MHIS215

Problems in Big History

S2 External 2019

Dept of Modern History, Politics & International Relations

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Disclaimer

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General Information

Unit convenor and teaching staff
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Credit points
3

Prerequisites
MHIS115

Corequisites

Co-badged status

Unit description
This unit will go deeper into the Universe, delving further into the grand narrative outlined in MHIS115, to look at some of the long term trends that unite all academic disciplines and all 13.8 billion years of history. From some of the most puzzling questions relating to the birth and death of the Universe, to the mysterious omnipresence of random variation and non-random selection in Universal Darwinism, to the evolutionary wiring that influences so much of history and the human character, we will be diving deeper into realms that forge together diverse beds of knowledge. From a high enough vantage point, all phenomena seem to have overlapping connections that extend back billions of years. We will explore to what extent these patterns drive micro-historical events, from rebellions to the rise and fall of empires, and, above all, chart what drives the furious rise of complexity from the first atoms to the lights of human civilization. We shall close with a look at human prospects in the 21st century and what the rise of complexity could look like if it continued unabated to the death of the Universe. The course will be a mixture of history, science, and philosophy. But only prior experience in MHIS115 is required. Classes will be small weekly seminars. Assessments will all be essays including a final research project on a Big History topic of your choice.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at https://www.mq.edu.au/study/calendar-of-dates

Learning Outcomes

On successful completion of this unit, you will be able to:

Interdisciplinary thinking

Critical analysis

Research skills

Devising new research agendas

Writing accessible & engaging histories

General Assessment Information

Submit your assessments on Turnitin via iLearn.

Late submission penalty

Unless a Special Consideration request has been submitted and approved, (a) a penalty for lateness will apply - two (2) marks out of 100 will be deducted per day for assignments submitted after the due date - and (b) no assignment will be accepted more than seven (7) days (including weekends) after the original submission deadline. No late submissions will be accepted for timed assessments – e.g. quizzes, online tests.

Assessment Tasks

Name	Weighting	Hurdle	Due
"Little" Big History	20%	No	23/08/2019
Complexity Literature Review	25%	No	04/10/2019
Research Essay	40%	No	15/11/2019
Attendance & Participation	15%	No	All session

"Little" Big History

Due: **23/08/2019**
Weighting: **20%**

A short history of any object, person, animal, or concept of the student's choice over 13.8 billion years from the Big Bang to modern day. Learn to draw connections between epochs and major disciplines and reinforce your grasp of the grand narrative. Learn to write histories cogently, concisely, and in a style that is engaging to read. 1000 word maximum, worth 20%, due 11:59pm Friday W4.

On successful completion you will be able to:

- Interdisciplinary thinking
- Critical analysis
- Research skills
- Writing accessible & engaging histories

Complexity Literature Review

Due: **04/10/2019**
Weighting: **25%**

Compare two course readings on how complexity can be defined and measured. Are nodes and building blocks more reliable, or are flows of energy? What are the flaws and strengths of each approach? Identify the key components of complexity and what establishes one structure or system as "more complex" than another. 1000 word maximum, worth 25%, due 11:59pm Friday W8.

On successful completion you will be able to:

- Interdisciplinary thinking
- Critical analysis
- Research skills

Research Essay

Due: **15/11/2019**
Weighting: **40%**

Identify and explore a major research agenda in Big History, i.e. an interdisciplinary topic that examines broad trends. The topic is of your choice, can be the exploration of an entirely new research agenda, or the expansion of an existing one. Essays must be well sourced and well written. 2500 word *minimum*, worth 40%, due 11:59pm Friday November 15th.

On successful completion you will be able to:

- Interdisciplinary thinking
- Critical analysis
- Research skills
- Devising new research agendas
- Writing accessible & engaging histories

Attendance & Participation

Due: **All session**
Weighting: **15%**

Internal students must not miss three or more classes without medical certificate or another valid means of excuse, or will forfeit the 15%. Levels of participation (regular, middling, rare) will be evaluated according to a rubric provided on iLearn. External students will be asked to make a posting on the weekly topic, followed by at least one response to their peers. Postings will be marked according to quality, engagement, and regularity.

On successful completion you will be able to:

- Interdisciplinary thinking
- Critical analysis
- Research skills
- Devising new research agendas

Delivery and Resources

SESSIONS:

Internally, the course will be taught in 2 hour weekly discussion seminars. The current timetable has slated these seminars on Tuesdays, 10am-12pm in 14 Eastern Road, Tutorial Room 188. Externally, the course will be taught entirely online.

TEXTS:

David Christian, Cynthia Stokes Brown and Craig Benjamin, *Big History: Between Nothing and Everything,* New York: McGraw-Hill Education, 2014. The basic text from MHIS115.

Optional text:

David Christian, *Maps of Time: An Introduction to Big History (Berkeley,* CA: University of California Press, 2004). More expansive than basic text with very useful bibliography.

Where to Get Texts: Required and Optional texts will be available for purchase at the Co-Op bookstore on campus. External students can also contact the Co-Op via phone at (02) 8986 4000, fax at (02) 8986 4099 and the internet at http://www.coop-bookshop.com.au and arrange for texts to be sent to them.

In all, you have 3 options for purchasing '*Big History: Between Nothing & Everything'.* Please read the options carefully before choosing which to purchase!

1. PRINTED TEXTBOOK

RRP **$87.95 AUD**. ISBN 9780073385617. Purchase from the Co-op Bookshop:

http://www.coop.com.au/bookshop/show/big-history-between-nothing-and-everything-christian-benjamin-brown/9780073385617/

2. SMARTBOOK

An adaptive online eBook. SmartBook facilitates the reading process by identifying what you know and don't know. As you read, the material continuously adapts to ensure you are focused on the content you need most to close specific knowledge gaps. Learn more about SmartBook here:

$47.95 AUD. 1 year access. Purchase from McGraw-Hill Education at:

http://www.mheducation.com.au/9781259324604-aus-smartbook-online-access-for-big-history/

3. EBOOK

A downloadable eBook. Allows you to search, highlight and add notes.

$46 USD. (*This transaction will likely be converted back to AUD by your bank and this will be at the currency rate of the day.*) Purchase from McGraw-Hill Education at:

https://create.mheducation.com/shop/#/catalog/details/?isbn=9781121743687

You will need to download the VitalSource bookshelf. Please read separate eBook download instructions before purchasing

If you have any queries regarding these options, please visit https://www.mheducation.com.au/contact-us to contact McGraw-Hill Education.

SUPPORT: If you need any technical support when buying or using SmartBook or the eBook please take a screenshot of the issue and visit http://mpss.mhhe.com/contact.php to contact McGraw-Hill's Customer Experience Group.

Unit Schedule

Unit Schedule

MHIS215 PROBLEMS IN BIG HISTORY: WEEKLY SEMINAR TOPICS

Week	Seminar Topics	Assessment Deadlines
W1	**THE UNIVERSE:** Why did the Big Bang happen? - Leading theories, hypotheses, and the evidence for them. What role do the Laws of Thermodynamics play in Big History? - The impact of the 1st and 2nd law at all stages of the narrative.	
W2	**THE UNIVERSE, pt.II:** What does the Heat Death of the Universe tell us about complexity? - Scientific, historical, and philosophical reflections. What are the prospects for human complexity in the Deep Future? - The Kardashev scale and methods of foresight.	
W3	**UNIVERSAL DARWINISM:** Does the Darwinian algorithm manifest itself outside of biology? - Chems, Genes, and Memes. How can different forms of the algorithm be measured? - Reality vs. Metaphor.	
W4	**HOW TO "SCIENCE":** How do the natural and social sciences represent the world accurately? In what ways do they fail? - The trials and tribulations of truth. In what ways do our worldviews impede our interpretation of Big History? - Scientism, Eurocentricism, Anthropocentrism, and the Postmodern Mess.	Little Big History Due Friday 11:59pm

W5	**COMPLEXITY:** How is complexity defined and how is it measured? - Building blocks, Energy Densities, and "Information". What makes one structure or system more complex than another? - The inanimate, animate, and cultural.	
W6	**THE GREAT COMPLEXITY DEBATE:** Three teams: two declared positions, one impartial. What is the more effective way of measuring complexity? What are the implications for what we regard as more or less complex? Where does this place human cultural complexity?	
W7	**EVOLUTION & CULTURE:** When and why did our ancestors evolve collective learning? What were the anatomical and environmental factors that enabled it? - Primates, Cavemen, and Connoisseurs. What other species outside of primates give signs of having collective learning, or at the very least elements of it? Why would they have evolved those traits? - Questioning the division between "man and beast".	
	SESSION 2 RECESS	
	SESSION 2 RECESS	
W8	**NATURE AND NURTURE:** What are the roles of biological and cultural evolution in the formation of human society? - Foraging, Agrarian, and Modern. In what way do nature and nurture overlap, and in what way are they separate? - Power, hierarchy, gender, class, and human nature.	Lit Review Due Friday 11:59pm
W9	**THE GREAT NATURE/NURTURE DEBATE:** Three teams: two declared positions, one impartial. Was hunter-gatherer life one of "affluent foragers" or "nasty, brutish, and short"? Where is there continuity with agrarian and modern society, and where is there discontinuity?	
W10	**CLIODYNAMICS:** How do macro-historical trends impact micro-historical events? - Demography, ecology, collective learning, and sociopolitical instability. How do we prove broad trends in human history and what are some examples? - Looking for patterns in hyper-complex systems.	
W11	**SCENARIOS FOR THE ANTHROPOCENE:** What are the most likely problems and possibilities facing us in the next one to two centuries? - Techno-Utopias, Green-Utopias, Creative Descent, and Collapse. What potential solutions are there to the problems threatening human complexity? - Forecasting problems and solutions.	

W12	**RESEARCH ESSAY WORKSHOP:** A chance to float your research questions, hypotheses, and give and receive constructive critiques from your peers.	
W13	**THE FUTURE OF BIG HISTORY RESEARCH:** A critical discussion of the prospects of Big History as an evolving research discipline, both in historical studies and as an interdisciplinary field.	
		Research Papers Due Friday, November 15th 11:59pm

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- Academic Appeals Policy
- Academic Integrity Policy
- Academic Progression Policy
- Assessment Policy
- Fitness to Practice Procedure
- Grade Appeal Policy
- Complaint Management Procedure for Students and Members of the Public
- Special Consideration Policy *(**Note:** The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.)*

Undergraduate students seeking more policy resources can visit the Student Policy Gateway (https://students.mq.edu.au/support/study/student-policy-gateway). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/study/getting-started/student-conduct

Results

Results published on platform other than eStudent, (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in eStudent. For more information visit ask.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Student Support

Macquarie University provides a range of support services for students. For details, visit http://students.mq.edu.au/support/

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to improve your marks and take control of your study.

- Workshops
- StudyWise
- Academic Integrity Module for Students
- Ask a Learning Adviser

Student Services and Support

Students with a disability are encouraged to contact the Disability Service who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

If you are a Global MBA student contact globalmba.support@mq.edu.au

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the Acceptable Use of IT Resources Policy. The policy applies to all who connect to the MQ network including students.

Graduate Capabilities

Creative and Innovative

Our graduates will also be capable of creative thinking and of creating knowledge. They will be imaginative and open to experience and capable of innovation at work and in the community. We want them to be engaged in applying their critical, creative thinking.

This graduate capability is supported by:

Learning outcomes

- Interdisciplinary thinking
- Critical analysis
- Research skills
- Devising new research agendas
- Writing accessible & engaging histories

Assessment tasks

- "Little" Big History
- Complexity Literature Review
- Research Essay

Capable of Professional and Personal Judgement and Initiative

We want our graduates to have emotional intelligence and sound interpersonal skills and to demonstrate discernment and common sense in their professional and personal judgement. They will exercise initiative as needed. They will be capable of risk assessment, and be able to handle ambiguity and complexity, enabling them to be adaptable in diverse and changing environments.

This graduate capability is supported by:

Learning outcomes

- Critical analysis
- Research skills
- Devising new research agendas
- Writing accessible & engaging histories

Assessment tasks

- "Little" Big History
- Complexity Literature Review
- Research Essay
- Attendance & Participation

Commitment to Continuous Learning

Our graduates will have enquiring minds and a literate curiosity which will lead them to pursue knowledge for its own sake. They will continue to pursue learning in their careers and as they participate in the world. They will be capable of reflecting on their experiences and relationships with others and the environment, learning from them, and growing - personally, professionally and socially.

This graduate capability is supported by:

Learning outcomes

- Interdisciplinary thinking
- Research skills
- Devising new research agendas
- Writing accessible & engaging histories

Assessment tasks

- "Little" Big History
- Complexity Literature Review
- Research Essay

Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

Learning outcomes

- Interdisciplinary thinking
- Critical analysis
- Research skills
- Devising new research agendas

Assessment tasks

- "Little" Big History
- Complexity Literature Review
- Research Essay

Critical, Analytical and Integrative Thinking

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

Learning outcomes

- Interdisciplinary thinking
- Critical analysis
- Research skills
- Devising new research agendas
- Writing accessible & engaging histories

Assessment tasks

- "Little" Big History
- Complexity Literature Review
- Research Essay

Problem Solving and Research Capability

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

Learning outcomes

- Interdisciplinary thinking
- Critical analysis
- Research skills
- Devising new research agendas

Assessment tasks

- "Little" Big History
- Complexity Literature Review
- Research Essay

Effective Communication

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:

Learning outcomes

- Devising new research agendas
- Writing accessible & engaging histories

Assessment tasks

- "Little" Big History
- Research Essay
- Attendance & Participation

Engaged and Ethical Local and Global citizens

As local citizens our graduates will be aware of indigenous perspectives and of the nation's historical context. They will be engaged with the challenges of contemporary society and with knowledge and ideas. We want our graduates to have respect for diversity, to be open-minded, sensitive to others and inclusive, and to be open to other cultures and perspectives: they should have a level of cultural literacy. Our graduates should be aware of disadvantage and social justice, and be willing to participate to help create a wiser and better society.

This graduate capability is supported by:

Learning outcomes

- Interdisciplinary thinking
- Writing accessible & engaging histories

Assessment tasks

- "Little" Big History
- Complexity Literature Review
- Research Essay
- Attendance & Participation

Socially and Environmentally Active and Responsible

We want our graduates to be aware of and have respect for self and others; to be able to work with others as a leader and a team player; to have a sense of connectedness with others and country; and to have a sense of mutual obligation. Our graduates should be informed and active participants in moving society towards sustainability.

This graduate capability is supported by:

Learning outcomes

- Interdisciplinary thinking
- Writing accessible & engaging histories

Assessment tasks

- "Little" Big History
- Complexity Literature Review
- Research Essay
- Attendance & Participation