Contact details and consultation times for course convenor
Name: A/Prof Santosh Shrestha
Office location: TETB 243
Tel: (02) 9385 7267
Email: s.shrestha@unsw.edu.au

Consultations: Wednesday 10 am - 11 am, Thursday 4 pm – 5 pm, and drop-in sessions.

Contact details and consultation times for additional lecturers/demonstrators/lab staff
Additional lecturer:
Name: Dr Fiacre Rougieux
Email: fiacre.rougieux@unsw.edu.au

Demonstrators/lab staff:
Name: Lamees Yaqoob Mubarak Al Kiyumi
Email: l.alkiyumi@unsw.edu.au

Name: Akasha Kaleem
Email: a.kaleem@unsw.edu.au

Please see the course Moodle.

- Moodle
- Health and Safety
- Student Resources
- UNSW Timetable
- UNSW Handbook
- Engineering Student Support Services Centre
- UNSW Photovoltaic and Renewable Energy Engineering

Credit points
This is a 6 unit-of-credit (UoC) course and involves 5 hours per week (h/w) of face-to-face contact.

The normal workload expectations of a student are approximately 25 hours per term for each UOC, including class contact hours, other learning activities, preparation and time spent on all assessable work.

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in making sure that you understand the lecture material, completing the set assignments, further reading, and revising for any examinations.

Contact hours

	Day	**Time**	**Location**
Lectures	Wednesday	9am - 10pm	Online
	Thursday	2pm - 4pm	Online
Tutorial	Wednesday	12pm – 2pm	Online
(Wk 1-4, 8-10)	Thursday	12pm – 2pm	Ainsworth G01 (K-J17-G01)
Lab	Wednesday	12pm – 2pm	Online
(Wk 5, 7)	Thursday	12pm – 2pm	Tyree Energy Tech Studio

3.	Use relevant standards and data sets for calculations of cell, module and system performance.	PE1.1, PE1.3, PE1.5, PE2.1, PE3.2
4.	Analyse and calculate power differences between photovoltaic cells, modules and arrays.	PE1.1, PE1.3, PE2.1, PE2.2, PE3.2
5.	Identify the appropriate system components and arrangements for different PV applications (e.g., grid-cɒn	

This course will include the following hurdle requirements that are closely linked to a set of learning outcomes which demonstrate that you have acquired the required skills and competencies within this discipline:

- Students must demonstrate they can design a stand-alone PV system for optimum performance and conformance to relevant Australian Standards. A minimum mark of 60% must be obtained in the Stand-Alone PV system design assignment in order to pass this subject. Failure to achieve this minimum mark will result in an unsatisfactory fail (UF) grade, regardless of the performance in the rest of the course.

The assessment scheme in this course reflects the intention to assess your learning progress through the term.

Quizzes: Regular online quizzes are designed to help with continues learning and learning enhancement. You will have to complete five quizzes (weeks 2, 4, 6, 8 and 10).

Lab reports: In some weeks (see the schedule) you will work on lab projects which are designed to give you an opportunity to apply knowledge to practical problems relating to solar cells and systems. You will need to write a report for each lab answering specific questions.

Stand Alone PV system design: The PV design assignment will give you opportunities to apply knowledge to address practical problems and present it to stakeholders. You will need to present your work to your peers and academics. You will also need to write a report.

Final Exam: The exam in this course is a standard closed-book 2 hour written examination. University approved calculators are allowed. The examination tests analytical and critical thinking and general understanding of the course material in a controlled fashion. Questions may be drawn from any aspect of the course, unless specifically indicated otherwise by the lecturer. Marks will be assigned according to the correctness of the responses.

The assessment tasks, except for quizzes and final exam, will be provided via Moodle at least a week in advance.

Presentation
All submissions are expected to be neat and clearly set out. Your results are the pinnacle of

Stage 1 Competencies for Professional Engineers

	Program Intended Learning Outcomes
PE1: Knowledge and Skill Base	PE1.1 Comprehensive, theory-based understanding of underpinning fundamentals
	PE1.2 Conceptual understanding of underpinning maths, analysis, statistics, computing
	PE1.3 In-depth understanding of specialist bodies of knowledge
	PE1.4 Discernment of knowledge development and research directions
	PE1.5 Knowledge of engineering design practice
	PE1.6 Understanding of scope, principles, norms, accountabilities of sustainable engineering practice
PE2: Engineering Application Ability	PE2.1 Application of established engineering methods to complex problem solving
	PE2.2 Fluent application of engineering techniques, tools and resources
	PE2.3 Application of systematic engineering synthesis and design processes
	PE2.4 Application of systematic approaches to the conduct and management of engineering projects
PE3: Professional and Personal Attributes	PE3.1 Ethical conduct and professional accountability
	PE3.2 Effective oral and written communication (professional and lay domains)
	PE3.3 Creative, innovative and pro-active demeanour
	PE3.4 Professional use and management of information
	PE3.5 Orderly management of self, and professional conduct
	PE3.6 Effective team membership and team leadership