Job Title:	Research Engineer	Level I	Grade 32 \$35,000 - \$58,400
Job Code:	JA01	Level II	Grade 33 \$39,300 - \$65,500
		Level III	Grade 34 \$45,100 - \$75,100
FLSA status:	Exempt	Level IV	Grade 35 \$51,900 - \$86,400
		Level V	Grade 37 \$68,700 - \$114,500
		Level VI	Grade 38 \$78,900 - \$131,600

Job Summary

Conducts research in various fields of engineering to discover facts or perform research directed toward investigations, evaluation, and application of engineering theories and principles.

Essential Functions

- 1. Performs a variety of research and development projects requiring the applications of professional engineering practices and principles.
- 2. Operates, maintains, and repairs specialized equipment.
- 3. Advises faculty, postdocs, students, and staff with design, modification, prototype, processes, analysis procedures, and other engineering solutions.
- 4. Designs and fabricates equipment, materials, systems utilizing engineering practices and principles.
- 5. Performs failure analysis and other issues.
- 6. Ensures supplies are available and operational for use in projects.
- 7. May manage local computer systems for laboratory functionality.
- 8. Develops proposals, budgets, schedules and progress reports and presents results.
- 9. Evaluates findings to develop new concepts, equipment, or processes.
- 10. Prepares technical reports for long and short-range planning.

Supervisory Responsibility

May supervise employees but supervision is not the main focus of the job.

The above essential functions are representative of major duties of positions in this job classification. Specific duties and responsibilities may vary based upon departmental needs. Other duties may be assigned similar to the above consistent with the knowledge, skills and abilities required for the job. Not all of the duties may be assigned to a position.

Job Family Levels Level Responsibility

Level	Responsibility	Knowledge	Education and Experience*
ı	Works under close supervision; receives specific and detailed instructions for required tasks and results expected. Performs a variety of routine tasks. Usually assumes no responsibility for direction of others.	Familiarity with engineering staff, methods, practices and programs.	B.S. in Engineering and no experience.
II	Performs standard engineering work requiring application of standard techniques and procedures. Assignments may include higher-level work for developmental purposes. Receives close supervision on new aspects of assignments. Uses prescribed methods, performs specific and limited segments of an experienced engineer's broader assignment.	Continuing developmental level. Limited exercise of judgment required when less common methods or procedures are necessary.	B.S. in Engineering plus 2 years professional experience. Experience must include at least 2 years at the preceding level or equivalent.
III	Assignments have clear and specific objectives and require investigation of a limited number of variables. Receives instructions on specific assignment objectives, complex features, and possible solutions. May be assisted by engineers or technicians and be responsible for single phase of a project.	Independently evaluates, selects and applies standard engineering techniques and procedures while using judgment when making minor adaptations and modifications.	B.S. in Engineering plus 4 years professional experience. Experience must include at least 2 years at the preceding level or equivalent.
IV	Plans and conducts work requiring judgment in independent evaluation, selection and substantial adaptation/modification of standard techniques, procedures, and criteria. Devises new solutions to problems encountered. Independently performs most assignments with instruction only regarding general expected results. May supervise a few engineers and/or technicians on project basis.	Fully competent in all conventional aspects of subject matter or functional area of assignments.	B.S. in Engineering plus 6 years professional experience. Experience must include at least 2 years at the preceding level or equivalent.
V	Makes decisions independently regarding engineering complexities and methods. Supervision and guidance relate largely to overall objectives, critical issues, new concepts and policy matters. Supervises, coordinates and reviews work of small staff of engineers and/or technicians. As individual researcher or staff specialist, performs complex or novel assignments requiring development of new and/or improved techniques and procedures.	Applies diversified knowledge of engineering principles and practices to broad variety of assignments and related fields. Requires use of advanced techniques and modification and extension of theories, precepts and practices in individual's field.	B.S. in Engineering plus 8 years professional experience. Experience must include at least 2 years at the preceding level or equivalent.

Plans and develops engineering projects concerned with unique or controversial complexities which have important impact on major organization programs. Plans, organizes and supervises work of staff of engineers and technicians. As individual researcher, consultant or staff specialist conceives plans and conducts research in areas of considerable scope and complexity.

Technical liaison to individuals within or outside his organization involving exploration of subject area, definition of scope, selection of areas for investigation and development of novel concepts.

B.S. in Engineering plus 10 years professional experience. Experience must include at least 2 years at the preceding level or equivalent.

^{*} See the "Minimum Required Education and Experience" section of the job description for any substitutions that may be allowed for education and experience.

Minimum Required Education and Experience

Level I B.S. in Engineering and no experience.

Level II B.S. in Engineering plus 2 years professional experience. Experience must include at least

2 years at the preceding level or equivalent.

Level III B.S. in Engineering plus 4 years professional experience. Experience must include at least

2 years at the preceding level or equivalent.

Level IV B.S. in Engineering plus 6 years professional experience. Experience must include at least

2 years at the preceding level or equivalent.

Level V B.S. in Engineering plus 8 years professional experience. Experience must include at least

2 years at the preceding level or equivalent.

Level VI B.S. in Engineering plus 10 years professional experience. Experience must include at

least 2 years at the preceding level or equivalent.

Focus of Education

Focus of Experience

Degree in Engineering that is relevant to the area of research

Experience in engineering and research practices and principles

Substitutions allowed for Education:

Indicated education is required; no substitutions allowed.

Substitutions allowed for Experience:

When a candidate has the required education, but lacks the required experience, they may normally apply additional appropriate education toward the experience requirement, at a rate of one (1) year relevant education per year of required experience.

Minimum Required Knowledge

Certification or Licensure Requirements:

Some positions may require licensure as a professional engineer.

Physical Requirements/ADA

Occasional and/or light lifting required. Limited exposure to elements such as heat, cold, noise, dust, dirt, chemicals, etc., but none to the point of being disagreeable. May involve minor safety hazards where likely result would be cuts, bruises, etc.

Routine deadlines; usually sufficient lead time; variance in work volume seasonal and predictable; priorities can be anticipated; some interruptions are present; involves occasional exposure to demands and pressures from persons other than immediate supervisor.

Job frequently requires sitting, reaching, talking, hearing, handling objects with hands, .

Job occasionally requires standing, walking, climbing or balancing, stooping/kneeling/crouching/crawling, and lifting up to 50 pounds.

Vision requirements: Ability to see information in print and/or electronically, ability to distinguish colors.

Date: 1/5/2012