



Course Outline

Code: MLS210

Title: Advanced Haematology

School: Health & Sport Science
Teaching Session: Semester 1
Year: 2020
Course Coordinator: Assoc Prof Lin Fung Email: ylfung@usc.edu.au
Course Moderator: Dr Rebecca Donkin Email: rdonkin@usc.edu.au

Please go to the USC website for up to date information on the teaching sessions and campuses where this course is usually offered.

1. What is this course about?

1.1 Description

Haematology is the area of general pathology that is concerned with diseases that affect the blood, such as blood clotting disorders, anaemia, haemophilia, lymphoma, leukaemia and haemoglobinopathies. This course builds on the fundamentals of haematology developed in the first-year course, MLS110 Haematology. After completing this course, you should be able to recognise critical limits and conditions associated with the major haematological tests conducted in pathology services.

1.2 Field trips, WIL placements or activities required by professional accreditation

Activity	Details
N/A	N/A

2. What level is this course?

200 level Developing - Applying broad and/or deep knowledge and skills to new contexts. May require pre-requisites and introductory level knowledge/skills. Normally undertaken in the 2nd or 3rd year of an undergraduate program

3. What is the unit value of this course?

12 units

4. How does this course contribute to my learning?

Specific Learning Outcomes On successful completion of this course you should be able to:	Assessment Tasks You will be assessed on the learning outcome in task/s:	Graduate Qualities or Professional Standards mapping Completing these tasks successfully will contribute to you becoming:
Identify and describe the features, classification and diagnostic tests for major haematological malignancies and disorders	Task 1 and 3	Knowledgeable. Ethical.
Show competency in basic haematological techniques, including preparing blood films, examining and understanding diagnostic tests for haematological malignant/disorders, blood films and assessing laboratory parameters for paediatric, geriatric and obstetric haematology	Task 2	Knowledgeable. Sustainability-focussed.

5. Am I eligible to enrol in this course?

Refer to the [USC Glossary of terms](#) for definitions of “pre-requisites, co-requisites and anti-requisites”.

5.1 Enrolment restrictions

You must be enrolled in SC211 or SC355

5.2 Pre-requisites

MLS110

5.3 Co-requisites

Nil

5.4 Anti-requisites

Nil

5.5 Specific assumed prior knowledge and skills (where applicable)

LFS100 and LFS112

6. How am I going to be assessed?

6.1 Grading scale

Standard – High Distinction (HD), Distinction (DN), Credit (CR), Pass (PS), Fail (FL)

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6.2 Details of early feedback on progress

You will be reviewing patient case studies, haematology terminology and morphology identification through in-class activities that will provide you with feedback and help you prepare for the assessment tasks in the course.

6.3 Assessment tasks

Task No.	Assessment Product	Individual or Group	Weighting %	What is the duration / length?	When should I submit?	Where should I submit it?
1	Case Study	Group	20%	10 minute presentation	Week 7 or 9	To Supervisor
2	Practical / Laboratory Skills	Individual	Total of 40%. Part (a) 15% and part (b) 25%.	Part (a) 1 hr + 10min perusal, Part (b) 2 hr + 10min perusal.	Week 8 and 12	In Class
3	Examination	Individual	40%	2hr + 10 min perusal	Central examination period	Exam Venue
			100%			

Assessment Task 1: Case study (20%)

Goal:	Scientific research and communication are key competencies developed in this oral case study activity. You will work collaboratively in a group to prepare and present a case study of a haematological malignancy or disorder
Product:	Case Study
Format:	<p>You will work in a group. All members of the group work together to provide</p> <ul style="list-style-type: none"> a description of the patient history, complete blood count and morphology of the images from the patient slide(s); a description of the diagnostic tests they would request and why; an overview of the treatment and prognosis of the patient and a peer assessment of another group. <p>The presentation must be supported by a PowerPoint file, and the completed case report. You will participate in a question and answer forum with the MLS210 class and tutors. The references used for the presentation and report will follow the Harvard style. Note: Formative feedback for this assessment will be provided in tutorials in weeks 3 and 5.</p>
Criteria:	<p>You will be assessed as a group during your oral presentation and case study on your ability to:</p> <ul style="list-style-type: none"> - Provide an accurate description of the characteristics of the haematological malignancy or disorder, and the pathophysiology and aetiology of the condition (20%). - Outline the appropriate haematological tests that are used to identify the haematological malignancy or disorder, and why the tests were requested (15%). - Provide a coherent and logical oral presentation including references in the Harvard style (15%). - Present clearly, audibly and confidently with designed transitions across the speakers (10%). - Prepare a well-designed PowerPoint slide, case study and presentation and keep good time management (10%). - Every individual student must participate in a question and answer forum (5%). - Participate as part of the group to peer assess the oral presentation of another group (5%) - Submit a concise and comprehensive case report (20%)

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Generic skill assessed	Skill assessment level
Problem solving	Developing
Collaboration	Developing
Communication	Developing

Assessment Task 2: Practical haematology exams 40%

Goal:	To develop advanced laboratory skills and competencies in Haematology that would meet the requirements of the QLD pathology industry for training medical science technicians. Students must attend and participate in at least 80% of the laboratory practicals throughout the semester before you are permitted to attempt Assessment Task 2b (end of semester practical exam).
Product:	Practical/Laboratory Skills
Format:	The practical exam in week 8 will be 1 hour in duration (15%) and will examine erythrocyte disorders, malaria and leukaemia. The practical exam in week 12 will be 2-hours in duration (25%) and will examine the material from weeks 1 to 11. The practical exam will consist of a series of practical tests designed to assess your competency in haematological techniques, and your ability to interpret results and make recommendations based on your findings.
Criteria:	You will be assessed on: - Haematological techniques and interpretation of results. - Examination and understanding of diagnostic tests for haematological malignant blood films. - Ability to assess laboratory parameters for paediatric, geriatric and obstetric haematology.
Generic skill assessed	Skill assessment level
Problem solving	Developing
Applying technologies	Developing

Assessment Task 3: End of semester exam 40%

Goal:	Complete the end-of-semester exam based on lecture and tutorial material covered throughout the semester.
Product:	Examination
Format:	The final exam will be 2-hours in duration (plus 10 minutes perusal) and will consist of multiple-choice and short-answer questions.
Criteria:	You will be assessed on your: - recall of factual information identified in the MLS210 Haematology teaching materials; - synthesise the elements of the course, analyse information and explain elements of the theories which underpin the concepts in advanced haematology covered during the course; - solve problems based on theoretical material and information covered in lectures and tutorials.
Generic skill assessed	Skill assessment level
Problem solving	Developing
Information literacy	Developing

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7. Directed study hours

The directed study hours listed here are a portion of the workload for this course. A 12 unit course will have total of 150 learning hours which will include directed study hours (including online if required), self-directed learning and completion of assessable tasks. Directed study hours may vary by location. Student workload is calculated at 12.5 learning hours per one unit.

Location:	Directed study hours for location:
USC Sunshine Coast	2 hours lecture every week 2 hours tutorial on odd weeks 4 hours of compulsory laboratory on even weeks (i.e. 2 sessions of 2hours) 2 hours of self-directed learning every week

8. What resources do I need to undertake this course?

Please note that course information, including specific information of recommended readings, learning activities, resources, weekly readings, etc. are available on the course Blackboard site. Please log in as soon as possible.

8.1 Prescribed text(s)

Please note that you need to have regular access to the resource(s) listed below as they are required:

Author	Year	Title	Publisher
E.M. Keohane, C.N. Otto, J.M. Walenga	2019/2020	Rodak's Hematology Clinical Principles and Applications (ISBN 978-0-323-53045-3)	Elsevier Saunders

8.2 Required and recommended readings

1. B. Rodak, J. Carr. Clinical Hematology Atlas, 2013, Elsevier Saunders, Missouri, USA.
2. Harmening DM & Finnegan K, Heme Notes, 2014, F.A, Davies Company

8.3 Specific requirements

MLS210 is structured to provide you with knowledge and practical skills necessary to meet industry established proficiency standards. This course will assist you to demonstrate your ability to meet inherent academic requirements for the program including those related to communication, observation, interpretation and recording of information. It is therefore an expectation of both the University and our industry partners that you will participate in all the directed study activities (lectures, laboratories, tutorials) and demonstrate satisfactory proficiency in the practical assessment. To gain such proficiency you must attend and participate in at least 80% of the laboratory practicals throughout the semester before you are permitted to complete Assessment Task 2b (end of semester practical exam). You are required to provide and wear appropriate protective equipment during the laboratory practical, including: covered, non-slip shoes, laboratory coat/gown and safety glasses. Disposable gloves and other protective equipment will be provided when required.

9. Risk management

There is minimal health and safety risk in this course. However, once you are on placement or working following graduation, you may handle infectious and other samples and be exposed to other risks. Development and demonstration of competencies through participation in laboratory practicals is essential to prepare you for working in industry. It is your responsibility to familiarise yourself with the Health and Safety policies and procedures applicable within campus areas. The practical manual provides information regarding safety in the laboratory, information for handling or working with equipment and consumables in a safe manner. The laboratories are used for practicals involving human tissues and fluids, and there is to be no eating, chewing or drinking in the laboratories.

It is your responsibility as a student to review course material, search online, discuss with lecturers and peers, and understand the health and safety risks associated with your specific course of study. It is also your responsibility to familiarise yourself with the University's general health and safety principles by reviewing the [online Health Safety and Wellbeing training module for students](#), and following the instructions of the University staff

10. What administrative information is relevant to this course?

10.1 Assessment: Academic Integrity

Academic integrity is the ethical standard of university participation. It ensures that students graduate as a result of proving they are competent in their discipline. This is integral in maintaining the value of academic qualifications. Each industry has expectations and standards of the skills and knowledge within that discipline and these are reflected in assessment.

Academic integrity means that you do not engage in any activity that is considered to be academic fraud; including plagiarism, collusion or outsourcing any part of any assessment item to any other person. You are expected to be honest and ethical by completing all work yourself and indicating in your work which ideas and information were developed by you and which were taken from others. You cannot provide your assessment work to others. You are also expected to provide evidence of wide and critical reading, usually by using appropriate academic references.

In order to minimise incidents of academic fraud, this course may require that some of its assessment tasks, when submitted to Blackboard, are electronically checked through SafeAssign. This software allows for text comparisons to be made between your submitted assessment item and all other work that SafeAssign has access to.

10.2 Assessment: Additional requirements

You will receive formative assessment of your skills concerning ethics, laboratory safety, sustainability and professional behaviour in the haematology environment. If you receive an unsatisfactory formative assessment you will be required to reflect on your ethical/sustainable/professional behaviour and continue to develop these skills with continued formative assessment throughout the course.

Eligibility for Supplementary Assessment

Your eligibility for supplementary assessment in a course is dependent of the following conditions applying:

- a) The final mark is in the percentage range 47% to 49.4%
- b) The course is graded using the Standard Grading scale
- c) You have not failed an assessment task in the course due to academic misconduct

10.3 Assessment: Submission penalties

Late submission of assessment tasks will be penalised at the following maximum rate:

- 5% (of the assessment task's identified value) per day for the first two days from the date identified as the due date for the assessment task.
- 10% (of the assessment task's identified value) for the third day
- 20% (of the assessment task's identified value) for the fourth day and subsequent days up to and including seven days from the date identified as the due date for the assessment task.
- A result of zero is awarded for an assessment task submitted after seven days from the date identified as the due date for the assessment task.

Weekdays and weekends are included in the calculation of days late.

To request an extension, you must contact your Course Coordinator and supply the required documentation to negotiate an outcome.

10.4 Study help

In the first instance, you should contact your tutor, then the Course Coordinator. Additional assistance is provided to all students through Academic Skills Advisers. To book an appointment or find a drop-in session go to [Student Hub](#).

Contact Student Central for further assistance: +61 7 5430 2890 or studentcentral@usc.edu.au

10.5 Wellbeing Services

Student Wellbeing Support Staff are available to assist on a wide range of personal, academic, social and psychological matters to foster positive mental health and wellbeing for your success. Student Wellbeing is comprised of professionally qualified staff in counselling, health and disability Services.

Ability Advisers ensure equal access to all aspects of university life. If your studies are affected by a disability, mental health issue, learning disorder, injury or illness, or you are a primary carer for someone with a disability, [AccessAbility Services](#) can provide assistance, advocacy and reasonable academic adjustments.

To book an appointment with either service go to [Student Hub](#), email studentwellbeing@usc.edu.au or accessability@usc.edu.au or call 07 5430 1226

10.6 Links to relevant University policy and procedures

For more information on Academic Learning & Teaching categories including:

- Assessment: Courses and Coursework Programs
- Review of Assessment and Final Grades
- Supplementary Assessment
- Administration of Central Examinations
- Deferred Examinations
- Student Academic Misconduct
- Students with a Disability

Visit the USC website:

<http://www.usc.edu.au/explore/policies-and-procedures#academic-learning-and-teaching>

10.7 General Enquiries

In person:

- **USC Sunshine Coast** - Student Central, Ground Floor, Building C, 90 Sippy Downs Drive, Sippy Downs
- **USC Moreton Bay** – Service Centre, Ground Floor, Foundation Building, Gympie Road, Petrie.
- **USC SouthBank** - Student Central, Building A4 (SW1), 52 Merivale Street, South Brisbane
- **USC Gympie** - Student Central, 71 Cartwright Road, Gympie
- **USC Fraser Coast** - Student Central, Student Central, Building A, 161 Old Maryborough Rd, Hervey Bay
- **USC Caboolture** - Student Central, Level 1 Building J, Cnr Manley and Tallon Street, Caboolture

Tel: +61 7 5430 2890

Email: studentcentral@usc.edu.au