Recognized as a national or international authority.	Applies extensive and advanced knowledge to the development of solutions to complex problems/projects that require innovation and ingenuity. Recognized as a national or international authority.