How to Write a Research Position Description

Introduction

An introduction is optional. If included, an introduction should briefly identify the functions of the organization and/or purpose of the position.

Factor 1 - Research Assignment

Address the personal research assignment:

Define the primary areas(s) of research including:
- Objective(s) of research
- Approach(s) to be taken
- Complexity of assignment
- End result expected

If applicable, document other major responsibilities or assignments that occupy a significant portion of time in a separate paragraph or separate subsection(s) under Factor 1. Such duties may include:
- Research related duties (e.g., committee assignments)
- Non-research duties (e.g., laboratory management)
- Special assignments (e.g., safety responsibilities)
- Substantive supervisory duties (e.g. supervising staff in an organizational unit)

Note: Technical direction of research project members and support staff is normally considered part of the personal research assignment.

Factor 2 – Supervisory Controls

Specify:
- Who is the supervisor (e.g., Science Center Director, Section Leader)?
- How work is assigned or initiated?
- What is the researcher’s independent responsibility?
- How work is reviewed?

Factor 3 - Guidelines and Originality

- Describe existing scientific knowledge and its applicability
- Describe originality required by the position
Factor 4 – Contributions, Impact, and Stature
Briefly and without personal references to the incumbent, address the following items:
- Level of professional standing or research capability expected. For example:
  ■ Independent researcher or member of a research team;
  ■ Mature, competent, and productive researcher;
  ■ Nationally recognized leader and authority.
- Knowledge, skill, or experience required
- Demonstrated research attainments or ability
- Expectations for authorship or publications
- Nature of consultations or advisory activities expected relative to scientific stature
- Any other special research qualification requirements, if applicable

Do not include the statement “See attached Research/Development Scientist Record.”

Do not include requirements for specific degree requirements. (Only biology cooperative research units have OPM approval to include a degree requirement in their research position descriptions.)
The following models are provided as a point of reference and should be modified, as needed, to ensure that position descriptions accurately reflect job requirements.

**Factor 2 – Supervisory Controls Models for GS-11 to GS-15**

**Factor 2 – Supervisory Controls (GS-11 Model)**
The researcher works under the supervision of ________________, who identifies research scope and objectives and assists in defining the problem and planning the approach.

The incumbent plans project details, establishes work priorities, and defines details of executing the study. The incumbent consults regularly with the supervisor on progress and future plans, and may propose changes to the work.

Scientific methods, procedures, and interpretations are reviewed for completeness, clarity, and technical adequacy. Research products are also subject to normal peer review.

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**Factor 2 – Supervisory Controls (GS-12 Model)**
The researcher works under the supervision of ________________, who identifies research scope and objectives and assists the researcher in defining the problem.

The incumbent has some latitude to select problems for study. The scientist independently plans the approach, organizes and executes the study, and interprets and reports research results. The incumbent consults periodically with the supervisor on progress, future plans, and decisions that may change the nature of the work.

Scientific conclusions and interpretations are reviewed for technical adequacy, and research products are subject to normal peer review.

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**Factor 2 – Supervisory Controls (GS-13 Model)**
The researcher works under the supervision of ________________, who identifies broad research objectives, policies, available funding, facilities, and provides support personnel.

Within these parameters, the incumbent is free to develop and implement new research objectives, establish project priorities, define methods of approach, and execute the study. The incumbent keeps supervisor informed of progress and future plans through periodic discussions.
Scientific conclusions and interpretations are considered technically complete and are subject to normal peer review and supervisory approval for accomplishment of objectives.

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**Factor 2 – Supervisory Controls (GS-14 Model)**
The researcher works under the supervision of the ________________, who identifies a broad area of study and provides research policies, available funding, facilities, and support personnel.

Within the framework of the USGS mission, client needs, and available resources, the incumbent has substantial freedom to identify and implement new research objectives, develop projects of considerable scope within the area of study, establish priorities, and define methods of approach. The incumbent keeps supervisor informed of progress and future plans through periodic discussions.

Scientific conclusions and interpretations are considered technically complete and authoritative, and are subject to normal peer review and supervisor’s approval for accomplishment of objectives.

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**Factor 2 – Supervisory Controls (GS-15 Model)**
The researcher works under the supervision of the ________________, who identifies a very broad area of study and provides research policies, available funding, facilities, and support personnel.

Within the framework of the USGS mission, client needs, and available resources, the incumbent is free to identify the most promising new research directions, determine lines of attack, develop plans for projects that will move the science forward, define methods of approach, and execute the studies. The incumbent keeps the supervisor informed of progress and future plans through periodic discussions.

Scientific conclusions and interpretations are considered technically complete and authoritative, and are subject to normal peer review and supervisory approval for accomplishment of objectives.

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Factor 4- Contributions, Impact, and Stature Models for GS-11 to GS-15

Note: Factor 4 subheadings, shown below in italics, are provided for reference only and do not need to be included in job descriptions.

Factor 4 – Contributions, Impact, and Stature (GS-11 Model)

*Professional Standing/Research Capability:* The incumbent works independently or as a full member of a research team and must be capable of conceiving, formulating, and conducting research relevant to ____________.

*Knowledge:* The work requires a professional knowledge of _____ and related knowledge of ____.

*Skill/Experience:* The position also requires skill in ____________, and training or experience in _____ (address methods and approaches).

*Demonstrated research attainments or ability:* The researcher must demonstrate ability to clearly define problems, develop and execute research plans, and produce acceptable reports of results.

*Expectations* (reports/authorship, presentations, consultation/advice, and contacts/representation)

The incumbent is expected to:
1. Prepare descriptive scientific reports on the results of research activities for USGS publication and administrative use;
2. Author and co-author publications and other products that contribute to the scientific understanding of the subject;
3. Attend scientific and interagency meetings to present his/her own research results and exchange information within the scientific community; and
4. Serve as a source of information on his/her own research to USGS scientists and to others outside the organization working in areas related to project investigations.

Factor 4 – Contributions, Impact, and Stature (GS-12 Model)

*Professional Standing/Research Capability:* This incumbent is an independent researcher, who has demonstrated capability to independently conceive, formulate, and conduct research relevant to ____________.

*Knowledge:* The work requires a professional knowledge of _______ and a strong background in ____________, ____________, and ____________.

*Skill/Experience:* The position also requires skill in _______ and training and/or
experience with __________ (address methods and approaches).

*Demonstrated research attainments or ability:* The researcher should have a demonstrated record of independently conducting research or significantly contributing to a research team in the assigned research area.

*Expectations:*
* (reports/authorship, presentations, consultation/advice, and contacts/representation)  
   The incumbent is expected to:

   (1) Prepare descriptive and interpretative scientific reports on the results of research activities for USGS publication and administrative use;
   (2) Author or co-author publications, scientific journal articles, and/or other products of considerable importance to the research situation;
   (3) Attend scientific and interagency meetings to present his/her own research results and exchange information within the scientific community;
   (4) Critically review manuscripts and proposals of other scientists in the incumbent’s areas of specialized knowledge; and
   (5) Work directly and responsibly with scientists of other federal and state agencies and universities on technical issues related to the research assignment.

**Factor 4 – Contributions, Impact, and Stature (GS-13 Model)**

*Professional Standing/Research Capability:* The incumbent is a competent and productive researcher capable of conceiving, formulating, conducting, and/or leading research studies in the field of ________.

*Knowledge:* The work requires an advanced professional knowledge of ____________, and with a specialization in ________.

*Skill/Experience:* The position also requires skill in ____________ and experience with ____________ (address methods and approaches).

*Demonstrated research attainments or ability:*  
The researcher should have demonstrated ability to make significant research contributions to his/her field.

*Expectations:*
* (reports/authorship, presentations, consultation/advice, and contacts/representation)  
   The incumbent is expected to:

   (1) Prepare comprehensive scientific reports on the results of the research for USGS publication or administrative use;
   (2) Author publications, peer-reviewed journal articles, and/or other products of considerable interest to science and/or technology in the area of specialization;
   (3) Present results of research at scientific meetings, professional societies, interagency meetings, and before the general public;
   (4) Critically review manuscripts and proposals of other scientists in the incumbent’s
areas of specialized knowledge;
(5) Serve on professional and technical committees with other government and non-government scientists; and
(6) Address information needs of DOI and other federal and state agencies. The researcher is sought out for consultation by scientists and managers within the USGS and in other outside organizations as a technical expert on issues related to the specialty field.

Factor 4 – Contributions, Impact, and Stature (GS-14 Model)

Professional Standing/Research Capability: The incumbent is as a recognized research leader capable of conceiving, formulating, conducting, and leading research relevant to ________________.

Knowledge: The work requires an advanced professional knowledge of ________________, and with a specialization in ________.

Skill/Experience: The position also requires skill in ___________ and experience with ___________ (address methods and approaches).

Demonstrated research attainments or ability: The researcher should have demonstrated leadership ability by making significant contributions to the professional field and also by leading research teams or leading in the formulation of productive research ideas.

Expectations: (reports/authorship, presentations, consultation/advice, and contacts/representation)
The incumbent is expected to:
(1) Prepare comprehensive scientific reports on the results of research for Survey publication or administrative use;
(2) Author publications, peer-reviewed journal articles, and other products which have a significant impact on science and technology;
(3) Present results of research at scientific meetings, professional societies, interagency meetings, and before the general public;
(4) Critically review manuscripts and proposals of other scientists in the incumbent’s areas of specialized knowledge;
(5) Serve on professional and technical committees with other government and non-government scientists; and
(6) Address information needs of DOI and other federal and state agencies. The researcher is sought out for consultation by scientists and managers within the USGS and in other outside organizations as a recognized leader in areas of specialized knowledge.

Factor 4 – Contributions, Impact, and Stature (GS-15 Model)

Professional Standing/Research Capability: The incumbent is a recognized research authority in the field of ________.
Knowledge: The work requires extensive professional knowledge of ______________, and with a specialization in ________.

Skill/Experience: Research requires skill in __________ and experience with __________ (address methods and approaches).

Demonstrated research attainments or ability: The researcher should have demonstrated outstanding research attainments with contributions of such magnitude that they move the science or technology significantly forward.

Expectations: (reports/authorship, presentations, consultation/advice, and contacts/representation)
The incumbent is expected to:

1. Prepare comprehensive scientific reports on the results of research for Survey publication or administrative use;
2. Author a number of definitive publications, peer-reviewed journal articles, and other products which have a major impact on the science and/or technology;
3. Present results of research at national and international meetings as a recognized leader in the professional field;
4. Critically review manuscripts and proposals of other scientists in area of specialized knowledge;
5. Serve on professional and technical committees with other government and non-government scientists; and
6. Address information needs of DOI and other federal and state agencies. The researcher serves as an authoritative consultant to USGS managers and other contacts within and outside the government on research results and program direction in the specialty field.