BMSC13001 *Advanced Haematology*

Term 1 - 2019

Profile information current as at 12/10/2024 06:29 pm

All details in this unit profile for BMSC13001 have been officially approved by CQUniversity and represent a learning partnership between the University and you (our student).The information will not be changed unless absolutely necessary and any change will be clearly indicated by an approved correction included in the profile.

General Information

Overview

On completion of this unit you will be able to appraise and perform advanced haematological methods used in the diagnosis and monitoring of blood diseases. Therapeutic management of diseases of blood coagulation will also be investigated.

Details

Career Level: *Undergraduate*
Unit Level: *Level 3*
Credit Points: *6*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.125*

Pre-requisites or Co-requisites

Prerequisites: BMSC12003 Haematology and Transfusion Science
Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the Assessment Policy and Procedure (Higher Education Coursework).

Offerings For Term 1 - 2019

- Mixed Mode
- Rockhampton

Attendance Requirements

All on-campus students are expected to attend scheduled classes – in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

Website

This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.

Class and Assessment Overview

Recommended Student Time Commitment

Each 6-credit Undergraduate unit at CQUniversity requires an overall time commitment of an average of 12.5 hours of study per week, making a total of 150 hours for the unit.

Class Timetable

Regional Campuses
Bundaberg, Cairns, Emerald, Gladstone, Mackay, Rockhampton, Townsville

Metropolitan Campuses
Adelaide, Brisbane, Melbourne, Perth, Sydney

Assessment Overview

1. **Written Assessment**
Weighting: 40%
2. **Practical Assessment**
Weighting: Pass/Fail
3. **Examination**
Weighting: 60%

Assessment Grading

This is a graded unit: your overall grade will be calculated from the marks or grades for each assessment task, based on the relative weightings shown in the table above. You must obtain an overall mark for the unit of at least 50%, or an overall grade of 'pass' in order to pass the unit. If any 'pass/fail' tasks are shown in the table above they must also be completed successfully ('pass' grade). You must also meet any minimum mark requirements specified for a particular assessment task, as detailed in the 'assessment task' section (note that in some instances, the minimum mark for a task may be greater than 50%). Consult the University's Grades and Results Policy for more details of interim results and final grades.

CQUniversity Policies

All University policies are available on the CQUniversity Policy site.
You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure – Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure – International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback – Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the CQUniversity Policy site.

Previous Student Feedback

Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

Feedback from Student feedback report

Feedback

Praise for the residential school was identified across several survey responses. These identified the structured program as easy to progress through, very informative and as providing a very helpful guide to student learning in practical aspects of haematology.

Recommendation

If the expansion of the student cohort this year is maintained in future, consideration will be given to tailoring practicals for larger class sizes and to meeting the logistical demands of running these effectively. Changes to the class following appraisal of last year's iteration contributed significantly to an improved delivery in 2018.

Feedback from Student feedback report

Feedback

The residential school received positive feedback for providing clarification of blood film morphology and disease process, with detailed knowledge from a long time scientist in haematology.

Recommendation

This year, the excellent and enthusiastic support of the expert haematologist from industry was invaluable to the professional running of the residential school and in ensuring that it captured the essential practical elements of the workplace pathology laboratory. It is important that such knowledgeable and engaging staff are retained for this role in future years.

Feedback from Student feedback report

Feedback

Regular contact via e-mail, moodle message board and phone call was appreciated by students. Several commented positively about the approachability of the unit coordinator and demonstrating staff at the residential school.

Recommendation

For the purposes of formative feedback the unit coordinator aims to respond to queries and to return assessments promptly with useful, individually tailored comments. Guidance on both practical and theoretical content of the unit is available to all students at the residential school, both from the unit coordinator and the industry professional.

Unit Learning Outcomes

On successful completion of this unit, you will be able to:

1. Discuss the limitations of haematology laboratory procedures and the use of tests within specified limits
2. Discuss the detection and monitoring of blood diseases including factors essential in the development of new tests
3. Perform haematological tests and instrument quality control processes
4. Discuss laboratory report presentation and interpretation of results including the concept of therapeutic range of anticoagulant therapy
5. Analyse results of hematological tests and instrument quality control processes instituting corrective action as required.

Alignment of Learning Outcomes, Assessment and Graduate Attributes

— N/A Level | • Introductory Level | • Intermediate Level | • Graduate Level | ◦ Professional Level | ◦ Advanced Level

Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
1 - Written Assessment - 40%	•	•		•	
2 - Practical Assessment - 0%			•		•
3 - Examination - 60%	•	•		•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
1 - Communication	•	•	•	•	•
2 - Problem Solving	•	•	•	•	•
3 - Critical Thinking	•	•		•	•
4 - Information Literacy	•	•	•	•	•
5 - Team Work			•		
6 - Information Technology Competence	•	•	•	•	•
7 - Cross Cultural Competence					
8 - Ethical practice				•	
9 - Social Innovation					
10 - Aboriginal and Torres Strait Islander Cultures					

Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
1 - Written Assessment - 40%	•	•	•							
2 - Practical Assessment - 0%	•	•	•	•	•	•				
3 - Examination - 60%	•		•	•						

Textbooks and Resources

Textbooks

BMSC13001

Prescribed

Clinical Haematology Atlas
Edition: 5th (2016)
Authors: Bernadette F. Rodak and Jacqueline H. Carr
Elsevier
St Louis , Missouri , United States of America
ISBN: 9780323322492
Binding: Spiral
BMSC13001

Prescribed

Rodak's Haematology, Clinical Principles and Applications
Edition: 5th (2015)
Authors: Elaine Keohane, Larry Smith and Jeanine Walenga
Elsevier
St Louis , Missouri , United States of America
ISBN: 9780323239066
Binding: Hardcover

Additional Textbook Information
Both texts can be purchased at the CQUni Bookshop here: http://bookshop.cqu.edu.au (search on the Unit code)

View textbooks at the CQUniversity Bookshop

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)

Referencing Style

All submissions for this unit must use the referencing styles below:

- American Psychological Association 6th Edition (APA 6th edition)
- Harvard (author-date)

For further information, see the Assessment Tasks.

Teaching Contacts

Wayne Pederick Unit Coordinator
w.pederick@cqu.edu.au
Roxina Sharma Unit Coordinator
r.r.sharma@cqu.edu.au

Schedule

Week 1 - 11 Mar 2019

Module/Topic	Chapter	Events and Submissions/Topic

1. Introduction to Advanced Haematology 2. Bone Marrow Examination	16	

Week 2 - 18 Mar 2019

Module/Topic	Chapter	Events and Submissions/Topic
1. Increased RBC Destruction 2. Intrinsic Defects 3. Extrinsic Defects - Immune and Non-Immune Causes	22-25	Tutorial 1 An approach to blood film review.

Week 3 - 25 Mar 2019

Module/Topic	Chapter	Events and Submissions/Topic
1. Non-Malignant Leucocyte Disorders 2. Paediatric and Geriatric Haematology	28, 38	Tutorial 2 Haemolytic Anaemia - Case study 1 Tutorial 3 Haemolytic Anaemia - Case study 2

Week 4 - 01 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
Haematological malignancy development, genetics and nomenclature	29-33	Tutorial 4 Non - malignant leukocyte disorders - A case study

Week 5 - 08 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
1. Myelodysplastic Syndromes 2. Myeloproliferative Neoplasms	34,35	

Vacation Week - 15 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
Independent Study		No lecture

Week 6 - 22 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
Myeloid Leukaemia	34-37	**Case Study Report** Due: Week 6 Monday (22 Apr 2019) 11:45 pm AEST

Week 7 - 29 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
Lymphoid Leukaemia	34-37	

Week 8 - 06 May 2019

Module/Topic	Chapter	Events and Submissions/Topic
1. Lymphomas 2. Myelomas 3. Other Haematological Malignancies	29-37	

Week 9 - 13 May 2019

Module/Topic	Chapter	Events and Submissions/Topic
1. Anticoagulants and Coagulopathies 2. Platelet Disorders	40-47	

Week 10 - 20 May 2019

Module/Topic	Chapter	Events and Submissions/Topic
Compulsory Residential School	Practical Workbook	No lecture - residential school held this week

Week 11 - 27 May 2019

Module/Topic	Chapter	Events and Submissions/Topic

Malaria and other Blood Parasites	24	**Practical Assessment** Due: Week 11 Friday (31 May 2019) 11:45 pm AEST

Week 12 - 03 Jun 2019

Module/Topic	Chapter	Events and Submissions/Topic
Revision Lecture		

Review/Exam Week - 10 Jun 2019

Module/Topic	Chapter	Events and Submissions/Topic

Exam Week - 17 Jun 2019

Module/Topic	Chapter	Events and Submissions/Topic

Term Specific Information

Unit Coordinator Roxzina Sharma, e-mail r.r.sharma@cqu.edu.au
Lecturer Caroline Zollinger, e-mail c.zollinger@cqu.edu.au
Head of Course Wayne Pederick, e-mail w.pederick@cqu.edu.au
Students are encouraged to use the Moodle Forums for all communication purposes. This will be monitored by all of us.
Attendance at the Res School is compulsory for all students, both internal and distance.

Assessment Tasks

1 Case Study Report

Assessment Type
Written Assessment

Task Description
You will be provided with an authentic clinical case study on the unit Moodle site .
The following information regarding the case will be available to you: clinical presentation, patient history, blood smear morphology, haematological parameters (provided by an automated analyser) and biochemical changes (if any).
You are required to write a report (up to 1,500 words) using a case study approach describing the pathology observed, aetiology, specific morphological or haematological characteristics observed that led to the diagnosis, differential diagnosis, treatment options and any recommended further tests.
Guidelines to complete the report, marking rubric and a template will be made available.

Assessment Due Date
Week 6 Monday (22 Apr 2019) 11:45 pm AEST

Return Date to Students
Week 9 Monday (13 May 2019)

Weighting
40%

Minimum mark or grade
50% of the total available marks

Assessment Criteria
The assessment task is marked according to how well you have met the specific requirements and in accordance with the criteria outlined below:
Presentation: the report is presented in the required template; clarity of purpose and coherence of expression (spelling, grammar, syntax); clear and organised flow of information.
Abstract: provides a clear overview and overall summary of the case study.
Introduction: provides necessary background information and pathophysiology of the case; does not discuss the final diagnosis rather supports the intended diagnosis via arguments.
Materials and Methods: briefly describes all the methods used to aid in diagnosis; discusses further tests to be employed in order to confirm the diagnosis. Results: all data presented clearly with reference ranges; layout is clear with further tests and expected results discussed. Discussion: clear discussion of the results with supporting arguments and reasoning for arriving at the final diagnosis.

References: Harvard referencing system used with appropriate in-text references The written assessment is worth 40% of your final grade.

Referencing Style

- American Psychological Association 6th Edition (APA 6th edition)
- Harvard (author-date)

Submission
Online

assessmentOutcome

- Discuss the limitations of haematology laboratory procedures and the use of tests within specified limits
- Discuss the detection and monitoring of blood diseases including factors essential in the development of new tests
- Discuss laboratory report presentation and interpretation of results including the concept of therapeutic range of anticoagulant therapy

assessmentGradAttribute

- Communication
- Problem Solving
- Critical Thinking

2 Practical Assessment

Assessment Type
Practical Assessment

Task Description
You will be provided on the moodle site with a laboratory workbook. This will contain all the tasks that need to be completed during the residential school. It will also contain a series of short questions and patient reports to be completed in relation to the authentic cases provided. Group experimental activities during the residential school will foster team work and provide hands-on experience of the haematological techniques used in pathology laboratories. Completion of the workbook will evidence student engagement and understanding of the principles behind the haematological tests. Laboratory staff or demonstrators will assess your individual experimental capability during residential school to ensure your understanding of the learning outcomes. You will be required to submit the completed version of the laboratory workbook on the moodle site. Important: On Day 3 of your residential school, you will have a final practical examination. Further details regarding the examination will be available on the moodle site.

Assessment Due Date
Week 11 Friday (31 May 2019) 11:45 pm AEST

Return Date to Students
Review/Exam Week Monday (10 June 2019)

Weighting
Pass/Fail

Minimum mark or grade
50% of the total available marks

Assessment Criteria

- Residential School and Workbook component: The laboratory staff will provide immediate verbal feedback to you on the practical hands-on aspect of this assessment item. The laboratory workbook template will contain a detailed assessment scheme associated with the tasks and questions/reports to be completed.
- Practical Examination component: This will be conducted on Day 3 of the residential school. Further information on the examination will be available on the moodle site.
- You should obtain a minimum 50% mark for both your laboratory workbook and practical examination in order to pass this assessment. A pass is required in order to successfully complete the unit; however, the mark will not contribute to the overall mark, i.e. assessment of the residential school will be on a 'pass/fail' basis. Referencing Style Harvard (author-date) Submission Offline Online Submission Instructions Students may submit their workbook at the end of the resid

Referencing Style

- American Psychological Association 6th Edition (APA 6th edition)
- Harvard (author-date)

Submission
Online

assessmentOutcome

- Perform haematological tests and instrument quality control processes
- Analyse results of hematological tests and instrument quality control processes instituting corrective action as required.

assessmentGradAttribute

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence

Examination

Outline
Complete an invigilated examination.

Date
During the examination period at a CQUniversity examination centre.

Weighting
60%

Length
180 minutes

Exam Conditions
Closed Book.

Materials
Dictionary - non-electronic, concise, direct translation only (dictionary must not contain any notes or comments).
Calculator - non-programmable, no text retrieval, silent only

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assessmentOutcome

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assessmentGradAttribute

Academic Integrity Statement

As a CQUniversity student you are expected to act honestly in all aspects of your academic work.

Any assessable work undertaken or submitted for review or assessment must be your own work. Assessable work is any type of work you do to meet the assessment requirements in the unit, including draft work submitted for review and feedback and final work to be assessed.

When you use the ideas, words or data of others in your assessment, you must thoroughly and clearly acknowledge the source of this information by using the correct referencing style for your unit. Using others' work without proper acknowledgement may be considered a form of intellectual dishonesty.

Participating honestly, respectfully, responsibly, and fairly in your university study ensures the CQUniversity qualification you earn will be valued as a true indication of your individual academic achievement and will continue to receive the respect and recognition it deserves.

As a student, you are responsible for reading and following CQUniversity's policies, including the **Student Academic Integrity Policy and Procedure**. This policy sets out CQUniversity's expectations of you to act with integrity, examples of academic integrity breaches to avoid, the processes used to address alleged breaches of academic integrity, and potential penalties.

What is a breach of academic integrity?
A breach of academic integrity includes but is not limited to plagiarism, self-plagiarism, collusion, cheating, contract cheating, and academic misconduct. The Student Academic Integrity Policy and Procedure defines what these terms mean and gives examples.

Why is academic integrity important?
A breach of academic integrity may result in one or more penalties, including suspension or even expulsion from the University. It can also have negative implications for student visas and future enrolment at CQUniversity or elsewhere. Students who engage in contract cheating also risk being blackmailed by contract cheating services.

Where can I get assistance?
For academic advice and guidance, the Academic Learning Centre (ALC) can support you in becoming confident in completing assessments with integrity and of high standard.

What can you do to act with integrity?

Be Honest
If your assessment task is done by someone else, it would be dishonest of you to claim it as your own

Seek Help
If you are not sure about how to cite or reference in essays, reports etc, then seek help from your lecturer, the library or the Academic Learning Centre (ALC)

Produce Original Work
Originality comes from your ability to read widely, think critically, and apply your gained knowledge to address a question or problem