



PODI13008 *Clinical Biomechanics of the Lower Limb*

Term 1 - 2020

Profile information current as at 20/04/2024 11:46 pm

All details in this unit profile for PODI13008 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.

Corrections

Unit Profile Correction added on 28-04-20

Professional practice placement will be deferred until further notice. The Unit Coordinator will provide you with updates via Moodle related to the rescheduling of professional practice placement.

Unit Profile Correction added on 28-04-20

The end of term examination has now been changed to an alternate form of assessment. Please see your Moodle site for details of the assessment.

General Information

Overview

In this unit you will be presented with common structural and functional variations of the lower limb as seen in podiatry practice. You will learn the aetiology, clinical diagnosis and management of common orthopaedic lower limb conditions. You will refine and develop your knowledge and skills in clinical gait analysis and biomechanical assessment which will be used to assess and diagnose biomechanical conditions of the lower limb. This will incorporate various motion analysis devices and medical equipment in the assessment and treatment of biomechanical conditions in a podiatric context.

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: PODI12010 Advanced Anatomy and Podiatric Biomechanics. To be enrolled in this unit, students must be enrolled in CB86 Bachelor of Podiatry Practice (Honours) course. Co-requisites: PODI13007 Podiatry Clinical Practice 2 and PODI13010 Sports in Podiatry Practice.

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 - 2020

- Rockhampton
- 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).

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: 50%

2. **Professional Practice Placement**

Weighting: Pass/Fail

3. **On-campus Activity**

Weighting: Pass/Fail

4. **Examination**

Weighting: 50%

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 evaluation feedback.

Feedback

Some students would have appreciated more practical classes to prepare for professional practice placement.

Recommendation

This unit already has a weekly practical class where students learn practical and clinical skills relating to lower limb biomechanics, so it is not feasible to increase the number of practical classes. In order to adequately prepare students who are confident to participate in clinical placement in a biomechanics context, the removal of the professional practice placement assessment task will be considered for the next offering of POD113008. This ensures that students have to pass all assessment tasks before they will be exposed to patients in a biomechanical clinic the following term. This also gives students the term break to take additional time to prepare for seeing this patient cohort if individual students feel this is required.

Feedback from Student evaluation feedback.

Feedback

Assessment return needs to be timely in order for students to learn from feedback.

Recommendation

It is acknowledged that timely feedback is important for student learning and improvement. This year, the delay in assessment task return was partly due to the high number of extensions approved. In the future, strategies will be implemented to provide general assessment feedback to students, in spite of possible assignment extension requests. In future deliveries of this unit, the Unit Coordinator will also take into consideration factors which may increase the time taken for assessment return, and endeavor to return assessments to students in as timely a manner as possible.

Feedback from Student feedback.

Feedback

Some students would appreciate for lectures to be recorded.

Recommendation

It is acknowledged that students would appreciate the flexibility and study resource of online lectures, however podiatry staff are concerned this could significantly impact student engagement and attendance. Lectures in this unit have been typically ran in an informal fashion, and meaningful discussions often arise as a result of direct student engagement and questions. If lectures were to be recorded, it is a concern that this engagement and attendance will reduce. Recorded lectures may be trialed in the future or when enrollment numbers increase.

Unit Learning Outcomes

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

1. Assess podiatric cases involving clinical biomechanics of the lower limb, and interpret and analyse findings
2. Develop, implement, and evaluate podiatric interventions for patients with common biomechanical pathologies of the lower limb
3. Evaluate peer reviewed biomechanical literature to support decision making in podiatry practice.

Per NPC1304

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
1 - Written Assessment - 50%			•
2 - Professional Practice Placement - 0%	•	•	
3 - On-campus Activity - 0%	•		
4 - Examination - 50%		•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes		
	1	2	3
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 - 50%	•	•	•	•		•				
2 - Professional Practice Placement - 0%	•	•	•	•	•		•	•		
3 - On-campus Activity - 0%	•	•	•	•						
4 - Examination - 50%		•	•	•						

Textbooks and Resources

Textbooks

PODI13008

Supplementary

Clinical Biomechanics of the Lower Extremities

Edition: First

Authors: Ronald L. Valmassy

Mosby

ISBN: 9780801679865

Binding: Hardcover

PODI13008

Supplementary

Whittle's Gait Analysis

Edition: Fifth

Authors: David Levine, Jim Richards, Michael W Whittle

Churchill Livingstone Elsevier

ISBN: 9780702042652

Binding: Paperback

Additional Textbook Information

These textbooks are not compulsory, but may be helpful during your podiatry biomechanics studies. There is a copy of 'Clinical Biomechanics of the Lower Extremities' available at Sydney and Rockhampton libraries. 'Whittle's Gait Analysis' is available as an e-book through the CQUniversity library.

If preferred, paper copies are available for purchase at the CQUni Bookshop here: <http://bookshop.cqu.edu.au> (search on the Unit code)

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

Laura Hutchison Unit Coordinator

l.hutchison@cqu.edu.au

Schedule

Week 1 - Rearfoot biomechanics - 09 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
This week we will review the anatomy and biomechanics of the rearfoot, and learn about rearfoot conditions encountered in podiatry practice.	Readings or textbook chapters for each week will be posted in Moodle. Please note that information from readings may be assessed during the examination.	

Week 2 - Midfoot biomechanics - 16 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
This week we will review the anatomy and biomechanics of the midfoot, and learn about midfoot conditions encountered in podiatry practice.		

Week 3 - Forefoot biomechanics - 23 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
This week we will review the anatomy and biomechanics of the forefoot, and learn about forefoot conditions encountered in podiatry practice.		

Week 4 - Ankle biomechanics - 30 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
This week we will review the anatomy and biomechanics of the ankle, and learn about ankle conditions encountered in podiatry practice.		Written assessment part 1 due: Friday 3 April 11:45 pm AEST

Week 5 - Knee and hip biomechanics - 06 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
This week we will review the anatomy and biomechanics of the knee and hip, and learn about relevant conditions and considerations.		

Vacation Week - 13 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - Biomechanics of the gait cycle - 20 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
This week we will review the biomechanics of the gait cycle.		

Week 7 - Gait analysis and clinical considerations - 27 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
This week we will cover gait analysis techniques, ranging from clinical gait analysis to laboratory based three dimensional gait analysis.		

Week 8 - No lecture or tutorial - 04 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Public holiday on Monday in QLD - no lecture or tutorial this week		

Week 9 - Theories in Podiatric biomechanics - 11 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
This week we will discuss different theories in podiatric biomechanics, ranging from traditional through to contemporary.		Written assessment part 2 due: Friday 15 May 11:45 pm AEST Professional practice placement (Rockhampton only) day one: Friday 15 May at CQUniversity Health Clinic from 8.00 am - 5.00 pm (provisional, TBC)

Week 10 - No lecture or tutorial - 18 May 2020

Module/Topic	Chapter	Events and Submissions/Topic

There is no lecture or tutorial this week due to professional practice placement.

Professional practice placement (Rockhampton only) day two: Monday 18 May at CQUniversity Health Clinic from 8.00 am - 5.00 pm (provisional, TBC)
Professional practice placement (Sydney only) day one: Friday 22 May from 8.00 am - 5.00 pm (provisional) Location on campus TBC.

Week 11 - No lecture or tutorial - 25 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
There is no lecture or tutorial this week due to professional practice placement.		Professional practice placement (Sydney only) day two: Monday 25 May from 8.00 am to 5.00 pm at CQUniversity Health Clinic from 8.00 am - 5.00 pm (provisional, TBC). Professional practice placement log book due (Rockhampton students): Monday 25 May 11:45 pm AEST On-Campus Activity placement reflection due (Rockhampton students): Monday 25 May 11:45 pm AEST

Week 12 - Review - 01 Jun 2020

Module/Topic	Chapter	Events and Submissions/Topic
This week we will review material from throughout the term and any examination related queries will be clarified.		Professional practice placement log book due (Sydney students): Monday 1 June 11:45 pm AEST On-Campus Activity placement reflection due (Sydney students): Monday 1 June 11:45 pm AEST

Review/Exam Week - 08 Jun 2020

Module/Topic	Chapter	Events and Submissions/Topic

Exam Week - 15 Jun 2020

Module/Topic	Chapter	Events and Submissions/Topic

Term Specific Information

Attendance: As per the University's recommendation that "All on-campus students are expected to attend scheduled classes," students should also be aware that there is clear evidence to show that attendance rates are directly related to academic progress. It is therefore in your best interest and strongly recommended in the Bachelor of Podiatry Practice (Honours) course, that you attend all scheduled learning activities to support your learning.

Uniform: In all practical classes, students are required to wear the nominated uniform. Students must purchase their uniform from the bookshop. This uniform is separate to the mandatory clinical uniform. Please refer to the Podiatry Course Handbook for further details. The uniform shirt is to be worn with either black or navy shorts, or three quarter or full length leggings/tights. If shorts are worn, they must be just above knee length. Shorts and/or leggings/tights must allow easy movement for the purposes of gait analysis and relevant podiatry assessments.

Assessment Tasks

1 Clinical patterns

Assessment Type
Written Assessment

Task Description

You will be required to complete two separate clinical patterns regarding a biomechanical condition commonly encountered in podiatry practice. The aim of the assessment is to succinctly present the best available evidence regarding your topics. Topics will be made available at the beginning of term. Please note the two clinical patterns have different due dates. Each clinical pattern is equally weighted (i.e. they each constitute 25% of the final grade for the unit).

The following areas should be addressed and used as sub-headings in your assignment:

- Aetiology
- Epidemiological characteristics
- Clinical manifestations
- Differential diagnoses - you must justify why each differential diagnosis listed is considered a differential diagnosis and include distinguishing features between the differential diagnoses and topic condition
- Diagnosis - include clinical and specialist investigations if applicable
- Management - including other health professionals that may be involved in management of the condition.
- Prognosis

The use of tables, images and figures in this assignment is permitted provided it adds to the report.

Formatting requirements:

- Size 12 Arial font
- 1.5 cm line spacing
- 2 cm margins
- A cover page which includes the assessment title, your name and student number, name of Unit Coordinator, unit code and title, due date, and word count

Referencing requirements: The American Psychological Association (APA) referencing style must be used for this assessment. Please refer to the Abridged Guide to the APA Referencing Style on Moodle for further information. No late submissions are permitted for this assessment unless an extension has been granted by the Unit Coordinator. Please refer to the CQUniversity Assessment Policy and Procedure for more information regarding extensions. If you are late submitting your assessment, penalties will be applied according to the CQUniversity Assessment Policy and Procedure.

Assessment Due Date

Clinical pattern 1: Due week 4 Friday (3 April 2020) 11:45 pm AEST. Clinical pattern 2: Due week 9 Friday (15 May 2020) 11:45 pm AEST.

Return Date to Students

Assessment mark and feedback will be returned at least two weeks after the submission date of each clinical pattern.

Weighting

50%

Assessment Criteria

To successfully complete this assessment task, you will need to demonstrate that you are able to:

- Evaluate peer reviewed biomechanical literature to support decision making in podiatry practice.

The assessment rubric for the written assessment will be provided to you at the beginning of term. The assessment criteria will include the following components:

- Content - each area accurately covered
- Referencing
- Academic writing

Word count limit: 1500 words per clinical pattern. Any content exceeding 10% of the word count limit will not be assessed by the marker (excludes tables, appendices and references where applicable). In-text citations are counted as part of the word count.

Referencing Style

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

Submission

Online

Learning Outcomes Assessed

- Evaluate peer reviewed biomechanical literature to support decision making in podiatry practice.

Graduate Attributes

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

2 Clinical Biomechanics Placement

Assessment Type

Professional Practice Placement

Task Description

This unit has a mandatory 16 hours of clinical placement. Please note that the following clinical placement dates, times and locations may be subject to change. Notice will be provided by the Unit Coordinator in this circumstance. This is a separate clinical placement requirement specific to this unit only and does not replace or substitute the clinical hours required as part of PODI13007 Podiatry Clinical Practice 2.

You will be required to attend clinical placement as part of PODI13008 on the below dates:

Rockhampton students:

- Week 9 Friday 15 May 8.00 am - 5.00 pm at the CQUniversity Health Clinic
- Week 10 Monday 18 May 8.00 am - 5.00 pm at the CQUniversity Health Clinic

Sydney students:

- Week 10 Friday 22 May 8.00 am - 5.00 pm - location on campus TBC
- Week 11 Monday 25 May 8.00 am - 5.00 pm at the CQUniversity Health Clinic

During this clinical placement, you will put the theory learnt during this unit into practice and conduct student led clinical consultations in a biomechanically focused clinic.

Assessment Due Date

You must submit your completed PODI13008 Clinical Placement Log Book via Moodle no later than five business days after your final day of placement (25/5/20 Rockhampton students; 1/6/20 Sydney students). Failure to submit the completed Log Book on Moodle by the due date will result in a 'Fail' grade.

Return Date to Students

Informal feedback will be provided to students during professional practice placement. Formal feedback will be provided at least three weeks after the final professional practice placement day.

Weighting

Pass/Fail

Minimum mark or grade

A pass grade is required for this assessment task in order to pass this unit.

Assessment Criteria

Clinical placement is compulsory requiring 100% attendance rate. You are required to wear the approved CQUniversity podiatry clinical uniform and to project a professional image at all times. If you are more than ten minutes late for a scheduled placement day without a valid reason you may be marked absent and fail placement. Please refer to the Clinical Placement Handbooks for further information related to placement. The professional practice placement is assessed as pass/fail and your grade is assessed using the PODI13008 Clinical Placement Log Book (available on Moodle). You must print your own copy of the PODI13008 Clinical Placement Log Book for use during placement, and submit the completed PODI13008 Clinical Placement Log Book via Moodle no later than five (5) business days after your last placement day. Failure to submit the completed PODI13008 Clinical Placement Log Book on Moodle by the due date will result in a 'Fail' grade. If you miss clinical placement you should review the Clinical Placement Handbook and the CQUniversity Work-Integrated Learning/Student Placement Policy and Procedure. Please pay attention to the following information:

- If you are absent from clinical placement due to an illness or extenuating circumstances you must follow the leave procedure provided to you during orientation. You must alert the relevant supervisors regarding your absenteeism prior to the commencement of your clinical placement.
- You must provide the Unit Coordinator with either a medical certificate or statutory declaration explaining your absence no later than five (5) business days after each absence.
- All absence days will need to be made up. Make up sessions will be assigned to you in the case of absence(s). Make up sessions are non negotiable.

- You should be aware that the allocation of professional practice placement takes precedence over any personal commitments.
- If you do not notify the relevant people regarding your absence(s) and do not attend an allocated placement you will receive a 'Fail' grade.

Referencing Style

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

Submission

Online

Learning Outcomes Assessed

- Assess podiatric cases involving clinical biomechanics of the lower limb, and interpret and analyse findings
- Develop, implement, and evaluate podiatric interventions for patients with common biomechanical pathologies of the lower limb

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Cross Cultural Competence
- Ethical practice

3 Placement reflection and critical appraisal of literature presentation

Assessment Type

On-campus Activity

Task Description

Part one: You will be required to submit a brief reflection regarding a task performed during your professional practice placement. A task-performance reflection framework will be provided on Moodle to assist you with this.

Part two: You will be required to select one peer-review article pertinent to clinical biomechanics in podiatry practice. When you have selected your article, please post the citation in the discussion forum on Moodle. Each student must select a different article. Please check the discussion forum to ensure you have not selected the same article as another student. You will be required to prepare a brief five minute presentation which summarises your article. More information will be provided to you regarding this assessment task during term.

You must be ready to give your presentation from Week 3 during term. Approximately two students each week from Week 3 of term will be required to present their article in class time and will be selected at random each week. If you are selected and are not present in class, you must present the Unit Coordinator with a medical certificate within 5 working days after the class and your presentation will be rescheduled. Failure to do so will result in you receiving a fail grade for this assessment task.

Assessment Due Date

Part one: You must submit your brief reflection no later than five business days after your final day of placement (25/5/20 Rockhampton students; 1/6/20 Sydney students). Failure to submit this by the due date will result in a 'Fail' grade. Part two: Approximately two students each week from Week 3 of term will be required to present their article in class time and will be selected at random each week.

Return Date to Students

Exam Week Friday (19 June 2020)

Weighting

Pass/Fail

Minimum mark or grade

A pass grade is required for this assessment task in order to pass this unit.

Assessment Criteria

Part one: A task/skill performance reflection rubric will be provided in Moodle. Some key areas include:

- Student identifies appropriate task/skill for reflection
- Student highlights strengths displayed regarding the task/skill or during professional practice placement
- Student acknowledges areas which could be improved

- Student proposes a plan to assist with improvement of the identified task/skill

Part two: You will be assessed on your ability to present the following:

- Title, author(s) and year of publication
- Aim of article
- Brief methodology
- Study findings and implications
- Brief critical appraisal of article

Referencing Style

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

Submission

Online

Learning Outcomes Assessed

- Assess podiatric cases involving clinical biomechanics of the lower limb, and interpret and analyse findings

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy

Examination

Outline

Complete an invigilated examination.

Date

During the examination period at a CQUniversity examination centre.

Weighting

50%

Length

180 minutes

Minimum mark or grade

50%

Exam Conditions

Closed Book.

Materials

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