



# MEDS11002 Relational Anatomy and Image Recognition

## Term 2 - 2017

Profile information current as at 19/05/2024 06:40 am

All details in this unit profile for MEDS11002 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

This unit examines the gross, topographical and relational anatomy of the human body and develops the pattern recognition skills to identify normal anatomical structures on medical images. Each macroscopic anatomical structure, or its constituent part, is studied in terms of spatial characteristics, relative to adjacent structures, body planes, external and internal landmarks relevant to sonographic practice. This knowledge is engaged to enhance the development of pattern recognition skills in relation to the cross-sectional, oblique, coronal and sagittal display of these anatomical structures on normal medical images, with a particular focus on the interpretation of sonographic images.

### Details

Career Level: *Undergraduate*

Unit Level: *Level 1*

Credit Points: 12

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.25

### Pre-requisites or Co-requisites

Prerequisite: BMSC11001 Human Body Systems 1 AND Corequisite BMSC11002 Human Body Systems 2

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 2 - 2017

- Brisbane
- Distance
- Mackay
- Melbourne
- Perth
- Sydney

### 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).

### Residential Schools

This unit has a Compulsory Residential School for distance mode students and the details are:

Click here to see your [Residential School Timetable](#).

### 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 12-credit Undergraduate unit at CQUniversity requires an overall time commitment of an average of 25 hours of study per week, making a total of 300 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. **Online Quiz(zes)**

Weighting: 15%

#### 2. **In-class Test(s)**

Weighting: 30%

#### 3. **Examination**

Weighting: 55%

### 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 Teaching staff evaluation

##### **Feedback**

Poor Blackboard attendance and engagement limiting students understanding of diagnostic imaging interpretation.

##### **Recommendation**

Impress upon students how essential it is that they attend as many Blackboard Collaborate sessions as possible. Rather than just watch recorded session.

#### Feedback from Student feedback

##### **Feedback**

Students found the residential school format beneficial especially the opportunity to meet with sonographers and spend time using the ultrasound machines.

##### **Recommendation**

Maintain residential school especially the 'hands on' use of the ultrasound machines.

#### Feedback from Student feedback

##### **Feedback**

Students found the timely response to emails supportive and reassuring.

##### **Recommendation**

Maintain positive, timely feedback of student email queries.

#### Feedback from Student feedback

##### **Feedback**

Volume of content covered in residential school to much especially in the second day.

##### **Recommendation**

Look at modifying content of residential school so as to focus more on key knowledge.

## Unit Learning Outcomes

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

1. Describe the features and location of sonographically significant macroscopic anatomical structures.
2. Describe the spatial orientation of each anatomical structure relative to adjacent structures, body planes and landmarks.
3. Identify cross-sectional, coronal and sagittal representation of organs and structures.
4. Apply the skill of pattern recognition to the interpretation of medical images, particularly sonographic.
5. Identify anatomical features on medical images, particularly sonographic views.

The sonography course is accredited by the Australian Sonographers Association and knowledge required by entry-level sonographers is introduced in this unit and is a key requirement of accreditation.

## Alignment of Learning Outcomes, Assessment and Graduate Attributes



### Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
1 - Online Quiz(zes) - 15%	•	•	•	•	•
2 - In-class Test(s) - 30%	•	•	•	•	•
3 - Examination - 55%	•	•	•	•	•

## 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 - Online Quiz(zes) - 15%	•	•								
2 - In-class Test(s) - 30%	•	•								
3 - Examination - 55%	•	•								

## Textbooks and Resources

## Textbooks

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### Prescribed

#### **Sectional Anatomy for Imaging Professionals**

Third Edition (2013)

Authors: Kelley, Petersen.

Elsevier

St Louis , Missouri , U.S.A

ISBN: 978-0-323-08260-0

Binding: Paperback

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### Prescribed

#### **Sectional Anatomy for Imaging Professionals (Workbook)**

Third Edition (2013)

Authors: Lorrie L. Kelley and Connie M. Petersen

Elsevier

St.Louis , Missouri , United States of America

ISBN: 978-0-323-09419-1

Binding: Paperback

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### Prescribed

#### **Sonography - Introduction to Normal Structure and Function**

Edition: 4th edn revised (2015)

Authors: Curry, RA & Tempkin, BB

Elsevier

Philadelphia , PA , USA

ISBN: 9780323322843

Binding: Hardcover

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### Supplementary

#### **Gray's Anatomy for Students**

Edition: 3rd edn (2014)

Authors: Drake, R, Vogel, AW & Mitchell, AWM

Elsevier

London , UK

ISBN: 9780702051319

Binding: Hardcover

#### **Additional Textbook Information**

Text books have been selected based not just upon material within them but thought given to books you have used and may use in your future study.

Recomended additional text - Gray's Anatomy For Students 3rd Edition by Elsevier ISBN - 978-0-7020-5131-9. This text while not essential is an excellent reference source at a reasonable price and is one used by many radiology departments throughout Australia.

[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 style: [American Psychological Association 6th Edition \(APA 6th edition\)](#)

For further information, see the Assessment Tasks.

## Teaching Contacts

**Sharon Meng** Unit Coordinator  
[s.meng@cqu.edu.au](mailto:s.meng@cqu.edu.au)

## Schedule

### Week 1 - 10 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Introduction to Sectional Anatomy <ul style="list-style-type: none"><li>• Brain</li><li>• Cranium</li><li>• Spine</li></ul>	Please refer to unit Moodle site for text chapters and relevant Draw-It-To-Know-It modules	<ul style="list-style-type: none"><li>• Moodle Quiz 1</li><li>• Zoom Collaborate</li></ul>

### Week 2 - 17 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none"><li>• The Thorax</li><li>• The Heart</li></ul>	Please refer to unit Moodle site for text chapters and relevant Draw-It-To-Know-It modules.	<ul style="list-style-type: none"><li>• Moodle Quiz 2</li><li>• Zoom Collaborate</li></ul>

### Week 3 - 24 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Upper Limb: <ul style="list-style-type: none"><li>• Skeletal</li><li>• Muscular</li><li>• Vascular</li><li>• Neurological</li></ul>	Please refer to unit Moodle site for text chapters and relevant Draw-It-To-Know-It modules.	<ul style="list-style-type: none"><li>• Moodle Quiz 3</li><li>• Zoom Collaborate</li></ul>

### Week 4 - 31 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Lower Limb: <ul style="list-style-type: none"><li>• Skeletal</li><li>• Muscular</li><li>• Vascular</li><li>• Neurological</li></ul>	Please refer to unit Moodle site for text chapters and relevant Draw-It-To-Know-It modules.	<ul style="list-style-type: none"><li>• Moodle Quiz 4</li><li>• Zoom Collaborate</li></ul>

### Week 5 - 07 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic
Introduction to the Abdomen: <ul style="list-style-type: none"><li>• Large structures</li><li>• Aorta</li><li>• I.V.C</li></ul>	Please refer to unit Moodle site for text chapters and relevant Draw-It-To-Know-It modules.	<ul style="list-style-type: none"><li>• Moodle Quiz 5</li><li>• Zoom Collaborate</li></ul>

### Vacation Week - 14 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic
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### Week 6 - 21 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic
The Abdomen: <ul style="list-style-type: none"><li>• Portal/Biliary System</li><li>• Liver</li></ul>	Please refer to unit Moodle site for text chapters and relevant Draw-It-To-Know-It modules.	<ul style="list-style-type: none"><li>• Moodle Quiz 6</li><li>• Zoom Collaborate</li></ul>

### Week 7 - 28 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic
The Abdomen: <ul style="list-style-type: none"><li>• Digestive Tract</li><li>• Spleen</li><li>• Pancreas</li></ul>	Please refer to unit Moodle site for text chapters and relevant Draw-It-To-Know-It modules.	<ul style="list-style-type: none"><li>• Moodle Quiz 7</li><li>• Zoom Collaborate</li></ul>

**Week 8 - 04 Sep 2017**

Module/Topic	Chapter	Events and Submissions/Topic
The Abdomen: • Urinary tract	Please refer to unit Moodle site for text chapters and relevant Draw-It-To-Know-It modules.	<ul style="list-style-type: none"> <li>• Moodle Quiz 8</li> <li>• Zoom Collaborate</li> </ul>

**Week 9 - 11 Sep 2017**

Module/Topic	Chapter	Events and Submissions/Topic
Residential School • Tuesday 12th & Wednesday 13th September • Residential school is a compulsory requirement	Residential School Outline (refer to Moodle)	<ul style="list-style-type: none"> <li>• In-class, one (1) hour, written examination (30%) Wednesday 13th September.</li> <li>• No Moodle Quiz this week.</li> </ul> <p><b>In-class test</b> Due: Week 9 Wednesday (13 Sept 2017) 2:30 pm AEST</p>

**Week 10 - 18 Sep 2017**

Module/Topic	Chapter	Events and Submissions/Topic
<ul style="list-style-type: none"> <li>• The Neck</li> <li>• Facial Bones</li> </ul>	Please refer to unit Moodle site for text chapters and relevant Draw-It-To-Know-It modules.	<ul style="list-style-type: none"> <li>• Moodle Quiz 9</li> <li>• Zoom Collaborate</li> </ul>

**Week 11 - 25 Sep 2017**

Module/Topic	Chapter	Events and Submissions/Topic
The Pelvis: • Large structures • Male reproductive organs • Female reproductive organs	Please refer to unit Moodle site for text chapters and relevant Draw-It-To-Know-It-Modules.	<ul style="list-style-type: none"> <li>• Moodle Quiz 10</li> <li>• Zoom Collaborate</li> </ul>

**Week 12 - 02 Oct 2017**

Module/Topic	Chapter	Events and Submissions/Topic
The Pelvis: • Muscles • Vasculature	Please refer to unit Moodle site for text chapters and relevant Draw-It-To-Know-It modules.	<ul style="list-style-type: none"> <li>• No Moodle Quiz this week.</li> <li>• Zoom Collaborate</li> </ul> <p><b>Online Quiz(zes)</b> Due: Week 12 Friday (6 Oct 2017) 9:00 am AEST</p>

**Review/Exam Week - 09 Oct 2017**

Module/Topic	Chapter	Events and Submissions/Topic
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**Exam Week - 16 Oct 2017**

Module/Topic	Chapter	Events and Submissions/Topic
		<p>Final Examination</p> <ul style="list-style-type: none"> <li>• Two (2) hour written examination (55%)</li> </ul>

## Term Specific Information

Sharon Meng, email: [s.meng@cqu.edu.au](mailto:s.meng@cqu.edu.au) telephone **(07) 4940 7519**, will be the unit coordinator for the 2017 delivery of this subject. Various guest lecturers will be teaching into their areas of specialty for unit delivery. There will be **three (3) assessments for the unit**.

- There will be ten (10) online quizzes with most weeks having a quiz which can be accessed through the unit Moodle site.
- A written in-class test which will be conducted in the week nine (9) residential school.
- There will be a written examination which will be conducted within the formal examination period.

Please note that you must meet minimum requirements for all three assessments in order to pass this unit. Along with the lectures, zoom collaborate sessions and readings, you will be expected to access an interactive teaching program called, 'Draw-it-to-know-it'. This innovative software will serve as an invaluable adjunct to the weekly Moodle material by providing short lectures related to the weekly teaching material and then offering you the opportunity to revise the anatomy by drawing it.

A link to the 'Draw-it-to-know-it,' website has been provided on your Moodle offerings. Please click on the link to access the software or through the library link on your CQU home screen.

## Assessment Tasks

### 1 Online Quiz(zes)

#### Assessment Type

Online Quiz(zes)

#### Task Description

There will be 10 multiple choice online Moodle quizzes.

Quiz questions will include, but are not limited to, identification of structures on medical images.

There will be no quiz during the Residential School in week 9.

Each quiz will be worth 1.5% of your total grade giving a total of 15% of your total grade.

Each quiz may be attempted a maximum of two times, with the final grade being the average of the two attempts. For example if you scored 6/10 on your first attempt and 8/10 on the second, your grade for that quiz would be 7/10. Please be aware it is not compulsory to attempt the quiz twice rather it is an opportunity to try and improve your grade if necessary.

PLEASE NOTE - Quizzes will open each week on the Monday and close the following Friday. Giving you approximately 2 weeks to complete each quiz.

#### Number of Quizzes

10

#### Frequency of Quizzes

Weekly

#### Assessment Due Date

Week 12 Friday (6 Oct 2017) 9:00 am AEST

Please note that this is the due date for the final online Moodle quiz. Please refer to the schedule for the dates of each quiz.

#### Return Date to Students

On completion of the quiz

#### Weighting

15%

#### Minimum mark or grade

You must obtain 50 % of the maximum marks available in the test to achieve a passing grade.

#### Assessment Criteria

Answers will be either correct or incorrect and will be tabulated by the Moodle online unit system.

#### Referencing Style

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)



**Submission**

Online

**Submission Instructions**

Online through the Moodle site.

**Learning Outcomes Assessed**

- Describe the features and location of sonographically significant macroscopic anatomical structures.
- Describe the spatial orientation of each anatomical structure relative to adjacent structures, body planes and landmarks.
- Identify cross-sectional, coronal and sagittal representation of organs and structures.
- Apply the skill of pattern recognition to the interpretation of medical images, particularly sonographic.
- Identify anatomical features on medical images, particularly sonographic views.

**Graduate Attributes**

- Communication
- Problem Solving

## 2 In-class test

**Assessment Type**

In-class Test(s)

**Task Description**

An in-class test will be conducted during the Residential School in week nine.

The assessment task will comprise of an hour long written test, based on material covered during weeks one to eight.

While the test may assess material that is presented during the Residential School it **will not** be solely based upon the Residential School material.

The format of the Residential School test will be a combination of image labelling, short answer and multiple choice questions. A component of the test will ask you to use your skills in image interpretation to identify structures on medical images with an emphasis on sonographic images.

Test papers will be collected at the end of the hour with results being posted in Gradebook within two weeks.

Please be aware that the test will be conducted in examination conditions with students expected to conduct themselves accordingly.

**Assessment Due Date**

Week 9 Wednesday (13 Sept 2017) 2:30 pm AEST

Upon completion of the hour long assessment time.

**Return Date to Students**

Week 11 Wednesday (27 Sept 2017)

Test results will be posted on Gradebook once collated and moderated across all campuses.

**Weighting**

30%

**Minimum mark or grade**

You must obtain 50 % of the maximum marks available in the test to achieve a passing grade.

**Assessment Criteria**

Residential school test will have marks awarded according to the nature of the questions presented.

Multiple choice questions will receive one mark for each correct response with incorrect responses receiving zero marks i.e. there will be no negative marking applied.

Image labelling questions will receive a half or full mark depending upon the complexity of the question with there being no negative marking applied to this section.

Marks awarded in the short answer section will be determined upon the basis of question complexity with some questions attracting higher marks than others. Once again there will be no negative marking in this section.

**Referencing Style**

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)

**Submission**

Offline

**Submission Instructions**

To be collected by supervisors upon completion of the hour long test.

**Learning Outcomes Assessed**

- Describe the features and location of sonographically significant macroscopic anatomical structures.
- Describe the spatial orientation of each anatomical structure relative to adjacent structures, body planes and landmarks.
- Identify cross-sectional, coronal and sagittal representation of organs and structures.
- Apply the skill of pattern recognition to the interpretation of medical images, particularly sonographic.
- Identify anatomical features on medical images, particularly sonographic views.

#### **Graduate Attributes**

- Communication
- Problem Solving

## **Examination**

#### **Outline**

Complete an invigilated examination.

#### **Date**

During the examination period at a CQUniversity examination centre.

#### **Weighting**

55%

#### **Length**

120 minutes

#### **Minimum mark or grade**

You must obtain 50 % of the maximum marks available in the test to achieve a passing grade.

#### **Exam Conditions**

Closed Book.

#### **Materials**

No calculators permitted

Dictionary - non-electronic, concise, direct translation only (dictionary must not contain any notes or comments).

## 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