

SS417N Sociology of Science MA optional course 2026

Credits: 4

Course teacher: V. Sujatha

Assessment:

1. 50% Intra semester assessment (2 credits):
 - 25%: Class participation and text-based assignment of 2000 words and viva/presentation (Throughout the semester)
 - 25%: Field-based term paper of about 3500 words and presentation (Due on 29th November 2026)
2. 50% End semester examination (2 credits) (Dec 2026)

The basic readings will be made available on Google classroom. Lectures, presentations, discussions, guest lectures and a field visit will be part of the pedagogy.

Text-based assignment: each student may choose a reading of about 40 pages from the optional readings list. An assignment on the chosen reading will be submitted and presented. Students are required to go beyond the chosen reading and connect it to the other readings in the course or outside. A handout containing the key points of your presentation must be given to the class by the presenters at the time of presentation. The assignment will be evaluated for: an effective but brief summary, making connections to other material and arguments, use of examples and your own understanding and insights on the material.

The term paper would be on a topic decided by you in consultation with the teacher and should be field-based. The criteria for evaluation of the term paper will include: Originality in the choice of topic and methods of data collection, perspective, argument and coherence, observation, creative insight into the information collected and the references. Term paper will also be presented in the class. *Please note that generative AI must not be used for any submission in this course. All submissions will have to attach the Turnitin plagiarism and AI clearance certificate from the library.*

The End semester examination will be essay-based and a question bank will be provided ten days prior to the examination.

Course Objectives

Sociology of science is a field which proposes that science is not a purely logical activity insulated from social context and there are several conceptual approaches in this field. The course aims at providing a multicentric and insightful understanding of the social coordinates of science and technology that touches upon debates in the history, philosophy and sociology of science. Science is neither eulogized nor debunked in the course; rather it is understood in its varied dimensions. The course seeks to

familiarise the student with various theoretical approaches in the sociology of science, along with an exposure to a non-Eurocentric social history of science. The course exposes the students to the intricate linkages between science, economy and political power as well as to the social background of scientists. The concept of sociotechnical systems as a web of human and technology relations will also be discussed to give a holistic picture of key concepts in the field. The introduction builds Indian perspectives into the very introduction of sociology of science by bringing in concerns and concepts raised in the Indian discourses on science.

I. Introduction to Sociology of science: Cross cultural perspectives

1. Sarukkai, Sunder. 2012. 'What is Science?' New Delhi: National Book Trust (Chapter 1)
2. Merton. R.K. 1973. *The Sociology of Science: Theoretical and empirical investigations*. (Parts III, IV and V). Chicago: University of Chicago Press.
3. Uberoi. J.P.S. 1968. 'Science and Swaraj.' *Contributions to Indian Sociology* Vol 2(1): 119-23
4. Nandy, Ashis. 1972 "Defiance and Conformity in Science: The Identity of Jagadis Chandra Bose". *Indian Journal of history of Science* 7 (1):1-23.
5. Raina, Dhruv and Irfan Habib. 2004. *Domesticating modern science: Social History of Science and Culture in Colonial India*. New Delhi: Tulika Books.
6. Knorr-Cetina, Karin and Michael Mulkay (ed.) 1983, *Science Observed: Perspectives on the Social Study of Science*. London: Sage Publications.
7. Nandy, Ashis ed. 1988. *Science, Hegemony and Violence: A Requiem for Modernity*. New Delhi: Oxford University Press.

II. Social history of science and multiple epistemes

8. Kuhn, Thomas S. 1962. *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press
9. Shapin, Steven and Simon Schaffer. 1985. *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life*. Princeton, NJ: Princeton University Press.
10. Latour, Bruno. 1988. *The Pasteurization of France*. Cambridge, MA: Harvard University Press.
11. Needham, Joseph. 1969. *The Grand Titration: Science and Society in East and West*. London: Allen & Unwin.
12. Sujatha.V. 2011. 'What could 'integrative' medicine mean?' *Social science perspectives on contemporary Ayurveda*. *Journal of Ayurveda and Integrated Medicine* 2:115-23.

III. Science, economy and polity

13. Uberoi, J.P.S. 2000. 'The Three Lives of Things in a Post-modern Economy' In *Mind and Society: From Indian Studies to General Sociology*. 134-156. New Delhi: Oxford University Press.
14. Sarukkai, Sunder. 2009. 'Science and the ethics of curiosity,' *Current Science* vol 97(6): 756-767
15. Sunder Rajan, Kaushik. 2006. *Biocapital: The Constitution of Postgenomic Life*. Durham: Duke University Press.
16. Chamayou, Grégoire. 2013. *A Theory of the Drone*. New York: The New Press.
17. Martin, Emily. 1990. 'Toward an anthropology of immunology: The body as nation state'. *Medical Anthropology Quarterly*. 4(4): 410-426.

IV. Science, technology and society

18. Marcuse, Herbert. 1982. 'Some social implications of technology,' in Andrew Arato and Eike Gebhardt (eds.) *The Essential Frankfurt School Reader* 138-162. London: Continuum Publishers
19. Harding, Sandra. 1991. 'Whose science? Whose Knowledge? Thinking from women's lives.' New York: Cornell University Press
20. Schiebinger, Londa. 1999. *Has Feminism Changed Science?* Cambridge: Harvard University Press
21. Sur, Abha. 2011. *Dispersed Radiance: Caste, Gender, and Modern Science in India*. New Delhi: Navayana
22. Sujatha.V. 2017. Scientism, familism and women scientists. [Kafila – Collective Explorations Since 2006](#).
23. Gupta, Akhil. 2015. 'An Anthropology Of Electricity From The Global South'. *Cultural Anthropology*. 30 (4): 555-568.
24. Johnson, Deborah, and Jameson Wetmore. 2009. *Technology and Society: Building Our Sociotechnical Future*. Cambridge, MA: MIT Press
25. Feenberg, Andrew. 2020. Technoscience and the dereification of nature. *Unisinos Journal of Philosophy* 21(1):5-13.

Optional readings

1. Chattopadhyay, Debiprasad. 1980. *Science and Society in Ancient India*. Calcutta: Research India Publications.

2. Padel, Felix. 2020. "Articulating the Other Mind of Europe." *Indian Anthropologist* : Special Issue on Social Theorising In Contemporary India: Critique, Creativity And Transformations 50 (1–2): 27–39.
3. Rowbottom, Darrell Patrick (2011). 'Kuhn vs. Popper on Criticism and Dogmatism in Science: A Resolution at the Group Level'. *Studies in History and Philosophy of Science* 42 (1):117-124.
4. Restivo, P. Sal. 1974. *Comparative studies in science and society*. Indiana: Merrill Publishers
5. Sarukkai, Sundar. 2005. *Indian philosophy and the philosophy of science*. New Delhi: Motilal Banarsidas
6. Pattnaik, Binay Kumar, ed. 2013. *Sociology of Science and Technology in India*. New Delhi: Routledge.
7. Biagioli, Mario. ed. 1999. *The Science Studies Reader*. London: Routledge.
8. Van Berkel, Klaas and Ernst Homburg. 1996. 'The Laboratory Revolution and the Creation of the Modern University, 1830-1940'. In *The History of Science and Higher Education*, 63–82. Dordrecht: Kluwer Academic Publishers.
9. Porter, Theodore M. 1995. *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life*. Princeton, NJ: University Press.
10. Arnold, David. 2004. *Science, Technology and Medicine in Colonial India*. Cambridge: Cambridge University Press.
11. Sujatha. V and Leena Abraham (Eds.) 2009. *Medical pluralism in contemporary India*. Orient BlackSwan.
12. Visvanathan, Shiv. 2001. 'Democracy, Governance and Science: Strange Case of the Missing Discipline,' *Economic and Political Weekly*, Vol. 36, No. 39 (Sep. 29 - Oct. 5, 2001), pp. 3684-3688
13. Rohrmeier, Martin. (2022). On Creativity, Music's AI Completeness, and Four Challenges for Artificial Musical Creativity. *Transactions of the International Society for Music Information Retrieval*, 5(1), 50–66. DOI: <https://doi.org/10.5334/tismir.104>