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**UNIVERSITY OF SOUTH AUSTRALIA**  
**SCHOOL OF PHARMACY AND MEDICAL SCIENCES**

**BACHELOR OF LABORATORY MEDICINE**

**LABORATORY PLACEMENT JOURNAL**

*Advanced Clinical Practice A/B*

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**INTRODUCTION**

The course Advanced Clinical Practice A/B provides for a thirteen week period of practical experience in a recognised diagnostic, research or similar laboratory. Enrolment status does not change during Clinical Practice and you continue to be a full-time undergraduate student of the University – you are still entitled to claim Commonwealth Government student support and allowances but you will not receive any other payment during placement. Students (international or domestic) may complete part or all of their Clinical Practice in an approved pathology laboratory outside South Australia (including overseas) provided the course objectives are capable of being achieved.

Given the range of available laboratories it is not possible to prescribe the activities each student should perform or participate in. It is expected however that within each program you will engage in activities which address both the course objectives (see Course Outline) and the competency standards specified for Medical Scientists (these are set out in your Laboratory Workbook). In this way although the activities of each student may differ, the range of learning experiences falls under a common framework.

Initially you will receive close instruction in the operations of the laboratory but over the placement period and as you become more proficient and familiar with procedures, your participation in, and contribution to, the laboratory would normally be expected to increase.

Students undertake a project while on Advanced Clinical Practice A/B which is assessed to provide a grade for the course. Students must also complete a laboratory workbook and demonstrate satisfactory performance while on placement.

Duration: A minimum of 13 weeks.

Contact: Up to 37.5 hours per week

Placement Dates: Study Period 2, 2020

Commence: Monday, 25<sup>th</sup> February

Mid-Break 13<sup>th</sup> April – 24<sup>th</sup> April

End (13+2 weeks): Friday, 12<sup>th</sup> June

**CLINICAL PLACEMENT COORDINATOR**

**Dr Brian Dale**

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**CLINICAL PLACEMENT UNIT CONTACT**

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**Clinical Placement Unit**

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**LABORATORY WORKBOOK**

Maintenance of this laboratory workbook on a weekly basis is a requirement for completion of the course Advanced Clinical Practice A/B.

In it you should record the activities, procedures and roles you have undertaken during your placement together with any other information relevant to the operation of the laboratory which falls within the course aims. This includes a discussion of any problems that arose (for example, equipment failures, laboratory management issues or the need to modify techniques and procedures) and how these were addressed and resolved. Case studies and copies of relevant reports (be aware of confidentiality requirements) might also be included, as may details of any research projects in which you have participated. At the end of each week you need to identify which of the course **objectives** (see page iii) and **competency units** (see page iv) you have addressed and record these accordingly. This must be signed off both by you and the laboratory supervisor.

As a record of the period of placement this logbook is an invaluable document — it not only forms a significant part of the assessment but also represents a portfolio of your laboratory work experience which you may wish to present to future employers. You should therefore take every effort to safeguard and look after it.

At the completion of your placement the workbook must be returned to the School in original form for assessment.

**NAME:** \_\_\_\_\_

This book remains the property of the University of South Australia until the completion of candidature. If found please return to:

Course Co-ordinator  
Advanced Clinical Practice  
Bachelor of Laboratory Medicine (Honours)  
School of Pharmacy and Medical Sciences  
University of South Australia  
City East Campus  
GPO Box 2471  
Adelaide SA 5001

Dr B Dale  
January, 2020

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**COURSE OUTLINE****ADVANCECD CLINICAL PRACTICE A/B** (Course codes: MEDI 4012 / MEDI 4013)**Aims**

To familiarise students with the operations and functions of diagnostic pathology and medical research laboratories through gaining an awareness of:

- current analytical equipment and biomedical procedures;
- occupational health and safety issues;
- professional ethics, competencies and responsibility;
- the role of information technology;
- the collection, handling and reporting of clinical material;
- legislation, regulation and accreditation;
- personal development in terms of communication skills, problem solving, decision making, initiative and teamwork

**Objectives**

In general, the course objectives fundamentally address the competencies expected of a Medical Scientist.

On completion of this course students should be able to:

- (a) process, examine, analyse and/or test clinical material using a range of techniques, procedures and equipment appropriate to the laboratory(ies) in which they have completed their clinical practice;
- (b) interpret the results of such procedures giving due weight to issues of validity, test controls, ranges, and acceptable variation;
- (c) discuss, where appropriate and commensurate with their knowledge and training, the clinical significance of test results;
- (d) demonstrate an awareness of ethical, health and safety, and regulatory issues appropriate to the laboratory(ies) in which they have completed their clinical practice;
- (e) discuss the role of information storage, retrieval and processing in laboratory operations;
- (f) give an account of the organisational and administrative structure and functions of the laboratory(ies) in which they have completed their clinical practice and relate this to the wider provision of health care services and/or medical research;
- (g) display maturation in written and oral communication skills through the presentation of reports and seminars

**Assessment for Clinical Placement A and B****Laboratory workbook**

A Laboratory Workbook will be provided. It is to be maintained on a weekly basis and will be assessed by University staff at the end of the placement period.

In the workbook you record the activities, procedures and roles undertaken during placement. However the workbook is not intended to be solely a procedures manual and other information relevant to the operation of the laboratory (which falls within the course aims) is to be noted. In particular problems (such as equipment failures, laboratory management issues, the need to modify techniques and the like) and their resolution should be noted. Case studies and copies of relevant reports (be aware of confidentiality issues) might also be included, as may details of any research projects in which you have participated.

At the end of each week you must identify which of the course **objectives** and **competency unit/s** you have addressed and record these accordingly. This must be signed off both by you and the Laboratory Supervisor.

Students must provide a satisfactory workbook to pass the course.

**Supervisor's report**

Laboratory Supervisors **may** be asked to provide an assessment of your performance during placement. Attributes evaluated include: interest in work; quality and quantity of work; time management; initiative; decision-making; organisation and planning; reliability; creativity; interactions with others. Laboratory staff are asked to prepare this in discussion with you but may submit a report confidentially if they prefer.

Students must demonstrate satisfactory performance to pass the course.

**Oral presentation (2) (Related to the project being undertaken)**

An oral presentation (10 minutes) worth 20% is to be given early in the study period (week 3-4). This presentation is to give an overview of the student's placement site and to describe the project that is to be undertaken while on placement. A second presentation (15 minutes) worth 30% is to be given at the end of the study. The second presentation is to present the project that was undertaken and the findings of that work. Consult the Course Outline for further information.

**Written report**

A report (worth 50%) on the project undertaken while on placement written in the format of a scientific journal article is to be submitted at the end of the study period. Consult the Course Outline for further information..

## **COMPETENCY STANDARDS FOR MEDICAL SCIENTISTS**

The following specify the Competency Standards expected of scientist working in a diagnostic pathology setting. These standards have been developed to reflect the contribution normally expected from a person with a degree in a relevant area of science or applied science from an Australian (or equivalent) university, together with two years relevant professional experience in an accredited laboratory. This is the entry level of a scientist to this profession and reflects a combination of qualifications, skills and the assumption of personal responsibilities and accountability.

The Standards represent an update of the 1993 Competency Based Standards for Australian Medical Scientists based on discussions between all the major professional associations. Ultimately these standards derive from the following principles:

### **Underlying Principles**

1. As highly skilled and trained health professionals, Medical Scientists are individually responsible and accountable for their actions. The degree of professional autonomy exercised will be related to their experience, the work setting and the availability of peer and more support and supervision.
2. The Competency Standards have been predicated on a number of underlying principles, some of which are believed to characterise the work of all health care professionals and others which are specific to Medical Sciences.

### **Medical Scientists' Ethical Principles**

1. Commitment to producing accurate test results, correlating and interpreting test data, assessing and improving existing test methods, designing, evaluating and implementing new methods.
2. Promotion of the scientific methods of analysis.
3. Commitment to promoting awareness and understanding of the services Medical Scientists render to the consumer/public and other health care professionals.
4. Commitment to development and implementation of cost-effective administrative procedures for laboratories, including their services and personnel.
5. The code of ethics of the various professional groups comprising Medical Scientists will be respected.

### **Competency Units**

During your Clinical Practice you will through participation in the activities of the laboratory begin to develop the skills and attributes expected of a practising Medical Scientist. The following competency statements are intended to specify those skills and attributes in a manner which can be readily identified. You are not expected to develop each of these in any order nor to any predetermined level – the particular skills you do attain and the degree to which they are developed will largely reflect the type laboratory in which you carry out your clinical placement. The units of competency are given below with a brief explanation of *some of the activities* which embrace each.

#### **Unit 1**

##### ***Collection, preparation and analysis of clinical material.***

This unit includes tasks such as ensuring the appropriateness of sample collection procedures, evaluating specimen suitability prior to analysis, performance of appropriate procedures and reading and confirming results.

#### **Unit 2**

##### ***Correlate, validate and interpret results of investigation using clinical information.***

Participate in the preparation and assessment of results and understand the need to conduct further tests or repeat procedures. You also need to review and understand results in the light of the relevant clinical information.

#### **Unit 3**

##### ***Interpret, report and issue laboratory results.***

Verify report(s) with sample identification and use the administrative systems in place to communicate, store and dispose of data and results as per established protocols

**Unit 4*****Maintain documentation, equipment and stock.***

Acquaint yourself with the standard operational procedures documentation specifying the techniques, protocols and equipment appropriate to the laboratory. This includes an awareness of the impact of legislation and laboratory accreditation in the management of the laboratory. You should participate in acquiring new and replacement equipment, stock and reagents and the methods in place to ensure the standard and quality of reagents and equipment.

**Unit 5*****Maintain and promote safe working practices.***

You are expected to become familiar with and use the safe working practices appropriate to the laboratory. This includes applying the correct procedures for the handling, preparation and storage of reagents and solutions as well as for the disposal of biological, chemical, toxic and radioactive material. You should be aware of the emergency procedures in place in the laboratory.

**Unit 6*****Demonstrate professional accountability and continuing professional development.***

Includes attendance at relevant seminars, meetings and symposia to update your knowledge and skills. You should also become familiar with literature search and retrieval systems, information sources, use of database and reference storage software. This unit also includes understanding of the professional ethics expected of Medical Scientists and an awareness of the scientific organisations that support the activities of Medical Scientists.

**Unit 7*****Responsibility for professional practice including test selection, development and use of laboratory investigations***

As a professional medical scientist you are expected to take responsibility for your own actions/omissions, be capable of independent, professional judgements and recognise your own abilities and level of professional competence. You should cultivate a professional approach to your work and your demeanour should reflect the standards expected of a Medical Scientist.

**Unit 8*****Liase with health workers and others to continuously improve the service.***

You are not expected to become involved in activities that support this unit in view of your current level of experience (although you may be an *observer* of such activities especially quality improvement programs).

**Unit 9*****Participate in education and training of health workers and others.***

You are not expected to become involved in activities that support this unit in view of your current level of experience (although you may be an *observer* of such activities and *attend* suitable educational and training sessions).

**Unit 10*****Contribution to advancement of knowledge and improvement of laboratory practice.***

Not all laboratories undertake research and contribute to the development and refinement of techniques. You should become familiar with or if appropriate participate in such activities if the opportunity arises.



**OBJECTIVES addressed each week of Clinical Practice A/B**

<b>Week Number</b>	<b>Objective (a)</b>	<b>Objective (b)</b>	<b>Objective (c)</b>	<b>Objective (d)</b>	<b>Objective (e)</b>	<b>Objective (f)</b>	<b>Objective (g)</b>
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
<b>Overall</b>							

**COMPETENCY UNITS addressed each week of Clinical Practice A/B**

<b>Week Number</b>	<b>Unit 1</b>	<b>Unit 2</b>	<b>Unit 3</b>	<b>Unit 4</b>	<b>Unit 5</b>	<b>Unit 6</b>	<b>Unit 7</b>	<b>Unit 8</b>	<b>Unit 9</b>	<b>Unit 10</b>
1										
2										
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4										
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8										
9										
10										
11										
12										
13										
14										
15										
<b>Overall</b>										

**ADVANCED CLINICAL PRACTICE A/B**

Study Period 2, Fourth Year Year

Hospital/Laboratory: \_\_\_\_\_

Location: \_\_\_\_\_

Discipline Area: \_\_\_\_\_

Laboratory Supervisor: \_\_\_\_\_

Placement Period:      From Week                      To Week

**WEEK 1: Commencing**\_\_\_\_\_





**Competency Unit/s Involved**

**Course Objectives Covered**

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Student)

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Laboratory Supervisor)

**WEEK 2: Commencing**\_\_\_\_\_







**Competency Unit/s Involved**

**Course Objectives Covered**

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Student)

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Laboratory Supervisor)

**WEEK 3: Commencing**\_\_\_\_\_





**Competency Unit/s Involved**

**Course Objectives Covered**

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Student)

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Laboratory Supervisor)

**WEEK 4: Commencing**\_\_\_\_\_







**Competency Unit/s Involved**

**Course Objectives Covered**

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Student)

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Laboratory Supervisor)

**WEEK 5: Commencing**\_\_\_\_\_





**Competency Unit/s Involved**

**Course Objectives Covered**

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Student)

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Laboratory Supervisor)

**WEEK 6: Commencing**\_\_\_\_\_







**Competency Unit/s Involved**

**Course Objectives Covered**

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Student)

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Laboratory Supervisor)

**WEEK 7: Commencing**\_\_\_\_\_





**Competency Unit/s Involved**

**Course Objectives Covered**

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Student)

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Laboratory Supervisor)

**WEEK 8: Commencing**\_\_\_\_\_







**Competency Unit/s Involved**

**Course Objectives Covered**

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Student)

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Laboratory Supervisor)

**WEEK 9: Commencing\_\_\_\_\_**





**Competency Unit/s Involved**

**Course Objectives Covered**

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Student)

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Laboratory Supervisor)

**WEEK 10: Commencing\_\_\_\_\_**







**Competency Unit/s Involved**

**Course Objectives Covered**

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Student)

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Laboratory Supervisor)

**WEEK 11: Commencing**\_\_\_\_\_





**Competency Unit/s Involved**

**Course Objectives Covered**

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Student)

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Laboratory Supervisor)

**WEEK 12: Commencing**\_\_\_\_\_







**Competency Unit/s Involved**

**Course Objectives Covered**

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Student)

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Laboratory Supervisor)

**WEEK 13: Commencing\_\_\_\_\_**





**Competency Unit/s Involved**

**Course Objectives Covered**

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Student)

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Laboratory Supervisor)

**WEEK 14: Commencing\_\_\_\_\_**







**Competency Unit/s Involved**

**Course Objectives Covered**

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Student)

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Laboratory Supervisor)

**WEEK 15: Commencing**\_\_\_\_\_





**Competency Unit/s Involved**

**Course Objectives Covered**

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Student)

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
(Laboratory Supervisor)

