LING337

Language of Science and Technology

S1 Day 2019

Dept of Linguistics

Contents

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General Information

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Credit points
3

Prerequisites
39cp at 100 level or above

Corequisites

Co-badged status

Unit description

This unit examines the characteristics of the language of science, mathematics and technology, exploring the different ways in which language is used in professional, popular and pedagogic texts. Special reference is made to changing language use at the secondary and tertiary levels in both English and second or foreign language settings. The increasing use of visual imagery, the influence of web-based forms of scientific communication and the role of metaphor in science are also examined. The unit concludes with a discussion of the implications of the characteristics of the language of science for teachers of both language and science. The unit is of interest not only to students who are looking to follow careers in second or foreign language teaching and to those who are studying science or mathematics with a view to teaching, but also to anyone interested in how language responds to the challenges of different purposes and audiences.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at https://www.mq.edu.au/study/calendar-of-dates

Learning Outcomes

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

Discuss the ways in which language constructs and represents the scientific world view

Describe the differences between the representations of scientific knowledge for professional, popular and pedagogic audiences

Analyse the way that language is used in texts aimed a professional, popular and pedagogic audiences

Discuss the role of multimedia in professional, popular and pedagogic scientific contexts

Analyse the role of visual communication in print-based and electronic texts

Discuss the role of figurative language in professional, popular and pedagogic scientific contexts

Analyse changes in the language of science in scientific textbooks from early secondary to secondary to tertiary level

General Assessment Information

Assignment Submission

All assignments (including PDF versions of the oral presentation PowerPoint slides) need to be submitted to Turnitin using the links available on the LING337 iLearn website.

Late Assignment Submission

Any request for an extension must be provided with associated documentation via a

special consideration request on ask.mq.edu.au before the assignment deadline.

Unless you have been granted an extension based on documented evidence of significant disruption to your studies, the following late penalties apply:

- Late submissions without an extension will receive a penalty of 3% of the total mark available for the assessment task per day including weekend days (i.e. this is 3% of the total marks possible for the task – NOT 3% of the marks the student received. For example, if the assessment task is worth 100 marks and the student is two days late their mark for the task is reduced by 6 marks.)

- Late submission of an assessment task without an extension will not be accepted at all after the date on which marked assessment tasks have been released to the rest of the class. Any student with unsubmitted work at this date will receive a mark of 0 for the assessment task.

- Extensions will only be given in special circumstances, and can be requested by completing the Special Consideration request at ask.mq.edu.au and providing the requisite supporting documentation.

- Extensions that will result in submissions after the assessment task has been returned to the class will require a separate assessment task to be completed at the unit convenor's discretion.

- For more information on Special Consideration, see the university website https://students.mq.edu.au/study/my-study-program/special-consideration\

- If a student fails the unit due to non-submission of an assignment or non-attendance at an exam, an FA grade will be applied in accordance with the University's Assessment Policy.

- Unit convenors have the discretion to determine whether or not students should fail a unit on the basis of lateness penalties alone if other learning outcomes of the unit have been met.

Please keep a copy of your assessments in case of misadventure to ensure that you are able to produce proof of your work.

Assessment Tasks

Name	Weighting	Hurdle	Due
Guided reflection	15%	No	Fri 15 March (wk 3) 11.55pm
Text analysis	25%	No	Fri 12 April (wk 7) 11.55pm
Essay	40%	No	Fri 17 May (wk 10) 11.55pm

Name	Weighting	Hurdle	Due
Presentation	20%	No	Tues 28 May (Week 12)

Guided reflection

Due: **Fri 15 March (wk 3) 11.55pm**
Weighting: **15%**

Guided reflection exploring students' understanding of the language of science and technology. More detail on the topic and requirements will be provided in the Week 1 and 2 seminars.

Length: 500 words

On successful completion you will be able to:

- Discuss the ways in which language constructs and represents the scientific world view
- Describe the differences between the representations of scientific knowledge for professional, popular and pedagogic audiences

Text analysis

Due: **Fri 12 April (wk 7) 11.55pm**
Weighting: **25%**

Comparative analysis of texts differing in genre and audience. More detail on the topic and requirements will be provided in seminars.

Length: 1200 words

On successful completion you will be able to:

- Discuss the ways in which language constructs and represents the scientific world view
- Describe the differences between the representations of scientific knowledge for professional, popular and pedagogic audiences
- Analyse the way that language is used in texts aimed a professional, popular and pedagogic audiences
- Discuss the role of figurative language in professional, popular and pedagogic scientific contexts
- Analyse changes in the language of science in scientific textbooks from early secondary to secondary to tertiary level

Essay

Due: **Fri 17 May (wk 10) 11.55pm**
Weighting: **40%**

The essay will be written in response to one of a set of predefined questions. More detail on the topic and requirements will be provided in seminars.

Length: 2000 words

On successful completion you will be able to:
- Discuss the ways in which language constructs and represents the scientific world view
- Analyse the way that language is used in texts aimed a professional, popular and pedagogic audiences
- Discuss the role of multimedia in professional, popular and pedagogic scientific contexts
- Analyse the role of visual communication in print-based and electronic texts
- Discuss the role of figurative language in professional, popular and pedagogic scientific contexts

Presentation

Due: **Tues 28 May (Week 12)**
Weighting: **20%**

The presentation will follow the format developed for Three Minute Thesis presentations, and will be presented in class in week 12. More detail, including the topic and presentation requirements will be provided in seminars.

Length: 3 minutes

On successful completion you will be able to:
- Discuss the ways in which language constructs and represents the scientific world view
- Analyse the way that language is used in texts aimed a professional, popular and pedagogic audiences
- Analyse the role of visual communication in print-based and electronic texts
- Analyse changes in the language of science in scientific textbooks from early secondary to secondary to tertiary level

Delivery and Resources

LING337 seminars begin in Week 1, and run until Week 12. As this is a third year unit, all students are expected to attend all seminars. The seminars are three hours long, and run from 1pm to 4pm on a Tuesday during term time. Seminars will be held at 4 Western Road in room 220.

Unit Schedule

The topics covered in LING337 range from discussions exploring how scientific writers interact with their audience, to our understanding of genre in science, and visual literacy in science.

Please see the LING337 iLearn for additional information.

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- Academic Appeals Policy
- Academic Integrity Policy
- Academic Progression Policy
- Assessment Policy
- Fitness to Practice Procedure
- Grade Appeal Policy
- Complaint Management Procedure for Students and Members of the Public
- Special Consideration Policy *(**Note:** The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.)*

Undergraduate students seeking more policy resources can visit the Student Policy Gateway (https://students.mq.edu.au/support/study/student-policy-gateway). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/study/getting-started/student-conduct

Results

Results published on platform other than eStudent, (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in eStudent. For more information visit ask.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Student Support

Macquarie University provides a range of support services for students. For details, visit http://students.mq.edu.au/support/

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to improve your marks and take control of your study.

- [Workshops](#)
- [StudyWise](#)
- [Academic Integrity Module for Students](#)
- [Ask a Learning Adviser](#)

Student Services and Support

Students with a disability are encouraged to contact the [Disability Service](#) who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at [ask.mq.edu.au](#)

If you are a Global MBA student contact [globalmba.support@mq.edu.au](#)

IT Help

For help with University computer systems and technology, visit [http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/](#).

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources Policy](#). The policy applies to all who connect to the MQ network including students.

Graduate Capabilities

Creative and Innovative

Our graduates will also be capable of creative thinking and of creating knowledge. They will be imaginative and open to experience and capable of innovation at work and in the community. We want them to be engaged in applying their critical, creative thinking.

This graduate capability is supported by:

Learning outcome

- Discuss the role of multimedia in professional, popular and pedagogic scientific contexts

Assessment tasks

- Essay
- Presentation

Capable of Professional and Personal Judgement and Initiative

We want our graduates to have emotional intelligence and sound interpersonal skills and to demonstrate discernment and common sense in their professional and personal judgement. They will exercise initiative as needed. They will be capable of risk assessment, and be able to handle ambiguity and complexity, enabling them to be adaptable in diverse and changing environments.

This graduate capability is supported by:

Learning outcomes

- Analyse the way that language is used in texts aimed a professional, popular and pedagogic audiences
- Analyse the role of visual communication in print-based and electronic texts
- Discuss the role of figurative language in professional, popular and pedagogic scientific contexts
- Analyse changes in the language of science in scientific textbooks from early secondary to secondary to tertiary level

Assessment tasks

- Guided reflection
- Text analysis
- Essay

Commitment to Continuous Learning

Our graduates will have enquiring minds and a literate curiosity which will lead them to pursue knowledge for its own sake. They will continue to pursue learning in their careers and as they participate in the world. They will be capable of reflecting on their experiences and relationships with others and the environment, learning from them, and growing - personally, professionally and socially.

This graduate capability is supported by:

Learning outcomes

- Analyse the way that language is used in texts aimed a professional, popular and pedagogic audiences
- Discuss the role of multimedia in professional, popular and pedagogic scientific contexts

Assessment tasks

- Essay
- Presentation

Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary

solutions to problems.

This graduate capability is supported by:

Learning outcomes

- Discuss the ways in which language constructs and represents the scientific world view
- Describe the differences between the representations of scientific knowledge for professional, popular and pedagogic audiences
- Analyse the way that language is used in texts aimed a professional, popular and pedagogic audiences
- Discuss the role of multimedia in professional, popular and pedagogic scientific contexts
- Analyse the role of visual communication in print-based and electronic texts
- Discuss the role of figurative language in professional, popular and pedagogic scientific contexts
- Analyse changes in the language of science in scientific textbooks from early secondary to secondary to tertiary level

Assessment tasks

- Guided reflection
- Text analysis
- Essay
- Presentation

Critical, Analytical and Integrative Thinking

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

Learning outcomes

- Discuss the ways in which language constructs and represents the scientific world view
- Describe the differences between the representations of scientific knowledge for professional, popular and pedagogic audiences
- Analyse the way that language is used in texts aimed a professional, popular and pedagogic audiences
- Discuss the role of multimedia in professional, popular and pedagogic scientific contexts
- Analyse the role of visual communication in print-based and electronic texts

- Discuss the role of figurative language in professional, popular and pedagogic scientific contexts
- Analyse changes in the language of science in scientific textbooks from early secondary to secondary to tertiary level

Assessment tasks

- Guided reflection
- Text analysis
- Essay
- Presentation

Problem Solving and Research Capability

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

Learning outcomes

- Discuss the ways in which language constructs and represents the scientific world view
- Analyse the role of visual communication in print-based and electronic texts
- Analyse changes in the language of science in scientific textbooks from early secondary to secondary to tertiary level

Assessment tasks

- Text analysis
- Essay

Effective Communication

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:

Learning outcomes

- Discuss the ways in which language constructs and represents the scientific world view
- Describe the differences between the representations of scientific knowledge for

professional, popular and pedagogic audiences

- Analyse the way that language is used in texts aimed a professional, popular and pedagogic audiences
- Discuss the role of multimedia in professional, popular and pedagogic scientific contexts
- Analyse the role of visual communication in print-based and electronic texts
- Discuss the role of figurative language in professional, popular and pedagogic scientific contexts

Assessment tasks

- Guided reflection
- Text analysis
- Essay
- Presentation

Engaged and Ethical Local and Global citizens

As local citizens our graduates will be aware of indigenous perspectives and of the nation's historical context. They will be engaged with the challenges of contemporary society and with knowledge and ideas. We want our graduates to have respect for diversity, to be open-minded, sensitive to others and inclusive, and to be open to other cultures and perspectives: they should have a level of cultural literacy. Our graduates should be aware of disadvantage and social justice, and be willing to participate to help create a wiser and better society.

This graduate capability is supported by:

Assessment task

- Presentation

Socially and Environmentally Active and Responsible

We want our graduates to be aware of and have respect for self and others; to be able to work with others as a leader and a team player; to have a sense of connectedness with others and country; and to have a sense of mutual obligation. Our graduates should be informed and active participants in moving society towards sustainability.

This graduate capability is supported by:

Assessment task

- Presentation

Changes from Previous Offering

In the 2019 version of LING337, Assessment 1 has been changed from a Summary and Reflection to a Guided reflection, and Assessment 4 has been changed from a Poster Presentation to an oral presentation delivered following the structure of 3MT presentations.

The weightings for each of the LING337 assessments have been adjusted as follows:

Assessment Weighting	2018	2019
Assessment 1	10%	15%
Assessment 2	40%	25%
Assessment 3	40%	40%
Assessment 4	10%	20%

The word length and timing requirements for each of the LING337 assessments have been adjusted as follows:

Assessment Length	2018	2019
Assessment 1	750 words	500 words
Assessment 2	2000 words	1200 words
Assessment 3	2000 words	2000 words
Assessment 4	N/A	3 minutes

All adjustments to the LING337 assessment schedule have been approved by the Faculty of Human Sciences Standards and Quality committee.