

Book Adoptions for SP 2013-14

Prepared Tuesday, March 11, 2014

This document lists the required and optional textbooks for Caltech courses offered during the SP 2013-14 term. Not all courses are listed. Only those courses for which the Registrar has solid information are listed.

This document is updated daily as more information comes in from instructors.

Please consult the Library Catalog ([CLAS](#)) to view class course reserves. Course reserves are available in the Sherman Fairchild, Millikan, Dabney and Geology Libraries. Reserve material is available for 3-hour checkout.

Changes in the last	BEM/Ec 146
7 days	En 128
	En 137

ANTHROPOLOGY

An 022. Introduction to Sociocultural Anthropology.

Instructor: Jean Ensminger

Required textbooks:

Bowen, Elenore; *Return to Laughter*, Doubleday, 1954. ISBN: 978-0385053129

APPLIED COMPUTATIONAL MATH

ACM101C. Methods of Applied Mathematics I.

Instructor: Oscar Bruno

Required textbooks:

Weinberger, H. F. ; *A First Course in Partial Differential Equations: with Complex Variables and Transform Methods*, Dover, . ISBN: 978-0486686400

Folland, Gerald B. ; *Introduction to Partial Differential Equations. Second Edition (Second)*, Princeton University Press, 1995. ISBN: 978-0691043616

ACM270. Advanced Topics in Applied and Computational Math.

Instructor: Brendan Ames

Required textbooks:

Nocedal, Jorge, and Wright, Stephen; *Numerical Optimization*, , 2006. ISBN: 978-0-387-30303-1

Suggested textbooks:

Vandenberghe and Boyd; *Convex Optimization*, , . ISBN: 978-0521833783

Borwein, Jonathan, and Lewis, Adrian; *Convex Analysis and Nonlinear Optimization*, , . ISBN: 978-0387295701

APPLIED PHYSICS

APh024. Introductory Modern Optics Laboratory.

Instructor: Andrei Faraon

Required textbooks:

Hecht, Eugene; *Optics (4th)*, , . ISBN: 0-8053-8566-5

ART HISTORY

Art055. Art of the 19th Century.

Instructor: Shelley Bennett

Required textbooks:

Eisenman, Stephen F. ; *Nineteenth Century Art (4th)*, Thames Hudson, 2011. ISBN: 978-0500288887

ASTROPHYSICS

Ay 021. Galaxies and Cosmology.

Instructor: Nicholas Scoville

Required textbooks:

Carroll, Bradley W, Ostlie, Dale A.; *An Introduction to Modern Astrophysics (second edition)*, Pearson Addison Wesley, . ISBN: 0-8053-0402-9

Suggested textbooks:

Sparke, Linda S, Gallagher III, John S; *Galaxies in the Universe: An Introduction (Second Edition)*, Cambridge University Press, 2007. ISBN: 978-0-521-85593-8

Ay 031. Writing in Astronomy.

Instructor: Lynne Hillenbrand

Required textbooks:

Hofmann, Angelika; *Scientific Writing and Communication: Papers, Proposals, and Presentations*, Oxford University Press, . ISBN: 978-0-19-539005-6

Suggested textbooks:

Gurak, Laura, Lannon, John; *Strategies for Technical Communication in the Workplace*, Longman, . ISBN: 0-205-69824-7

Alley, Michael; *The Craft of Scientific Writing*, Springer, . ISBN: 0-387-94766-3

Lindsay, David; *Scientific Writing = Thinking in Words*, CSIRO, 2011. ISBN: 9780643100466

Ay 102. Physics of the Interstellar Medium.

Instructor: Christian Ott

Suggested textbooks:

Kwok; *Physics And Chemistry of the Interstellar Medium*, , . ISBN: 1891389467

Dyson and Williams; *The Physics of the Interstellar Medium*, , . ISBN: 075030460X

BIOENGINEERING

BE 150. Systems Biology.

Instructor: Richard Murray

Required textbooks:

Alon, Uri; *Introduction to Systems Biology*, , . ISBN: 1-58488-642-0

BIOLOGY

Bi 115. Attack and Repulsion: Viruses and their Hosts.

Instructor: David Baltimore

Required textbooks:

Flint, S. Jane, Enquist, Lynn W., Racaniello, Vincent R., Skalka, Anna Marie; *Principles of Virology (2 Volume Set) (Third)*, ASM Press, 2008. ISBN: 9781555814434

Bi 189. The Cell Cycle.

Instructor: William Dunphy

Required textbooks:

Morgan, David; *The Cell Cycle: Principles of Control*, , . ISBN: 9780878935086

Bi 250B. Topics in Systems Biology.

Instructor: Michael Elowitz

Required textbooks:

Alon, Uri; *Introduction to Systems Biology*, , . ISBN: 1-58488-642-0

Bi 252. Responsible Conduct of Research.

Instructors: Elliot Meyerowitz, Paul Sternberg

Required textbooks:

Macrina, Francis L.; *Scientific Integrity: An Introductory Text with Cases (3rd)*, ASM Press, Washington, DC, 2005. ISBN: 9781555813185

BUSINESS ECONOMICS MANAGEMENT

BEM107. Applied Corporate Finance and Investment Banking.

Instructor: Bradford Cornell

Required textbooks:

Penman,Stephen ; *Financial Statement Analysis and Security Valuation* , , . ISBN: 0078025311

CHEMICAL ENGINEERING

ChE103C. Transport Phenomena.

Instructor: Andrew Kraynik

Required textbooks:

Cussler, E. L.; *Diffusion: mass transfer in fluid systems (3rd)*, Cambridge University Press, 2009. ISBN: 978-0-521-87121-1

ChE105. Dynamics and Control of Chemical Systems.

Instructor: John Seinfeld

Required textbooks:

Dale Seborg,Thomas Edgar,et al.; *Process Dynamics and Control (3)*, Wiley, 2011. ISBN: 978-0-470-12867-1

CHEMISTRY

Ch 025. Introduction to Biophysical Chemistry: Thermodynamics.

Instructor: Douglas Rees

Required textbooks:

John Kuriyan,Boyana Konforti,David Wemmer; *The Molecules of Life: Physical and Chemical Principles (1)*, Garland Science, 2013. ISBN: 9780815341888

CONTROL DYNAMICAL SYSTEMS

CDS140B. Introduction to Dynamics.

Instructors: Douglas MacMartin, Richard Murray

Required textbooks:

Khalil, Hassan K.; *Nonlinear Systems (3rd)*, Prentice Hall, 2001. ISBN: 978-0130673893

ENGLISH

En 085. Writing Poetry.

Instructor: Judith Hall

Required textbooks:

McClatchy, J.D. (Editor); *The Vintage Book of Contemporary American Poetry (second)*, Vintage, 2003. ISBN: 1-4000-3093-5

En 115. Shakespeare's Contemporaries.

Instructor: George Pigman

Required textbooks:

David Bevington, Lars Engle, Katharine Eisaman Maus, Eric Rasmussen; *English Renaissance Drama: A Norton Anthology*, , . ISBN: 978-0393976557

En 119. Displacement.

Instructor: Kristine Haugen

Required textbooks:

Virgil; *Aeneid (tr. by Ahl)*, Oxford World's Classics, 2008. ISBN: 978-0199231959

Tasso, Torquato; *Jerusalem Liberated (ed. and tr. by Esolen)*, Johns Hopkins Univ. Press, 2000. ISBN: 978-0801863233

More, Thomas; *Utopia*, Penguin, 2003. ISBN: 978-0140449105

Cervantes, Miguel de; *Don Quixote (tr. by Grossman)*, Harper Perennial, 2005. ISBN: 978-0060934347

Flaubert, Gustave; *Madame Bovary (rev. ed.)*, Penguin, 2002. ISBN: 978-0140449129

Achebe, Chinua; *Things Fall Apart*, Anchor, 1994. ISBN: 978-0385474542

Carpentier, Alejo; *The Lost Steps*, Univ. of Minnesota Press, 2001. ISBN: 978-0816638079
Didion, Joan; *Play It As It Lays: A Novel (2nd)*, Farrar, Straus Giroux, 2005. ISBN: 978-0374529949
Spiegelman, Art; *The Complete Maus: A Survivor's Tale (1st)*, Pantheon, 1996. ISBN: 978-0679406419

En 128. Modern and Contemporary Irish Literature.

Instructor: Kevin Gilmartin

Required textbooks:

James Joyce; *Dubliners*, Penguin, . ISBN: 978-0140186475
William Butler Yeats; *Yeats's Poetry, Drama, and Prose*, Norton, . ISBN: 978-0393974973
Elizabeth Bowen; *A World of Love*, Anchor, . ISBN: 978-1400031054
Seamus Heaney; *Opened Ground: Selected Poems 1966-1996*, Farrar, Straus and Giroux, . ISBN: 978-0374526788
Brian Friel; *Translations*, Faber and Faber, . ISBN: 978-0571117420
Seamus Deane; *Reading in the Dark*, Vintage, . ISBN: 978-0375700231
Eavan Boland; *New Collected Poems*, Norton, . ISBN: 978-0393337303
Roddy Doyle; *Paddy Clarke Ha Ha Ha*, Penguin, . ISBN: 9780140233902
Paul Muldoon; *Poems 1968-1998*, Farrar, Straus and Giroux, 2002. ISBN: 9780374528447

Suggested textbooks:

John O'Beirne Ranelagh; *A Short History of Ireland (Third Edition)*, , 2012. ISBN: 978-1107401945

En 137. African American Literature.

Instructor: Derrick Spires

Required textbooks:

Jacobs, Harriet; *Incidents in the Life of a Slave Girl: A Norton Critical Edition*, WW Norton , . ISBN: 0393976378
Morrison, Toni; *Song of Solomon*, , . ISBN: 0452260116
Hurstun, Zora Neale; *Their Eyes Were Watching God*, , . ISBN: 0060838671

En/Wr 084. Writing About Science.

Instructor: Susanne Hall

Required textbooks:

Stocking, S. Holly; *The New York Times Reader: Science and Technology*, CQ Press, 2011. ISBN: 978-1-60426-481-4

Blum, Deborah, Knudson, Mary, Henig, Robin Marantz; *A Field Guide for Science Writers (2nd)*, Oxford UP, 2006. ISBN: 978-0-19-517499-1

ENVIRONMENTAL SCIENCE ENGINEERING

ESE/Ge/Ch 171. Atmospheric Chemistry I.

Instructors: John Seinfeld, Paul Wennberg

Required textbooks:

John Seinfeld, Spyros Pandis; *Atmospheric Chemistry and Physics (2)*, Wiley, 2006. ISBN: 978-0-471-72018-8

GEOLOGY

Ge 001. Earth and Environment.

Instructor: Paul Asimow

Required textbooks:

Langmuir, Charles H., Broecker, Wally; *How to Build a Habitable Planet: The Story of Earth from the Big Bang to Humankind (Revised and Expanded)*, Princeton, 2012. ISBN: 978-0-691-14006-3

HISTORY

H 108B. The High Middle Ages.

Instructor: Warren Brown

Required textbooks:

Geary, Patrick J., ed.; *Readings in Medieval History. Volume II: The Later Middle Ages (Fourth)*, University of Toronto Press, 2010. ISBN: 1442601175

H 161. Selected Topics in History: The Aerospace Century in California.

Instructor: Peter Westwick

Required textbooks:

Westwick, Peter J.; *Blue Sky Metropolis: The Aerospace Century in Southern California*, Huntington Library and University of California Press, . ISBN: 978-0873282499

D.J. Waldie; *Holy Land: A Suburban Memoir (ppb)*, Norton, . ISBN: 978-0393327281

Beers, David; *Blue Sky Dream: A Memoir of America's Fall from Grace (ppb)*, Mariner Books, . ISBN: 978-0156005319

Lord, M.G.; (ppb), Walker, . ISBN: 978-0802777393

HISTORY AND PHILOSOPHY OF SCIENCE

HPS/H 160A. Einstein and His Generation: The History of Modern Physical Sciences.

Instructor: Diana Kormos-Buchwald

Required textbooks:

Isaacson, Walter; ; *Einstein- His Life and Universe (paperback)*, Simon Schuster, 2007. ISBN: 0743264746

Kragh, Helge; *Quantum Generations: A History of Physics in the Twentieth Century (any)*, Princeton University Press , 1999. ISBN: 978-0691095523

HPS/H 168. History of Electromagnetism and Heat Science.

Instructor: Jed Buchwald

Required textbooks:

Purinton, Robert D.; *Physics in the Nineteenth Century*, Rutgers University Press, 1997. ISBN: 978-0813524429

HUMANITIES

Hum/En 005. Major British Authors.

Instructor: George Pigman

Required textbooks:

Jane Austen; *Emma*, Oxford UP, 2008. ISBN: 0-19-953552-3

William Congreve; *The Way of the World*, Methuen, 2002. ISBN: 0713666625

George Eliot; *Middlemarch*, , . ISBN: 0192834029

William Shakespeare; *Much Ado About Nothing*, , . ISBN: 978-0199536115

Hum/En 007. Modern European Literature.

Instructor: Kevin Gilmartin

Required textbooks:

Hopkins, Gerard Manley; *Selected Poetry*, Oxford, 2008. ISBN: 9780199537297

Joyce, James; *Dubliners*, Penguin, 1993. ISBN: 9780140186475

Eliot, T.S.; *The Waste Land, Prufrock and Other Poems*, Penguin, 2003. ISBN: 978-0142437315

Kafka, Franz; *The Transformation (Metamorphosis) and Other Stories*, Penguin, 1995. ISBN: 0140283366

Woolf, Virginia; *Mrs. Dalloway*, Mariner Books, 1990. ISBN: 978-0156628709

Borges, Jorge Luis; *Ficciones*, Grove, 1987. ISBN: 978-0-8021-3030-3

Heaney, Seamus; *Opened Ground: Selected Poems, 1966-1996*, Farrar, Straus Giroux, . ISBN: 978-037452678-8

Carter, Angela; *The Magic Toyshop*, Penguin, 1996. ISBN: 978-0140256406

Hum/H 003B. European Civilization: Early Modern Europe.

Instructor: John Brewer

Required textbooks:

Vasari; *Life of Michelangelo*, , . ISBN: 1843680114

Pottle; *Boswell's London Journal 1762-3*, , . ISBN: 0-300-09301-2

Parker; *Military Revolution (2nd edition)*, , . ISBN: 0521479584

Columbus; *Four Voyages*, , . ISBN: 0140442170

Blanning; *French Revolution*, Macmillan/Palgrave, . ISBN: 0312175213

Brotton; *Renaissance Bazaar*, , . ISBN: 0192802658

Brucker; *Giovanni and Lusanna*, , . ISBN: 0520244958

Hum/H 003C. European Civilization: Modern Europe.

Instructor: Diana Kormos-Buchwald

Required textbooks:

Hagen Schulze; *Germany: A New History ((paper),)*, Harvard University Press, 1998. ISBN: 978-0674005457

Karl Marx and Frederick Engels; ; *The Communist Manifesto (1998)*,, VERSO, , 1998. ISBN: 1-85984-898-2

Hobsbawm, Eric; ; *The Age of Empire (any)*, , Vintage,, 1989. ISBN: 978-0679721758

Hum/H 004B. The Development of Science from Babylon through the Renaissance.

Instructor: Jed Buchwald

Required textbooks:

Lindberg, David C.; *The Beginnings Of Western Science*, University of Chicago Press, 1992. ISBN: 978-0226482316

Hum/PI 009 (Section 1). Knowledge and Reality.

Instructor: Christopher Hitchcock

Required textbooks:

Cahn, Steven M.; *Classics of Western Philosophy (8th edition) (8th)*, Hackett, 2012. ISBN: 978-1-60384-743-8

Hum/PI 009 (Section 2). Knowledge and Reality.

Instructor: Christopher Hitchcock

Required textbooks:

Cahn, Steven M.; *Classics of Western Philosophy (8th edition) (8th)*, Hackett, 2012. ISBN: 978-1-60384-743-8

LANGUAGES

L 102C. Elementary French.

Instructor: Christiane Orcel

Required textbooks:

Jansma, Kimberly and Kassen, Margaret Ann; *Motifs: An Introduction to French (Fourth)*, Thomson Heinle, 2007. ISBN: 978-1413029819

Jansma, Kimberly and Kassen, Margaret Ann; *Workbook/Lab Manual: Motifs: An Introduction to French (Fourth)*, Thomson Heinle, 2007. ISBN: 978-1-4130-3043-3

L 103C. Intermediate French.

Instructor: Christiane Orcel

Required textbooks:

Merimee, Prosper; *Carmen (2008)*, Larousse (Petits Classiques), . ISBN: 978-2-03-583908-4

Merimee, Prosper; *La Venus d'Ille (2010)*, Larousse (Petits Classiques), . ISBN: 978-8853605528

Camus, Albert; *L'Exil et le Royaume*, Gallimard (Collection Folio), . ISBN: 2-07-036078-4

L 110C (Section 1). Elementary Spanish.

Instructor: Daniel Garcia

Required textbooks:

Matilde Olivella Castells, Elizabeth E. Guzman, Paloma Lapuerta, Judith E. Liskin-Gasparro; *Mosaicos: Spanish as a World Language, Books a la Carte Plus MySpanishLab, 5/E (5th)*, Prentice Hall, 2010. ISBN: 0205775586

L 112C. Intermediate Spanish.

Instructor: Daniel Garcia

Required textbooks:

Samaniego, Fabian et al.; *Mundo 21. Espanol para el siglo 21 4th + iLrn(TM) Heinle Learning Center Printed Access Card 4th Edition (4th)*, Cengage / Heinle, 2012. ISBN: 978-1-111-70719-4

L 130C. Elementary German.

Instructor: Andreas Aebi

Required textbooks:

Forester, Lee; *Auf geht's (2012)*, live oak multimedia/evia learning, . ISBN: 9781886553323

L 132C. Intermediate German.

Instructor: Andreas Aebi

Required textbooks:

Forester, Lee; *Weiter geht's (latest/2012)*, live oak multi media/evia learning, 2012. ISBN: 9781886553330

L 152A. French Literature in Translation: Classical and Modern.

Instructor: Trevor Merrill

Required textbooks:

Moliere, Jean-Baptiste, translated by Richard Wilbur; *The School for Wives and the Learned Ladies (Reissue edition)*, Mariner Books , 1991. ISBN: 978-0156795029

Moliere, Jean-Baptiste, translated by Richard Wilbur; *Phaedra (reissue edition)*, Mariner Books, 1987. ISBN: 978-0156757805

Denon, Vivant, translated by Lydia Davis; *No Tomorrow*, NYRB Classics, 2009. ISBN: 978-1590173268

LAW

Law134. Law and Technology.

Instructor: Edward McCaffery

Required textbooks:

Merges, Robert P., Menell, Peter S., Lemley, Mark A.; *Intellectual Property in the New Technological Age (Sixth Edition)*, Aspen Publishers, 2012. ISBN: 978-1454820093

MATHEMATICS

Ma 001C (Practical). Calculus of One and Several Variables and Linear Algebra.

Instructor: Yi Ni

Required textbooks:

Marsden, Jerrold, Tromba, Anthony; *Vector Calculus (Sixth)*, W. H. Freeman, 2012. ISBN: 1429215089

Ma 001C (Analytical). Calculus of One and Several Variables and Linear Algebra.

Instructor: Alexander Kechris

Required textbooks:

Apostol, Tom; *Calculus, Vol. 2*, . ISBN: 0471000078

Ma 004. Introduction to Mathematical Chaos.

Instructor: Matilde Marcolli

Required textbooks:

Yakov Pesin and Vaughn Climenhaga; *Lectures on Fractal Geometry and Dynamical Systems*, . ISBN: 0821848895

Ma 005C. Introduction to Abstract Algebra.

Instructor: Christopher Ormerod

Required textbooks:

Dummit and Foote; *Abstract Algebra*, , . ISBN: 0471433349

Ma 007. Number Theory for Beginners.

Instructor: Dinakar Ramakrishnan

Required textbooks:

Davenport; *The Higher Arithmetic* , , . ISBN: 0521722365

Ma 106. Elliptic Curves.

Instructor: Pei-Yu Tsai

Required textbooks:

Silverman and Tate; *Rational Points on Elliptic Curves* ., , . ISBN: 0387978259

Suggested textbooks:

Joseph H. Silverman.; *The Arithmetic of Elliptic Curves (Graduate Texts in Mathematics)*, , , . ISBN: 0387094938

Ma 108C. Classical Analysis.

Instructor: Semra Demirel-Frank

Required textbooks:

Greene Krantz; *Function Theory of One Complex Variable*, , . ISBN: 0821839624

Suggested textbooks:

Ahlfors, Lars; *Complex Analysis*, , . ISBN: 0070006571

Elias M. Stein and Rami Shakarchi; *Complex Analysis*, , . ISBN: 0691113858

Bak and Newman; *Complex Analysis*, , . ISBN: 1441972870

Ma 109C. Introduction to Geometry and Topology.

Instructor: Subhojoy Gupta

Required textbooks:

Guillemin and Pollack; *Differential Topology*, , . ISBN: 0821851934

Ma 120C. Abstract Algebra.

Instructor: Matthias Flach

Required textbooks:

Serge Lang; *Algebra (3rd)*, springer, 2002. ISBN: 0-387-95385-X

Ma 151C. Algebraic and Differential Topology.

Instructor: Yi Liu

Suggested textbooks:

Milnor, John, Stasheff, James D.; *Characteristic Classes*, , . ISBN: 0691081220

Ma 160C. Number Theory.

Instructor: Dinakar Ramakrishnan

Required textbooks:

Cassells, J. and Frohlich, A.; *Algebraic Number*, , . ISBN: 0950273422

Ma 191C (Section 2). Selected Topics in Mathematics.

Instructor: Matilde Marcolli

Required textbooks:

Matilde Marcolli; *Feynman Motives*, , . ISBN: 9814271209

Ma/ACM 144C. Probability.

Instructor: Karsten Chipeniuk

Suggested textbooks:

MUSIC

Mu 139. History III: Music History from 1850 to the Present.

Instructor: Thomas Neenan

Required textbooks:

Frisch, Walter; *Music in the Nineteenth Century (paperback)*, WW Norton, 2012. ISBN: 978-0393929195

Ross, alex; *The Rest is Noise: Listening to the Twentieth Century (paperback)*, Picador reprint edition, 2008. ISBN: 978-0312427719

PHYSICS

Ph 001C (Practical). Classical Mechanics and Electromagnetism.

Instructor: James Eisenstein

Required textbooks:

Serway, Raymond and Jewett, John W. Jr.; *Physics for Scientists and Engineers (Ninth)*, Brooks-Cole, . ISBN: 978-1-133-95408-8

Ph 012C. Waves, Quantum Physics, and Statistical Mechanics.

Instructor: Alan Weinstein

Required textbooks:

Charles Kittel and Herbert Kroemer; *Thermal Physics (2nd edition) (Second Edition)*, W. H. Freeman; , 1980. ISBN: 978-0716710882

Ph 106C. Topics in Classical Physics.

Instructor: Sunil Golwala

Required textbooks:

Griffiths, David J.; *Introduction to Electrodynamics (4)*, Addison-Wesley, 2012. ISBN: 978-0321856562

Suggested textbooks:

Heald, Mark A., Marion, Jerry B.; *Classical Electromagnetic Radiation (3)*, Dover, 2012. ISBN: 978-0486490601

SOCIAL SCIENCE

SS 222C. Econometrics.

Instructor: Robert Sherman

Required textbooks:

wooldridge, jeffrey; *econometric analysis of cross section and panel data (2nd)*, mit press, 2010. ISBN: 978-0-262-23258-6