MONASH University

Unit Guide

ECE5886
Smart grids

Semester 2, 2017

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Unit handbook information

Synopsis

The Smart Grid unit provides a comprehensive knowledge about the Smart Grid and how it is to be operated and protected for improving sustainability and energy savings. The core of the unit is intelligent infrastructure for Smart Grid and its heightening vulnerability, and how to protect it effectively.
The basic economic fundamentals of power systems and conventional and renewable power generation in regulated and deregulated environment are introduced first. The basic concepts of intelligent control, application of intelligent agents in grid technology, and intelligent components commonly used in Smart Grids are extensively discussed afterward. Also included is how distribution networks adapt to intermittent energy sources (e.g. solar and wind) through the use of smart grids, emerging technologies and energy storage systems.
The unit will conclude with defining concept, design and purpose of the Smart Grid, reviewing current and relevant technologies developed, assessing its vulnerabilities to a cyber-attack, and finding effective protective mechanisms for the grid.

Mode of delivery

Clayton (Day)
Malaysia (Day)

Workload requirements

2 hours lectures, 3 hours tutorials/labs/literature reviews and 7 hours of private study per week

Unit relationships

Prerequisites

none

Prohibitions

none

Co-requisites

none

Chief Examiner(s)

Professor Manos Varvarigos

Unit Coordinator(s)

Name: Dr Behrooz Bahrani
Email: Behrooz.Bahrani@monash.edu

Name: Dr Kuang Ye Chow
Email: Kuang.Ye.Chow@monash.edu

Clayton/Malaysia staff contact details

Clayton campus	
Campus Coordinator	Name: Dr Behrooz Bahrani Email: Behrooz.Bahrani@monash.edu Building: 35, Room: G17 Consultation hours: TBA
Lecturer(s)	Name: Dr Behrooz Bahrani Email: Behrooz.Bahrani@monash.edu Building: 35, Room: G17 Consultation hours: TBA Name: Dr Reza Razzaghi Email: Reza.Razzaghi@monash.edu Building: , Room: Consultation hours: TBA Name: Dr Charles Su Email: Qi.Su@monash.edu Building: , Room: Consultation hours: TBA

Malaysia campus	
Campus Coordinator	Name: Dr Kuang Ye Chow Email: Kuang.Ye.Chow@monash.edu Building: 5, Room: 5-4-22 Consultation hours: working hours
Lecturer(s)	Name: Dr Kuang Ye Chow Email: Kuang.Ye.Chow@monash.edu Building: 5, Room: 5-4-22 Consultation hours: working hours

Demonstrator(s)

For Clayton:

Mr Dayan Rathnayake <dayanrathnayake@hotmail.com>

Section A: For Clayton students

Academic Overview

Engineers Australia Stage 2 competencies

The Engineers Australia Policy on Accreditation of Professional Engineering Programs requires that all programs ensure that their engineering graduates develop to a substantial degree the stage 2 competencies. Listed below are the activities in this unit that will help you to achieve these competencies.

Note: that not all stage 2 competencies are relevant to each unit.

Stage 1 competencies	Activities used in this unit to develop stage 1 competencies
PE1.1 Knowledge of science and engineering fundamentals	Theoretical lecture material, tutorial sessions, and lab session.
PE1.2 In-depth technical competence in at least one engineering discipline	Appropriately chosen tutorial and lab tasks.
PE1.3 Techniques and resources	The laboratory sessions and lecture notes provide a broad understanding of smart power grids. Students are also made aware of relevant tools for analysis and design of engineering systems.
PE1.4 General knowledge	This unit focuses on specialised smart power grids knowledge.
PE2.1 Ability to undertake problem identification, formulation, and solution	Particularly addressed in laboratory tasks.
PE2.2 Understanding of social, cultural, global, and environmental responsibilities and the need to employ principles of sustainable development	Basically, sustainable development is a main focus of this unit in general via developing smart grids technologies.
PE2.3 Ability to utilise a systems approach to complex problems and to design and operational performance	Talking various components, this unit discusses designing complex power smart grids.
PE2.4 Proficiency in engineering design	Laboratory experiments/assignment tasks require the students to consider various engineering and non-engineering factors.

Stage 1 competencies	Activities used in this unit to develop stage 1 competencies
PE2.5 Ability to conduct an engineering project	The laboratory tasks provide students with the ability to understand and learn the steps involved to undertake an engineering project.
PE2.6 Understanding of the business environment	Economic aspects of design are addressed as part of the process.
PE3.1 Ability to communicate effectively, with the engineering team and with the community at large	Written submissions and presentation of the outcomes of laboratory work
PE3.2 Ability to manage information and documentation	This is an essential part of all aspects of this unit.
PE3.3 Capacity for creativity and innovation	The laboratory design tasks encourage innovation and creativity in design.
PE3.4 Ability to function effectively as an individual and in multidisciplinary and multicultural teams, as a team leader or manager as well as an effective team member	Not the focus of this unit.
PE3.5 Ability to function effectively as an individual and in multidisciplinary and multicultural teams, as a team leader or manager as well as an effective team member	Laboratories are conducted in teams of 2 or 3 students where students discuss exercise problems and collaborate on the implementation of their joint efforts.
PE3.6 Capacity for lifelong learning and professional development	The lectures and laboratory work illustrate the rapidly changing nature of technology and thus the need for continuing education to maintain engagement with the latest developments.
PE3.7 Professional attitudes	The lectures and laboratory work illustrate the rapidly changing nature of technology and thus the need for continuing education to maintain engagement with the latest developments.

Teaching and learning method

Lecture, tutorials, and Lab sessions

- covers state-of-the-art techniques in the industry

Research activities

- independent research, review the current trends and investment into future.

Learning outcomes

On successful completion of this unit students should be able to:

1. describe fundamentals of power systems and generation
2. design intelligent power systems using grid technology
3. analyse operational considerations of the Smart Grid
4. identify security risks to Smart Grids and protective measures to ensure system integrity and supply reliability
5. describe the required changes in power distribution networks and energy storage systems to accommodate intermittent energy sources such as wind and solar.

Your feedback to us

One of the formal ways students have to provide feedback on teaching and their learning experience is through the Student Evaluation of Teaching and Units (SETU) survey. The feedback is anonymous and provides the Faculty with evidence of aspects that students are satisfied with and areas for improvement.

Previous student evaluations of this unit

In response to previous SETU results of this unit, the following changes have been made:

N/A - This is the first time this unit is being run.

Student feedback has highlighted the following strength(s) in this unit:

N/A - This is the first time this unit is being run.

If you wish to view how previous students rated this unit, please go to:
https://unitevaluations.connect.monash.edu.au/unitevaluations/index.jsp

Unit schedule - Clayton campus

Week No.	Lectures	Topics	Laboratory / Tutorial / Assignment

1	1-BB	**Introduction** • What is a smart grid • Comparison with conventional grids • Trend across the world **Fundamentals of electrical engineering**, a crash course • Notation, symbols, nomenclature • Steady-state analysis • DC/AC circuits, impedance	Tutorial 1: Fundamentals of electrical engineering
	2- BB	Fundamentals of electrical engineering, a crash course • phasors • power factor • power quality	
2	3- BB	**Power electronics** • Converters • Compensators	Tutorial 2: Power electronics
	4- BB	**Power electronics** • Converters • Compensators	

3	5- BB	**Power electronics** • Converters • Compensators	Lab Session 1
	6- BB	**Power electronics** • Converters • Compensators	
4	7-QS	**Fundamental of electrical power distribution** • Power generation • Renewable energy • Potential, characteristics and limitation of the renewable energy sources	Tutorial 3: Fundamental of electrical power distribution

	8-QS	**Fundamental of electrical power distribution**
		• Energy storage
		  • Batteries
		  • Flow battery
		  • Fuel cell
		  • Flywheels
		  • Magnetic storage
		  • Supercapacitor	

5	9-QS	**Fundamental of electrical power distribution** • Transmission • Overhead lines, Cables, HVDC • Transformers • Switch Gear, GIS	Tutorial 4: Transmission and protection
	10-QS	**Fundamental of electrical power distribution** • Electrical, mechanical, thermal and chemical stresses experienced by power equipment • Main insulation materials	
6	11-QS	**Smart condition monitoring of power equipment** • Basic insulation design of power equipment • Electric stress control	Lab Session 2
	12-QS	**Smart condition monitoring of power equipment** • Power quality • Ferro-resonance and suppression	
7	13-QS	**Smart condition monitoring of power equipment** • Smart sensors • Incipient fault diagnosis	Tutorial 5: Electric stress control

	14-QS	**Fundamental of system analysis for smart grid** • System transients • Overvoltage and protection	
8	15-QS	**Fundamental of system analysis for smart grid** • Circuit protection	Lab Session 3
	16-QS	**Fundamental of system analysis for smart grid** • Reliability	
9	17&18	**Mid-Semester Test and Industry Talk**	
	Semester break		
10	19-RR	**Power systems modelling and calculation** • Line parameters	Tutorial 6: Transmission line calculations
	20-RR	**Power systems modelling and calculation** • Transmission line theory	
11	21-RR	**Short circuit calculations** • Balanced faults	Tutorial 7: Short circuit calculations
	22-RR	**Short circuit calculations** • Symmetrical components • unbalanced faults	

12	23-RR	**Distributed measurement systems** • PMU: synchrophasor algorithms, time dissemination systems, applications	Lab Session 4
	24-RR	• Load flow calculation	

Assessment requirements

Assessment summary

Continuous assessment: 60%
Examination (2 hours): 40%
Students are required to achieve at least 45% in the total continuous assessment component and at least 45% in the final examination component and an overall mark of 50% to achieve a pass grade in the unit. Students failing to achieve this requirement will be given a maximum of 45% in the unit.

Assessment task	Value	Due date
Midsemester Test	30%	Week 9
Lab Reports (4 Reports)	Each report is worth 7.5%. In total 30%.	Each report is due 7 days after the lab session.
Final Exam	40%	To be advised

Assessment tasks

Assessment title: Midsemester Test
Mode of delivery: Written Test
Details of task: Midsemester test examining content taught up to week 8.
Release dates (where applicable): Week 9
Word limit (where applicable): NA
Due date: Week 9
Value: 30%
Presentation requirements: NA
Hurdle requirements (where applicable): Students must attain 45% or greater for the aggregate total of the progressive assessment tasks.
Individual assessment in group tasks (where applicable): NA
Criteria for marking: NA
Additional remarks: NA

Assessment title: Lab Reports (4 Reports)
Mode of delivery: Written Report
Details of task: Written document reporting the details of activities and results obtained in each lab session.
Release dates (where applicable): For lab schedules refer to the unit schedule.
Word limit (where applicable): 5 pages
Due date: Each report is due 7 days after the lab session.
Value: Each report is worth 7.5%. In total 30%.
Presentation requirements: NA
Hurdle requirements (where applicable): Students must attain 45% or greater for the aggregate total of the progressive assessment tasks.
Individual assessment in group tasks (where applicable): Each group needs to submit one report.
Criteria for marking: Each student is expected to be able to demonstrate knowledge of the material contained in the submitted material, generally by direct interaction with the laboratory supervisor. Where applicable, statements of individual contribution to be included in group reports.

High Distinction

The report shows clear evidence of critical analysis, and reflection on the experimental results obtained. There is a broad range of insights into the work performed. Quality professional understanding is evident and this is used to enrich the discussion and critique of the reported work. Familiarity with the subject matter is evident. All assignment-writing requirements are met to the highest standard in terms of presentation, coherency, spelling, referencing, grammar etc.

Distinction

The report shows clear evidence of critical analysis and reflection on the experimental results obtained. There is some original thinking evident in the discussion. Professional understanding of the topic is shown in the discussion. Familiarity with the subject matter is evident. All assignment-writing requirements are met to the highest standard in terms of presentation, coherency, spelling, referencing, grammar etc.

Credit

The report is focused on the experiment description although there is some attempt to critically analyse the results obtained. Professional approach to the topic is evident but the report is limited in scope and quality. The discussion shows that there is a fair understanding of the subject matter. Guidelines for assignment writing have been met at a satisfactory standard.

Pass

Overall, the report is focused on description with scant evidence of critical analysis or reflection. The discussion reveals a limited understanding of the experiment. There is little evidence of professional reading on the chosen topic. Guidelines for assignment writing have been met at the satisfactory level.

Additional remarks: NA

Exam title: Final Exam
Weighting: 40%
Length: 2 hours
Type (Open/closed book): Closed book
Hurdle requirements (where applicable): 45%
Electronic devices allowed: No electronic devices except for faculty approved calculators.
Remarks (where applicable): NA

Calculators
A list of the Faculty of Engineering approved calculators and the process for obtaining a sticker is available online at:
http://www.eng.monash.edu.au/current-students/calculators.html

IMPORTANT: Only these listed calculators with the **authorised Monash University-Science or Monash University-Engineering STICKER** will be allowed into the examination by the invigilators.

Only faculty-approved calculators are allowed.

Section B: For Malaysia students

Academic Overview

Program Outcomes

The UGS_FIELD_SYMBOL_Engineering discipline Engineering has developed a set of Program Outcomes (POs) for all of its graduates based on the Malaysian Engineering Accreditation Council's manual.

Program Outcomes	Activities used in this unit to develop program outcomes
PO1 Achieve comprehensive and theory based advanced competence in energy and sustainability area, and apply it in an engineering context	Test and examination
PO2 Employ energy and sustainability based techniques to solve complex problems and design engineering solutions, and evaluate potential designs to identify optimal solutions	N/A
PO3 Research, investigate and critically appraise current developments and research directions, and identify future directions in energy and sustainability area	laboratory
PO4 Demonstrate a commitment to uphold code of ethics, and established norms of engineering professional conduc	N/A
PO5 Communicate information succinctly and unambiguously in oral and written forms not only with engineers but also with community at large	laboratory reports
PO6 Demonstrate knowledge of the team dynamics and leadership, and function effectively as an individual and in diverse engineering teams	N/A
PO7 Select and apply appropriate resources and modern engineering tools to systematically manage systems and progress knowledge for continuous improvement	laboratory
PO8 Employ energy and sustainability related issues into all phases of engineering project work, including the fundamentals of business planning and financial management	N/A

Teaching and learning method

Lecture and/or tutorials

- covers state-of-the-art techniques in the industry

Research activities

- independent research, review the current trends and investment into future.

Learning outcomes

On successful completion of this unit students should be able to:

1. describe fundamentals of power systems and generation
2. design intelligent power systems using grid technology
3. analyse operational considerations of the Smart Grid
4. identify security risks to Smart Grids and protective measures to ensure system integrity and supply reliability
5. describe the required changes in power distribution networks and energy storage systems to accommodate intermittent energy sources such as wind and solar.

OBE requirements to learning outcomes (LOs)

LO1 Describe fundamentals of power systems and generation

LO2 Design intelligent power systems using grid technology

LO3 Analyse operational considerations of the Smart Grid

LO4 Identify security risks to Smart Grids and protective measures to ensure system integrity and supply reliability

LO5 Describe the required changes in power distribution networks and energy storage systems to accommodate intermittent energy sources such as wind and solar.

Relationship between unit learning outcomes and program outcomes

		Program Outcomes			
		PO1	PO3	PO5	PO7
Learning Outcomes	LO1	X			
	LO2				X
	LO3		X		

	LO4			X	
	LO5			X	

Key

	No emphasis

√	Emphasised and assessed in the unit

Your feedback to us

One of the formal ways students have to provide feedback on teaching and their learning experience is through the Student Evaluation of Teaching and Units (SETU) survey. The feedback is anonymous and provides the Faculty with evidence of aspects that students are satisfied with and areas for improvement.

Previous student evaluations of this unit

In response to previous SETU results of this unit, the following changes have been made:

N/A

Student feedback has highlighted the following strength(s) in this unit:

N/A

If you wish to view how previous students rated this unit, please go to:
https://emuapps.monash.edu.au/unitevaluations/index.jsp

Unit schedule - Malaysia campus

Week No.	Lectures	Topics	Laboratory / Tutorial / Assignment
1	1	**Introduction** • What is a smart grid • Comparison with conventional grids • Trend across the world **Fundamentals of electrical engineering**, a crash course • Notation, symbols, nomenclature • Steady-state analysis • DC/AC circuits, impedance	Tutorial 1: Fundamentals of electrical engineering
	2	Fundamentals of electrical engineering, a crash course • phasors • power factor • power quality	
2	3	**Power electronics** • Converters • Compensators	Tutorial 2: Power electronics
	4	**Power electronics** • Converters •	

		Compensators	
3	5	**Power electronics** • Converters • Compensators	Lab Session 1
	6	**Power electronics** • Converters • Compensators	
4	7	**Fundamental of electrical power distribution** • Power generation • Renewable energy • Potential, characteristics and limitation of the renewable energy sources	Tutorial 3: Fundamental of electrical power distribution

	8	**Fundamental of electrical power distribution**
		• Energy storage
		  • Batteries
		  • Flow battery
		  • Fuel cell
		  • Flywheels
		  • Magnetic storage
		  • Supercapacitor	

5	9	**Fundamental of electrical power distribution**	Tutorial 4:

		• Transmission • Overhead lines, Cables, HVDC • Transformers • Switch Gear, GIS	Transmission and protection
	10	**Fundamental of electrical power distribution** • Electrical, mechanical, thermal and chemical stresses experienced by power equipment • Main insulation materials	
6	11	**Smart condition monitoring of power equipment** • Basic insulation design of power equipment • Electric stress control	Lab Session 2
	12	**Smart condition monitoring of power equipment** • Power quality • Ferro-resonance and suppression	
7	13	**Smart condition monitoring of power equipment** • Smart sensors • Incipient fault diagnosis	Tutorial 5: Electric stress control
	14	**Fundamental of system analysis for smart grid** • System transients	

		• Overvoltage and protection	
8	15	**Fundamental of system analysis for smart grid** • Circuit protection	Lab Session 3
	16	**Fundamental of system analysis for smart grid** • Reliability	
9	17&18	**Mid-Semester Test and Industry Talk**	
	Semester break		
10	19	**Power systems modelling and calculation** • Line parameters	Tutorial 6: Transmission line calculations
	20	**Power systems modelling and calculation** • Transmission line theory	
11	21	**Short circuit calculations** • Balanced faults	Tutorial 7: Short circuit calculations
	22	**Short circuit calculations** • Symmetrical components • unbalanced faults	
12	23	**Distributed measurement systems** •	Lab Session 4

		PMU: synchrophasor algorithms, time dissemination systems, applications	
	24	• Load flow calculation	

Assessment Summary

Continuous assessment: 60%
Examination (2 hours): 40%
Students are required to achieve at least 45% in the total continuous assessment component and at least 45% in the final examination component and an overall mark of 50% to achieve a pass grade in the unit. Students failing to achieve this requirement will be given a maximum of 45% in the unit.

Assessment task	Value	Due date
Mid-semester test	30%	Week 9
Laboratory Report (1-4)	30%	One week after each lab

Relationship between OBE Learning Outcomes (LOs) and assessments

Bloom's Taxonomy:
Three domains of educational activities have been identified under the general taxonomy known as Bloom's.

- **Cognitive**: mental skills (*Head*)
- **Affective**: growth in feelings or emotional areas (*Heart*)
- **Psychomotor**: manual or physical skills (*Hand*)

The *cognitive* domain involves knowledge and the development of intellectual skills. This includes the recall or recognition of specific facts, procedural patterns, and concepts that serve in the development of intellectual abilities and skills.

The *affective* domain includes the attitudes with which someone deals with things emotionally, such as feelings, values, appreciation, enthusiasms and motivations.

The *psychomotor* domain includes physical movement, coordination, and use of the motor-skill areas. Development of these skills requires practice and is measured in terms of speed, precision, distance, procedures, or techniques in execution.

Key for the LO-assessment relationship table above:

Cognitive

C1	C2	C3	C4	C5	C6
Knowledge: Remembers previously learned material	**Comprehension:** Grasps the meaning of material (lowest level of understanding)	**Application:** Uses learning in new and concrete situations (higher level of understanding)	**Analysis:** Understands both the content and structure of material	**Synthesis:** Formulates new structures from existing knowledge and skills	**Evaluation:** Judges the value of material for a given purpose

Psychomotor

P1	P2	P3	P4	P5	P6	P7
Perception: Senses cues that guide motor activity	**Set:** Is mentally, emotionally and physically ready to act	**Guided Response:** Imitates and practices skills, often in discrete steps	**Mechanism:** Performs acts with increasing efficiency, confidence and proficiency	**Complete Overt Response:** Performs automatically	**Adaption:** Adapts skill sets to meet a problem situation	**Organisation:** Creates new patterns for specific situations

Affective

A1	A2	A3	A4	A5
Receiving: Selectively attends to stimuli	**Responding:** Responds to stimuli	**Valuing:** Attaches value or worth to something	**Organisation:** Conceptualises the value and resolves conflict between it and other values	**Internalising:** Integrates the value into a value system that controls behaviour

Relationship between Assessments and OBE Learning Outcomes (LOs)

	LO1	LO2	LO3	LO4	LO5
Mid-semester test	X		X	X	
Laboratory Reports		X			X

Relationship between Assessments and Complex Problems /Activities

	Relationship with complex problems
Laboratory Reports	Epistemic and aleatory uncertainties within the grid system will be simulated in the experiments and its effect on the system efficiency, stability, etc. will be studied

Assessment requirements

Assessment tasks

Assessment title: Midsemester Test
Mode of delivery: on campus
Details of task: Written Test
Release dates (where applicable): Week 9
Word limit (where applicable): N/A
Due date: Week 9
Value: 30%
Presentation requirements: N/A
Hurdle requirements (where applicable): Students are required to achieve at least 45% in the total continuous assessment component and
at least 45% in the final examination component and an overall mark of 50% to achieve a pass grade in the unit.
Individual assessment in group tasks (where applicable): individual
Criteria for marking: N/A
Additional remarks: N/A

Assessment title: Lab Reports (4 Reports)
Mode of delivery: Written Report
Details of task: Written document reporting the details of activities and results obtained in each lab session.
Release dates (where applicable): For lab schedules refer to the unit schedule.
Word limit (where applicable): 5 pages
Due date: Each report is due 7 days after the lab session.
Value: 30%
Presentation requirements: Each report is worth 7.5%. In total 30%.
Hurdle requirements (where applicable): Students are required to achieve at least 45% in the total continuous assessment component and
at least 45% in the final examination component and an overall mark of 50% to achieve a pass grade in the unit.
Individual assessment in group tasks (where applicable): Each group needs to submit one report.
Criteria for marking: Each student is expected to be able to demonstrate knowledge of the material contained in the submitted material, generally by direct interaction with the laboratory supervisor. Where applicable, statements of individual contribution to be included in group reports.

High Distinction
The report shows clear evidence of critical analysis, and reflection on the experimental results

obtained. There is a broad range of insights into the work performed. Quality professional understanding is evident and this is used to enrich the discussion and critique of the reported work. Familiarity with the subject matter is evident. All assignment-writing requirements are met to the highest standard in terms of presentation, coherency, spelling, referencing, grammar etc.

Distinction
The report shows clear evidence of critical analysis and reflection on the experimental results obtained. There is some original thinking evident in the discussion. Professional understanding of the topic is shown in the discussion. Familiarity with the subject matter is evident. All assignment-writing requirements are met to the highest standard in terms of presentation, coherency, spelling, referencing, grammar etc.

Credit
The report is focused on the experiment description although there is some attempt to critically analyse the results obtained. Professional approach to the topic is evident but the report is limited in scope and quality. The discussion shows that there is a fair understanding of the subject matter. Guidelines for assignment writing have been met at a satisfactory standard.

Pass
Overall, the report is focused on description with scant evidence of critical analysis or reflection. The discussion reveals a limited understanding of the experiment. There is little evidence of professional reading on the chosen topic. Guidelines for assignment writing have been met at the satisfactory level.

Additional remarks: N/A

Section C: All students

Plagiarism and collusion

Intentional plagiarism or collusion amounts to cheating under Part 7 of the Monash University (Council) Regulations.

Plagiarism: Plagiarism means taking and using another person's ideas or manner of expressing them and passing them off as one's own. For example, by failing to give appropriate acknowledgement. The material used can be from any source (staff, students or the internet, published and unpublished works).

Collusion: Collusion means unauthorised collaboration with another person on assessable written, oral or practical work and includes paying another person to complete all or part of the work. Where there are reasonable grounds for believing that intentional plagiarism or collusion has occurred, this will be reported to the Associate Dean (Education) or delegate,

Referencing requirements

You are advised to adopt IEEE referencing practices:

http://guides.lib.monash.edu/citing-referencing/recommended

To build your skills in citing and referencing, and using different referencing styles, see the online tutorial Academic Integrity: Demystifying Citing and Referencing at http://www.lib.monash.edu.au/tutorials/citing/

Assignment submission

Hard Copy Submission:

Pass your submission to the lecturer in person OR

Leave your submission in the shelf in front of room 5-4-22 (follow-up with an email reminder)

Online Submission: If Electronic Submission has been approved for your unit, please submit your work via the Moodle site or other; as directed by your demonstator for this unit.
Please keep a copy of tasks completed for your records.

Feedback to you

You will receive feedback your work within a week of submission. Time will be allocated for face-to-face discussion about the feedback.

Learning resources

Monash Library Unit Reading List (if applicable to the unit):
http://readinglists.lib.monash.edu/index.html

Required resources

Students generally must be able to complete the requirements of their course without the imposition of fees that are additional to the student contribution amount or tuition fees. However, students may be charged certain incidental fees or be expected to make certain purchases to support their study. For more information about this, go to Administrative Information for Higher Education Providers: Student Support, Chapter 21, Incidental Fees at: http://www.innovation.gov.au/HigherEducation/TertiaryEducation/ResourcesAndPublications/Pages/default.aspx

Other information

Policies

Monash has educational policies, procedures and guidelines, which are designed to ensure that staff and students are aware of the University's academic standards, and to provide advice on how they might uphold them. You can find Monash's Education Policies at:
http://www.policy.monash.edu/policy-bank/academic/education/index.html

Graduate Attributes Policy

http://www.monash.edu/policy-bank/academic/education/course-governance-and-design/course-design-policy

Student Charter

http://www.monash.edu/students/policies/student-charter.html

Student Services

The University provides many different kinds of services to help you gain the most from your studies. Contact your tutor if you need advice and see the range of services available at http://www.monash.edu/students.

Malaysia students go to: http://www.monash.edu.my/Student-services/.

Monash University Library

The Monash University Library provides a range of services, resources and programs that enable you to save time and be more effective in your learning and research.
Go to http://www.monash.edu/library or the library tab in http://my.monash.edu.au portal for more information.

For Malaysia students the Library and Learning Commons, Monash University Malaysia Campus, provides a range of services and resources that enable you to save time and be more effective in your learning and research.
Go to http://www.lib.monash.edu.my or the library tab in my.monash portal for more information.

Disability Support Services

Students who have a disability, ongoing medical or mental health condition are welcome to contact Disability Support Services.

Disability Support Services also support students who are carers of a person who is aged and frail or has a disability, medical condition or mental health condition.

Disability Advisers visit all Victorian campuses on a regular basis.

- Website: monash.edu/disability
- Telephone: 03 9905 5704 to book an appointment with an Adviser;
- Email: disabilitysupportservices@monash.edu
- Drop In: Level 1, Western Annexe, 21 Chancellors Walk (Campus Centre) Clayton Campus

At Malaysia campus, for information and referral, telephone: Student Adviser, Student Community Services at 03 55146018 or, drop in at Student Community Services Department, Level 2 Building 2, Monash University Malaysia Campus.