



ECHO28008 *Cardiomyopathies, Aortopathies and Cardiac Masses*

Term 2 - 2020

Profile information current as at 01/05/2024 03:03 am

All details in this unit profile for ECHO28008 have been officially approved by CQU University 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 will develop your knowledge of the application of cardiac ultrasound in the assessment of a variety of disease processes including cardiomyopathies, diseases of the aorta and cardiac masses, preparing you for competent practice in the health workplace as a graduate cardiac sonographer. Knowledge presented will elaborate on the aetiology, pathophysiology and clinical presentations of these disease states. You will discuss the role of the various cardiac imaging modalities in the clinical assessment of these disease states. Through discussions of clinical scenarios and case studies you will analyse diagnostic data and provide differential diagnoses within an ethical framework of best practice and patient safety.

Details

Career Level: *Postgraduate*

Unit Level: *Level 8*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

Pre-requisite: ECHO28001 Cardiac Imaging, Haemodynamics and Pharmacotherapy AND ECHO28007 Cardiac Anatomy and Pathophysiology

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 - 2020

- Online

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 Postgraduate 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. **Online Test**

Weighting: 60%

3. **Learning logs / diaries / Journal / log books**

Weighting: Pass/Fail

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](#).

Unit Learning Outcomes

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

1. Differentiate between the aetiology, pathophysiology and echocardiographic assessment processes associated with a variety of cardiovascular diseases
2. Analyse case-based clinical information to formulate differential diagnoses and plan patient management
3. Compare and contrast cardiac assessment data acquired from a variety of cardiac imaging modalities
4. Perform diagnostic echocardiographic scans under the guidance and mentorship of a qualified cardiac sonographer.

Linked to the Australian Sonographers Accreditation Registry (ASAR) Accreditation Standards for Cardiac Sonography:

Foundation Units of Competence

- Unit 1: Deliver safe, patient centred service
- Unit 2: Practice within professional and ethical frameworks
- Unit 3: Locate, analyse and synthesise information to support evidence based practice
- Unit 4: Contribute to workplace health and safety and quality assurance
- Unit 5: Communicate effectively

Critical Practice Unit of Competence

- Unit 8: Cardiac

Alignment of Learning Outcomes, Assessment and Graduate Attributes



Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes			
	1	2	3	4
1 - Written Assessment - 40%	•	•	•	
2 - Online Test - 60%	•	•	•	
3 - Learning logs / diaries / Journal / log books - 0%				•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes			
	1	2	3	4
1 - Knowledge	○	○	○	○
2 - Communication	○	○	○	
3 - Cognitive, technical and creative skills	○	○	○	○
4 - Research	○	○	○	

Graduate Attributes	Learning Outcomes			
	1	2	3	4
5 - Self-management				○
6 - Ethical and Professional Responsibility	○	○	○	○
7 - Leadership				
8 - 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
1 - Written Assessment - 40%	○	○	○	○		○		
2 - Online Test - 60%	○	○	○			○		
3 - Learning logs / diaries / Journal / log books - 0%	○		○		○	○		

Textbooks and Resources

Textbooks

ECHO28008

Prescribed

A sonographer's guide to the assessment of heart disease

Edition: 1st (2016)

Authors: Bonita Anderson

Echotext

Brisbane , QLD , Australia

ISBN: 978-0-9923222-0-5

Binding: Hardcover

ECHO28008

Prescribed

Echocardiography: The normal examination and echocardiographic measurements

Edition: 3rd (2017)

Authors: Bonita Anderson

Echotext

Brisbane , QLD , Australia

ISBN: 978-0-9923222-1-2

Binding: Hardcover

Additional Textbook Information

Prescribed Echocardiography textbooks will be utilised across multiple units within the Graduate Diploma of Cardiac Ultrasound program.

If you prefer to study with a paper copy, they are available at the CQUni Bookshop here: <http://bookshop.cqu.edu.au> (search on the Unit code). eBooks are available at the publisher's website.

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: [Vancouver](#)
For further information, see the Assessment Tasks.

Teaching Contacts

Paula Boucaut Unit Coordinator
p.boucaut@cqu.edu.au

Schedule

Week 1 - 13 Jul 2020

Module/Topic	Chapter	Events and Submissions/Topic
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Aortopathies

Anderson B. A Sonographer's Guide to the Assessment of Heart Disease. 1st ed. Brisbane: Echotext; 2016. Chapter 7, p 177-179. Chapter 11, pg 325-342.

Anderson B. Echocardiography : The Normal Examination and Echocardiographic Measurements. 3rd ed. Brisbane: Echotext; 2017. Chapter 9, pg. 178-179.

Lang, R. ASE's Comprehensive Echocardiography. Philadelphia, PA: Elsevier Saunders; 2016. Chapters 155-162, pg. 663.699.

Week 2 - 20 Jul 2020

Module/Topic	Chapter	Events and Submissions/Topic
Endocarditis	Anderson B. A Sonographer's Guide to the Assessment of Heart Disease. 1st ed. Brisbane: Echotext; 2016. Chapter 13, pg. 373-382.	
	Lang, R. ASE's Comprehensive Echocardiography. Philadelphia, PA: Elsevier Saunders; 2016. Chapters 133-138, pg. 575-592.	

Week 3 - 27 Jul 2020

Module/Topic	Chapter	Events and Submissions/Topic
Cardiac tumors, thrombus and other masses	Anderson B. A Sonographer's Guide to the Assessment of Heart Disease. 1st ed. Brisbane: Echotext; 2016. Chapter 13, pg. 383-405.	
	Lang, R. ASE's Comprehensive Echocardiography. Philadelphia, PA: Elsevier Saunders; 2016. Chapters 146-151, pg. 617-646.	

Week 4 - 03 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Other strategies used in the assessment of cardioembolic events and intracardiac masses	Lang, R. ASE's Comprehensive Echocardiography. Philadelphia, PA: Elsevier Saunders; 2016. Chapter 13, pg. 57-58.	

Week 5 - 10 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Hypertrophic cardiomyopathy and its mimickers	Anderson B. A Sonographer's Guide to the Assessment of Heart Disease. 1st ed. Brisbane: Echotext; 2016. Chapter 6,pg. 157-165.	
	Lang, R. ASE's Comprehensive Echocardiography. Philadelphia, PA: Elsevier Saunders; 2016. Chapter 68-74, pg. 285-318.	

Vacation Week - 17 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
No new content will be presented this week.		

Week 6 - 24 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Dilated cardiomyopathy	Anderson B. A Sonographer's Guide to the Assessment of Heart Disease. 1st ed. Brisbane: Echotext; 2016. Chapter 6, p 145-154.	
	Lang, R. ASE's Comprehensive Echocardiography. Philadelphia, PA: Elsevier Saunders; 2016. Chapter 76-79, pg. 322-340.	

Week 7 - 31 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Arrhythmogenic right ventricular dysplasia	Anderson B. A Sonographer's Guide to the Assessment of Heart Disease. 1st ed. Brisbane: Echotext; 2016. Chapter 6, p 168-171.	
	Lang, R. ASE's Comprehensive Echocardiography. Philadelphia, PA: Elsevier Saunders; 2016. Chapter 85, pg. 362-365.	

Week 8 - 07 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Restrictive cardiomyopathy and other myocardial diseases	Anderson B. A Sonographer's Guide to the Assessment of Heart Disease. 1st ed. Brisbane: Echotext; 2016. Chapter 6, p 166-168, 171-175.	
	Lang, R. ASE's Comprehensive Echocardiography. Philadelphia, PA: Elsevier Saunders; 2016. Chapter 80, pg. 341-343. Chapter 86, pg. 366-368.	

Week 9 - 14 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Takotsubo cardiomyopathy	Anderson B. A Sonographer's Guide to the Assessment of Heart Disease. 1st ed. Brisbane: Echotext; 2016. Chapter 5, p 138-139.	Written Assessment Due: Week 9 Friday (18 Sept 2020) 5:00 pm AEST
	Lang, R. ASE's Comprehensive Echocardiography. Philadelphia, PA: Elsevier Saunders; 2016. Chapter 87, pg. 368-370.	

Week 10 - 21 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Alternative cardiac imaging modalities	See eReading list.	

Week 11 - 28 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Cardiac Transplantation Ventricular assist devices Cardiac resynchronisation therapy	Lang, R. ASE's Comprehensive Echocardiography. Philadelphia, PA: Elsevier Saunders; 2016. Chapter 88, pg. 370-372. Chapter 89, pg. 373-375.	

Week 12 - 05 Oct 2020

Module/Topic	Chapter	Events and Submissions/Topic

Revision
No new content will be presented this week

Review/Exam Week - 12 Oct 2020

Module/Topic	Chapter	Events and Submissions/Topic
		Clinical Case Log book Due: Review/Exam Week Friday (16 Oct 2020) 5:00 pm AEST

Exam Week - 19 Oct 2020

Module/Topic	Chapter	Events and Submissions/Topic
		Online Test will open at 8:00 am (AEST) on Thursday 22th October, and will close at 8:00 pm (AEST) on Friday 23rd October.

Term Specific Information

Unit Coordinator and Contact details

The coordinator for ECHO28008 Cardiomyopathies, Aortopathies and Cardiac Masses is Paula Boucaut. The most efficient and preferred method of contacting Paula is via the Q&A forum located on the unit Moodle site. If your query is of a personal nature, please contact Paula directly via email (p.boucaut@cqu.edu.au) or phone (07 3023 4108).

Multiple academic staff will be providing presentations and hosting tutorials as part of this unit's delivery. Contact details for other academic staff can be found on the Moodle site.

Unit Tutorials

Tutorials for this unit will be delivered 'live' online using ZOOM (the links required for accessing the tutorials are provided on the Moodle site under the weekly tabs). The tutorials will focus on answering the weekly study questions and contextualisation of key concepts in preparation for related assessments.

Lectures are used to present the central information for the week's study, outlining the main theories and principles of the topic under consideration. Tutorials provide an opportunity for discussion and interaction with other students and with your tutor. It is important students make the most of these interactive sessions and participate fully in order to broaden knowledge and experience with the course material.

To help staff prepare weekly tutorials, please post to the Q&A forum or email the unit coordinator any questions that you might have in relation to the learning material.

Note: Tutorials are recorded for educational purposes. Recordings of Zoom tutorials may be uploaded and appear on YouTube, Moodle and Microsoft Teams. If you have any concerns about being recorded please turn off your webcam or audio, or both, during the session. Your participation will signify your consent to the recording and publication for educational purposes.

Weekly revision material will be provided. Attempting all provided revision material will help you prepare for your online test. No new lecture material will be presented during week 12 of term. This week will be used to prepare for the final assessment.

Please ensure that you review the 'Welcome video' available on the Moodle site for further unit specific information.

Assessment Tasks

1 Written Assessment

Assessment Type

Written Assessment

Task Description

You are to write an essay, which cites a variety of sources to support your discussion on the following topic:

'Cancer treatment has improved significantly in recent years. However some chemotherapeutic drugs are limited by the risk of cardiotoxicity. Cardiotoxicity can appear early or late in the course of the disease treatment and may vary from sub-clinical myocardial dysfunction to irreversible heart failure or even death. Patient prognosis relies on the early detection of myocardial dysfunction and can be achieved through serial monitoring with non-invasive cardiac imaging methods.'

Within your essay:

- Discuss chemotherapy-induced cardiotoxicity and proposed mechanisms.
- Compare and contrast diagnostic benefits offered by various imaging modalities used to screen for cardiotoxicity.
- Include diagrams or images to enhance audience understanding of benefits or caveats associated with pertinent measurement techniques or assessment strategies.
- Identify key indices which would suggest diagnosis.
- Discuss patient management and prognosis following diagnosis.

Your target audience is fellow clinical technical staff and student peers.

This assessment is to be undertaken as an individual. As with all other university assessments, colluding with other students on non-group work tasks is considered academic misconduct, and may lead to action being taken by the Deputy Dean of Learning and Teaching HMAS.

Students are advised to refer to the 'Assessment Policy and Procedure (Higher Education Coursework) document for additional university guidelines regarding assessments.

Assessment Due Date

Week 9 Friday (18 Sept 2020) 5:00 pm AEST

Return Date to Students

Individual student results and feedback will be made available once submissions have been marked, moderated and certified by the University.

Weighting

40%

Minimum mark or grade

To PASS this assessment task, a minimum of 50% must be achieved.

Assessment Criteria

You will be assessed on your ability to:

- Locate and critically evaluate information.
- Produce a scholarly essay that is well written, and evidence based.
- Use appropriate technical terms, spelling, grammar and referencing.
- Address key points as outlined in the task description.

Word count: 2000 words count +/- 10%. Word count does not include headings or references but does include diagram explanations and labelling.

Referencing: Vancouver. Minimum 5 peer reviewed journal articles must be cited. Literature titles must be current (<5 years of age), excepting seminal works.

A detailed marking rubric can be found on the Moodle site.

Referencing Style

- [Vancouver](#)

Submission

Online

Submission Instructions

Written assessment must be uploaded through the assessment tab on Moodle as a 'word' document. The 'word' document must be appropriately labelled with student name, student number and descriptor (E.g. 'John SMITH_S12345_Written Assessment').

Learning Outcomes Assessed

- Differentiate between the aetiology, pathophysiology and echocardiographic assessment processes associated with a variety of cardiovascular diseases

- Analyse case-based clinical information to formulate differential diagnoses and plan patient management
- Compare and contrast cardiac assessment data acquired from a variety of cardiac imaging modalities

Graduate Attributes

- Knowledge
- Communication
- Cognitive, technical and creative skills
- Research
- Ethical and Professional Responsibility

2 Online Test

Assessment Type

Online Test

Task Description

This online test will assess your understanding of the content presented within this unit. Questions may be drawn from content presented in lectures, additional resources provided (e.g. prescribed readings) and tutorial presentations.

- **Perusal time and online test duration will be 130 minutes in total.**
- **Open book conditions.**
- **It is recommended that you have a calculator available when sitting the online test.**

Once started, the online test cannot be paused or restarted. Only one attempt is permitted.

- The online test will automatically close and submit completed student answers once the allocated time has elapsed.
- The duration of this test is tailored to promote recall of fact, rather than research of answers unknown.

You will be required to answer a variety of online questions. Questions:

- may include multiple choice, short answer, essay style or image interpretation format.
- will be drawn from a resource bank, to allow tests to be different for each student.

Students will be required to be familiar with both normal and pathological echocardiographic and anatomical images.

Students are reminded that IT support from the university Information and Technology Division (TASAC) is only available during AEST business hours. It is recommended that the online test is completed during business hours.

In the absence of an approved extension, this assessment cannot be completed at a later time. Students will receive a mark of zero (or fail) for this assessment, if you have not completed it by the scheduled date and time and do not have an extension.

This assessment is to be undertaken as an individual. Colluding with other students on non-group work tasks is considered academic misconduct and may lead to action being taken the Deputy Dean of Learning and Teaching HMAS.

Students are advised to refer to the 'Assessment Policy and Procedure (Higher Education Coursework) document for additional university guidelines regarding assessments.

Assessment Due Date

The online test will open at 8:00 am (AEST) on Thursday 22nd October, and will close at 8:00 pm (AEST) on Friday 23rd October.

Return Date to Students

Individual student results and feedback will be made available once submissions have been marked, moderated and certified by the University. The online test question pool in its entirety will not be released to students.

Weighting

60%

Minimum mark or grade

To PASS this assessment task, a minimum of 50% must be achieved.

Assessment Criteria

Question responses will be assessed according to the:

- use of appropriate terminology and descriptors as well as grammar and spelling.
- student's ability to appropriately interpret presented sonographic images and cardiac assessment data.
- student's ability to succinctly respond with accurate answers.

The number of marks allocated for each question will be indicated within the online test. Question marks are allocated based on the accuracy, depth and breath of required responses.

Referencing Style

- [Vancouver](#)

Submission

Online

Submission Instructions

The online test will be accessible through the assessment tab on Moodle.

Learning Outcomes Assessed

- Differentiate between the aetiology, pathophysiology and echocardiographic assessment processes associated with a variety of cardiovascular diseases
- Analyse case-based clinical information to formulate differential diagnoses and plan patient management
- Compare and contrast cardiac assessment data acquired from a variety of cardiac imaging modalities

Graduate Attributes

- Knowledge
- Communication
- Cognitive, technical and creative skills
- Ethical and Professional Responsibility

3 Clinical Case Log book

Assessment Type

Learning logs / diaries / Journal / log books

Task Description

The Clinical Case Log Book is a document designed to track clinical experience. This log book documents all observed, partially or fully completed echocardiography cases that a student is exposed to during clinical employ. It is recommended that you update this logbook daily.

This assessment task requires the submission of a clinical case log book, detailing clinical experience since course enrolment.

A template for the Clinical Case Log book is supplied in a word document format on the Moodle site. Students were supplied this same Clinical Case Log Book at the time of course enrolment.

- The word document is designed to facilitate easy electronic submission at various checkpoints throughout unit and course enrolment. The clinical supervisor's digital signature can be used to verify authenticity of entries on the word document.
- Alternatively, the word document can be printed, manually completed and scanned to a digital file format for submission.

A Clinical Case Log book submission can be requested at any point during course enrolment, at the discretion of the university course coordinator.

The 'Clinical Case Log book' incorporates the following data:

1. The date of each examination.
2. Allocation of a unique identifier for each patient to ensure anonymity.
3. Referral indications

4. Type of echocardiogram performed (i.e. Adult, Paediatric, Stress/Dobutamine, TOE)
5. Student level of scan participation (Observed, partially, or fully completed examination)
6. Case Findings

It is recommended that a student participate in an average of 180 echocardiographic studies per 12 week term of course enrolment. (This is an average of 5 scans per day, 3 days per week.)

Assessment Due Date

Review/Exam Week Friday (16 Oct 2020) 5:00 pm AEST

Return Date to Students

Individual student feedback will be provided only if assessment criteria deficits are identified.

Weighting

Pass/Fail

Assessment Criteria

To be awarded a PASS, all documentation must be completed and submitted by the corresponding due date and time.

The Clinical Case Log book will be reviewed to ensure that:

- an acceptable volume of clinical work has been achieved.
- exposure to sufficient case study complexity has been demonstrated to support ongoing knowledge and practical skill development.
- cases have been documented appropriately.

Referencing Style

- [Vancouver](#)

Submission

Online

Submission Instructions

The Clinical Case Log Book must be uploaded through the assessment tab on Moodle as a single 'word' or 'PDF' document. The document must be appropriately labelled with student name, student number and descriptor (E.g. 'John SMITH_S12345_Clinical Case Log Book').

Learning Outcomes Assessed

- Perform diagnostic echocardiographic scans under the guidance and mentorship of a qualified cardiac sonographer.

Graduate Attributes

- Knowledge
- Cognitive, technical and creative skills
- Self-management
- Ethical and Professional Responsibility

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