



EDST8228

Teaching Science in the Secondary School 1

Session 2, Special circumstance 2020

Macquarie School of Education

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Notice

As part of [Phase 3 of our return to campus plan](#), most units will now run tutorials, seminars and other small group learning activities on campus for the second half-year, while keeping an online version available for those students unable to return or those who choose to continue their studies online.

To check the availability of face-to-face and online activities for your unit, please go to [timetable viewer](#). To check detailed information on unit assessments visit your unit's iLearn space or consult your unit convenor.

General Information

Unit convenor and teaching staff Hye Eun Chu hye-eun.chu@mq.edu.au
Credit points 10
Prerequisites EDST8237
Corequisites
Co-badged status
Unit description This unit introduces students to modern approaches to the teaching and learning of Science in secondary schools. Curricula, resources and instructional strategies appropriate to teaching Science are analysed and evaluated with a particular focus on years 7-10 Science. The units emphasises researched-informed approaches to the theory and practice of science and includes opportunities for individual research, collegial learning and connection with the teaching profession.

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:

- ULO1:** Articulate knowledge of the relevant science syllabus documents from both the NES (NSW Education Standards Authority) and Australia Curriculum (AC).
- ULO2:** Critically analyse and demonstrate understanding of a range of modern teaching and learning strategies related to the content of Stages 4 and 5 of the science syllabus.
- ULO3:** Demonstrate the ability to interpret research findings both in science and science education and relate these where appropriate to adolescents' understandings in science, their lives and to current syllabus documents.
- ULO4:** Plan and implement critically reflective units of work in science that provide achievable challenges for students from diverse backgrounds and abilities.

ULO5: Explore and critique educational ideas and practice using research methods appropriate to practitioner inquiry.

ULO6: Communicate knowledge using effective communication skills using a range of modes and mediums and for a range of purposes and audiences.

General Assessment Information

Assessment Presentation and Submission Guidelines

Please follow these guidelines when you submit each assignment:

- Allow a left and right-hand margin of at least 2cm in all assignments.
- Please type all assignments using 12-point font and 1.5 spacing.
- All assessments must be submitted through Turnitin in .doc format (or PDF format).
- It is the responsibility of the student to ensure that all assessments are successfully submitted through Turnitin.
- Faculty assignment cover sheets are NOT required.

Draft Submissions & Turnitin Originality Reports

- Students may use Turnitin's Originality Report as a learning tool to improve their academic writing if this option is made available in the unit.
- Students are strongly encouraged to upload a draft copy of each assessment to Turnitin at least one week prior to the due date to obtain an Originality Report.
- The Originality Report provides students with a similarity index that may indicate if plagiarism has occurred. Students will be able to make amendments to their drafts prior to their final submission on the due date.
- Generally, one Originality Report is generated every 24 hours up to the due date.

Please note:

- Students should regularly save a copy of all assignments before submission.
- Students are responsible for checking that their submission has been successful and has been submitted by the due date and time.

Assignment extensions and late penalties

- In general, there should be no need for extensions except through illness or misadventure that would be categorised as serious and unavoidable disruption according to the University definition of same, see: <https://students.mq.edu.au/study/my-study-program/special-consideration>

Applications for extensions must be made via AskMQ according to the Special Consideration policy. Extensions can only be granted if they meet the Special Considerations policy and are

submitted via <https://ask.mq.edu.au/>. This will ensure consistency in the consideration of such requests is maintained.

Late Assessment Penalty

- Unless a Special Consideration request has been submitted and approved, (a) a penalty for lateness will apply – two (2) marks out of 100 will be deducted per day for assignments submitted after the due date – and (b) no assignment will be accepted more than seven (7) days (incl. weekends) after the original submission deadline. No late submissions will be accepted for timed assessments – e.g. quizzes, online tests.
- Students should keep an electronic file of all assessments. Claims regarding "lost" assessments cannot be made if the file cannot be produced. It is also advisable to keep an electronic file of all drafts and the final submission on a USB untouched/unopened after submission. This can be used to demonstrate easily that the assessment has not been amended after the submission date.

Requesting a re-assessment of an assignment

If you have **evidence** that your task has been incorrectly assessed against the grade descriptors you can request a re-mark. To request a re-mark you need to contact the unit convenor within **7 days** of the date of return of the assignment and provide **a detailed assessment of your script against the task criteria**. Evidence from your assignment must be provided to support your judgements.

Note: Failed assessments cannot be re-marked as they are all double-marked as a part of the moderation process.

University policy on grading

Criteria for awarding grades for assessment tasks

Assignments will be awarded grades ranging from HD to F according to guidelines set out in the University's Grading Policy. The following descriptive criteria are included for your information.

Please note: The outcome of a re-mark may be a **higher/lower or unchanged grade**. Grades are *standards referenced* and effort is NOT a criterion.

Descriptive Criteria for awarding grades in the unit

In order to meet the unit outcomes and successfully pass this unit, students must make a genuine attempt at all assessment tasks. Where any submitted assessment task is considered to be unsatisfactory in this regard, the highest possible final grade that can be awarded for the unit will be 45.

Students will be awarded grades ranging from HD to F according to guidelines set out in the policy: <https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policies/assessment-in-effect-from-session-2-2016>

Withdrawing from this PG Unit

If you are considering withdrawing from this unit, please seek academic advice via <https://ask.mq.edu.au> before doing so as this unit may be a co-requisite or prerequisite for units in the following sessions and may impact on your progression through the degree.

Results

Results shown in iLearn, 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.

Assessment Tasks

Name	Weighting	Hurdle	Due
Teaching resource	40%	No	11/09/2020
Professional Portfolio	50%	No	16/10/2020
Professional dialogue and participation including online dialogue.	10%	No	All weeks

Teaching resource

Assessment Type ¹: Essay

Indicative Time on Task ²: 30 hours

Due: **11/09/2020**

Weighting: **40%**

Reflective inquiry-based activity design (including ICT based activity design, Limit: 2000word)

On successful completion you will be able to:

- Articulate knowledge of the relevant science syllabus documents from both the NESA (NSW Education Standards Authority) and Australia Curriculum (AC).
- Critically analyse and demonstrate understanding of a range of modern teaching and learning strategies related to the content of Stages 4 and 5 of the science syllabus.
- Plan and implement critically reflective units of work in science that provide achievable challenges for students from diverse backgrounds and abilities.
- Communicate knowledge using effective communication skills using a range of modes and mediums and for a range of purposes and audiences.

Professional Portfolio

Assessment Type ¹: Essay

Indicative Time on Task ²: 40 hours

Due: **16/10/2020**

Weighting: **50%**

Teaching and learning unit and resources. Research and practice-informed unit of work demonstrating understanding of a science concept/beliefs (including unit of work, Limit: 2000 words).

On successful completion you will be able to:

- Articulate knowledge of the relevant science syllabus documents from both the NESA (NSW Education Standards Authority) and Australia Curriculum (AC).
- Critically analyse and demonstrate understanding of a range of modern teaching and learning strategies related to the content of Stages 4 and 5 of the science syllabus.
- Plan and implement critically reflective units of work in science that provide achievable challenges for students from diverse backgrounds and abilities.

Professional dialogue and participation including online dialogue.

Assessment Type ¹: Participatory task

Indicative Time on Task ²: 5 hours

Due: **All weeks**

Weighting: **10%**

Professional dialogue and participation including online dialogue.

On successful completion you will be able to:

- Articulate knowledge of the relevant science syllabus documents from both the NESA (NSW Education Standards Authority) and Australia Curriculum (AC).
- Critically analyse and demonstrate understanding of a range of modern teaching and learning strategies related to the content of Stages 4 and 5 of the science syllabus.
- Demonstrate the ability to interpret research findings both in science and science education and relate these where appropriate to adolescents' understandings in science, their lives and to current syllabus documents.
- Explore and critique educational ideas and practice using research methods appropriate to practitioner inquiry.
- Communicate knowledge using effective communication skills using a range of modes and mediums and for a range of purposes and audiences.

¹ If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the [Writing Centre](#) for academic skills support.

² Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

Delivery and Resources

Attendance Requirements

Attendance at synchronous/face to face tutorial activities, completion of individual/group tasks, involvement in forums, and any other learning activities in this unit is **compulsory** as the Master of Teaching is a professional qualification. All students must meet the 80% requirement.

ICT

This unit has a full web presence through iLearn.

There are regular Zoom sessions for this unit - please see the unit iLearn page for details.

Students will need regular access to a computer and the Internet to complete this unit.

Weekly access to iLearn is compulsory for all students. Important assessment information will be posted here, as will other relevant unit notices and materials, including a reading template and guide to lecture note taking to assist your studies.

Various activities and materials for discussion and critical reflection are included and external students especially are encouraged to use this web component. Electronic links and suggested references will be included in the Resources section. Please check the iLearn unit regularly.

Access and technical assistance

Information for students about access to the online component of this unit is available at ilearn.mq.edu.au/login/MQ/. You will need to enter your student username and password.

Please do NOT contact the Unit Convenor regarding iLearn technical help.

No extensions will be given for any technical issues. Allow enough time for your submissions.

Assistance is available from IT Helpdesk ph: 1800 67 4357, or log a request at help.mq.edu.au. OneHelp is the online IT support service for both students and staff.

This unit requires students to use several ICT and software skills:

- Internet access: The iLearn site contains materials for this unit; it is also required for the online submission of all Assessment Tasks, and for the use of Turnitin submission for ALL tasks.
- Word processing, visual representations, and document formatting: You are required to

use an appropriate form of software to present your assignments.

- Uploading of assessment tasks to iLearn.

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) (<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.*)

Students seeking more policy resources can visit the [Student Policy Gateway](https://students.mq.edu.au/support/study/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) (<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 help you improve your marks and take control of your study.

- [Getting help with your assignment](#)
- [Workshops](#)
- [StudyWise](#)
- [Academic Integrity Module](#)

The Library provides online and face to face support to help you find and use relevant information resources.

- [Subject and Research Guides](#)
- [Ask a Librarian](#)

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.

Changes since First Published

Date	Description
26/07/2020	The order of A1 and A2 was changed.
22/07/2020	Assignment date: 11/07/2020 -> 11/09/2020