Academic Year	2017	**Semester**	2
Course Code	HH4091		
Course Title	History of Disease: Human Evolution, Disease and Health		
Pre-requisites	None		
No of AUs	4		
Classroom	LHS-TR+42		
Time	Monday, 1030-1430		

Course Aims

The aim of the course is to provide students with a general overview of the basic themes and issues in the history of diseases and medical history.

This will be done with an emphasis on global epidemic diseases—such as leprosy in the 12th century, plague in the 15th century, and cholera in the 19th century—and how these have impacted human civilisations. The course will begin with an in-depth examination of why knowing disease history is important, which stretches from the archaeological evidence of our human fossil ancestors to the end of the early 20th century and the rise of current diseases in these last few decades.

This course also focuses on the history of diseases and their evolution along with human history, beginning when certain zoonosis pathogens changed to affect human evolution. Apart from the history of diseases, the course explores how humans managed their illnesses in the past, modern medicine today, and how we seek to improve in the future. Knowing human medical history will help us know how to prepare for the future, because how we fight diseases could have unintended consequences that encourage pathogens to evolve and mutate again.

Programmme Learning Objectives:

1) Collect and synthesize large quantities of historical, anthropological and archaeological evidence.
2) Develop "historical empathy" with regards to individuals and groups in the past.
3) Prepare for the future, specifically, the consequences of the overuse of drugs and emerging diseases shaped by humans throughout history

Intended Learning Outcomes (ILO)

By the end of this course, students would be able to:

1) Understand the importance of research on human diseases and its evolution.
2) Compare and contrast the major historical, anthropological and archaeological approaches and theories.
3) Collect and synthesize large quantities of historical, anthropological and archaeological evidence.
4) Develop how to use historical, anthropological, archaeological and biological data, along with the testing of hypotheses to study human health issues.
5) Articulate compelling, evidence-based, and well-reasoned arguments in written and oral form.
6) Present critical thoughts when studying the history of diseases and on how we treat diseases today.

7) Demonstrate an understanding of how to appropriately acknowledge and build upon the work of others.

Course Content

This course explores how disease has shaped the way humans have evolved, and also how diseases have evolved to exploit humans. After considering the different techniques available to investigate health in past populations, we discuss the biological and genetic impact of disease upon natural selection. The cultural consequences of ill health will also be explored, including the social and religious interpretation of why people became ill, coping strategies by past civilizations to live with diseases significant in their societies, and attempts to heal the sick.

List of key topics taught detailed below:

1. Reasons to study health in the past and how to study health in the past
2. Disease, warfare and migration
3. Early attempts to treat disease
4. Common diseases among early and modern Austronesians in East Asia, Southeast Asia and Oceania
5. The origins of human infectious disease
6. Human parasites, allergies and evolution
7. Health in human ancestors
8. Disease in early civilizations
9. Social consequences of disease
10. The future evolution of disease

Assessment (Continuous Assessment- non examinable module):

Component		**Course LO Tested**	**Related Programme LO or Graduate Attributes**	**Weighting**	**Team/ Individual**	**Assessment Rubrics**
1. Seminar Participation		Provide critical thoughts, communicate effectively and express their understanding and thoughts of the subjects	1. Communicate effectively 2. Express their understanding and thoughts of the subjects	10%	Both individual and team	See appendix 2
2. Summative Assessment (SA): 40%	a) Individual Essay Assignment	Provide critical thoughts when studying the history of diseases and on how we treat diseases today.	Apply knowledge of history of disease to the solution of emerging disease problems.	20%	Individual	See appendix 1
	b) Group Research Project	Comprehend how to use historical, archaeological and biological data, along with the testing of hypotheses to study human health issues.	Design a project to answer a hypothesis and provide methods to achieve the aims of the project	20%	Team	See appendix 1
3. Continuous Assessment 1 (CA1): Individual Assignment -essays -		Understand the importance of research on human diseases and its evolution.	Apply knowledge of history of disease to the solution of emerging disease problems.	25%	Individual	See appendix 1
4. Continuous Assessment 2 (CA2): Team-based presentation and group research		Prepare for the future, specifically, the consequences of the overuse of drugs and emerging diseases	1. Practice speaking 2. Present skills in a guided manner and in a supportive environment. 3. Practice how to work	25%	Team	See appendix 1

	shaped by humans throughout history.	together as a team.			
Total			100%		

Learning and Teaching approach

Approach	
Lecture	The instructor will present approximately 30-60 minutes of lecture for each seminar with PowerPoint and other supportive materials such as multi-media devices.
Seminar	They are designed to encourage students to express their understanding and thoughts of the subjects.
Student activities, including team-based presentation, group research project	The instructor will assign each group small research projects for them to test hypotheses related to health issues. This part includes presentation and class participation. The activities provide opportunities for students to practice speaking and presentation skills in a guided manner and in a supportive environment. It also provides opportunities for students to practice representing ideas with high accuracy and working together as a team. The feedbacks by instructor and class peers will enhance students' skills in communication and give them understandings in critical thinking.

Course Policies and Student Responsibilities

(1) General

Students are expected to complete all assigned pre-class readings and activities, attend all seminar classes punctually, and take all scheduled assignments by due dates. Students are expected to take responsibility by following up with course notes, assignments, and course-related announcements for seminar sessions. Students are expected to participate in all seminar discussions and activities.

(2) Absenteeism

The team-based activity of this course requires students to be in class to contribute to team work. In-class activities make up a significant portion of student course grade. Absence from class without a valid reason will affect student's overall course grade. Valid reasons include falling sick supported by a medical certificate and participation in NTU's approved activities supported by an excuse letter from the relevant bodies. There will be no make-up opportunities for in-class activities. If students miss a seminar session, students must inform their team members and instructor via email (hyyeh@ntu.edu.sg) prior to the start of the class.

(3) Penalties for late submission

There will be penalties for late submission of 10% per day unless there are approved medical or other certificated reasons explaining the delay. Students must ensure that the instructor is aware of these circumstances as soon as possible. Students failing to submit an assignment will be denied their credit points for this course. In exceptional circumstances extensions may be granted for individual students, but only for students who ask BEFORE the essay submission date.

(4) Plagiarism in writing research papers

It is important that all unacknowledged materials in students' essays are their own work. The University has

strict rules relating to plagiarism that may result in disciplinary procedures. Remember that copying or using any part of another student's essay or written work also falls within the definition of plagiarism. Exact texts cited from other's works and placed in student's paper must be put within quotation marks. Otherwise, paraphrase. The sources of both quotations and paraphrasing have to be properly noted.

Academic Integrity

Good academic work depends on honesty and ethical behaviour. The quality of your work as a student relies on adhering to the principles of academic integrity and to the NTU Honour Code, a set of values shared by the whole university community. Truth, Trust and Justice are at the core of NTU's shared values.

As a student, it is important that you recognize your responsibilities in understanding and applying the principles of academic integrity in all the work you do at NTU. Not knowing what is involved in maintaining academic integrity does not excuse academic dishonesty. You need to actively equip yourself with strategies to avoid all forms of academic dishonesty, including plagiarism, academic fraud, collusion and cheating. If you are uncertain of the definitions of any of these terms, you should go to the academic integrity website for more information. Consult your instructor(s) if you need any clarification about the requirements of academic integrity in the course.

Course Instructors

Instructor	Office Location	Phone	Email
Ivy Hui-Yuan Yeh	05-27	90541179	hyyeh@ntu.edu.sg

Planned Weekly Schedule

Week	Topic	Readings/ Activities
1 (15 Jan 2018)	**Reasons to study health in the past and how to study health in the past**	Activities: lecture
2 (22 Jan 2018)	**Disease, warfare and migration**	Activities: Lecture Seminar
	Readings: Anastasiou, E., Mitchell, P.D., 2013. Human intestinal parasites from a latrine in the 12th century Frankish castle of Saranda Kolones in Cyprus. International Journal of Palaeopathology http://dx.doi.org/10.1016/j.ijpp.2013.04.003. Fan, K.-w., 2012. Schistosomiasis Control and Snail Elimination in China. American Journal of Public Health 102, 2231-2232. Fan, K., Lai, H., 2008. Mao Zedong's Fight Against Schistosomiasis. Perspectives in Biology and Medicine 51, 176-187. Lutz, R.C., 2017. Chinese Civil War. Salem Press. Gross, M. 2016. Farewell to the god of plague: Chairman Mao's campaign to deworm China. Oakland, California: University of California Press.	

	Mitchell, P.D., Anastasiou, E., Syon, D. 2011. Human intestinal parasites in crusader Acre: evidence for migration with disease in the Medieval Period. International Journal of Paleopathology 1: 132-37. Yeh, H.-Y., Prag, K., Clamer, C., Humbert, J.B., Mitchell, P.D.2015. Human intestinal parasites from a Mamluk Period cesspool in the Christian Quarter of Jerusalem: potential indicators of long distance travel in the 15th century AD. International Journal of Paleopathology 9:69-75.	
3 (29 Jan 2018)	**Early attempts to treat disease**	Activities: Lecture Seminar
	Readings: Han K, Chen X. The archaeological evidence of trepanation in early China. Bulletin of the Indo-Pacific Prehistory Association, 2007, 27:22-27. Roberts CA, Mckinley J. 2003. Review of trepanations in British antiquity focusing on funerary context to explain their occurrence. In: Arnott R, Finger S, Smith CUM, eds. Trepanation: history, discovery, theory. Swets and Zeitlinger Publishers: Lisse, 55 – 78. Roberts, C. 1986. Leprosy and leprosaria in medieval Britain. MASCA Journal 4: 15-21. Weber J, Wahl J. Neurosurgical aspects of trepanations from Neolithic times. International Journal of Osteoarchaeology, 2006, 16:536-545. DOI: 10.1002/oa.844 Arnott R, Finger S, Smith CUM. Trepanation: history, discovery, theory. Lisse: Swets and Zeitlinger Publishers, 2007 Zhang Q, Wang Q, Kong B, et al. A scientific analysis of cranial trepanation from an Early Iron Age cemetery on the ancient Silk Road in Xinjiang, China. Archaeological and Anthropological Sciences, 2017, 1-9. DOI: 10.1007/s12520-016-0461-6 Mitchell, P.D. 2015. Human parasites in medieval Europe: lifestyle, sanitation and medical treatment. Advances in Parasitology 90: 389-420. Mitchell, P.D. 2016. Improving the use of historical written sources in paleopathology. International Journal of Paleopathology doi: 10.1016/j.ijpp.2016.02.005.	
4 (5 Feb 2018)	**Common diseases among early and modern Austronesians in East Asia, Southeast Asia and Oceania (1)**	Activities: Lecture Seminar
	Readings: Lin, W.-Y., Lung, C.-C., Liu, T.-S., Jian, Z.-H., Ko, P.-C., Huang, J.-Y., … Liaw, Y.-P. 2013. The association of anthropometry indices with gout in Taiwanese men. BMC Endocrine Disorders, 13, 30. Bellwood, P., Fox, J.J. and Tryon, D.T. 2006. The Austronesians: historical and comparative perspectives. Canberra: ANU E Press, The Australian National University. Hung, H.C., Iizuka, Y., Bellwood, P., Nguyen, K.D., Bellina, B., Silapanth, P., Dizon, E., Santiago, R., Datan, I. and Manton, J.H. 2007. Ancient jades map 3,000 years of prehistoric exchange in Southeast Asia. Proceedings of the National Academy of Sciences of the United States of America 104: 19745-19750. Cox, M.P., 2005. Indonesian Mitochondrial DNA and Its Opposition to a Pleistocene Era Origin of Proto-Polynesians in Island Southeast Asia. Human Biology 77, 179-188.	

	Cox, M.P., Mirazón Lahr, M., 2006. Y-chromosome diversity is inversely associated with language affiliation in paired Austronesian- and Papuan-speaking communities from Solomon Islands. American Journal of Human Biology 18, 35-50. Oxenham, M.E. and Buckley, H.E. The Routledge handbook of bioarchaeology in Southeast Asia and the Pacific Islands. Oxenham, M.E. and Buckley, H.E. The Routledge ha Oxenham, M.E. and Buckley, H.E. The Routledge handbook of bioarchaeology in Southeast Asia and the Pacific Islands. handbook of bioarchaeology in Southeast Asia and the Pacific Islands. Bellwood, P., 1988. A hypothesis for Austronesian origins. Asian Perspectives 26, 107-117. Blench, R., 2014. The Austronesians: an agricultural revolution that failed, 2014 International Conference on Formosan Indigenous Peoples: Contemporary Perspectives., Academia Sinica, Taipei, Taiwan. Ko, Albert M.-S., Chen, C.-Y., Fu, Q., Delfin, F., Li, M., Chiu, H.-L., Stoneking, M., Ko, Y.-C., Early Austronesians: Into and Out Of Taiwan. The American Journal of Human Genetics 94, 426-436. Tryon, D., 2006. Proto-Austronesian and the Major Austronesian Subgroups, in: Bellwood, P., Fox, J.J., Tryon, D. (Eds.), The Austronesians: historical and comparative perspectives. ANU E Press, The Australian National University, Canberra.	
5 (12 Feb 2018)	**Individual Short Essay:** Refer to "3. Continuous Assessment 1 (CA1): Individual Assignment-Essays (Weighting: 25%)": **Topic:** *How might human migration have affected health in the past, and how might we detect this effect today both from archaeological excavation and from the study of living people?*	Activities: Lecture Seminar
	Common diseases among early and modern Austronesians in East Asia, Southeast Asia and Oceania (2) Readings: Bellwood, P. 1980. The peopling of the Pacific. Scientific American 243(5): 174-185. Bellwood, P. 1983. New Perspectives on Indo-Malaysian Prehistory. Bulletin of Indo-Pacific Prehistory Association 4: 71-83. Bellwood, P. 1988. A hypothesis for Austronesian origins. Asian Perspectives 26(1): 107-117. Blust, R.A. 1988. The Austronesian homeland: a linguistic perspective. Asian Perspectives 26(1): 45-67. Blust, R.A. 1999. Selected papers from the Eighth International Conference on Austronesian Linguistics. In: Zeitoun, E. and Li, P. (eds.) Symposium series of the Institute of Linguistics, Academia Sinica. Taipei, Taiwan. Bulbeck, D. 1982. A re-evaluation of possible evolutionary processes in Southeast Asia since the late Pleistocene. Bulletin of the Indo-Pacific Prehistory Association: 1-21. Chang, K.C. 1989. Taiwan archaeology in Pacific perspective. In: Chang, K. C., Li, K. C., Wolf, A. P. and Yin, A. C. C. (eds.) Anthropological studies of the Taiwan area: accomplishments and prospects. Taipei: Department of Anthropology, National Taiwan University, 87-97. Chen, Y.-F., Lee, K.-S., Cheng, H.-Y. and Hsu, M. 2007. Mitochondrial DNA Analysis of an Ancient Population in Southwestern Taiwan. Journal of Genetics and Molecular	

Biology 18(1): 18-22.
Diamond, J.M. 1988. Express train to Polynesia. Nature 336(6197): 307-308.
Diamond, J.M. 2000. Taiwan's gift to the world. Nature 403: 709-710.
Dyen, I. 1965. A Lexicostatistical Classification of the Austronesian Languages. International Journal of American Linguistics Memoir 19. Baltimore: Indiana University Publications in Anthropology and Linguistics, Waverly Press, Inc.
Green, R.C. 1991. The Lapita cultural complex: current evidence and proposed models. Bulletin of the Indo-Pacific Prehistory Association 11: 295-305.
Jacob, T. 1967. Some problems pertaining to the racial history of the Indonesian region : A study of human skeletal and dental remains from several prehistoric sites in Indonesia and Malaysia. University of Utrecht.
Ko, Albert m.-S., Chen, C.-Y., Fu, Q., Delfin, F., Li, M., Chiu, H.-L., Stoneking, M. and Ko, Y.-C. 2014. Early Austronesians: Into and Out Of Taiwan. The American Journal of Human Genetics 94(3): 426-436.
Lin, H.-M. 2009. The biological evidence of the San -Pau -Chi people and their affinities. PhD Thesis. The University of New Mexico.
Matsumura, H. and Hudson, M.J. 2005. Dental perspectives on the population history of Southeast Asia. American Journal of Physical Anthropology 127(2): 182-209.
Matsumura, H., Oxenham, M.F., Dodo, Y., Domett, K., Thuy, N.K., Cuong, N.L., Dung, N.K., Huffer, D. and Yamagata, M. 2008. Morphometric affinity of the late Neolithic human remains from Man Bac, Ninh Binh Province, Vietnam: key skeletons with which to debate the 'two layer' hypothesis. Anthropological Science 116(2): 135-148.
Meacham, W. 1984. On the Improbability of Austronesian Origins in South China. Asian Perspectives 26(1): 89-106.
Meacham, W. 1996. The Nusantao and North-south dispersals. Indo-Pacific Prehistory Association Bulletin 15: 101-107.
Melton, T., Peterson, R., Redd, A.J., Saha, N., Sofro, A.S., Martinson, J. and Stoneking, M. 1995. Polynesian genetic affinities with Southeast Asian populations as identified by mtDNA analysis. American Journal of Human Genetics 57(2): 403-414.
Oppenheimer, S.J. and Richards, M. 2001. Polynesian origins: Slow boat to Melanesia? Nature 410(6825): 166-167.
Pietrusewsky, M. 1994. Pacific-Asian Relationships: A Physical Anthropological Perspective. Oceanic Linguistics 33(2): 407-429.
Pietrusewsky, M. 1997. The people of Ban Chiang: an early bronze site in northeast Thailand. Bulletin of the Indo-Pacific Prehistory Association 16(The Chiang Mai Papers (Volume 3): 119-147.
Scott, G.R. and Turner, C.G. 2000. The anthropology of modern human teeth : dental morphology and its variation in recent human populations. Cambridge: Cambridge University Press.

6 (19 Feb 2018)	**The origins of human infectious disease**	Activities: Lecture Seminar

	Readings: Anastasiou, E., Lorentz, K.O., Stein, G.J. and Mitchell, P.D. 2014. Prehistoric schistosomiasis parasite found in the Middle East. The Lancet Infectious Diseases 14: 553-554. Diamond, G. 1997. Guns, Germs, and Steel: The Fates of Human Societies. New York : W.W. Norton & Co. Hinrichs, T.J., Barnes, L.L., 2013. Chinese medicine and healing : an illustrated history, edited by TJ Hinrichs and Linda L. Barnes. The Belknap Press of Harvard University Press, Cambridge, Mass. Loewe, M., Shaughnessy, E.L., 1999. The Cambridge history of ancient China: from the origins of civilization to 221 BC. Cambridge University Press, Cambridge. Sandinson, A.T., Tapp, E., 1998. Diseases in ancient Egypt, in: Cockburn, A., Cockbrun, E., Reyman, A.T. (Eds.), Mummies disease and ancient cultures. Cambridge University Press., Cambridge. Kiple, K.F., 1993. The Cambridge World History of Human Disease. [electronic resource]. Cambridge : Cambridge University Press, 1993. Wagner, D.M., Klunk, J., Harbeck, M., Devault, A., Waglechner, N., Sahl, J.W., Enk, J., Birdsell, D.N., Kuch, M., Lumibao, C., Poinar, D., Pearson, T., Fourment, M., Golding, B., Riehm, J.M., Earn, D.J.D., DeWitte, S., Rouillard, J.-M., Grupe, G., Wiechmann, I., Bliska, J.B., Keim, P.S., Scholz, H.C., Holmes, E.C., Poinar, H., 2014. Yersinia pestis and the plague of Justinian 541-543 AD: a genomic analysis. The Lancet Infectious Diseases 14, 319-326. Heeney, J.L., Dalgleish, A.G. and Weiss, R.A. 2006. Origins of HIV and the Evolution of Resistance to AIDS. Science 313: 462-466. Hershkovitz, I., Donoghue, H.D., Minnikin, D.E., Besra, G.S., Lee, O.Y.C., Gernaey, A.M., Galili, E., Eshed, V., Greenblatt, C.L., Lemma, E., Bar-Gal, G.K. and Spigelman, M. 2008. Detection and Molecular Characterization of 9000-Year-Old Mycobacterium tuberculosis from a Neolithic Settlement in the Eastern Mediterranean. PLoS ONE 3: e3426. Heeney, J.L., Dalgleish, A.G. and Weiss, R.A. 2006. Origins of HIV and the Evolution of Resistance to AIDS. Science 313: 462-466. Roberts, C. and Manchester, K. 2005. The Archaeology of Disease. Stroud: Sutton Publishing.	
7 (26 Feb 2018)	**Human parasites, allergies and evolution**	Activities: Lecture Seminar
	Readings: Mitchell, P.D. 2013. The origins of human parasites: exploring the evidence for endoparasitism throughout human evolution. International Journal of Paleopathology 3: 191-98. Hurtado, A.M., Hurtado, I., Sapien, R. and Hill, K. 1999. The evolutionary ecology of childhood asthma. In: Trevathan, W., Mckenna, J. and Smith, E. O. (eds.) Evolutionary medicine. Oxford: Oxford University Press, 103-134. Cox, F.E.G. 2002. History of Human Parasitology. Clinical Microbiology Reviews 15: 595-612. Yazdanbakhsh, M., Kremsner, P.G. and Van Ree, R. 2002. Allergy, Parasites, and the Hygiene Hypothesis. Science 296: 490-494.	

	Ziegelbauer, K., Speich, B., Mäusezahl, D., Bos, R., Keiser, J. and Utzinger, J. 2012. Effect of sanitation on soil-transmitted helminth infection: systematic review and meta-analysis. PLoS Medicine 9: e1001162. Sereda, M.J., Hartmann, S. and Lucius, R. 2008. Helminths and allergy: the example of tropomyosin. Trends in Parasitology 24: 272-278. Perry, G.H. 2014. Parasites and human evolution. Evolutionary Anthropology: Issues, News, and Reviews 23: 218-228. Gupta, R., Sheikh, A., Strachan, D. and Anderson, H.R. 2003. Increasing hospital admissions for systemic allergic disorders in England: analysis of national admissions data. BMJ 327: 1142-1143. Muehlenbein, M.P. (ed.) 2010. Human Evolutionary Biology, Cambridge: Cambridge University Press. Montenegro, A., Araujo, A., Eby, M., Ferreira, L.F., Hetherington, R. and Weaver, J.A. 2006. Parasites, paleoclimate, and the peopling of the Americas. Current Anthropology 47: 193-200.	
	Discussion time for team work: Refer to ''4. Continuous Assessment 2 (CA2): Team-based presentation and group research (Weighting: 25%)'' **Group Research Topics:** *(1)'' leprosy in China and its history (including prehistory)''* *(2) ''leprosy in Europe and its history (including prehistory)''* *(3) ''Smallpox in Europe and its history (including prehistory) ''* *(4) ''Smallpox in Americas and its history (including prehistory)''*	
5 March 2017	Recess week	
8 (12 Mar 2018)	**Health in human ancestors**	Activities: Lecture Seminar
	Readings: Ashley, G.M., Martínez- vila, M.D.S., Barba, R., Gidna, A., Yravedra, J. and Arriaza, C. 2012. Earliest Porotic Hyperostosis on a 1.5-Million-Year-Old Hominin, Olduvai Gorge, Tanzania. PLoS ONE 7: e46414. Leles, D., Reinhard, K., Fugassa, M., Ferreira, L.F., Iniguez, A.M. and Araujo, A. 2010. A parasitological paradox: why is ascarid infection so rare in the prehistoric Americas? Journal of Archaeological Science 37: 1510-1520. Le Bailly, M. and Bouchet, F. 2013. Diphyllobothrium in the past: Review and new records. International Journal of Paleopathology 3: 182-187. Lalueza-Fox, C., Römpler, H., Caramelli, D., Stäubert, C., Catalano, G., Hughes, D., Rohland, N., Pilli, E., Longo, L., Condemi, S., De La Rasilla, M., Fortea, J., Rosas, A., Stoneking, M., Schöneberg, T., Bertranpetit, J. and Hofreiter, M. 2007. A Melanocortin 1 Receptor Allele Suggests Varying Pigmentation Among Neanderthals. Science 318: 1453-1455. Domínguez-Rodrigo, M., Pickering, T.R., Diez-Martín, F., Mabulla, A., Musiba, C., Trancho, G., Baquedano, E., Bunn, H.T., Barboni, D., Santonja, M., Uribelarrea, D., Ashley, G.M.,	

	Martínez- vila, M.D.S., Barba, R., Gidna, A., Yravedra, J. and Arriaza, C. 2012. Earliest Porotic Hyperostosis on a 1.5-Million-Year-Old Hominin, Olduvai Gorge, Tanzania. *PLoS ONE* 7: e46414. Holt, B.M., Fornaciari, G. and Formicola, V. 2002. Bone remodelling following a lower leg fracture in the 11,000-year-old hunter-gatherer from Vado all' Arancio (Italy). International Journal of Osteoarchaeology 12: 402-406. Kappelman, J., Alçiçek, M.C., Kazancı, N., Schultz, M., zkul, M. and Şen, Ş. 2008. First Homo erectus from Turkey and implications for migrations into temperate Eurasia. American Journal of Physical Anthropology 135: 110-116. Desilva, J.M. and Papakyrikos, A. 2011. A case of valgus ankle in an early Pleistocene hominin. *International Journal of Osteoarchaeology* 21: 732-742.	
9 (19 Mar 2018)	**Disease in early civilizations**	Activities: Lecture Seminar
	Anastasiou, E., Lorentz, K.O., Stein, G.J. and Mitchell, P.D. 2014. Prehistoric schistosomiasis parasite found in the Middle East. The Lancet Infectious Diseases 14: 553-554. Demaitre, L.E. 2007. Leprosy in premodern medicine: a malady of the whole body. Baltimore, Md. ;London: Johns Hopkins University Press. Geller, M.J. 2010. Ancient Babylonian medicine : theory and practice. Chichester, West Sussex, U.K. ;Malden, MA: Wiley-Blackwell. Leles, D., Reinhard, K., Fugassa, M., Ferreira, L.F., Iniguez, A.M. and Araujo, A. 2010. A parasitological paradox: why is ascarid infection so rare in the prehistoric Americas? Journal of Archaeological Science 37: 1510-1520. Yeh, H.-Y., Mitchell, P.D. 2016. Ancient human parasites in ethnic Chinese populations. Korean Journal of Parasitology 54(5): 565-72. Yeh, H.-Y., Pluskowski, A., Kalējs, U., Mitchell, P.D. 2014. Intestinal parasites in a mid-14th century latrine from Riga, Latvia: fish tapeworm and the consumption of uncooked fish in the medieval eastern Baltic region. Journal of Archaeological Science 49: 83-89.	
10 (26 Mar 2018)	**Social consequences of disease (Public Health)**	Activities: Lecture Seminar
	Readings: Armelagos, G.J., Brown, P.J. and Turner, B. 2005. Evolutionary, historical and political economic perspectives on health and disease. Social Science and Medicine 61: 755-765. Hanson, M. 2010. "Conceptual Blind Spots, Media Blindfolds: The Case of SARS and Traditional Chinese Medicine" in Angela Ki Che Leung and Charlotte Furth (eds.) Health and Hygiene in Chinese East Asia: Policies and Publics in the Long Twentieth Century. Durham, NC: Duke University Press. Fang, X. 2013 "The Global Cholera Pandemic Reaches Chinese Villages: Population Mobility, Political Control, and Economic Incentives in Epidemic Prevention, 1962-1964,"	

	Modern Asian Studies.	
	Discussion time for group work: Refer to "2. Summative Assessment (SA): (b)Group Research Projects (weighing: 20%): *(1) "Different diseases among the ethnic cultural groups and immigrants in Singapore from 19th century to today"* *(2) "The history of Zika and Malaria and their controls in Singapore"* *(3) "Allergy, haze and their correlation in Singapore"* *(4) "Street of the Dead: A History of Sago Lane"*	
11 (2 April 2018)	**The future evolution of disease**	Activities: Lecture Seminar
	Readings: Eaton, S.B., Strassman, B.I., Nesse, R.M., Neel, J.V., Ewald, P.W., Williams, G.C., Weder, A.B., Eaton Iii, S.B., Lindeberg, S., Konner, M.J., Mysterud, I. and Cordain, L. 2002. Evolutionary Health Promotion. Preventive Medicine 34: 109-118. Dobson, A. P. & Carper, E. R. Infectious diseases and human population history. Bioscience 46, 115–126 (1996). Diamond, J. & Panosian, C. in When Disease Makes History: Epidemics and Great Historical Turning Points (ed. Hämäläinen, P.) 17–44 (Helsinki Univ. Press, 2006) Wolfe, N.D., Dunavan, C.P. and Diamond, J. 2007. Origins of major human infectious diseases. Nature 447: 279-283. Spellberg, B., Bartlett , J.G. and Gilbert , D.N. 2013. The Future of Antibiotics and Resistance. New England Journal of Medicine 368: 299-302. McNeill, W. H. Plagues and Peoples (Anchor, Garden City, 1976) Lopez, A. D., Mathers, C. D., Ezzati, N., Jamison, D. T. & Murray, C. J. L. (eds) Global Burden of Disease and Risk Factors (Oxford Univ. Press, New York, 2006)	
12 (9 April 2018)	**Team-based Project Research Presentation according to the discussion in Week 10.**	
13 (16 April 2018)	**Final Paper/ individual Essay:** Refer to "2. Summative Assessment (SA): (a) Individual Essay Assignment (weighting: 20%)":	Activities: Lecture Seminar
	Readings: McNeill, J. R. in When Disease Makes History: Epidemics and Great Historical Turning Points (ed. Hämäläinen, P.) 81–111 (Helsinki Univ. Press, Helsinki, 2006) Morens, D. M., Folkers, G. K. & Fauci, A. S. The challenge of emerging and re-emerging infectious diseases. Nature 430, 242–249 (2004) Wolfe, N. D. et al. Naturally acquired simian retrovirus infections in central African hunters. Lancet 363, 932–937 (2004) Xiaoping Fang, Barefoot Doctors and Western Medicine in China, Rochester, NY: University of Rochester Press, 2012	

	Yip, K.-c., 2009. Disease, Colonialism, and the State Malaria in Modern East Asian History. Hong Kong University Press.	
17 April 2018	Revision and Examination	

Articles and Books Relevant to the Course

Anastasiou, E., Lorentz, K.O., Stein, G.J. and Mitchell, P.D. 2014. Prehistoric schistosomiasis parasite found in the Middle East. *The Lancet Infectious Diseases* 14: 553-554.

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