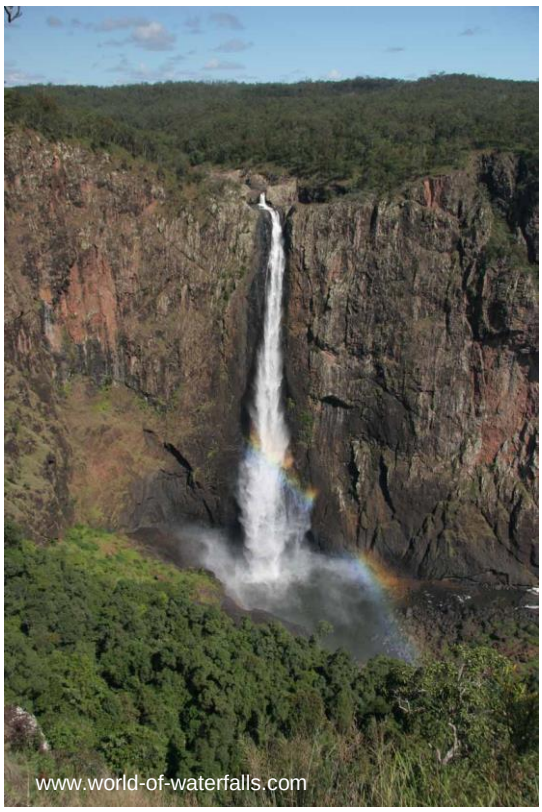

GEOS 2721

AUSTRALIAN PHYSICAL ENVIRONMENTS

TERM THREE

2022

FACULTY OF SCIENCE

SCHOOL OF BIOLOGICAL EARTH AND ENVIRONMENTAL SCIENCES

1. Information about the Course

NOTE: All classes and activities will be conducted according to UNSW Covid-19 response strategy and are therefore subject to change. More information is available at: https://www.covid-19.unsw.edu.au/

Year of Delivery	***2022***
Course Code	***GEOS 2721***
Course Name	***Australian Physical Environments***
Academic Unit	***School of Biological, Earth and Environmental Sciences***
Level of Course	***Level 2***
Units of Credit	***6 UOC***
Session(s) Offered	***T3***
Assumed Knowledge, Prerequisites or Co-requisites	***Either GEOS1701 or GEOS1211 or GEOS1111***
Hours per Week	***7 hpw plus a 3 day field trip (2 days total)***
Number of Weeks	***9 weeks (no classes in Week 6)***
Commencement Date	***Monday 12th September (Week 1)***

(Some of the above information is available in the UNSW Handbook
https://www.handbook.unsw.edu.au/undergraduate/courses/2022/GEOS2721?year=2022

Summary of Course Structure (also see Section 5 Lecture and Lab Schedule)			
Component	**Day and Time**	**Location**	**HPW**
Lectures *Lecture 1* *Lecture 2* *Lecture 3*	*Monday 10 – 1* *Tuesday 2 - 3* *Thursday 1 – 2*	*In person in Mathews 104* *In person in AGSM LG07* *Online* *All lectures will be recorded and available online at the course Moodle site.*	*3*
Laboratories	*Monday 3 - 5 pm* *Tuesday 3 - 5 pm*	*Both labs held in BEES Teaching Lab 5*	*4*
		TOTAL WEEKLY CONTACT	7
Field trip	*A field trip will be held the South Coast/Southern Highlands at the end of Week 7. Preparation for the field trip includes completion of a virtual field trip beforehand.* *The class contact time represents an estimate of the hours students should devote to completing the field activities.* *Further details about the field trip will be provided during lab classes.*		*3 days at end of Week 7*

2. Staff Involved in the Course

Name	Role	Contact Details and Consultation Times
David Edwards	***Course convenor***	*D.Edwards@unsw.edu.au* *By appointment and via Moodle*
A/Prof David Eldridge	*Guest lectures on aspects of soils and human impacts*	*Send all emails via David Edwards* *Otherwise by appointment*
Mira van der Lay	*Technical Officer*	*Typically during lab class times only*

3. Course Details

Course Description (Handbook Entry)	*The study of surface processes and landforms; especially those formed by river systems and coastal environments. The nature of surface deposits, sediments and soils and the interrelationships with landforms in different environmental settings. An emphasis on contemporary processes and factors of landform creation, as well as changes to landforms and surface deposits over time and in response to human modification of the landscape. Field and laboratory based work will provide practical experience in physical landscape evaluation and land management techniques.*
Course Overview and Aims	*In this course we will study the geomorphology, sedimentology and pedology of Australia's physical landscapes. Geomorphology deals with the arrangement of landforms and the processes that shape them, while sedimentology is the scientific study of sediments, sedimentary rocks, and the processes by which they are formed. Pedology studies the formation and distribution of soils.* *The main emphasis in this course will be on the factors and processes acting in modern-day physical environments. This can be used as a basis for understanding both the dynamics of the Earth's surface today and also the history of the Earth's environments preserved in ancient sedimentary strata. The course will also cover the creation and evolution of a variety of erosional and depositional landforms and investigate the nature of the sediments and soils that have formed within and upon these landforms in different environmental settings.* *Theoretical concepts of Earth surface processes will be reinforced by field and laboratory based work, enabling students to develop skills in describing and interpreting sedimentary environments, landforms, surface deposits and soils. Ultimately this knowledge can be used to inform effective management strategies for a variety of Australian landscapes.*

Major Topics (Syllabus Outline)	*The course covers the major syllabus topics of geomorphic, sedimentary and pedological processes in a variety of physical environmental settings.* *The main syllabus units include:* • *Surface environments, factors and processes in glacial, fluvial, estuarine and aeolian environments* • *Geomorphology and sedimentology of rivers and estuarine environments* • *The properties of sediments and mechanisms of sediment transport* • *Landscape evolution and environmental change* • *Soil formation factors and processes* *The lecture and lab topics are outlined in Sections 5 and 6.*
Course Learning Outcomes	*By the end of this course students should be able to explain how a variety of factors and processes control the formation of different features of surface environments and physical landscapes.* *Specific abilities and outcomes that students should be able to demonstrate include:* *CLO1 describe the mix of processes that shape the physical environment and interpret the relationships between factors that control these processes* *CLO2 distinguish between the key land forming factors and processes operating within a range of environmental settings (e.g. arid versus fluvial)* *CLO3 identify and explain the relationships between geomorphic processes, sediment transport and the preservation of sedimentary units* *CLO4 compare modern sedimentary environments and features to those preserved in the rock record* *CLO5 evaluate the impacts of past environmental changes on a variety of physical landscapes and predict future changes* *CLO6 explain the relationships between soil forming factors and soil morphological properties* *CLO7 select and apply a variety of methods and approaches to collecting and analysing data on physical environments and landforms.* *Section 8 outlines the relationships between CLOS, course elements and assessment tasks.*
Relationship to Other Courses within the Program	*The course is an option within the Earth Science programs and plans, with particular relevance to students undertaking environmental science or resource geology. The course is supported by level 1, 2 and 3 courses in GEOS.* *The course is complementary with the following first year courses:* *GEOS1211 Environmental Earth Science* *GEOS1701 Environmental Systems, Processes and Issues* *The course is complementary with the following second year courses:* *GEOS2291 Earth's Interconnections* *GEOS2181 Earth Materials* *GEOS2711 Australian Climate and Vegetation* *The course is complementary with the following third year courses:* *GEOS3281 Environment and Contaminant Geochemistry* *GEOS3721 Australian Soil Use and Management* *GEOS3731 Coastal Geomorphology* *GEOS3761 Environmental Change* *GEOS3911 Environmental Impact Assessment*

4. Course Learning and Teaching Design

<table>
<tr><td>Teaching Rationale and Strategies</td><td colspan="2">The course design follows the RASE (Resources, Activity, Support and Evaluation) learning model. The Resources include: content in lectures and from textbooks, journal articles and digital media; as well as statistical analysis and modelling software; and a variety of analytical instruments. Activities include a variety of lab and field-based tasks that require students to actively engage with the resources to complete tasks that demonstrate their achievement of the course learning outcomes. Support will be provided by peers (working in groups and online forums), online resources and the use of early formative and summative feedback on students' work and progress. Key aspects of student's work will be Evaluated to enable them to improve their learning and become more independent and effective learners. Students will also be involved in the planning processes for many of the activities and their reflection and evaluation of tasks will be used to improve them in future.

The course involves a mix of theoretical and conceptual material delivered in lectures and online materials that are reinforced and complemented through laboratory tasks and skills. The field trip provides a critical synthesis of these two components and is a major focal point of the course whereby students can interpret the landscape using their knowledge base and also through the collection and interpretation of data. The labs and field trip promote an environment of enquiry where students can develop perspectives on the subject matter based upon their own personal experiences and also through interaction with peers.

The timing of the field trip allows students to acquire the necessary theoretical background and data collection and interpretation skills beforehand. The theme of the field trip will be to investigate the changes in the surface processes, landforms and sedimentary environments in a variety of settings including glacial landscapes, fluvial systems and estuarine environments. During the field tutorials, students will partake in a variety of data collection tasks such as measuring and describing landform elements, and describing sediments.

The various assignments will test the knowledge and understanding of geomorphology, sedimentology and pedology in the surficial environment, with a focus on landforms and the processes that shape them. Practical skills in conducting field surveys, laboratory tests and data analysis will also be developed and tested in the course, as well as writing skills that explain and communicate the results. Students will work with a variety of software packages to analyse, manipulate and model data. The course will emulate the type of professional activities that students might be expected to undertake on graduation.</td></tr>
<tr><td>Science Program Learning Outcomes (SPOs) addressed by this course
(for Science degrees)</td><td>Science Program Objectives and Graduate Attributes
(from Science handbook)

1. Develop and sustain an interest in and knowledge of Science.

2. Develop a working knowledge of scientific methods of investigation.</td><td>Examples of application to course

1. Emphasis of the complexity of geophysical systems – what is known and what is not known

2. Laboratory and field exercises explore real world problems and are based on typical projects that young professionals would undertake.</td></tr>
</table>

	3. Encourage curiosity and creative imagination and an appreciation of the role of speculation in the selection and solution of problems, the construction of hypotheses, and the design of experiments.	*3. Field and laboratory work involves students in planning and hands on experiences. Students required to manage collection and interpretation of field data.*
	4. Develop an appreciation of scientific criteria and a concern for objectivity and precision.	*4. Students are required to think critically about errors and bias in the methods they are using to solve problems.*
	5. Develop confidence and skill in formulating problems and in treating both qualitative and quantitative data.	*5. Assessment tasks adopt problem solving approaches and students must incorporate a variety of data sources in the work they produce.*
	6. Develop the ability and disposition to think logically, to communicate clearly by written and oral means, and to read critically and with understanding.	*6. The main field report requires students to undertake a comprehensive literature review and organise findings into a coherent argument.*
	7. Develop the habit of seeking and recognising relationships between phenomena, principles, theories, conceptual frameworks and problems.	*7. The key learning outcome for the course is for students to explain how a variety of factors and processes control the formation of different features of surface environments and physical landscapes. Both theoretical and practical approaches are used to achieve this outcome.*
	8. Promote understanding of the significance of science, technology, economics and social factors in modern society, and of the contributions they can make in improving material conditions.	*8. Key course elements directly relate to issues of land management and resource exploitation. The relevance of each topic and the purpose and outcomes of the laboratory are integrated within student activities.*
	9. Provide opportunities for the development of students' motivations and social maturity, and an awareness of their capabilities in relation to a choice of career which will be fruitful to themselves and to society.	*9. Key graduate attributes developed throughout the course include: writing and communication skills, approaches to problem solving, working as part of a team, project planning. Feedback on lab tasks as well as major written reports will be used to assess student learning and build learning outcomes.*
	10. Provide opportunity to study science in combination with other disciplines.	*10. Topics covered include perspectives from engineering, commerce and the humanities.*
Section 8 outlines the relationships between CLOS, PLOs, course elements and assessment tasks.		

5. Lecture and Lab Schedule (Note this may be subject to change)

Week Commence Monday	Lect 1 Mon 10.00 am	Lab 1 Monday 3 – 5 pm	Lect 2 Tues 2.00 pm	Lab 2 Tuesday 3 – 5 pm	Lect 3 Thursday 1.00 pm Online/pre-recorded	Assess
Week 1 Sept 12	1. Overview of physical environments	Introduction to course. Introduction to Google Earth and Nearmap.	2. Australian environments and landform evolution	Introduction to landforms using Google Earth and Nearmap	3. Past Environments and Present Landforms	Formative Quiz
Week 2 Sept 19	4. Glacial environments and landforms	Glacial Environments and landforms	5. Introduction to fluvial systems	Stream channel morphology	6. Fluvial processes: hydrology & discharge	Google Earth Lab Due end of Wk 2
Week 3 Sept 26	7. Fluvial processes: floods	Catchment hydrology and stream discharge	8. Fluvial Processes: Flow Hydraulics	Flood frequency	9. Flow hydraulics and sediment transport	Formative Quiz
Week 4 Oct 3	10. Properties of sediments	Public Holiday: No Classes	11. Sediment Transfers	Sediment description and PSA	12. Stream Channel Morphology Part 1	Hydrology and Stream Discharge Lab Due end of Wk 4
Week 5 Oct 10	13. Stream channel morphology Part 2	PSA	14. Floodplains Part 1	Flow hydraulics and sediment transport	15. Floodplains Part 2	Sediment Lab Due end of Wk 6
Week 6 Oct 17	*UNSW Flexi Week - no formal classes*				***Virtual Field Trip***	

5. Lecture and Lab Schedule (continued)

Week Commence Monday	Lect 1 Mon 10 am	Lab 1 Monday 3 – 5 pm	Lect 2 Tues 2.00 pm	Lab 2 Tuesday 3 – 5 pm	Lect 3 Thursday 2 – 4	Assess
Week 7 Oct 24	16. Estuaries: properties and processes	Survey Lab 1	17. Estuary sediments	Survey Lab 2	No lecture in lieu of Field Trip from Fri-Sun	Field Trip runs Fri – Sun (includes group quiz)
Week 8 Oct 31	No Classes (Field Trip Recovery)		18. Deltas	Field Trip data analysis and report workshop	19. Aeolian processes and landforms	
Week 9 Nov 7	20. Australian arid landscapes	Field Trip data analysis and report workshop	21. Soil properties and formation	Soil properties and profile description	22. Soil erosion	
Week 10 Nov 14	23. Arid zone soils	Soil and water relationships	24. Soil ecology	Course review and exam preparation	25. Soil Landscapes	Field Trip Report Due on Monday Week 10

6. Assessment Tasks (also see Section 7)

Students are expected to satisfactorily complete all assessment tasks to pass the course overall.

Task	Knowledge & Abilities Assessed	% of total mark
Lab Exercises (three labs @ 12 % each)	A range of skills such including: air photo & map interpretation; topographic surveying; description of sediments and soils; sediment particle size analysis; analysis of hydrologic data; field data collection techniques and analysis; interpretive questions and writing skills.	36 %
Field Trip Exercises and Report	Review of relevant theories and approaches to explaining a range of geophysical landscape features and processes that created them. Collection, analysis and interpretation of a range of data on formation landforms, sedimentary units and soils. The virtual field trip builds skills in use of online learning technologies.	24 %
Final Exam	Understanding and synthesis of course content	40 %

7. Assignment Submissions and Feedback

Assignments will be submitted online via Moodle and these must comply with formatting and file size requirements.

Assignment due dates are shown in Section 5 and 8. Assignments and reports must be submitted on time. No extensions will be permitted (apart from the normal provisions in the University calendar) and penalties for late submission apply. Normal UNSW rules apply to illness, misadventure or other situations which affect attendance at class or submission of assessment tasks.

Students will receive written comments and grades on all pieces of work submitted. Grades will be awarded according to the UNSW grading system: https://student.unsw.edu.au/grades . Students should also familiarise yourself with the UNSW assessment policy: https://student.unsw.edu.au/assessment. Reports will typically be marked and returned to students within 14 days of submission. Suggested answers and general feedback for each assignment will be available on the course Moodle site. Students will be able to gauge their own marks and abilities relative to the class average.

8. Details of assessment tasks and alignment with CLOs and SPOs

Most assessments due at Friday 6.00 pm in the week shown but students should check specific submission deadlines

Week	Topic or Task	Assessment and Feedback Details	Due Date	% Weight for Summative Tasks	CLO	SPO
1	Introduction to Labs, Online mapping skills	Formative feedback on map quiz			1, 2, 3	1, 2, 7
2	Glacial and fluvial landforms	Students work co-operatively to complete tasks, but individually complete calculations and write up report; summative assessment and feedback on lab reports	End of Wk 2	12	1, 2, 7	2, 4, 6,
3	Channel flow, discharge and flood frequency		End of Wk 4	12	1, 2, 3, 7	1, 2, 4, 6, 7
4 & 5	Introduction to sediment properties, description and particle size analysis		End of Wk 6	12	1, 2, 3, 5, 7	1, 2, 4, 7
5	Sediment transport processes and modelling	Formative feedback on lab tasks; summative assessment and feedback as part of field report			1, 2, 3, 5, 7	1, 2, 4, 6, 7, 8
7 & 8	Field trip and report	Students may work as team to complete field tasks; but individually conduct literature review, complete calculations and write up report. Formative assessment on group field tasks; summative assessment and feedback on field report	Start of Wk 10	24	All	All
	End of Term Exam	All lecture and lab topics covered as part of final exam	Exam Period	40	All	All

9. Expectations of Students, Training and Enabling Skills

Attendance in lab classes and on the field trip are compulsory. It is also recommended that students attend the live lecture sessions. The University expects that all students (domestic and international) be present and available for the entire duration of the UNSW scheduled semester period and associated exam period (TBC but most likely 28th November - 9th December). Please bear this in mind when making work or travel plans.

Students that miss classes or assessment tasks due to ill health or other issues are advised to contact David Edwards (Course Convenor) as soon as possible and provide certified documentation. You can apply for Special Consideration when illness or circumstances that are beyond your control or unexpected interfere severely with your academic performance. More information on Special Consideration can be found at: https://student.unsw.edu.au/special-consideration

Most of the course material is delivered or available online and it is expected that students will have regular access to the internet either via home computer or through personal electronic devices (e.g. mobile phone, iPad, laptop). If you have problems accessing this material please talk to David Edwards about alternative methods of access.

General information on BEES School Polices and links to UNSW policies can be found on the BEES School web site: www.BEES.unsw.edu.au

Students should be familiar with using Moodle (https://student.unsw.edu.au/moodle-support) and have completed the UNSW Library Elise tutorial (https://subjectguides.library.unsw.edu.au/elise).

10. Equity and Diversity

Those students who have a disability that requires some adjustment in their teaching or learning environment are encouraged to discuss their study needs with the course convenor prior to, or at the commencement of, their course, or with the UNSW The Equitable Learning Service (ph.8374 9201 or https://student.unsw.edu.au/els). Issues to be discussed may include access to materials, signers or note-takers, the provision of services and additional exam and assessment arrangements. Early notification is essential to enable any necessary adjustments to be made.

Students with an Equitable Learning Plan developed with the ELS are encouraged to seek support from the course convenor to implement this plan.

Students are also advised that UNSW Psychology and Wellness Services provide free and confidential counselling sessions to all students at UNSW. https://student.unsw.edu.au/counselling

11. Course Improvements and Student Feedback

Student feedback is gathered periodically by various means as outlined in the table below. Such feedback is considered carefully with a view to acting on it constructively wherever possible and has helped to shape and develop this course.

Review Type	Last Review Date	Comments or Changes Resulting from Reviews
Major Course Review	*2011*	*Following on from student feedback in 2011 the course was restructured in 2012 and 2013. Key changes include: changing session offered from S1 to S2, fewer lecturing staff to provide continuity to students, fewer assessment tasks and changes to location and timing of field trips. Longer (3 hour) labs have provided more time to complete tasks in labs with staff present to assist.*
CATEI	*2015*	*Timing and work required for field and lab tasks have been modified to allow students to complete assessments. More material has been placed on line (eg Moodle) to facilitate students working at home or outside class contact hours.*
myExperience	*2016 - 2021*	*Timing and work required for field and lab tasks have been modified to allow students to complete assessments. The lab tasks have been more fully integrated with the major field report and broken into two classes per week @ two hours per class.* *Feedback on Virtual Field Trip from 2020 has been used to improve the 2021 version* *2021 feedback has led to changes in number and weighting of assessments*

In all cases you should first try to resolve any issues with the Course Convener (David Edwards). If this is unsatisfactory, you should contact the Director of Teaching in BEES (A/Prof Stephen Bonser s.bonser@unsw.edu.au) or the Head of School (A/Prof Alistair Poore, a.poore@unsw.edu.au).

UNSW has formal policies about the resolution of grievances that can be reviewed in MyUNSW A to Z Guide (see https://student.unsw.edu.au/complaints). School and faculty contacts include the Student Conduct and Appeals Officer (SCAO) within Student Conduct and Integrity Unit (studentcomplaints@unsw.edu.au Tel. 9385 8515)

12. Work, Health and Safety

UNSW takes matters of Work Health and Safety (WHS) policies very seriously and the School of BEES recognises its obligations to provide a safe working environment for all persons involved in School-related activities. You should be aware of your responsibilities as a member of the university community by visiting the UNSW safety website: http://www.safety.unsw.edu.au/ .

All classes and activities will be conducted according to UNSW Covid-19 response strategy. More information is available at: https://www.covid-19.unsw.edu.au/.

All activities will be running in an online format during T3 2021 and therefore it is important that students take control of their health and safety in the home working environment. UNSW has prepared a guide for students on staying heathy during Covid-19 at: https://student.unsw.edu.au/staying-health-during-covid .

13. Additional Resources and Support

i) Text Books and Course Readings

The course materials span several traditional subject areas and so there is no set text for the course. The books listed below are recommended starting points for any student in the course. Items available as e-books in UNSW library are noted.

Other readings will be advised as part of lectures and lab materials.

Encyclopaedia and Reference Works

Encyclopedia of Coastal Science (2005) Editor: M. Schwartz, Springer ISBN1402019033 ebook.

Encyclopedia of Hydrological Sciences Copyright © 1999-2014 by John Wiley and Sons, Inc. Online ISBN: 9780470848944, DOI: 10.1002/0470848944 ebook.

Encyclopedia of Sediments and Sedimentary Rocks (2003) Editors: Gerard V. Middleton, Michael J. Church, Mario Coniglio, Lawrence A. Hardie, Frederick J. Longstaffe . ISBN: 978-1-4020-0872-6 (Print) 978-1-4020-3609-5 (Online) ebook.

Sedimentary Environments

Recommended

Boggs Sam, Jr. (2013) Principles of Sedimentology and Stratigraphy, 5th Ed. Pearson Higher Ed USA

Collinson, J., Mountney, N., and Thompson, D. (2006). Sedimentary Structures (3rd Edition). Dunedin Academic Press. ebook.

Dorrik, A.V. Stow. (2005). Sedimentary Rocks in the Field - A Color Guide. Elsevier. ebook.

Jones, Stuart. (2015). Introducing Sedimentology. Dunedin Academic Press. ebook.

Suggested

Julien, Pierre Y.. (2010). Erosion and Sedimentation (2nd Edition). Cambridge University Press (This is only really for the more advanced and keen student) ebook.

Leeder, M.R. (2000) Sedimentology and Sedimentary Basins: from turbulence to tectonics. Blackwell Science.

Nichols, G. (1999). Sedimentology and Stratigraphy. Blackwell Science.

Reading, H.G. (1996) Sedimentary Environments and Facies (3rd Edition). Blackwell Science.

Reineck, H.E. and Singh, I.B. (1980). Depositional Sedimentary Environments. Springer.

Selley, R.C. (1996).Ancient Sedimentary Environments : And Their Sub-surface Diagnosis, Taylor and Francis ebook.

Selley, R.C. (2000). Applied Sedimentology. Academic Press.

Walker, R.G. (1981). Facies Models. Geoscience Canada Reprint Series

Geomorphology and Landforms

Recommended

Blewett, R. (ed) (2012) Shaping a Nation: A Geology of Australia ANU Press, Co-published with Geoscience Australia ebook.

Scheffers, A.M., May, S.M.and Kelletat, D.(2015) Landforms of the world with Google Earth : understanding our environment, Springer . ISBN9401797137; ISBN9401797137 . ebook.

Summerfield, M.A. (1999). Global Geomorphology. Longman, New York. ebook.

Twidale C.R. and Campbell E.M. (2005). Australian Landforms: Understanding a low, flat, arid and old landscape. Rosenberg Publishing, Dural Sydney.

Goudie A.S. and Viles H.A. (2010) Landscapes and Geomorphology: A Very Short Introduction, OUP, ISBN13 9780199565573 . ebook

Suggested

Gallagher, H.H. and Peterson, J.A. (1987). Landforms: an Introduction to Australian Geomorphology. Oxford University Press, Melbourne.

Jeans, D.N. (Ed.) (1986). The Natural Environment; Australia – A Geography Volume One. Sydney University Press, Sydney.

Twidale, C.R. and Campbell E.M. (1993). Australian Landforms: Structure, Process and Time. Gleneagles Publishing Adelaide.

Fluvial Environments

Recommended

Knighton, D. (1998). Fluvial Forms and Processes; A New Perspective. Oxford University Press, New York. ebook.

Suggested

Gregory, K.J. and Walling, D.E. (1973). Drainage Basin Form and Process. Edward Arnold, London.

Richards, R. (1982) Rivers: form and process in alluvial channels. Methuen London.

Sear D.A., Newson;M.D, and Thorne C. R. (2010) Guidebook of applied fluvial geomorphology Thomas Telford, London, ISBN9780727741011 ebook.

Warner R.F. (1988) Fluvial geomorphology of Australia. Academic Press Australia, Sydney.

Soils

Recommended

Isbell, R.F. (2002) The Australian soil classification 2nd Edition: National Committee on Soil and Terrain Australian soil and land survey handbook series; CSIRO Publishing Australia, ISBN1486304648; ISBN1486304656 ebook.

McKenzie, N.J., Jacquier, D., Isbell, R., Brown, K. (2004). Australian Soils and Landscapes: An Illustrated Compendium. CSIRO, Canberra. Ebook ISBN: 13:9780643100732 ebook.

National Committee on Soil and Terrain (2009) Australian Soil and Land Survey Field Handbook 3rd Edition, CSIRO Publishing Australia, eBook ISBN 9780643097117 ebook.

Suggested

Brady, N.C. and Weil R.R. (2002). Elements of the Nature and Properties of Soil. Prentice Hall.

Charman, P.E.V. and Murphy, B.M. (eds.) (2000) Soils, Their Properties and Management, 2nd Edition, Sydney University Press, Sydney.

Gerrard, J. (1992) Soil Geomorphology, Chapman and Hall, London.

White, R.E. (1997). Principles and Practice of Soil Science: The Soil as a Natural Resource. Blackwell Science.

Young, A. and Young, R. (2001) Soils in the Australian Landscape Oxford University Press.

ii) Course Manual

Course notes will be provided to students and available to download from the course Moodle site.

14. UNSW Academic Honesty and Plagiarism

What is Plagiarism?

Plagiarism is the presentation of the thoughts or work of another as one's own.
*Examples include:

- direct duplication of the thoughts or work of another, including by copying material, ideas or concepts from a book, article, report or other written document (whether published or unpublished), composition, artwork, design, drawing, circuitry, computer program or software, web site, Internet, other electronic resource, or another person's assignment without appropriate acknowledgement;
- paraphrasing another person's work with very minor changes keeping the meaning, form and/or progression of ideas of the original;
- piecing together sections of the work of others into a new whole;
- presenting an assessment item as independent work when it has been produced in whole or part in collusion with other people, for example, another student or a tutor; and
- claiming credit for a proportion a work contributed to a group assessment item that is greater than that actually contributed.†

For the purposes of this policy, submitting an assessment item that has already been submitted for academic credit elsewhere may be considered plagiarism.

Knowingly permitting your work to be copied by another student may also be considered to be plagiarism.

Note that an assessment item produced in oral, not written, form, or involving live presentation, may similarly contain plagiarised material.

The inclusion of the thoughts or work of another with attribution appropriate to the academic discipline does *not* amount to plagiarism.

The Learning Centre website is main repository for resources for staff and students on plagiarism and academic honesty. These resources can be located via:

https://student.unsw.edu.au/plagiarism

The Learning Centre also provides substantial educational written materials, workshops, and tutorials to aid students, for example, in:

- correct referencing practices;
- paraphrasing, summarising, essay writing, and time management;
- appropriate use of, and attribution for, a range of materials including text, images, formulae and concepts.

Individual assistance is available on request from The Learning Centre.

Students are also reminded that careful time management is an important part of study and one of the identified causes of plagiarism is poor time management. Students should allow sufficient time for research, drafting, and the proper referencing of sources in preparing all assessment items.

* Based on that proposed to the University of Newcastle by the St James Ethics Centre. Used with kind permission from the University of Newcastle
† Adapted with kind permission from the University of Melbourne

BEES Academic Honesty and Plagiarism

In addition to the UNSW Policy on Academic Honesty and Plagiarism, the School of Biological, Earth and Environmental Sciences (BEES), also considers any work submitted that has been produced outside of a given course in a given year to be plagiarism i.e.:

- Work produced for a third party e.g. your place of employment, is considered intellectual property of the third party, and as such if such work is submitted in place of a required course work, it is deemed plagiarism.
- All work submitted for assessment must be created specifically for the given assessment task in the given year. Work produced in previous years or for other assessments is not acceptable.