

ENEG11008 *Materials for Engineers*

Term 1 - 2026

Profile information current as at 21/04/2026 09:15 pm

All details in this unit profile for ENEG11008 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

ENEG11008: Materials for Engineers introduces you to the essential knowledge of materials science and the ways in which engineers understand, select and use materials and processes for engineering applications. In this unit, you will gain knowledge of engineering materials, microstructure and its effect on the material properties. You will learn how to identify and explain the properties of engineering materials and processes and how to classify these materials. You will also learn how to select engineering materials and processes for engineering applications, as well as to conduct material tests and report on their results. Throughout this unit, you will develop teamwork, research and communication skills. In this unit, you must complete compulsory practical activities. Refer to the Engineering Undergraduate Course Moodle site for proposed dates.

Details

Career Level: *Undergraduate*

Unit Level: *Level 1*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

There are no requisites for this unit.

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 - 2026

- Bundaberg
- Cairns
- Gladstone
- Mackay
- 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. Online Quiz(zes)

Weighting: 20%

2. Written Assessment

Weighting: 25%

3. Practical and Written Assessment

Weighting: 20%

4. Online Test

Weighting: 35%

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 SUTE Teacher Evaluation

Feedback

Students appreciated good examples and case studies from real-life applications that link theoretical learning to practical learning.

Recommendation

The unit coordinator should strive to introduce the latest case studies and state-of-the-art technologies related to the unit's contents.

Feedback from SUTE and Email

Feedback

Some students reported difficulty locating the assessment feedback, which had been provided as an annotated document.

Recommendation

All assessment feedback should be uploaded alongside the annotated document in the assessment submission area.

Unit Learning Outcomes

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

1. Define the atomic and microstructure of engineering materials and their relationship to physical behaviour
2. Classify engineering materials into metals, ceramics, polymers and composites
3. Characterise materials for mechanical properties based on Australian Standards and ASTM methods
4. Explain the role of mechanical, electrical, optical and thermal properties of materials in engineering
5. Apply the frameworks used to select materials for engineering applications.

The Learning Outcomes for this unit are linked with the Engineers Australia Stage 1 Competency Standards for Professional Engineers in the areas of 1. Knowledge and Skill Base, 2. Engineering Application Ability and 3. Professional and Personal Attributes at the following levels:

Introductory

- 1.2 Conceptual understanding of the mathematics, numerical analysis, statistics, and computer and information sciences which underpin the engineering discipline. (LO: 1N 3N)
- 1.3 In-depth understanding of specialist bodies of knowledge within the engineering discipline. (LO: 2N 4N 5N)
- 1.4 Discernment of knowledge development and research directions within the engineering discipline. (LO: 1N 2N 3N 5N)
- 1.6 Understanding of the scope, principles, norms, accountabilities and bounds of sustainable engineering practice in the specific discipline. (LO: 1N 2N 3N 4N 5N)
- 2.1 Application of established engineering methods to complex engineering problem solving. (LO: 1N 5N)
- 2.3 Application of systematic engineering synthesis and design processes. (LO: 5N)
- 3.2 Effective oral and written communication in professional and lay domains. (LO: 1N 2N 3N 4N 5N)
- 3.4 Professional use and management of information. (LO: 5N)
- 3.5 Orderly management of self, and professional conduct. (LO: 5N)
- 3.6 Effective team membership and team leadership. (LO: 5N)

Intermediate

- 1.1 Comprehensive, theory-based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline. (LO: 1I 2N 3I 4N)
- 1.5 Knowledge of engineering design practice and contextual factors impacting the engineering discipline. (LO: 2N 4I 5N)
- 2.2 Fluent application of engineering techniques, tools and resources. (LO: 3N 4N 5I)
- 3.3 Creative, innovative and pro-active demeanour. (LO: 5I)

Note: LO refers to the Learning Outcome number(s) which link to the competency and the levels: N - Introductory, I - Intermediate and A - Advanced.

Refer to the Engineering Undergraduate Course Moodle site for further information on the Engineers Australia's Stage 1 Competency Standard for Professional Engineers and course level mapping information

<https://moodle.cqu.edu.au/course/view.php?id=1511>

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 - Online Quiz(zes) - 20%	•	•			
2 - Written Assessment - 25%				•	•
3 - Practical and Written Assessment - 20%	•		•		
4 - Online Test - 35%		•	•	•	•

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 - First Nations Knowledges					
11 - Aboriginal and Torres Strait Islander Cultures					

Textbooks and Resources

Textbooks

ENEG11008

Supplementary

Callister Materials Science and Engineering: An Introduction

1st ANZ Edition (2019)

Authors: Blicblau, Bruggeman, etc.

John Wiley & Sons

ISBN: 9780730382836

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: [Harvard \(author-date\)](#)

For further information, see the Assessment Tasks.

Teaching Contacts

Jay Sul Unit Coordinator

j.sul@cqu.edu.au

Schedule

Week 1 - 09 Mar 2026

Module/Topic	Chapter	Events and Submissions/Topic
1. Introduction to the Unit 2. Introduction to Materials Science and Engineering	Callister's Chapter 1: 1.2-1.6 & Chapter 6: 6.1-6.2	1. Review lecture slides 2. Review lecture slides and read recommended chapters (1.2 ~ 1.6 & 6.1~6.2) 3. On-campus students: Don't forget to attend the tutorial with a laptop or tablet PC 4. Mix students: Attempt each tutorial before the ZOOM tutorial session through the link in Moodle. 5. Choose your preferred group for the residential school by 27 March 2026.

Week 2 - 16 Mar 2026

Module/Topic	Chapter	Events and Submissions/Topic
Mechanical Properties of Engineering Materials	Chapter 6: 6.3, 6.5-6.7 & 6.10	1. Review lecture slides 2. Read the recommended chapters (Chapter 6: 6.3, 6.5-6.7 & 6.10). 3. On-campus students: Don't forget to attend the tutorial with a laptop or tablet PC 4. Mix students: Attempt each tutorial before the ZOOM tutorial session through the link in Moodle. 5. Choose your preferred group for the residential school by 27 March 2026.

Week 3 - 23 Mar 2026

Module/Topic	Chapter	Events and Submissions/Topic
Week 3: Failure of Engineering Materials	Chapters 8: 8.1-8.6	<ol style="list-style-type: none"> 1. Review lecture slides 2. Read the recommended chapters (Chapters 8: 8.1-8.6) 3. Review lab documents and other related materials. 4. On-campus students: Don't forget to attend the tutorial with a laptop or tablet PC 5. Mix students: Attempt each tutorial before the ZOOM tutorial session through the link in Moodle. 6. Choose your preferred group for the residential school by 27 March 2026.

Week 4 - 30 Mar 2026

Module/Topic	Chapter	Events and Submissions/Topic
Principles of Material Selection, Material Selection Process Residential School: Week 4, 31 March - 1 April (Tuesday-Wednesday)	Chapter 5 of Materials Selection in Mechanical Design by M. Ashby	<ol style="list-style-type: none"> 1. Review lecture slides 2. Read the recommended chapters (Chapter 5 of Materials Selection in Mechanical Design by M. Ashby) 3. Review the lab documents and the materials selection assignment document. 4. Review the lab documents and the materials selection assignment document prior to attending the residential school. 5. On-campus students: Don't forget to attend the tutorial with a laptop or tablet PC 6. Mix students: Attempt each tutorial before the ZOOM tutorial session through the link in Moodle. <p>Practical and Written Assessment Due: Week 4 Friday (3 Apr 2026) 11:59 pm AEST</p>

Week 5 - 06 Apr 2026

Module/Topic	Chapter	Events and Submissions/Topic
Microstructure of Materials	Chapters 3: 3.1 - 3.5, 3.7 & 3.13 - 3.15	<ol style="list-style-type: none"> 1. Review lecture slides 2. Read recommended chapters (Chapters 3: 3.1 - 3.5, 3.7 & 3.13 - 3.15) 3. Review Week 4 tutorial (consult your lecturer about your idea / topic for the materials selection process assessment if needed). 4. On-campus students: Don't forget to attend the tutorial with a laptop or tablet PC 5. Mix students: Attempt each tutorial before the ZOOM tutorial session through the link in Moodle.

Week 6 - 13 Apr 2026

Module/Topic	Chapter	Events and Submissions/Topic
--------------	---------	------------------------------

Imperfection and Dislocations of Metals	Chapters 4: 4.1 - 4.5 & 7: 7.1 - 7.6	<ol style="list-style-type: none"> 1. Review lecture slides 2. Read recommended chapters (Chapters 4: 4.1 - 4.5 & 7: 7.1 - 7.6) 3. Complete Part A of the materials selection template. 4. On-campus students: Don't forget to attend the tutorial with a laptop or tablet PC 5. Mix students: Attempt each tutorial before the ZOOM tutorial session through the link in Moodle.
---	--------------------------------------	--

Vacation Week - 20 Apr 2026

Module/Topic	Chapter	Events and Submissions/Topic
--------------	---------	------------------------------

Week 7 - 27 Apr 2026

Module/Topic	Chapter	Events and Submissions/Topic
Strengthening Mechanism of Metals and Diffusion in Solids	Chapter 5: 5.1 - 5.3 & 5.5 and Chapter 7: 7.8 - 7.13	<ol style="list-style-type: none"> 1. Review lecture slides 2. Read recommended chapters (Chapter 5: 5.1 - 5.3 & 5.5 and Chapter 7: 7.8 - 7.13) 3. On-campus students: Don't forget to attend the tutorial with a laptop or tablet PC 4. Mix students: Attempt each tutorial before the ZOOM tutorial session through the link in Moodle.

Week 8 - 04 May 2026

Module/Topic	Chapter	Events and Submissions/Topic
Phase Diagram, Phase Transformation and Metal Alloys	Chapter 9: 9.1 - 9.13 & 9.18, Chapter 10: 10.5 & 10.7 & Chapter 11: 11.1 - 11.3	<ol style="list-style-type: none"> 1. Review lecture slides 2. Read recommended chapters (Chapter 9: 9.1 - 9.13 & 9.18, Chapter 10: 10.5 & 10.7 & Chapter 11: 11.1 - 11.3) 3. On-campus students: Don't forget to attend the tutorial with a laptop or tablet PC 4. Mix students: Attempt each tutorial before the ZOOM tutorial session through the link in Moodle.

Week 9 - 11 May 2026

Module/Topic	Chapter	Events and Submissions/Topic
Thermal Properties of Engineering Materials	Chapters 18: 18.2, 18.3, 18.7, 18.8, 18.11, 18.13, 18.15, 18.18	<ol style="list-style-type: none"> 1. Review lecture slides 2. Read recommended chapters (Chapters 18: 18.2, 18.3, 18.7, 18.8, 18.11, 18.13, 18.15, 18.18) 3. On-campus students: Don't forget to attend the tutorial with a laptop or tablet PC 4. Mix students: Attempt each tutorial before the ZOOM tutorial session through the link in Moodle.

Material Selection Process Assignment
 Due: Week 9 Monday (11 May 2026)
 11:59 pm AEST

Week 10 - 18 May 2026

Module/Topic	Chapter	Events and Submissions/Topic
--------------	---------	------------------------------

Electrical Properties of Engineering Materials	Chapters 19: 19.1 - 19.5	<ol style="list-style-type: none"> 1. Review lecture slides 2. Read recommended chapters (Chapters 19: 19.1 - 19.5) 3. On-campus students: Don't forget to attend the tutorial with a laptop or tablet PC 4. Mix students: Attempt each tutorial before the ZOOM tutorial session through the link in Moodle.
Week 11 - 25 May 2026	Chapter	Events and Submissions/Topic
Module/Topic		<ol style="list-style-type: none"> 1. Review lecture slides 2. Read recommended chapters (Chapters 12: 12.1, 12.2, 12.4, 12.5 & 14.1, 14.2, 14.3, 14.6, 14.7, 14.9, & 15.2, 15.12, 15.13 & 16.1, 16.5) 3. On-campus students: Don't forget to attend the tutorial with a laptop or tablet PC 4. Mix students: Attempt each tutorial before the ZOOM tutorial session through the link in Moodle.
Non-metallic Materials – Ceramics, Polymers and Composites	Chapters 12: 12.1, 12.2, 12.4, 12.5 & 14.1, 14.2, 14.3, 14.6, 14.7, 14.9, & 15.2, 15.12, 15.13 & 16.1, 16.5	
Week 12 - 01 Jun 2026	Chapter	Events and Submissions/Topic
Module/Topic		<ol style="list-style-type: none"> 1. Read recommended chapters (Chapters 17: 17.2-17.10). 2. Be prepared for the end-of-term online test. 3. On-campus students: Don't forget to attend the tutorial with a laptop or tablet PC 4. Mix students: Attempt each tutorial before the ZOOM tutorial session through the link in Moodle.
Revision for the End-of-term Online Test		
Exam Week - 08 Jun 2026	Chapter	Events and Submissions/Topic
Module/Topic		
Vacation/Exam Week - 15 Jun 2026	Chapter	Events and Submissions/Topic
Module/Topic		

Assessment Tasks

1 Online Quiz

Assessment Type
Online Quiz(zes)

Task Description

1. Tri-weekly online quizzes - You will be given a set of questions in Weeks 3, 6, 9 and 12 (Weighting: 20%)
2. You will be able to check your marks immediately after the deadline has passed.
3. The total marks of each online quiz will be scaled to out of 5 marks for the unit total.
4. 50% minimum mark is applied to this section to pass the unit.

AI ASSESSMENT SCALE - NO AI: You must not use AI at any point during the assessment. You must demonstrate your core skills and knowledge.

IMPORTANT NOTE: This assessment is exempted from the 72-hour submission grace period and must be completed by the stated submission date/time.

Number of Quizzes
4

Frequency of Quizzes
Other

Assessment Due Date

The due date of each quiz is Sunday in the following week, Quiz #1 (Week 4), Quiz #2 (Week 7), Quiz 3 (Week 10). Quiz (Exam Week)

Return Date to Students

Students can see the results at the end of each due date.

Weighting

20%

Minimum mark or grade

50%

Assessment Criteria

Quiz 1 contains the lecture materials in Weeks 1, 2 and 3 (Tutorial#1-3).

Quiz 2 contains the lecture materials in Weeks 3-6 (Tutorial#3-6).

Quiz 3 contains the lecture materials in Weeks 7-9 (Tutorial#7-9).

Quiz 4 contains the lecture materials in Weeks 10~12 (Tutorial#10~11).

Referencing Style

- [Harvard \(author-date\)](#)

Submission

Online

Learning Outcomes Assessed

- Define the atomic and microstructure of engineering materials and their relationship to physical behaviour
- Classify engineering materials into metals, ceramics, polymers and composites

2 Practical and Written Assessment

Assessment Type

Written Assessment

Task Description

Residential school and presentation (20% weighting) - During the residential school

You will form a group of 5, conduct labs, prepare for a presentation, and give a presentation as a group during the residential school. It is a two-day residential school in Week 4. By the end of the residential school, you should complete the following items.

- Conduct a minimum of two labs (group)
- Review of Materials selection tutorial: Part A (individual)
- Determine your topic (product / application) for the materials selection process assignment (individual)
- Analysis of raw data from the laboratory activities (group)
- Presentation of your lab, data, and findings in relation to the real-life applications (group)

AI ASSESSMENT SCALE - AI PLANNING: You may use AI for planning, idea development, and research. Your final submission should show how you have developed and refined these ideas.

IMPORTANT NOTE: This assessment is exempted from the 72-hour submission grace period and must be completed by the stated submission date/time.

Assessment Due Date

Week 4 Friday (3 Apr 2026) 11:59 pm AEST

At the end of the residential school.

Return Date to Students

Week 5 Friday (10 Apr 2026)

Review marks and feedback for residential school assessment in Week 5.

Weighting

25%

Minimum mark or grade

50%

Assessment Criteria

Group presentation will be assessed against the following marking items:

1. Visual aids - Legibility of text, quality and relevance of figures, visual impact
2. Presentation skills / Preparation / Group dynamics
3. Content, comprehension, and depth of coverage

Referencing Style

- [Harvard \(author-date\)](#)

Submission

Offline Online Group

Submission Instructions

Students give a presentation as a group and submit their presentation slides to Moodle for the record.

Learning Outcomes Assessed

- Explain the role of mechanical, electrical, optical and thermal properties of materials in engineering
- Apply the frameworks used to select materials for engineering applications.

3 Material Selection Process Assignment

Assessment Type

Practical and Written Assessment

Task Description

Material Selection Process Assignment

With the completion of this assignment, you are expected to achieve the following learning outcomes.

1. Research and apply engineering standards, practices and materials optimisation and constraints
2. Work individually to produce quality outputs

AI ASSESSMENT SCALE - AI COLLABORATION: You may use AI to assist with specific tasks, such as drafting text, refining and evaluating your work. You must critically evaluate and modify any AI-generated content you use.

Assessment Due Date

Week 9 Monday (11 May 2026) 11:59 pm AEST

Online submission

Return Date to Students

Week 11 Friday (29 May 2026)

Students can see feedback from the submission link via Turnitin Feedback studio and annotated PDF.

Weighting

20%

Assessment Criteria

Your task is to analysis an engineering product / application of your interest and suggest alternative material(s) to improve its design for any purpose (e.g. process and / or manufacturing cost, performance, better user and environmental friendliness, improved safety, improved operating conditions, etc.).

Referencing Style

- [Harvard \(author-date\)](#)

Submission

Online

Learning Outcomes Assessed

- Define the atomic and microstructure of engineering materials and their relationship to physical behaviour
- Characterise materials for mechanical properties based on Australian Standards and ASTM methods

4 End of Term Online Test

Assessment Type

Online Test

Task Description

End of Term Online Test (35%)

1. The total mark for this online test will be scaled to 35 marks and will contribute to the unit total.
2. Attend the online test (Duration 3h) as scheduled (TBA). Only 1 attempt is allowed.

AI ASSESSMENT SCALE - NO AI: You must not use AI at any point during the assessment. You must demonstrate your core skills and knowledge.

IMPORTANT NOTE: This assessment is exempted from the 72-hour submission grace period and must be completed by the stated submission date/time.

Assessment Due Date

TBA

Return Date to Students

TBA

Weighting

35%

Minimum mark or grade

50%

Assessment Criteria

Classify engineering materials into metals, ceramics, polymers and composites

Characterise materials for mechanical properties based on Australian Standards and ASTM methods

Explain the role of mechanical, electrical, optical and thermal properties of materials in engineering

Apply the frameworks used to select materials for engineering applications.

Referencing Style

- Harvard (author-date)

Submission

Online

Learning Outcomes Assessed

- Classify engineering materials into metals, ceramics, polymers and composites
- Characterise materials for mechanical properties based on Australian Standards and ASTM methods
- Explain the role of mechanical, electrical, optical and thermal properties of materials in engineering
- Apply the frameworks used to select materials for engineering applications.

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