

**NEH-ACTC “Bridging the Gap” Seminars
Year Three: St. Mary’s College of California
“Technology, Art, Values, and the Problems of Technoscience”**

The workshop this year will explore the connection between science and the humanities through the themes of nature and art, beauty and power, the good and the useful, and the goals and problems of a technological society.

Pre-Reading: Leon Kass, “Introduction” and Chap. 1 “The Problem of Technology and Liberal Democracy” in *Life, Liberty and the Pursuit of Happiness*. This is to raise a set of general issues for this workshop.

First Week

DAY 1 (Monday): Nature, Cause, Art as Know-How, and the Human Good

AM: Reading: Plato, *Gorgias*, (Nichols ed.)
PM: Aristotle, *Physics*, Book 2 (chapters 1-3, 8); *Nicomachean Ethics*, Book 1 (chapters 1-7), Book 6 (chapters 3-8); *Poetics*, chaps. 1-14, 25 (McKeon edition)

EVENING: Lecture “Technology as Liberal Art” Phillip Sloan

DAY 2 (Tuesday): Invention, Beauty, and-Divine Limits on Making

Am: Reading: Plato, *Timaeus*, 27c-29D; 35a-36B (Kalkavage edition)
Laboratory on the monochord

PM: Cicero, “On Invention” Books 1-5 (p. 3–17), 7-9 (pp. 19-25), 11-14 (pp. 31-41) (Loeb Classical: also available as e-text)
Dante, *Divine Comedy*, “Inferno,” Cantos 1, 2, 5, 26, 34; “Purgatorio,” Cantos 1, 10, 11, 12 (Mandelbaum –Bantam edition)
Reynolds, *Discourses on Art*, “Discourse 7” (Duplicated)

DAY 3 (Wednesday): Expanding Techne: The State as a Work of Art

AM: Machiavelli, *The Prince* (Mansfield Edition)
PM: Shakespeare, *The Tempest* (Penguin)

EVENING: Robert Weiner “Leonardo Da Vinci” (one-man act)

DAY 4 (Thursday): The Mastery of Nature

AM: Bacon, “The Great Instauration” and *New Organon*, Bk. I
PM: Bacon, *New Organon*, Bk. II, Aphs 1-21; *New Atlantis* (Hackett edition)

DAY 5 (Friday):

AM: **REVIEW SESSION: Institutional Developments in Last Year and Planning for Next.**

DAY 6 (Sunday Evening)

7: PM Laboratory on Genetic Mapping in Bacteria (Waring Blender Experiment)
Readings: Laboratory Outline in *St. Johns Manual: Evolution and Genetics*, pp. 187-201 plus separate laboratory writeup. First Reading of Jacob and Monod “Genetic Regulatory Mechanisms in the Synthesis of Proteins” *St. John’s Evolution and Genetics* pp. 129-43.

Second Week

DAY 7 (Monday): **The Critique of Mastery**

AM: Jonathan Swift, *Gulliver’s Travels* (opening Letter, “A Voyage to Laputa”); (St. Martins)
Rousseau, *Discourse on the Arts and Sciences* (Hackett)
PM: Huxley, *Brave New World* (Perennial Classics edition)

DAY 8 (Tuesday): **Making Scientific Facts**

AM: Latour and Woolgar, *Laboratory Life*, chaps 1-3 (Princeton)
François Jacob and Jacques Monod, In *St. John’s Manual* with Sloan detailed outline. Second detailed reading.
PM: Laboratory on Results of Blender Experiment

DAY 9 (Wednesday): **Science, Morality and Politics**

AM: Franz Kafka, “In the Penal Colony” (Barnes and Noble)
Hawthorne, “The Birthmark” and “The Artist of the Beautiful” (Dover)
PM: Jonas, *The Imperative of Responsibility*, chps. 1-3

EVENING: M. Frayn *Copenhagen*. (Group reading of the play)

DAY 10 (Thursday): **Technology and the Human Good**

AM: Jonas, *The Imperative of Responsibility*, chps. 5-6
PM: Kass, *Life, Liberty and Pursuit*, chps. 3, 4, 5
Philip Kitcher, *Science, Truth and Democracy*, chps. 13–14 (“The Luddites Laments” and “Research in an Imperfect World”)

EVENING: Party

DAY 11 (Friday): **REVIEW: Institutional Planning for use of Year 3 materials
DISCUSSION OF ALL THREE YEARS: Possibilities for future seminars.**

BOOKS TO BE ORDERED: (IN SEQUENCE READ)

Kass, L. *Life, Liberty and the Defense of Dignity* (San Francisco: Encounter, 2002) ISBN 1-893554-55-4

Kalkavage, Peter. *Elements: A Workbook for Freshman Music*. Purchase through St. John's bookstore; read/review before coming to the seminar.

Plato, *Gorgias*, trans. J. Nichols (Ithaca: Cornell U Press, 1998) ISBN: 0801485274

Aristotle, *The Basic Works of Aristotle*, ed. R. McKeon (New York: Modern Library, 2001) ISBN: 0375757996

Cicero, *De Inventione* [On Invention] (Cambridge MA: Harvard U Press, Loeb Classical Library, Harvard, Trilateral Press. ISBN 0-674-99425-6; an alternative without Latin facing opposite is available from Amazon as a pdf download for \$ 1.99.

Plato, *Timaeus*, trans. P. Kalkavage (Newbury Port: Focus Press, 2001) ISBN 1-58510-007-2

Dante, *The Divine Comedy*, trans. A. Mandelbaum, (New York: Bantam, 1982)

“Inferno” (ISBN 0-553-21339-3), “Purgatorio” (ISBN 0-553-21344-X)

Machiavelli, *The Prince* trans. H Mansfield, 2nd ed. (Chicago: U Chicago Press, 1998) ISBN 0226500446.

Shakespeare, *The Tempest*, ed. P. Holland (Baltimore: Penguin, 1999) 0-14-071485-5

Bacon, *Selected Philosophical Works*, ed. R. Sargent (Indianapolis: Hackett, 1999) ISBN 0-87220-470-7.

Swift, J. *Gulliver's Travels* ed. C. Fox (New York: St. Martins, 1995) ISBN 0-312-06665-1

Rousseau, J. J. *Basic Political Writings*, trans. Cress, ed. P. Gay (Indianapolis: Hackett, 1987). ISBN 0-87220-047-7

Huxley, J. *Brave New World* (New York: Perennial Classics Editions, 1998) ISBN 0060929871

Maistrellis, N. (ed.) *Genetics and Evolution: Readings and Experiments for Senior Laboratory* St. Johns College Bookstore, 1993. (Order direct from St. John's College Bookstore)

Latour, B. and S. Woolgar, *Laboratory Life: The Construction of Scientific Facts* (Princeton: PUP, 1986), ISBN 0-691-02832-X

Kafka, F. *In the Penal Colony and Other Stories* (New York: Simon and Shuster, 1995) ISBN 0020218079

Hawthorne, N. *Hawthorne's Short Stories*, edited by Newton Arvin. New York: Knopf, ISBN 0-394-70015-5

Jonas, H. *The Imperative of Responsibility: In Search of an Ethics for the Technological Age* (Chicago: U Chicago Press, 1984), ISBN 0-226-40596-6 (HB only)

Frayn, M. *Copenhagen* (New York: Anchor, 2000) ISBN 0385720793

Kitcher, P. *Science, Truth and Democracy* (Oxford, 2001) ISBN 0-19-514583-6

BOOKS TO BE ORDERED, IN ALPHABETICAL ORDER

- Aristotle, *The Basic Works of Aristotle*, ed. R. McKeon (New York: Modern Library, 2001) ISBN: [0375757996](#)
- Bacon, *Selected Philosophical Works*, ed. R. Sargent (Indianapolis: Hackett, 1999) ISBN 0-87220-470-7.
- Cicero, *De Inventione* [On Invention] (Cambridge MA: Harvard U Press, Loeb Classical Library, Harvard, Trilateral Press. ISBN 0-674-99425-6; an alternative without Latin facing opposite is available from Amazon as a pdf download for \$ 1.99.
- Dante, *The Divine Comedy*, trans. A. Mandelbaum, (New York: Bantam, 1982) “Inferno” (ISBN 0-553-21339-3), “Purgatorio” (ISBN 0-553-21344-X)
- Frayn, M. *Copenhagen* (New York: Anchor, 2000) ISBN [0385720793](#)
- Hawthorne, N. *Hawthorne’s Short Stories*, edited by Newton Arvin. New York: Knopf, ISBN 0-394-70015-5
- Huxley, J. *Brave New World* (New York: Perennial Classics Editions, 1998) ISBN [0060929871](#)
- Jonas, H. *The Imperative of Responsibility: In Search of an Ethics for the Technological Age* (Chicago: U Chicago Press, 1984), ISBN 0-226-40596-6 (HB only)
- Kafka, F. *In the Penal Colony and Other Stories* (New York: Simon and Shuster, 1995) ISBN [0020218079](#)
- Kalkavage, Peter. *Elements: A Workbook for Freshman Music*. Purchase through St. John’s bookstore.
- Kass, L. *Life, Liberty and the Defense of Dignity* (San Francisco: Encounter, 2002) ISBN 1-893554-55-4
- Kitcher, P. *Science, Truth and Democracy* (Oxford, 2001) ISBN0-19-514583-6
- Latour, B. and S. Woolgar, *Laboratory Life: The Construction of Scientific Facts* (Princeton: PUP, 1986), ISBN 0-691-02832-X
- Machiavelli, *The Prince* trans. H Mansfield, 2nd ed. (Chicago: U Chicago Press, 1998) ISBN [0226500446](#).
- Maistrellis, N. (ed.) *Genetics and Evolution: Readings and Experiments for Senior Laboratory* St. Johns College Bookstore, 1993. (Order direct from St. John’s College Bookstore)
- Plato, *Gorgias*, trans. J. Nichols (Ithaca: Cornell U Press, 1998) ISBN: [0801485274](#)
- Plato, *Timaeus*, trans. P. Kalkavage (Newbury Port: Focus Press, 2001) ISBN 1-58510-007-2
- Rousseau, J. J. *Basic Political Writings*, trans. Cress, ed. P. Gay (Indianapolis: Hackett, 1987). ISBN 0-87220-047-7
- Shakespeare, *The Tempest*, ed. P. Holland (Baltimore: Penguin, 1999) 0-14-071485-5
- Swift, J. *Gulliver’s Travels* ed. C. Fox (New York: St. Martins, 1995) ISBN 0-312-06665-1

Duplicated materials

Reynolds Discourse
Supplementary laboratory materials