Learning and development in employment after graduation.

[TUTOR'S NOTES.
Graduates and university teachers may be surprised to know that learning does not stop after graduation and employment. Large companies employing graduate bioscientists have effective and progressive learning and development programs to develop new and established graduates. Tutors and students may be interested to know the objectives, structure and content of such programs since this gives in-sight into what is required of graduates and valued by their employers.

It is worthwhile noting that the detailed content of these programs has evolved to equip graduates with the skills and knowledge which some of them HAVE NOT ACQUIRED SATISFACTORILY in their university courses.

USE BY TUTORS AND STUDENTS
This document can be used in several ways as it stands as indicated below. Alternatively, tutors may wish to obtain details of graduate development programs run by those who are major employers of their graduates which will provide a focus appropriate to their subject area and employers needs..
1. *Used by tutors and their course teams to examine the extent to which their courses produce graduates already equipped with the knowledge/skills emphasised in the industrial learning and development program.*
2. *Used by tutors to demonstrate to students the importance of particular aspects of their course as seen from the point of view of a large employer of bioscience graduates.*
3. *Used by tutors to help students appreciate that continuous self-development is a vital aspect of graduate behaviour and that they should set aside time to apply this principle in their degree course as well as their graduate career.]*

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Program details

1. Aims and Objectives

• To develop highly flexible scientists who can produce high quality experimental work, contribute to a multidisciplinary team and are able to move readily as required between work areas and teams.
• To bring all new graduates up to the same level with regard to essential IT and laboratory skills;
• To ensure graduates are aware of the safety requirements of working in an industrial environment;
• To strengthen the value placed on self-development and build a self-development culture.

2. Delivery
The modules are delivered as time-tabled and there is also a mentoring aspects as each participant will have a more experienced scientist to act as a mentor to help guide their development and career. Formal and informal meetings with your mentor will be built into the program.

3. Core areas

A. Induction

This module allows graduates to build an awareness of the nature of the business of the company, its scope and products and the contribution made by different areas. It allows graduates to start to build a network of contacts within the company by bringing them into contact with scientists in different areas.

B. Safety

This module emphasises the importance of safe working and starts to build a safety culture. Graduates are made aware of the full range of safety procedures, how to access them and the importance of their observation in all circumstances. Graduates must understand the importance of their personal commitment to their own safety and the safety of others. They must appreciate and involve themselves in 'near miss' reporting as a way of reducing the risk of accidents.

C. Information technology

This module ensures the graduate is proficient with both the in-house methods and supported tools involving leading edge information technology and the commercially available tools which are available to perform basic data manipulation tasks and are aware of the more advanced training that is available.

D. Laboratory skills

Several modules are available which will clearly reflect the major business of the bioscience company. Basic laboratory skills 1 (pipetting, pH and buffers, laboratory instrumentation, electronic records, experimental design, awareness of in vivo animal use); Basic laboratory skills 2 (molecular biology, tissue culture, transfection, enzyme kinetics, drug receptors, protein purification).

E. Personal effectiveness

This module strengthens personal learning, self-development and career management skills. Particularly team working in different contexts, communication and organisational skills are emphasised. Action learning is a key principle upon which personal development is based.

F. Business driven skills

This module (or group of modules) may be taken at different times and develop core business skills. For example, project management skills would be developed early in a graduates career. Later, leadership skills, change management skills, international awareness and language skills may be developed as needed.

G. Professional development

These modules ensure graduates receive the maximum professional development and if appropriate financial support to obtain additional qualifications.