

HPSC0139: History of Science 2

Course Syllabus

2024-2025 session | Simon Werrett | s.werrett@ucl.ac.uk

This course offers an in-depth exploration of current concerns and issues in the history of science. The course introduces students to recent work in the field through an investigation of a wide range of global locations and topics, which might come from any period between antiquity and the recent past. Indicative topics may include, for example, postcolonial approaches to the history of science; Islamic medicine; scientific instruments and material culture; historical anthropology and archaeology of science; relations of science and art; science and religion; and relations of science and the environment. Specific topics may change each year. Assessment is by two 1500 word essays.

Global Histories of Science

The theme for 2024-25 is “Global Histories of Science”. What does the history of science look like beyond Europe? This module explores different forms and approaches to natural knowledge in a variety of periods and global contexts. We examine e.g. hunting in pre-colonial Zimbabwe; medicine in the medieval Islamic hospital; practical knowledge in seventeenth-century Ottoman Istanbul; the changing nature of South American science in the early modern period; and Russian voyages of exploration in the nineteenth century. The course uses different histories to offer fresh perspectives on what we understand by ‘science’ and ‘technology’ and examines different models of how scientific knowledge is made and circulates around the world.

Course Information

Basic course information

Assessment:	2 x 1500-word essays; 50% each
Timetable:	Go to the common timetable: www.ucl.ac.uk/sts/hpsc
Prerequisites:	No prerequisites
Required texts:	None
Course tutor(s):	Simon Werrett
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Course PGTA(s):	Jonathan Dickinson
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Office location:	1 st floor, 22 Gordon Square
Office hours:	By appointment (please email).

Schedule

UCL Week	Topics	Date
20	Introduction: What is a Global History of Science?	01/13
21	The Professoriate of the Hunt in Zimbabwe	01/20
22	Bimaristan: The Medieval Islamic Hospital	01/27
23	Essay Guidance session	02/03
24	Kunstkammer: European Cabinets of Curiosities	02/10
25	READING WEEK: No classes	02/17
26	Practical Naturalism in Seventeenth-Century Istanbul	02/24
27	Power and Performance: The First Russian Circumnavigation	03/03
28	Sleeping Reason: Hummingbirds in Enlightened Mexico	03/10
29	Crossing Boundaries: The East India Company in Calcutta	03/17
30	Yokai: The World of Japanese Spirits	03/24

Assessments

Summary

	Description	Deadline	Word limit	Feedback returned by
Essay 1	50% of final mark	February 14, 2025, 17.00pm	1500 words	March 14
Essay 2	50% of final mark	April 22, 2025, 17.00pm	1500 words	May 20

ASSESSMENT: ESSAY 1

Write a critical analysis of **one** of the **essential readings** from weeks 1 to 5. This should take the form of an essay of approximately 1500 words. Essays less than 1450 words may lose marks for failing to use the wordcount to develop the argument. Essays longer than 1550 words will receive a 10% reduction for every 100 words over the limit.

What do you need to do? People often think that history books give us “the facts” – unassailable information about the past. But historical texts are a *representation* of events that inevitably include

some things and leave out others. A critical analysis of a text will identify the arguments being made by an author and consider their merits. Questions to be explored may include:

- (Briefly) Who is the author of this text?
- What is the geographical and temporal scope of this text?
- What is the topic of the text?/what themes does it explore?
- What sections does it have? What does each section argue?
- What is the author's overall argument?
- Do you think the author is successful in making their argument?/have they presented a convincing case?
- What evidence does the author use to support their claims? (source material, evidence, examples?) Is the evidence sufficient to establish the argument?
- What have other authors on the syllabus said about this topic? What are the possible contrary arguments?
- Is there anything which the author has overlooked? (missing evidence, not considering someone else's point of view, etc)
- What avenues are there for further research?

The goal of this assessment is to see how well you can make a critical assessment using the syllabus texts. Criticism can be positive or negative – it doesn't just mean attacking the author's arguments. Essays that are mainly descriptive will score much lower than those offering substantive critique. When answering, avoid speculation – a speculative answer is one that does not have any evidence to support it. Answers should always be based on evidence – what you can infer from the text directly, or from reading about the text in secondary sources. You should point to a passage in the text that supports your interpretations, and use brief quotations to support your points.

Please read the STS Student Handbook for advice on late penalties. **Essays should only make use of the assigned syllabus literature.** The goal of the assessment is in part to see how well you can make use of arguments and information from specific texts to build a critique.

ASSESSMENT: ESSAY 2

You are required to write an essay of approximately and no more than 1500 words. This should be another critical analysis of an essential reading, this time from weeks 6 to 10 of the module. The same terms apply to this essay as the essay in assessment 1.

Criteria for assessment

The departmental marking guidelines for individual items of assessment can be found in the STS Student Handbook. In addition to the criteria indicated in the STS Student Handbook, the following are the main criteria on which your research essay will be marked. There are no set numbers/ percentages associated with these criteria but we will give you qualitative feedback based on them.

Referencing

A well-referenced essay makes it clear to the reader where all the information in the essay comes from. You must reference all quotations. Keep your style of referencing consistent. Refer to individual page numbers, not just whole texts, whenever possible.

Plagiarism

Make sure you are clear what plagiarism means and do not plagiarize in the essay. Any information that is not properly referenced counts as plagiarism.

Bibliography

Include at the end a bibliography of all works referenced. You must supply author, title, date, place of publication and publisher. Essays should only make use of the readings given in the syllabus.

Organisation

Is the essay organized into an introduction, main body and conclusion? Does each part flow naturally into the next one? Is the evidence in a logical order?

Introduction

You should give an introduction to your essay in no more than one or two paragraphs. Introduce your topic and your line of argument, no more. Good introductions are concise.

Clarity

We place great emphasis on clarity of argument and expression. Avoid ambiguity and vagueness. Explain terms and events whose meaning might not be obvious. Do not assume your reader already knows what you are talking about. Try to keep your line of argument clear. Accurate spelling, grammar, and punctuation improve clarity.

Argumentation

Is the main argument of the essay clear, coherent and persuasive? Is it properly supported by the evidence available?

Conclusion

Your essay should have a conclusion which is clearly marked as such (new paragraph, 'In conclusion...'). It should sum up what you have argued and may explore the implications of your claim.

Reading/ use of sources

How well have readings and other resources been used? Does the essay reflect them accurately? Is the essay overly dependent on one source?

Independent critique?

Does the essay offer some independent critique or thought on the question or does it merely report what is in the literature?

Historiography?

How aware is the essay of assumptions and methods used to construct a history or to evaluate it? Does the essay discuss what historians have said about the topic and offer some critique of them?

Acknowledging Use/ Non-Use of AI/ Chat GPT

Please read UCL's guidance on using AI at this link: <https://www.ucl.ac.uk/students/exams-and-assessments/assessment-success-guide/engaging-ai-your-education-and-assessment>

This module is category 2: AI tools can be used in an assistive role

Students are permitted to use AI tools for specific defined processes within the assessment.

Students can leverage AI for tasks such as data analysis, pattern recognition, or generating insights.

Examples of where AI might be used in an assistive category include:

- drafting and structure content;
- supporting the writing process in a limited manner;
- as a support tutor;
- supporting a particular process such as testing code or translating content;
- giving feedback on content, or proofreading content.

You are **not** permitted to use AI simply to generate the content that you submit. This amounts to academic misconduct and may carry a serious penalty including expulsion from the university. You may use AI as a tool in the manner above. You **MUST** acknowledge either **use or non-use of AI** at the end of the essay. If you used AI, include the following:

- Name and version of the generative AI system used; e.g. ChatGPT-3.5
- Publisher (company that made the AI system); e.g. OpenAI
- URL of the AI system.
- Brief description (single sentence) of how the tool was used.

For example:

I acknowledge the use of ChatGPT 3.5 (Open AI, <https://chat.openai.com>) to summarise my initial notes and to proofread my final draft.

If you have not used AI, you must state:

I have not made use of any AI system to generate the content of this essay. The writing and arguments are all my own and where I have used others' work this has been acknowledged with references.

Aim of the course

The aim of the course is to offer an introduction to thinking about the global history of science in a variety of times and places, but with a focus on the early modern period (16th to 18th centuries). Students should gain a sense of different approaches, uses, and understandings of nature in different places around the world, and be able to reflect on the ways historians have come to appreciate and make sense of global histories of science in recent years.

Objectives of the course

By the end of the course, it is hoped that you will have acquired :

*an understanding of different approaches to the making and use of natural knowledge in a variety of global contexts.

* an in-depth knowledge of elements of this history, demonstrated in essay assessments.

* key essay writing skills; the ability to select the most important facts, to marshal those in argument and an awareness of the strengths and weaknesses of that argument.

* historiographical skills; an awareness of anachronism and the methods of writing the history of science.

Schedule of Classes.

January 13. Introduction: What is a Global History of Science?

Essential

Clapperton Mavhunga, "Introduction," to Clapperton Mavhunga, (ed.), *What Do Science, Technology, and Innovation Mean from Africa?* (Cambridge, MA: The MIT Press, 2017), 1-29.

Optional

Sujit Sivasundaram, "Sciences and the Global: On Methods, Questions, and Theory," *Isis* 101, no. 1 (2010): 146-58.

Kapil Raj, "Beyond Postcolonialism... and Postpositivism: Circulation and the Global History of Science," *Isis* 104, no. 2 (2013): 337-47.

Fa-ti Fan, "The Global Turn in the History of Science," *East Asian Science, Technology and Society: An International Journal* 6 (2012): 249–58.

Rohan Deb Roy, 'Decolonize Science: Time to End Another Imperial Era', <http://theconversation.com/decolonise-science-time-to-end-another-imperial-era-89189>

Manning, Patrick. "Introduction: Building Global Perspectives in History of Science: The Era from 1750 to 1850." *Global Scientific Practice in an Age of Revolutions, 1750-1850*, edited by Patrick Manning and Daniel Rood (University of Pittsburgh Press, 2016), pp. 1–18.

Projit Mukharji, "Cultures of Fear, Technonationalism and the Postcolonial Responsibilities of STS," *East Asian Science, Technology and Society: An International Journal* 6 (2012): 267–74. (Project Muse)

Lissa Roberts (ed.), "Situating Science in Global History: Local Exchanges and Networks of Circulation," *Itinerario* 33 (2009): 9-30.

J. B. Shank, "After the Scientific Revolution: Thinking Globally about the Histories of the Modern Sciences," *Journal of Early Modern History* 21 (2017): 377-393.

January 20. The Professoriate of the Hunt in ZimbabweEssential

Clapperton Chakanetsa Mavhunga, *Transient Workspaces: Technologies of Everyday Innovation in Zimbabwe* (Cambridge, MA: MIT Press, 2014), Introduction and chapter 2 “The Professoriate of the Hunt.”

Optional

Shadreck Chirikure, “The Metalworker, the Potter, and the Pre-European African “Laboratory”,” in Clapperton Mavhunga, (ed.), *What Do Science, Technology, and Innovation Mean from Africa?* (Cambridge, MA: The MIT Press, 2017), 63-78.

Helen Tilley, “Global Histories, Vernacular Science, and African Genealogies,” *Isis* 101 (2010)

Kalle Kananoja, “Infected by the Devil, Cured by *Calundu* : African Healers in Eighteenth-century Minas Gerais, Brazil,” *Social History of Medicine* 29 (2016): 490–511.

Philip J. Havik. “Hybridising Medicine: Illness, Healing and the Dynamics of Reciprocal Exchange on the Upper Guinea Coast,” *Medical History* 60 (2016): 181-205.

Jonathan Roberts, “Medical Exchange on the Gold Coast during the Seventeenth and Eighteenth Centuries,” *Canadian Journal of African Studies* 45 (2011): 480-523.

Susan Scott Parrish, ‘Diasporic African Sources of Enlightenment Knowledge’, in James Delbourgo and Nicholas Dew, eds, *Science and Empire in the Atlantic World* (New York and London: Routledge, 2008), 281-310.

Jenny Bulstrode, “Black metallurgists and the making of the industrial revolution,” *History and Technology*, 39 (2023): 1-41.

January 27. Bimaristan – The Medieval Islamic HospitalEssential

Ahmed Ragab, *The Medieval Islamic Hospital: Medicine, Religion, and Charity* (Cambridge: Cambridge University Press, 2015), Introduction and chapter 5.

Optional

F. Jamil Ragep, “Islamic Culture and the Natural Sciences,” in D. Lindberg & M. Shank (eds.), *The Cambridge History of Science Volume 2: Medieval Science* (Cambridge: Cambridge University Press, 2013), pp. 27-61).

Gary B. Ferngren, Mahdieh Tavakol, "Islam in the Middle Ages," in Gary B. Ferngren, *Medicine and Religion: A Historical Introduction* (Johns Hopkins University Press, 2014), pp. 119-135.

Gary B. Ferngren, *Medicine and Healthcare in Early Christianity* (Johns Hopkins University Press, 2009).

Toby Huff, *The Rise of Early Modern Science: Islam, China and the West* (Cambridge: Cambridge University Press, 1993), chapter 2.

Ahmed Ragab, "Making History: Identity, Progress and the Modern-Science Archive," *Journal of Early Modern History* 21 (2017): 433-444.

Peter E. Pormann and Emilie Savage-Smith, *Medieval Islamic Medicine* (Washington, DC: Georgetown University Press, 2007).

Emilie Savage-Smith, "Attitudes Toward Dissection in Medieval Islam." *Journal of the History of Medicine and Allied Sciences* 50, no. 1 (1995): 67–110.

Husain F. Nagamia, "Medicine in Islam," in *Encyclopaedia of the History of Science, Technology, and Medicine in Non-Western Cultures*, ed. Helaine Selin (Dordrecht: Springer, 2008), 1541-1546.

Emilie Savage-Smith, "Were the Four Humours Fundamental to Medieval Islamic Medical Practice?" In *The Body in Balance: Humoral Medicines in Practice*, eds. Peregrine Horden and Elisabeth Hsu (Berghahn Books, 2013), 89–106.

Michael Dols, "Insanity in Byzantine and Islamic Medicine," *Dumbarton Oaks Papers* 38 (1984): 135–48.

February 03. Essay writing guidance session – no required reading, but bring a short paragraph describing your plans for the first essay to discuss in class.

February 10. Kunstkammer: European Cabinets of Curiosity

Essential

Lorraine Daston, Katherine Park, *Wonders and the Order of Nature* (New York: Zone Books, 1998), Introduction and chapter 7 "Wonders of Art, Wonders of Nature"

Optional

Smith, Pamela H., and Tonny Beentjes, "Nature and Art, Making and Knowing: Reconstructing Sixteenth-Century Life-Casting Techniques." *Renaissance Quarterly* 63, no. 1 (2010): 128–79.

MacDonald, Deanna, "Collecting a New World: The Ethnographic Collections of Margaret of Austria." *The Sixteenth Century Journal* 33, no. 3 (2002): 649–63.

Paula De Vos, "The Rare, the Singular, and the Extraordinary: Natural History and the Collection of Curiosities in the Spanish Empire," in *Science in the Spanish and Portuguese empires, 1500-1800*, eds. Daniela Bleichmar, Paula De Vos, Kristin Huffine, Kevin Sheehan (Stanford University Press, 2009), 271-289.

Findlen, Paula, *Possessing nature: museums, collecting, and scientific culture in early modern Italy* (Berkeley: University of California Press, 1996).

Smith, Pamela H. *The Making and Knowing Project* (online resource)
<https://www.makingandknowing.org/>

Bleichmar, Daniela, and Peter C. Mancall, eds. *Collecting Across Cultures: Material Exchanges in the Early Modern Atlantic World* (Philadelphia: University of Pennsylvania Press, 2011).

Smith, Pamela H., and Paula Findlen, *Merchants and Marvels: Commerce, Science, and Art in Early Modern Europe* (New York: Routledge, 2001).

Daston, Lorraine, "Nature by Design" in Caroline A. Jones, Peter Galison, eds., *Picturing Science, Producing Art* (New York; London: Routledge, 1998), 232-53.

February 20. READING WEEK

February 27. "Practical Naturalism" in Seventeenth-Century Istanbul

Essential

Harun Kuçuk, "Istanbul and her Sciences," in *Science without Leisure: Practical Naturalism in Istanbul, 1660-1732* (University of Pittsburgh Press, 2019), Introduction and chapter 1.

Optional

Harun Kuçuk, "Early Modern Ottoman Science: A New Materialist Framework," *Journal of Early Modern History* 21 (2017): 407– 19.

Harun Kuçuk, "The Calendar: Copernicus for Tax Collectors," in *Science without Leisure: Practical Naturalism in Istanbul, 1660-1732* (University of Pittsburgh Press, 2019), chapter 4.

Miri Shefer-Mossensohn, *Science among the Ottomans: The Cultural Creation and Exchange of Knowledge* (Texas: University of Texas Press, 2015).

Daniel A. Stolz, *The Lighthouse and the Observatory: Islam, Science, and Empire in Late Ottoman Egypt* (Cambridge: Cambridge University Press, 2018).

Giancarlo Casale, *The Ottoman Age of Exploration* (Oxford: Oxford University Press, 2010).

Avner Ben-Zaken, "The Heavens of the Sky and the Heavens of the Heart: The Ottoman Cultural Context for the Introduction of Post-Copernican Astronomy," *British Journal for the History of Science* 37, no. 1 (2004): 1–28.

Emily Savage-Smith, "Medicine in Medieval Islam," in D. C. Lindberg & M. H. Shank, eds., *The Cambridge History of Science: Volume 2: Medieval Science* (Cambridge: Cambridge University Press, 2013), 139-167.

Alnoor Dhanani, "Islam" in Gary B. Ferngren, ed., *Science and Religion: A Historical Introduction* (Johns Hopkins University Press, 2002), 73-92.

Sonja Brentjes, ed., *Historiography of the History of Science in Islamicate Societies: Practices, Concepts, Questions* (London: Routledge, 2023).

March 03. Performance and Power - The First Russian Circumnavigation

Essential

Simon Werrett, "Technology on Display: Instruments and Identities on Russian Voyages of Exploration," *Russian Review*, Vol. 70, no. 2 (July 2011): 380-396.

Optional

Michael D. Gordin, "The Importation of Being Earnest: The Early St. Petersburg Academy of Sciences," *Isis* 91, no. 1 (2000): 1-31.

Simon Werrett, "The Schumacher Affair: Reconfiguring Academic Expertise across Dynasties in Eighteenth-Century Russia," *Osiris* 25, no. 1 (2010): 104-26.

Yuri Slezkine, *Arctic mirrors: Russia and the small peoples of the North* (Cornell University Press, 1994), Introduction and Chapter 2 "The Unenlightened".

Yuri Slezkine, "Naturalists versus Nations: Eighteenth-Century Russian Scholars Confront Ethnic Diversity," in D. R. Brower and E. J. Lazzerini, eds. *Russia's Orient: Imperial Borderlands and Peoples, 1700–1917* (Bloomington: Indiana University Press, 1997), 27–57.

Ilya Vinkovetsky, "Circumnavigation, Empire, Modernity, Race: The Impact of Round-the-World Voyages on Russia's Imperial Consciousness," *Ab Imperio* 1–2 (2001): 191–210.

Ilya Vinkovetsky, *Russian America: An Overseas Colony of a Continental Empire, 1804–1867* (Oxford: Oxford University Press, 2011).

Hermann Ludwig von Löwenstern, *The First Russian Voyage around the World: The Journal of Hermann Ludwig von Löwenstern, 1803–1806*, trans. Victoria J. Moessner (Fairbanks: University of Alaska Press, 2003).

Simon Werrett, "Russian Responses to the Voyages of Captain Cook," in Glyndwr Williams, ed. *Captain Cook: Explorations and Reassessments* (New York: Boydell & Brewer Press, 2004), 179–200.

Simon Werrett, "Voyages of Maintenance: Exploration, Infrastructure, and Modernity on the Krusentern-Lisianskii Circumnavigation between Russia and Japan from 1803 to 1806," *History of Science* 61 (2021): 338-359.

March 10. Sleeping Reason: Hummingbirds in Enlightened Mexico

Essential

Iris Montero Sobrevilla, "The Slow Science of Swift Nature: Hummingbirds and Humans in New Spain," in *Global Scientific Practice in an Age of Revolutions, 1750-1850*, eds. Patrick Manning and Daniel Rood (Pittsburgh: University of Pittsburgh Press, 2016), 127–146.

Optional

Maria Portuondo, "Constructing a Narrative: The History of Science and Technology in Latin America," *History Compass* 7/2 (2009): 500-522.

Miruna Achim, "From rustics to savants: Indigenous materia medica in eighteenth-century Mexico," *Studies in History and Philosophy of Biological & Biomedical Sciences* 42 (2011): 275-284.

Emily Walcott Emmart, "An Aztec medical Treatise: The Badianus Manuscript," *Bulletin of the Institute of the History of Medicine* 3, no. 6 (1935): 483-506.

Juan Pimentel, "Stars & Stones: Astronomy and Archaeology in the Works of the Mexican Polymath Antonio León y Gama, 1735–1802," *Itinerario* 33 (2009): 61-77.

Antonio Barrera-Osorio, *Experiencing Nature: The Spanish American Empire and the Early Scientific Revolution* (Austin, TX: University of Texas Press, 2010).

Mary Norton, "The Chicken or the legue: Human-Animal Relationships and the Columbian Exchange" *American Historical Review* (Feb 2015): 28-60.

Daniela Bleichmar, *Visible Empire: Botanical Expeditions and Visual Culture in the Hispanic Enlightenment* (Chicago: The University of Chicago Press, 2012).

Daniela Bleichmar, 'A Visible and Useful Empire: Visual Culture and Colonial Natural History in the Eighteenth-Century Spanish World,' in *Science in the Spanish and*

Portuguese Empires, 1500–1800, edited by Daniela Bleichmar, Paula De Vos, Kristin Huffine, and Kevin Sheehan (Stanford: Stanford University Press, 2009), 290-310.

Hugh Cagle, *Assembling the Tropics: Science and Medicine in Portugal's Empire, 1450-1700* (Cambridge: Cambridge University Press, 2018).

Pablo Gómez, *The Experiential Caribbean: Creating Knowledge and Healing in the Early Modern Atlantic* (Chapel Hill: University of North Carolina Press, 2017).

March 17. Crossing Boundaries: The East India Company in Calcutta, 1770-1820

Essential

Kapil Raj, "When Scottish Medicine Hospitalized Indian Magic: Dr James Esdaile's Mesmeric Surgery in Mid-Nineteenth-Century Bengal," *British Journal for the History of Science* (2024): 1-23.

Optional

David Arnold, "Science under the Company," in David Arnold, ed. *Science, Technology and Medicine in Colonial India* (The New Cambridge History of India) (Cambridge: Cambridge University Press, 2000), 19-56.

Kapil Raj, "Mapping Knowledge: Go-Betweens in Calcutta 1770-1820," in Simon Schaffer et al. (eds.), *The Brokered World: Go-betweens and Global Intelligence, 1770-1820* (Sagamore Beach, MA: Science History Publications, 2009), pp. 105-150.

Deepak Kumar, "India," in Roy Porter, ed., *The Cambridge History of Science vol. 4: The Eighteenth Century* (Cambridge: Cambridge University Press, 2003), 669-687.

Shino Konishi, Maria Nugent, Tiffany Shellam, eds. *Indigenous Intermediaries: New Perspectives on Exploration Archives* (ANU Press, 2015).

Kapil Raj, "Colonial Encounters and the Forging of New Knowledge and National Identities: Great Britain and India, 1760-1850." *Osiris* 15 (2000): 119–134.

Deepak Kumar, *Science and the Raj: A Study of British India* (Oxford, 2006).

Seema Alavi, "Medical Culture in Transition: Mughal Gentleman Physician and the Native Doctor in Early Colonial India," *Modern Asian Studies* 42, no. 5 (2008): 853-97.

Jessica Ratcliff, "The East India Company, the Company's Museum, and the Political Economy of Natural History in the Early Nineteenth Century." *Isis* 107 (2016): 495–517.

Adrian P. Thomas, "The Establishment of Calcutta Botanic Garden: Plant Transfer, Science and the East India Company, 1786-1806," *Journal of the Royal Asiatic Society* 16, no. 2 (2006): 165–77.

Simon Werrett, "Technology on the Spot: The Trials of the Congreve Rocket in India in the Early Nineteenth Century." *Technology and Culture* 53, no. 3 (2012): 598–624.

March 24. Yokai: The World of Japanese Spirits

Essential

Michael Dylan Foster, *The Book of Yokai: Mysterious Creatures of Japanese Folklore* (University of California Press, 2015), 14-24, 33-73, 228-242.

Optional

Reider, Noriko T. "An Overview: What Are Oni?" In *Japanese Demon Lore: Oni from Ancient Times to the Present* (University Press of Colorado, 2010), 1–29.

Shamoon, Deborah, "The Yōkai in the Database: Supernatural Creatures and Folklore in Manga and Anime." *Marvels & Tales* 27 (2013): 276–89.

Foster, Michael Dylan, "Natural History of the Weird: Encyclopedias, Spooky Stories, and the Bestiaries of Toriyama Sekien." In *Pandemonium and Parade: Japanese Monsters and the Culture of Yokai* (University of California Press, 2009), 30-76.

Kajiya, Kenji. "Reimagining the Imagined: Depictions of Dreams and Ghosts in the Early Edo Period." *Impressions* 23 (2001): 86–107.

Lillehoj, Elizabeth, "Transfiguration: Man-Made Objects as Demons in Japanese Scrolls." *Asian Folklore Studies* 54 (1995): 7–34.

Castiglioni, Andrea, "The Human-Fish: Animality, Teratology, and Religion in Premodern Japan." *Japanese Journal of Religious Studies* 48 (2021): 1–44.

Reider, Noriko Tsunoda, *Mountain Witches: Yamauba* (University Press of Colorado, 2021).

Course expectations

Students are expected to attend all classes, and to be prepared to discuss the readings which they should bring to class either in hard copy or electronic format. Students should read and make notes on essential texts, thinking of questions to ask about them in class. If a student cannot attend, please let the module tutor know beforehand.

Important policy information

Details of college and departmental policies relating to modules and assessments can be found in the STS Student Handbook www.ucl.ac.uk/sts/handbook

All students taking modules in the STS department are expected to read these policies.