

ANTHRO 337 - Birth, Death, and Disease: Anthropological Demography

Semester 2, 2019

Course Outline

Convenor: Dr Heather Battles

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Office: Social Sciences Building/Te Puna Mārama 718

Office hours: By appointment

Lectures

Thursdays 12-2pm 260-057 (OGGB CaseRoom 2)

Labs

Fridays (10-11am or 11am-12pm*) in 274-130 (Fale Pasifika computer lab)

**See your individual timetable for your lab time.*

Description

Examines how human populations change over time, what factors underlie patterns of disease and death, and why demography is so important to the study of epidemics. The course will explore the use of demographic methods and theories of demographic and epidemiological transition to examine fertility, morbidity, mortality and migration from an anthropological perspective, with a particular focus on infectious disease dynamics.

Points

15.0

Prerequisites

ANTHRO 201 or 60 points in Anthropology

Course goals and outcomes

1. Understanding of the theoretical basis of demographic and epidemiological analysis in Anthropology
2. Ability to employ basic methods of demographic analysis in original research, both independently and cooperatively
3. Contribution to preservation of Auckland heritage and understanding of local demographic and cultural history

Learning assessments

<i>Assessment</i>	<i>Percentage (%) of final grade</i>
Labwork*	20 *Submission of 7 out of 10 lab outputs mandatory for passing grade in course
Assignment 1 – 500 words	15
Assignment 2 – 2,000 words	25
Midterm test (1 hour)	15
Final exam (2 hours)	25

Schedule

Week	Dates	Topic	Assessments Due
1	26 July 27 July	LECTURE: Introductions and course overview <i>NO LAB FIRST WEEK</i>	
2	1 Aug 2 Aug	LECTURE: Historical cemeteries as sources of demographic data LAB 1	Sunday 4 Aug - Lab output #1 due by 11:59pm
3	8 Aug 9 Aug	LECTURE: Archaeological demography, paleo-demography, and evolution LAB 2	Sunday 11 Aug - Lab output #2 due by 11:59pm
4	15 Aug 16 Aug	LECTURE: Demography from material culture LAB 3	Sunday 18 Aug - Lab output #3 due by 11:59pm
5	22 Aug 23 Aug	LECTURE: Fertility LAB 4	Sunday 25 Aug - Lab output #4 due by 11:59pm
6	29 Aug 30 Aug	1st hour: MIDTERM TEST 2nd hour: LECTURE: Migration LAB 5	Sunday 1 Sept - Lab output #5 due by 11:59pm
		Mid-semester study period (Monday 2 Sept. – Saturday 14 Sept. 2019)	Sunday 15 Sept – Assignment #1 due by 11:59pm
7	19 Sept 20 Sept	LECTURE: Demographic and epidemiological transition theory LAB 6	Sunday 22 Sept - Lab output #6 due by 11:59pm
8	26 Sept 27 Sept	LECTURE: Mortality by cause and the McKeown Debate LAB 7	Sunday 29 Sept - Lab output #7 due by 11:59pm
9	3 Oct 4 Oct	LECTURE: Measuring health and disease LAB 8	Sunday 6 Oct - Lab output #8 due by 11:59pm
10	10 Oct 11 Oct	LECTURE: Sex, gender and health: Sex differences in morbidity and mortality <i>No lab – open office hours</i>	Sunday 13 Oct – Assignment #2 due by 11:59pm
11	17 Oct 18 Oct	LECTURE: Ageing and longevity; Uses of demography today: planning for the future (Part 1) LAB 9	Sunday 20 Oct - Lab output #9 due by 11:59pm
12	24 Oct 25 Oct	LECTURE: Uses of demography today: planning for the future (Part 2) TBD: Presentation(s) LAB 10	Sunday 27 Oct - Lab output #10 due by 11:59pm

Labs

These labs are designed to be accomplishable within the each lab session, using the software on the lab computers (i.e., Microsoft Excel 2016, for PC). However, you have until Sunday evening after each lab to submit your lab output. Please keep in mind that some lab exercise instructions may not match other versions of Excel.

	Lab activity	Lab output	Output value
Week 1	<i>None – optional self-review for those new to Excel</i>		
Week 2	Data organization in spreadsheets	Output #1	2%
Week 3	St Stephen's data cleaning (check spreadsheet for errors and consistency)	Output #2	2%
Week 4	Age at death distributions and histograms	Output #3	2%
Week 5	Mortality pyramids	Output #4	2%
Week 6	Chi-square	Output #5	2%
Week 7	Presenting data in tables and graphs	Output #6	2%
Week 8	Selecting graph formats	Output #7	2%
Week 9	Troubleshooting for project – new or revised work	Output #8	2%
Week 10	<i>No lab – open office hours</i>		
Week 11	NZ Census data	Output #9	2%
Week 12	Infographics	Output #10	2%
			TOTAL = 20%

Topics and Readings

Readings are available through Talis

Week 1: Introduction to anthropological demography

1. Gage, Timothy B., DeWitte, Sharon N., and Wood, James W. 2012. Chapter 14: Demography Part 1: Mortality and Migration. In: *Human Biology: An Evolutionary and Biocultural Perspective*, 2nd edition. Eds. Sara Stinson, Barry Bogin, Dennis H. O'Rourke. Hoboken, NJ: John Wiley & Sons, pp. 695-755.

Week 2: Historical cemeteries as sources of demographic data

1. Sattenspiel, L. and M. Stoops. 2010. Gleaning signals about the past from cemetery data. *American Journal of Physical Anthropology* 142: 7–21.
2. Saunders, S.R., Herring, A., Sawchuk, L.A., and Boyce, G. 1995. The nineteenth-century cemetery at St. Thomas' Anglican Church, Belleville: Skeletal Remains, Parish Records and Censuses. In: *Grave Reflections: Portraying the Past through Cemetery Studies*, eds. Shelley R. Saunders and Ann Herring, Toronto: Canadian Scholars' Press, pp. 93-117.
3. Broman, Karl W. and Kara H. Woo. 2018. Data organization in spreadsheets. *The American Statistician* 72(1): 2-10. **[for lab]**

Week 3: Archaeological demography, paleo-demography, and evolution

1. Chamberlain, Andrew. 2009. Archaeological demography. *Human Biology*, 81: 275-286.
2. Madrigal, Lorena. 2003. "The use of archives in the study of microevolution: Changing demography and epidemiology in Escazu, Costa Rica". In: *Human Biologists in the Archives*, eds. D. Ann Herring and Alan C. Swedlund, Cambridge: Cambridge University Press, pp. 11-31.

Week 4: Demography from material culture

1. Cannon, Aubrey. 1995. "Material culture and burial representativeness." In: *Grave Reflections: Portraying the Past through Cemetery Studies*, eds. Shelley R. Saunders and Ann Herring, Toronto: Canadian Scholars' Press, pp. 3-15.
2. Lewis, Carenza. 2006. Disaster recovery: new archaeological evidence for the long-term impact of the 'calamitous' fourteenth century. *Antiquity*, 90: 351: 777-797.
doi:[10.15184/aqy.2016.69](https://doi.org/10.15184/aqy.2016.69)

Week 5: Fertility

1. Townsend, N. 1997. "Reproduction and demography." In: Kertzer, D. and Fricke, T. (Eds) *Anthropological Demography*. Chicago: University of Chicago Press, pp. 96-114.
2. Pool, Ian, Dharmalingham, Arunachalam, and Sceats, Janet. 2007. Chapter 3: The large family of yesteryear, trends 1840-1945. In: *The New Zealand Family from 1840: A Demographic History*. Auckland: University of Auckland Press, pp. 46-108. [available as e-book]

Week 6: Migration and urbanization

1. Friesen, Wardlow. 2012. International and internal migration dynamics in a Pacific gateway city: Asian migrants into and out of Auckland. *New Zealand Population Review*, 38: 1-22.
2. Lenihan, Rebecca. 2015. Wanderlust: the multiple migrations of New Zealand's Scots, 1840-1920. In: *Lives in Transition*. Eds. Peter Baskerville and Kris Inwood. Montreal and Kingston: McGill-Queen's University Press, pp. 71-90.
3. (review the Gage et al. reading from Week 1)

Week 7: Demographic and epidemiological transition theory

1. Omran, A.R. 1971. The epidemiologic transition: a theory of the epidemiology of population change. *The Milbank Memorial Fund Quarterly* 49(4):509-38.
2. Zuckerman et al. 2014. The evolution of disease: Anthropological perspectives on epidemiological transitions. *Global Health Action* 7:
<http://www.globalhealthaction.net/index.php/gha/article/view/23303>

[2 week study period]

Week 8: Mortality by cause and the McKeown Debate

1. Szreter, Simon. 1988. The importance of social interventions in Britain's mortality decline c. 1850-1914: a reinterpretation of the role of public health. *Social History of Medicine* 1(1):1-38.
2. Szreter, S. 2002. Rethinking McKeown: the relationship between public health and social change. *American Journal of Public Health* 92(5):722-25.
3. Colgrove, J. 2002. The McKeown controversy and its enduring influence. *American Journal of Public Health* 92(5):725-29.
4. Grundy, E. 2005. Commentary: the McKeown debate: time for burial. *International Journal of Epidemiology* 34:529-33.

Week 9: Measuring health and disease

1. Saracci, Rodolfo. 2010. Chapter 2: Measuring Health and Disease. In: *Epidemiology: A Very Short Introduction*. Oxford: Oxford University Press, pp. 12-35.
2. Howell, Nancy. 2000 [1979]. Chapter 4: The measurement of mortality. In: *Demography of the Dobe !Kung*. New York: Aldine de Gruyter, pp. 73-97.

Week 10: Sex, gender, and health: Sex differences in morbidity and mortality

1. Beltrán-Sánchez, Hiram, Caleb E. Finch, and Eileen M. Crimmins. 2015. "Twentieth century surge of excess adult male mortality." *PNAS*, 112(29): 8993-8998.
2. Johansson, S. Ryan. 1991. "Welfare, mortality, and gender. Continuity and change in explanations for male/female mortality differences over three centuries." *Continuity and Change*, 6: 135-177.

Week 11: Ageing and longevity and Part 1 of Uses of demography today: Planning for the future

1. Bolund, Elisabeth, Virpi Lummaa, Ken R. Smith, Heidi A. Hanson, and Alexei A. Malakov. 2016. "Reduced costs of reproduction in females mediate a shift from a male-biased to a female-biased lifespan in humans." *Scientific Reports*, 6: 1-9. DOI: 10.1038/srep24672
2. St John, Susan, Dale, M. Claire, and Aston, Toni. 2012. A new approach to funding the costs of New Zealand's ageing population. *New Zealand Population Review*, 38: 55-76.

Week 12: Uses of demography today: Planning for the future (Part 2)

1. Pool, Ian, Dharmalingham, Arunachalam, and Sceats, Janet. 2007. Chapter 8: The family in uncharted waters: factors of reproduction in the baby blip and beyond. In: *The New Zealand Family from 1840: A Demographic History*. Auckland: University of Auckland Press, pp. 309-345. [available as e-book]
2. Bloom, David E. 2011. 7 billion and counting. *Science*, 333(6042): 562-569.

Project

This course includes an applied project, which is a historical demographic analysis of a local cemetery: St Stephen's (Parnell, Auckland). The information you gather and analyse as part of this project will be of use to Auckland Council and to future researchers. Much of the work for this will be done in the computer lab during your lab time, but it will also require time outside of class.

	Actions	Assessment & value
Phase 1	Prepare spreadsheet and analyse data.	Part of 20% labwork mark
Phase 2	Prepare a list of 8-10 scholarly (peer-reviewed) sources, and provide 2-3 points gained from reading each that will inform interpretations for your final report. Half of these sources (4-5) should be related to use of historic cemeteries for demographic analysis, and the other half related to the demographic and social history of Auckland, especially the Anglican community associated with St Stephen's.	Annotated bibliography - 500 words (excluding references) (15%)
Phase 3	Write up final report in scientific style (abstract; intro; literature review; materials & methods; results; discussion; conclusion; references; appendices). Discuss findings in light of historical and theoretical literature.	Final report – 2,000 words plus tables/figures, references, and appendices (25%)

Assessment submission and guidelines

Unless otherwise indicated, assignments should be submitted electronically via the Canvas assignment system. If for technical reasons this is not possible, assignments should be emailed to the instructor before the deadline.

If you require an extension to a submission deadline for medical or compassionate reasons, please consult the School of Social Sciences policy on assessment extensions and concessions and speak to Dr Battles. Except in extraordinary circumstances, for the purposes of fairness, extensions will typically only be granted up to the point where feedback is returned to the class (i.e., up to one week for weekly lab assignments, up to two weeks for larger written assignments).

Late assignments without an approved extension will have their assignment mark reduced by 10% per day.

For missed assessments where an extension would be approved but is not possible (e.g. due to prolonged illness, or illness on the day of an in-class assessment), please speak to Dr Battles about options, including adding the value of the missed assessment to another equivalent assessment (e.g., the marks for the midterm test reallocated to the final exam).

Labwork is an essential part of the course and will provide the data and skills instruction necessary to complete your reports. Submission of at least 7 out of 10 lab outputs is compulsory for a passing grade in the course.

Help with academic problems

Please see your tutor or convenor if you are having problems with any aspect of the course. We are happy to see you and help you get the most out of this course.

If you need help with developing your writing skills or your ability to take effective notes, sign up with Student Learning Services located in Room 320, Level 3 in the Information Commons building. More information about their workshops and other services can be found online at www.library.auckland.ac.nz/student-learning/.

You might also wish to go to the English Language Self Access Centre (ELSAC) in the Kate Edger Information Commons building. They state that ELSAC “supports University students with all aspects of their English, offering language learning materials, computer programmes, workshops, and on-on-one language support, all free of charge and 7 days per week.”

Disabled students

Students are urged to discuss privately any impairment-related requirements face-to-face and/or in written form with the course convenor and/or tutor. Additional information for disabled students can be found at the University of Auckland Disability Services website: <http://www.disability.auckland.ac.nz>.

Plagiarism

The University of Auckland will not tolerate cheating, or assisting others to cheat, and views cheating in coursework as a serious academic offence. The work that a student submits for grading must be the student's own work, reflecting his or her learning. Where work from other sources is used, it must be properly acknowledged and referenced. This requirement also applies to sources on the world-wide web. A student's assessed work may be reviewed against electronic source material using computerised detection mechanisms.

For information on the University of Auckland's position on Academic Honesty and Plagiarism, and for specific guidelines for the Conduct of Coursework and Conduct of Research, please see: www.auckland.ac.nz/uoa/about/teaching/plagiarism/plagiarism_home.cfm