# GEOG311 Coastal Studies

# Course Handout 2019

### Overview

Nau mai ki GEOG311 - welcome. This course is a coastal starting point for people wanting to work in the fields of environmental science, resource and hazard management and environmental engineering, as well as for anyone with a passionate interest in coasts. People with a wide variety of backgrounds, skills and perspectives are appreciated.

UC has a vision of *people prepared to make a difference - tangata tū, tangata ora*. This vision is taken seriously in Geography’s coastal studies programme so be ready to work on assessment topics of direct interest and use to the people of Christchurch and New Zealand. Through lectures, labs, fieldwork and assessment, GEOG311 explores the processes responsible for change in coastal environments and the development of coastal forms in New Zealand, the Pacific and worldwide. Topics examined include waves, currents, sea levels, sediments, beaches, wetlands, reefs and human-coast interactions.

Students gain an understanding of conceptual and computational models of the coastal zone, along with practice in the field and laboratory techniques used in coastal zone investigation. As the course explores both the processes operating in different coastal environments and management themes, there has been industry involvement in developing the course, including from ECAN, CCC and NIWA.

Please read this handout carefully as it will help to ensure that you succeed in the course. It contains basic information about how the course is structured, taught and assessed, what you are expected to do, and when you need to do it (see summary in Table 1). If you have any problems or difficulties in the course, see your lecturers or the GEOG311 coordinator. GEOG311 is one of three complementary physical geography courses at 300-level, each providing you with a good insight into the field to theory approaches that are a hallmark of UC physical geography. The level coordinator for GEOG300 is: Dr Ioannis Delikostidis: ioannis.delikostidis@canterbury.ac.nz.

### Learning outcomes

GEOG311 aims:

* to inspire you to want to understand and learn more about coastal environments;
* to provide a forum to share knowledge, experience and perspectives from different coastal sub-disciplines (that means you sharing, not just staff!),
* to provide opportunities to understand the coast as a biophysical system,
* to develop abilities in the application of coastal process principles for the analysis and interpretation of physical coastal environments and human issues relating to them, and
* to explore with you initial-level coastal knowledge and skills relevant to the career streams of environmental science, consultancy, planning and management.

Upon successful completion of GEOG311, you should gain:

* understanding of the coast as a complex, biophysical system,
* awareness of human impacts on various coastal environments and vice versa,
* experience in analysing, interpreting and solving complex environment problems, and
* experience in conducting research and written presentation to international standards.

### Course requirements

You must complete all of the course requirements to be eligible to pass. That is, to be eligible to be credited with a pass in GEOG311, you must meet the following course requirements:

* **participate satisfactorily in lab classes;**
* **participate satisfactorily in course online quizzes; and**
* **submit and receive a pass grade in the poster assignment.**

### Course structure and delivery

This year GEOG311 is structured around a learning programme delivered via weekly lectures, occasional labs, an optional one-day fieldtrip, and a number of online assessed quizzes, and a poster assignment (Table 1). Roughly the first half of the course is focussed on coastal processes while the second half of the course examines different coastal environments, finishing with a section on coastal management. Up to date information on timing and venues for details of lectures and other contact activities can be found via the course CIS system link on:

http://www.canterbury.ac.nz/courseinfo/GetCourses.aspx?orgunitcode=GEOG&year=2019

Most lectures are face-to-face in a lab environment.

Table 1. GEOG311 Course Timetable 2019 including DRAFT venues. Please note that you need to check venues on the Course Information System as these can be altered by UC Timetabling. Also, when in the physical lab Rutherford 164 you need to wear covered footwear and leave all food in your bag, as it is not safe to consume it in this venue. Water bottles are permitted in this space.

|  |  |  |
| --- | --- | --- |
| **Course week** | **Tuesday (11 am - 1 pm)** | **Friday (times below)** |
| 1 | 19-Feb |  |
|  | Lecture (Rutherford 164) |  |
| 2 | 26-Feb |  |
|  | Lecture (Rutherford 164)  Online assessed quiz 1 starts |  |
| 3 | 5-Mar | 8-Mar-18, 10 am - 4 pm + travel time |
|  | Lecture (Rutherford 164) | Fieldwork (South Brighton) |
| 4 | 12-Mar | 15-Mar, 10 am – 12 pm |
|  | Lecture (Rutherford 164) | Lab 1 (Rutherford 164)  Online assessed quiz 2 starts |
| 5 | 19-Mar | 22-Mar, 10 am – 12 pm |
|  | Lecture (Rutherford 164) | Lab 2 (Jack Erskine 001) |
| 6 | 26-Mar |  |
|  | Lecture (Rutherford 164)  Online assessed quiz 3 starts |  |
| 7 | 2-Apr |  |
|  | Lecture (Rutherford 164) |  |
|  |  |  |
| 8 | 30-Apr |  |
|  | Lecture (Rutherford 164) |  |
| 9 | 7-May |  |
|  | Lecture (Rutherford 164)  Online assessed quiz 4 starts |  |
| 10 | 14-May |  |
|  | Lecture (Rutherford 164) |  |
| 11 | 21-May |  |
|  | Lecture (Rutherford 164) | Poster assessment due 5pm |
| 12 | 28-May |  |
|  | Lecture (Rutherford 164)  Online assessed quiz 5 starts |  |

You are also expected to familiarise yourself with the Moodle LEARN software, our web-based course system (see assistance information on last page of this handout) as this is how you can sit quizzes, submit assignments, check grades, and obtain lab and lecture information. It is important that you log in and start working with the course LEARN pages from the first week of teaching.

### Workload, including reading

You are expected to spend about ten hours of your working week on this course (averaged over the semester). These hours should be planned as follows:

* 2 hours each week in lectures;
* 3 hours in selected weeks in labs;
* an optional 1 day fieldtrip;
* 5+ hours self-directed time for readings**,** online quizzes, working on assignments, preparing for class, and reviewing notes.

One of the resources you will find on Learn is the ‘GEOG311 Homework Handout’. This includes some exercises that you may wish to practice to see how you have understood the course materials from the week. Lecture slide PowerPoints indicate which homework questions are most applicable each week.

We cannot emphasise enough the importance of doing your readings for passing GEOG311 with a decent grade – lectures are the tip of the iceberg while readings provide the substance and examples underpinning the lectures. Readings of chapters from various textbooks will be posted on Learn in conjunction with selected lectures so there is no need to purchase one textbook. If, on the other hand, you prefer to have your own individual textbook always to hand, you might consider one of these options:

Masselink, G. , Hughes, M.G., Knight, J. 2011. Introduction to coastal processes & geomorphology; 2nd ed; Hodder Education.

*A good first basic coastal text*.

Woodroffe C.D. 2003. [*Coasts: Form, Process, and Evolution*](http://ipac.canterbury.ac.nz/ipac20/ipac.jsp?menu=search&aspect=basic_search&profile=a&index=ISBN&term=0521812542). Cambridge University Press, Cambridge.

*Like an encyclopaedia of all things coastal, with great coastal environment coverage.*

Komar P.D. 1998. *Beach Processes and Sedimentation* 2nd edn. Prentice-Hall, New Jersey.

*A fantastic text, well suited to the more technically minded.*

U.S. Army Corps of Engineers (2002) *Coastal Engineering Manual (CEM)*. Engineer Manual 1110-2-1100, U.S. Army Corps of Engineers, Washington D.C. (6 volumes*).*

*A free electronic text with an engineering slant. Everyone should download their own copy of this from online and engineers might like it as their first choice (although I’ll be encouraging you to broaden your perspective too). It covers: Part II - Coastal Hydrodynamics; Part III – Coastal Sediment Processes; Part IV – Coastal Geology; Part V - Coastal Project Planning and Design; Part VI - Design of Coastal Projects; and Appendix A - Glossary of Coastal Terminology*

Earlier text versions substituted such as:

Masselink G. and Hughes M.G. 2003. *An Introduction to Coastal Processes and Geomorphology*. Arnold, London.

*Pretty similar to the above Masselink et al. (2011).*

Some of the recommended texts are available from the University Bookshop in paperback, some are available online as ebooks at significantly lower prices than in hardcopy, and most are in the UC library. You are also expected to consult the library electronic databases widely (e.g. Scopus or Web of Science) for journal articles and other literature for course assignments. Please do not simply rely on Google or Google Scholar searches for research materials (to find out why, do a web search to find out about your ‘filter bubble’).

### Laboratories

Laboratories form an essential and quizable part of GEOG311. There will be two labs onscheduled days, after our fieldtrip. Please be on time, or let Deirdre know in advance if you have a good reason why you cannot be there on the dot. For Lab 1 fully enclosed footwear must be worn (no jandals, sandals etc). Gumboots will be provided for those who do not have appropriate footwear. No food or drink is allowed in the coastal and sediments lab room (Rutherford 164) but there is a corridor for breakout and snack space.

### Assessment

Make sure that you fulfil the course requirements (see earlier) - if you don’t complete these then, even if you get over 50% in assessment, you cannot pass the course. Assessment is spread over both terms and requires you to start working from the first week. Formal assessment for the course is as follows:

* 40% online quizzes (best 4 out of 5 possible online quizzes);
* 60% poster assignment.

See Table 1 for this year’s assessment due dates. If you miss a quiz for one of the Department approved erasons (accident, illness or bereavement), then please let Deirdre know by email, specifying which quiz you missed, attaching evidence of your reason for missing the quiz, and then at the end of the semester she will be able to award you an grade for that missed quiz that is the average of your other quiz results. If quizzes are missed due to some other reason (workload, forgetting, missing the deadline), then an average grade cannot be granted. Also note that quizzes are never re-opened for individuals, as this would give an unfair advantage to some and not others. If you are unsure if your reason for missing a quiz might meet with official approval, then feel free to chat to Deirdre – we want you to succeed in your studies and are not here to be punitive, but we also have to maintain fairness for the whole class.

Guidelines for the poster assignment can be found overleaf, including practical guidance on how to go about researching your topic and writing it up. In addition, you should consult the UC Academic Skills Centre online resources webpage: <http://www.canterbury.ac.nz/support/asc/services/resources/>. Also, see the library search and skills workshop links: <http://www.canterbury.ac.nz/library/>, and <http://www.canterbury.ac.nz/support/asc/services/workshops/>.

Talk to Deirdre before the assessment dates if you have any questions at all about the quizzes or poster assignment, including queries regarding dishonest academic practice. All work in GEOG311 is individual work, meaning that you must complete your quizzes, and write your GEOG311 poster on your own and in your own words. Do not copy from other students or work with them online as this will be detected via online analyses. In written work, make sure to always identify material from sources other than your own ideas with proper citations, references and, where relevant, quotation marks. There is zero tolerance for those that cheat in GEOG311. Unfortunately this has meant that someone has failed the course each year for the last few years, due to confirmed evidence of cheating. Please do not risk this happening to you. We’d much prefer you thrived in, enjoyed and learnt much from the course. If something happens in life that means you are really struggling to complete your assessment, talk to Deirdre and/or apply for a UC Special Consideration. If you feel your work has not been marked fairly, or if you would like further explanation of the mark, see the course co-ordinator first, or if you cannot come to agreement then the year coordinator. S/he may give additional details to explain your mark and/or arrange for a third party to reassess it.

### UC Geography Undergraduate Handbook

This course handout is designed to be read in conjunction with the Te Whare Wānanga o Waitaha University of Canterbury (UC) Geography Undergraduate Handbook: <https://www.canterbury.ac.nz/media/documents/oexp-science/geography/GEOG2018_Undergrad_HBK.pdf>. The Geography Handbook contains vital information applicable to all undergraduate geography courses, which you are expected to read carefully. An edited extract of some key information from the Undergraduate Handbook is included, for convenience, at the end of this course handout.

Course coordinator’s message

We hope that you enjoy GEOG311 and really look forward to getting to know you as individuals throughout this 300-level course. Please ask questions in class, talk to staff before and after classes about our lecture and lab content or the course, and generally interact with staff so that you get the most out of the GEOG311 experience and we are able to respond to your areas of interest in our teaching (face-to-face at either end of lectures is ideal for a fast answer where possible - you will need to be patient with us via email as we manage a term-time ‘onslaught’ of around 200 emails per day).

Ngā mihi,

Dr Deirdre Hart, course lecturer and coordinator

[deirdre.hart@canterbury.ac.nz](mailto:deirdre.hart@canterbury.ac.nz)

Undergraduate Course Information

# Course resources

Most information for Geography courses, including handouts and a host of resources, are supplied through LEARN and via email. You should regularly look at the specific course LEARN homepage and check your University email. If you have problems with your account or web access, contact Paul Bealing, [paul.bealing@canterbury.ac.nz](mailto:paul.bealing@canterbury.ac.nz)

# Want your best grades?

<http://www.canterbury.ac.nz/support/asc/> We HIGHLY recommend you use the UC Academic Skills Centre Pokapū Pūkenga Ako, free to all UC students and including online resources, short courses, and individual 50-minute or drop-in 5-min appointments for help improving assignments. Every student should consider using the Academic Skills Centre. Note that 50-min appointments fill up fast around due dates.

# Disability or medical condition?

Students with a disability or medical condition are advised to contact the Disability Support Service, especially if you intend to participate in labs or field trips: http://www.canterbury.ac.nz/disability/.

Behaviour

UC promotes a world class learning environment, where students are free to pursue academic interests in an environment that balances individual rights and collective responsibilities. Please familiarise yourself with the UC Student Code of Conduct: <http://www.canterbury.ac.nz/ucpolicylibrary/GetPolicy.aspx?file=Student-Code-Of-Conduct.pdf>

All members of the UC community are bound by the laws of New Zealand. Any actual or suspected breach of law will be referred to the appropriate authorities for investigation. UC regards harassment of any kind, whether on or off campus, as unacceptable. UC reserves the right to take action to prevent the occurrence or recurrence of harassment and to prosecute offenders: see the Harassment Policy via the policy library link: [www.canterbury.ac.nz/ucpolicy](http://www.canterbury.ac.nz/ucpolicy). Please note that such behaviour can ultimately result in perpetrators being expelled/ trespassed.

The University has several other key policies and procedures that apply to staff and students, available via the UC Policy Library.

# Course feedback, issues

Class reps are student representatives who provide an important link between classes and lecturers by acting as a liaison. Class reps are the first point of contact for help resolving class issues at a low level, helping to avoid bigger problems later on. Class reps also provide the UCSA with student views and help them keep in touch with issues and concerns. We ask for reps at the start of a course - if you are considering the role, note that it makes for a nice addition to your CV.

If you would like further explanation of an assessment mark received, see your marker first. If you feel that your work has not been marked fairly, see the course coordinator who may have the work reassessed. If there is a problem relating to the course, attempt first to resolve it by discussion with your lecturer (possibly via the class rep). If there is no resolution, see the course coordinator. Should there still remain issues, you can approach the Head of Department, or seek advice from the University Grievance Advisor, or the UCSA.

# Grading

A uniform grading scheme is used in Geography:

A+ Exceptional, superb! 90-100%

A Excellent 85-89%

A- Very good 80-84% B+ Good 75-79%

B Competent 70-74%

B- OK 65-69%

C+ Satisfactory 60-64%

C Pass 55-59%

C- Very marginal pass 50-54%

D Fail 40-49%

E Pretty awful! 0-39%

# Special consideration

For assessment items worth ≥10%, you may apply for special consideration if your performance is affected by extenuating circumstances beyond your control (e.g. illness, injury, bereavement or another critical circumstance). Applications are made via http://www.canterbury.ac.nz/study/special-consideration/. Prior to applying for such consideration, check with your course coordinator in case other options are more appropriate (e.g. an extension).

# Extensions and late work

Extensions are given in exceptional circumstances of illness, accident or bereavement (not for workload issues). Use the official ‘Extension Request’ form available from level 5 in the Geography Department, and take it to a course coordinator. Only course coordinators can give extensions. Major coursework work (≥10%) handed in late without an extension is subject to the following penalties: up to 1 week late = 2 grade penalty (e.g. A to B+); more than 1 week late but before coursework handback = 4 grade penalty (e.g. A to B-); after course-work handback = 8 grade penalty (e.g. A to D). In many courses, all assessment must be completed, however late, as a requirement to pass the course.

# Dishonest and improper practices

Every year several students fail Geography courses due to dishonest or improper practices. These include, but are not limited to, copying other students’ work, copying or not correctly citing, quoting and/or referencing web or literature sources, plagiarism, sharing UC login details, and bringing notes into a closed-book exam. Please note that in many courses, assignments are processed through the plagiarism checking tool Turnitin ([http://turnitin.](http://turnitin/) com/) to check for copying within years, with previous years, across published and online literature and information sources, and to store work for comparison with future courses. For hard copy assignment submissions, Geography has an assignment cover sheet requiring you to read and sign an honesty declaration. Equivalent declarations are included with a tick box in online submissions.

Students are offered help in 100-level courses to understand what plagiarism and other types of inappropriate academic practice are, and how to avoid them. A useful guide can be found at: http://www.canterbury.ac.nz/library/support/citations-and-referencing/. Ultimately it is YOUR responsibility to make sure you know what dishonest academic practices are and to avoid them. Do not share electronic copies of individual course work with other students – if you do and this work is submitted in part or whole by another, then you will face consequences, alongside the copier of your material. If someone needs help, provide verbal advice – do not share your files.

If your assignment contains problematic material, you will be invited to meet with the HOD and course coordinator to explain. If you choose not to meet, or cannot offer acceptable explanation, then you may receive a zero grade or be referred to a UC Proctor for investigation (this happens to someone every year!). Your UC grades may be withheld until the case is resolved. If you are found guilty of any kind of dishonest academic practice, your details will be recorded on the university’s dishonest practice register for 10 years.

# Useful links

Online resources: <http://www.canterbury.ac.nz/support/asc/services/resources/> and http://www.canterbury.ac.nz/library/support/

Academic Integrity Guidelines: http://www.canterbury.ac.nz/about/governance/ucpolicy/

Academic Integrity/ Breach of Instructions Regs: http://www.canterbury.ac.nz/regulations/general-regulations/academic-integrity-and-breach-of-instruction-regulations/

# Poster Assignment

### Task in brief

Make a scientific poster (formatted to A0 size but printed as A3 size) on the topic specified below. See Table 1 for due date: due 5pm, as a PDF online via Learn, and in hard copy (printed as a colour mini A3 version of your poster) via the Geography Building Level 5 assignment dropbox (if you are in the building afterhours, then you will need your UC card).

Topic details

**Amongst other effects in coastal environments, human-induced climate change is forecast to lead to ‘increased storminess’. Examine the evidence for what increased storminess could mean, paying attention to both international science and a chosen local New Zealand coast setting.**

In your poster make sure to define what the topic is, to use some international literature, and to apply your learnings to New Zealand including to a selected part of our coast. Gather evidence from multiple sources to support the main points in your argument – at 300 level we are expecting you to go beyond summarising and synthesising the evidence to include an element of evaluation and interpretation. Remember that posters are very visual communication devices, with limited word space, so it is better to focus on a concentrated topic than to spread ideas thinly.

Include the following considerations and elements in your poster:

* The marking schedule that will be used to assess your poster can be found overleaf, so there are no surprises – use this to check that you are on track and including important elements in your work.
* Literature review: Use both New Zealand *and* international literature. Both should be largely from quality, peer-reviewed, quality-assured sources (not web pages published via who-knows-what quality checking process). The international scientific literature should aid with understanding relevant coastal processes and dynamics, plus other comparable coastal systems from elsewhere. For more space, your reference list can be on the back of your poster.
* Some sort of primary data analysis: Include one or a few primary data analysis aspects in your poster (e.g. beach profile data analysis[[1]](#footnote-1), field observations, GIS or visual comparative analyses of aerial photos, historical record or photograph analyses[[2]](#footnote-2), discourse analysis) in your poster.
* Methodology: Make sure to explain your overall approach and your analysis methods clearly, including your approach to literature and to primary data. Note that ‘methodology’ means a section which explains *your overall approach* as well as detailing each ‘method’ used (i.e. it is more than a list of ‘methods’).
* Language: Use coastal studies terms and concepts to explain the key findings in your poster. These may relate to natural and anthropogenic influences from the past, and/or the possible future effects of sea level rise and climate change. Your target audience is your GEOG311 class mates as well as anyone else who is a coastal specialist or familiar with reading academic work in physical geography.
* Evaluation: Synthesise and evaluate the evidence and say what you think of other people’s ideas and analyses (literature), as well as what you can tell from the analyses you have performed.
* Do not cite lecture notes. We are evaluating what you demonstrate about analysing and researching a case study coastal topic and environment, and how you form and support your own academic argument. There are no ‘right’ answers – just different levels of evidence presentation and evaluation. If your research is strongly based on second-hand lecture notes, then you can expect a poor grade when it comes to research skills and original effort!
* Use unpublished web or media resources sparingly and/or with caution, in their right context.

Submission details

Submit your poster in hardcopy printed in A3 colour format (i.e. a ‘mini’ version of your poster). Also submit your poster as a PDF online via Learn. Make sure your poster includes your name, and a relevant ‘story of the poster’ title. Reference lists and your name can go on the back of the poster (p2 of the PDF for electronic submissions) if you prefer.

Starter sources

We would expect you to include somewhere between 15 and 30+ sources in your poster, many of which comprise published, peer reviewed quality literature. Starting points for understanding the topic can be found in the content *and* *reference lists* of these sources. Note that they are largely local sources, so you will need to search the library databases to find relevant, complementary international literature on your topic. Also note that a lot of coastal climate change implication literature focusses on sea level change but that is not the central topic of this essay, rather we are looking at increased storminess as the main focus (which might involve consideration of changes in the base sea levels that storms operate over on coasts - but do not get side-tracked in the sea level literature alone, at the expense of focussing on the full set of storminess processes and implications).

* Bell, R. G., Goring, D. G., and de Lange, W. P. (2000). "Sea-level change and storm surges in the context of climate change", *Transactions of the Institute of Professional Engineers New Zealand*: General Section, 27(1), 1-10.
* Brown, L. J., and Weeber, J. H. (1992). *Geology of the Christchurch urban area: Institute of Geological and Nuclear Sciences Geological Map 1*. Institute of Geological and Nuclear Sciences, Lower Hutt, NZ, Scale 1:25,000.
* Bryan, K.R., Kench, P.S., and Hart, D.E. (2008). Multi-decadal coastal change in New Zealand: Evidence, mechanisms and implications.*New Zealand Geographer 64*(2), 117-128. doi:10.1111/j.1745-7939.2008.00135.x
* Callaghan, D.P., Roshanka, R., Short, A.D. (2009). “Quantifying the storm erosion hazard for coastal planning”, *Coastal Engineering 56*(1), 90-93.
* CCC, Christchurch City Council (2016) Floor levels map: <http://maps.cera.govt.nz/advanced-viewer/?Viewer=Ccc-Floor-Levels>
* Comfort, J.A. (1995). *Lessons from the past: A history of coastal hazards at South Brighton Spit, Christchurch.* Unpublished Master of Arts Thesis (Geography), University of Canterbury, Christchurch, 147p*.*
* de Alegria-Arzaburu, A.R., Masselink, G. (2010). “Storm response and beach rotation on a gravel beach, Slapton Sands, UK”, *Marine Geology* *278*(1-4), 77-99.
* Findlay, R. H., and Kirk, R. M. (1988). “Post‐1847 changes in the Avon‐Heathcote Estuary, Christchurch: A study of the effect of urban development around a tidal estuary”, NZ J. Mar. Freshwtr. Res., 22(1), 101-127.
* Godoi, V. A., Bryan, K. R., and Gorman, R. M. (2016). “Regional influence of climate patterns on the wave climate of the southwestern Pacific: The New Zealand region”, *J. Geophysical Research: Oceans*, 121(6), 4056-4076.
* Hannah, J., and Bell, R. G. (2012). “Regional sea level trends in New Zealand”, *J. Geophysical Research: Oceans*, 117(C1), doi 10.1029/2011JC007591.
* Harley, M.D., Turner, I.L., Splinter, K.D., Phillips, M.S., Simmons, J.A. (2016). “Beach response to Australian East Coast Lows: a comparison between the 2007 and 2015 events, Narrabeen-Collaroy Beach”, *Journal of Coastal Research*, *75*(sp1), 388-392.
* Hart D.E., Marsden I., Francis, M*.* (2008). “Coastal systems”, In: Winterbourne, M, Knox, G.A, Marsden, I.D., Burrows, C. (eds). Natural History of Canterbury, 3rd edn. Chapter 20, Canterbury University Press, Christchurch, pp.
* Heath, R.A. (1979). Significance of storm surges on the New Zealand coast. New Zealand Journal of Geology and Geophysics 22(2): 259–266.
* Irish J.L., Weiss R., Resio D.T. (2016). “Physical Characteristics of Coastal Hazards”, In: Dhanak M.R., Xiros N.I. (eds) Springer Handbook of Ocean Engineering. Springer, Cham, <https://doi.org/10.1007/978-3-319-16649-0_25>
* McFadgen, B. G., and Goff, J. R. (2005). “An earth systems approach to understanding the tectonic and cultural landscapes of linked marine embayments: Avon‐Heathcote Estuary (Ihutai) and Lake Ellesmere (Waihora), New Zealand”, *J. Quaternary Sci.*, 20(3): 227-237.
* McLean R.F., Shen, J.-S. (2006). “From foreshore to foredune: Foredune development over the last 30 years at Moruya Beach, New South Wales, Australia”, *Journal of Coastal Research* 22, 28–36.
* McLean, R.F., Shen, J. and Thom, B.W. (2010), “Beach Change at Bengello Beach, Eurobodalla Shire, New South Wales: 1972-2010”, Proceedings of the 19th NSW Coastal Conference, Batemans Bay, http://www.coastalconference.com/papers.php
* Merfield, G. (2018). *Combining quantitative and qualitative analysis for a better understanding on New Zealand’s extreme sea level events in relation to storm tracks*. Unpublished Geography Honours report, University of Canterbury. [available from GEOG311 Learn]
* Nicholls, R. J., Wong, P. P., Burkett, V. R., Codignotto, J. O., Hay, J. E., McLean, R. F., Ragoonaden, S., and Woodroffe, C. D. (2007). “Coastal systems and low-lying areas”, in: M. L. Parry, O. F. Canziani, J. P. Palutikof, P. J. van der Linden, C. E. Hanson (eds), *Climate change 2007: impacts, adaptation and vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change,* Cambridge Univ. Press, Cambridge, UK, pp 315–357.
* NIWA, National Institute of Water and Atmospheric Research. (2016). “April 1968 New Zealand Ex-tropical Cyclone Giselle (1968-04-09)”, New Zealand historic weather events catalogue, <https://hwe.niwa.co.nz/event/April_1968_New_Zealand_Ex-tropical_Cyclone_Giselle>, accessed Jan. 8, 2018).
* Phillips, M. (2018). Re-evaluation of the Environment Canterbury storm ranking table and its implications on Southern Pegasus Bay. Unpublished Geography Honours report, University of Canterbury. [available from GEOG311 Learn]
* Stephens, S. (2015). “The effect of sea level rise on the frequency of extreme sea levels in New Zealand”, *NIWA Client Report No. HAM2015-090*, prepared for the Parliamentary Commissioner for the Environment PCE15201, Hamilton, 52p.
* Tonkin & Taylor. (2017). *Coastal hazard assessment for Christchurch and Banks Peninsula*, Report prepared for the Christchurch City Council, 67p + appendices.
* Wilson, J. (1989). *Christchurch - Swamp to city: A short history of the Christchurch drainage board, 1875-1989*, Te Waihora Press, Lincoln, NZ, 96p + maps.

Also, there is some older research reports by R.M. Kirk and D.M. Hicks for sediment budget information (might be reference to it in the Tonkin and Taylor reference above), and see Google Earth (using the clock icon’s time slider ruler) and, for those focussing on the Canterbury coast, see Canterbury maps for historical aerial imagery and maps: https://canterburymaps.govt.nz/.

### Academic misconduct

Every year several students fail Geography courses due to dishonest academic practices or breaches of instructions such as copying other students’ work, plagiarism, sharing individual UC computer account login details or providing false medical certificate details. As a UC Proctor, this is an area of specialisation of Deirdre so please feel free to grill her with all your questions and concerns, or for advice (concerning GEOG311 or any of your courses) – I am here to help and, at the same time, have a low tolerance for submitted work that reveals cheating in GEOG311.

Please note that in GEOG311 all assignments are processed through the plagiarism checking software programme *Turn-it-in:* <http://turnitin.com/>. This is done every year so please do not plagiarise former students’ work as this will be noticed and not appreciated. All of your assessment must be written in your own words, unless presented in quote marks with appropriate and full citations for sources.

Making a scientific poster

There are a million ways to make a good scientific research poster but this handout has some recommendations as well as the marking schedule that we will use to mark your project posters.

Start making your poster with a ***poster plan***. This involves writing a contents plan just like you would for an essay, including the topic subsections for written text, plus a list of the figures and tables you will need to illustrate your ideas. Include a title, and key references.

Next write your ***text*** in a simple file (e.g. MS Word) and divide it into chunks for cutting and pasting into your poster. Keep the words short and to the point – aim for somewhere between 800 and 1600 words, plus references (there is no word limit but you will be limited by keeping your font in an acceptably legible, large size). Communicate key insights and points – don’t write like for an essay, but rather keep it succinct, to the point, and more like an extended abstract.

Make your ***illustrations*** (plots, maps, photos) and tables in appropriate software (MS Excel, Word, Sigmaplot, Surfer, ArcGIS). All the axis and caption fonts need to be big enough to read when printed so do not be stingy on size. Make the most of your captions to communicate to your audience the key messages of each figure and table – more so than you would do if you had lots of essay paragraph text to discuss the illustrations elsewhere. Remember you still need to cite every figure and table in the poster paragraph text to alert the reader when to examine them.

Make sure to***evaluate*** how much you have, once you have made a ***first draft*** of content. Sometimes less is more – you are looking to communicate key ideas, and to back them up with figures, tables and written evidence. If you get carried away with lots of text or many small plots, then you have lost sight of or don’t realise what are the key ideas and findings of your research. Useful (evidence giving or supporting) figures and tables are very important in a poster.

Again, **less can be more** – avoid cramming, clutter and tiny fonts. Leave enough space between the content to have visual impact. Make your poster in either portrait or landscape orientation. Make sure to set the poster size of the page in PowerPoint BEFORE you input any content to save having to resize everything later. Consider using a free online poster template. Google search something like ‘scientific research poster template’ for huge a range of potential templates (and stick to free ones, such as those that use MS PowerPoint).

Keep the ***software*** side of things ***simple***. We suggest you use Microsoft PowerPoint to make your poster – simple and available. Whatever you decide, avoid too much focus on technical poster creation tasks detracting from the quality of your content. If it looks amazing but communicates nothing special content-wise, then it has failed to be a good scientific poster. Similarly, if the content is great, but hard to read or get a sense of when someone looks at the poster, then it is substandard overall. We are not looking for beauty, but rather excellent and legible/ impactful content. Consider using numbered sections so the reader can easily follow the intended flow of the poster. We will be looking for posters that have impact and flow, but most important is the quality of the content and how you get your messages across to the audience (i.e. this is not a visual art project).

Need a free peer review and some ***feedback***? Ask your classmates (but never share an electronic copy of individual assessment work with other students), friends, family, or upload your poster to this great site where you can not only peek at examples of other people’s posters but also get feedback from people on how to improve your draft poster before it is marked: <https://www.flickr.com/groups/pimpmyposter/>. <http://www.makesigns.com/tutorials/> has a series of short video clips to take you through the process of making a PowerPoint poster, and also offers their own templates – keep in mind they are working in USA units like inches – for your poster you will need to stick to units that we can print locally in New Zealand. Lastly, there are some excellent short guides online, such as: <http://guides.nyu.edu/posters>.

GEOG311 Poster Marking Schedule

Student details: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Was the poster submitted on time? YES/NO

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| --- | --- | --- | --- |
|  | Excellent,  optimal | Ok, getting there | Partly there or inadequate |
| **Poster introduction:**   * Research question and poster scope stated clearly? * Pertinent previous work/ existing literature explained clearly and relevant ideas and references cited? |  |  |  |
| **Methodology**   * Methodological approach outlined & appropriate? * Methods outlined clearly? * Limitations or scope limits understood? |  |  |  |
| **Results and discussion**   * Quality and appropriateness of tables/illustrations * Data are interpreted for reader and appropriate understanding demonstrated * Key conclusions drawn and explained * Results and conclusions related to other studies & scientific importance outlined (i.e. linked to literature) * Poster is at an appropriate academic level for a scientific poster at 300-level |  |  |  |
| **Presentation**   * Poster well organized, easy to follow * Fonts large enough (maybe 16 pt font or larger)? * Text succinct, to-the-point, no overly lengthy paragraphs * Usefully employs illustrations (tables, maps, graphs, data, photos, drawings, etc.) * Everything easy to read, no data or text overload * Poster can be understood without additional explanation |  |  |  |
| **References**   * References correct, sufficient, of quality international and local sources * In-text citations used correctly |  |  |  |

Grade and constructive feedback:

1. You will analyse selected beach profile data in Lab 2. Please see Learn if you’d like more data – do not inundate ECAN with your own profile data requests before asking Deirdre as we have an extensive set of ECan supplied data here at UC. [↑](#footnote-ref-1)
2. See Canterbury maps link here and ECAN data on Learn: https://canterburymaps.govt.nz/. [↑](#footnote-ref-2)