JOB DESCRIPTION/REQUIREMENTS

These job descriptions are applicable to a newly employed graduate (<u>research assistant</u>) and to the post of <u>associate scientist</u> to which a newly employed graduate might progress after obtaining experience and developing in the role of research assistant.

*[**TUTORS NOTE**: The purpose of this document is to help students and teachers understand the needs of industry and to provide a context within which to emphasise the importance of the curriculum and the content/outcomes of the course in relationship to job prospects and performance. The job descriptions can be used in class to emphasise features of the curriculum, in course design and review and by students in the production of CVs and portfolios of achievement and to inform course/module choices. They can be used as the basis of a matrix against which students note their achievements as they progress through the course. This can be done as a self-development exercise or in small groups. One good exercise is to get the student to produce a CV aligned to the job description. This brings home the point that CV should demonstrate that the student has the skills/knowledge/attributes required and be tailored to the job they are applying for, not generic. It works especially well if they produce two CVs, each tailored to a different job description. The material has been laid out in two column format to permit comparisons.]*

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Graduates would be expected to develop and extend the work they actually do as a Research Assistant so they can be promoted to Associate Scientist within the first 12-18 months and then to be promoted further.

RESEARCH ASSISTANT (first employment of new graduate)	**ASSOCIATE SCIENTIST (first promotion after research assistant)**
Works initially under close supervision to carry out a number of complex laboratory procedures but quickly becomes more independent. Expected to critically appraise results and present them for discussion and the planning of further work. There is a significant component of training in laboratory work/methods to increase the scope of practical abilities as well as understanding of the theory behind such practical work.	Requires only general supervision. Able to carry out a variety of experimental procedures, interpret/present results and suggest future experiments. Knowledge and experience enable successful trouble-shooting and problem solving. Expected to identify and assess applicable novel procedures from the literature and to use the information to develop and refine own work. Contributes to the supervision of less experienced staff.

1. Laboratory work, usually involving a single piece of work, under daily to weekly supervision. • Works with supervisor to define aim and a plan to achieve that aim, will execute work following the plan – independently, if familiar with area of work, or with guidance if unfamiliar. • Experimental design – will fine tune design of experiments following discussion with supervisor and literature review. • Will carry out on-going analysis and interpretation of data generated and will recognise problems. Will implement necessary changes following discussion with supervisor. • Will gain skills and experience to become fully conversant with the operation and validation of all items of equipment or IT needed for experimentation, data analysis, storage and data entry.	**1. INDEPENDENT LABORATORY WORK.** • **DESIGNS EXPERIMENTS USING PAST EXPERIENCE AND LITERATURE SOURCES OR POSSIBLY DEVELOPS A NOVEL IDEA UNDER GUIDANCE.** • **RESPONSIBLE FOR DELIVERY, PLANNING AND PRIORITISATION OF ONE OR MORE ITEMS OF PROJECT WORK. RESPONSIBLE FOR HIGHLIGHTING THE NEED TO MAKE CHANGES IN SHORT TERM PLANS AND DELIVERING CHANGE FOLLOWING CONSULTATION WITH SUPERVISOR.** • **TROUBLESHOOTS AND PROBLEM SOLVES WITHIN AREAS OF FAMILIARITY.** • **ANALYSES AND INTERPRETS EXPERIMENTAL DATA WITHIN AREAS OF FAMILIARITY.** • **FULLY CONVERSANT WITH THE OPERATION AND VALIDATION OF ALL ITEMS OF EQUIPMENT OR IT NEEDED FOR CURRENT EXPERIMENTATION, DATA ANALYSIS AND STORAGE.**

2. Understands relationship of own work to the overall project	**2. UNDERSTANDS RELATIONSHIP OF OWN WORK TO THE OVERALL PROJECT. IS AWARE OF OTHER ELEMENTS OF WORK RELATING TO SAME OVERALL PROJECT.**
3. Builds skills to critically review literature and electronic information to enhance understanding of area of work.	**3. USES LITERATURE TO UNDERSTAND THE SCIENCE RELATING TO THE PROJECT, PARTICULARLY IN OWN AREA OF WORK.** • **ABLE TO CRITICALLY EVALUATE LITERATURE INFORMATION.** • **USES LITERATURE TO SOLVE EXPERIMENTAL ISSUES.** • **DEVELOPS VIEWS ON NEW PROJECT PROPOSALS THROUGH CRITICAL REVIEW OF THE LITERATURE.**
4. Provides technical training of others in group where appropriate**.**	4. Provides technical training of others in group where appropriate.
5. Documentation. • Contributes to writing of study reports and protocols. • Writes up laboratory notebooks regularly in compliance with good practice requirements (GLP or GCP).	5. Documentation. • Contributes to writing of study reports and protocols. • Writes up laboratory notebooks regularly in compliance with good practice requirements (GLP or GCP).
6. Communication. Effective and appropriately communication with: ▪ Supervisor and team colleagues. ▪ Other colleagues working on same project by developing communication/presentation skills at internal meetings/poster sessions. ▪ Prepares materials for presentations on own work	6. Communication. Effective and appropriate communication with: • supervisor and team colleagues; • other colleagues in wider project team; • internal and external groups. • prepares materials for presentations on own work
7. Safe working. • Works safely themselves. • Compiles COSHH assessments. • recognise risks (own and others), within own area of expertise and will intervene where appropriate	7. Safe working. • Works safely themselves. • Completes COSHH assessments. • Recognises risks (own and others), within own area of expertise. And will intervene where appropriate

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