Book Adoptions for SP 2019-20
Prepared Friday, April 03, 2020

This document lists the required and optional textbooks for Caltech courses offered during the SP 2019-20 term. Not all courses are listed. Only those courses for which the Registrar has solid information are listed.

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

Please consult the Library Catalog (TIND) to view class course reserves. Course reserves are available in the Sherman Fairchild Library only. Reserve material is available for 3-hour checkout.

Changes in the last 7 days

Ae/AM/ME 215
E/SEC 103
ESE/Ge 142
HPS/Pl 125
Hum114C
L 106C
L 107C
L 110C
L/Hum 150A
L/Hum 152A
Ma 110C
Mu 055
Ph 077A
Ph 077C
Pl 098
AEROSPACE
APPLIED & COMPUTATIONAL MATH
APPLIED MECHANICS
APPLIED PHYSICS
ASTROPHYSICS

Ay 126. Interstellar and Intergalactic Medium.
Instructor: Shrinivas Kulkarni

Required textbooks:

Notes for students:

BIOCHEMISTRY & MOLECULAR BIOPHYSICS
BIOENGINEERING

BE 150. Biological Circuit Design.
Instructors: Justin Bois, Michael Elowitz

Required textbooks:
Alon, Uri; An introduction to systems biology: design principles of biological circuits (2), ISBN: 9781439837177

BIOLOGY

Bi 001. Principles of Biology - The great theories of biology and their influence in the modern world.
Instructors: Elliot Meyerowitz, Kai Zinn

Required textbooks:
Alberts, Bruce; Molecular Biology of the Cell (6), ISBN: 9780815344322
Wilson, John, Hunt, Tim; Molecular Biology of the Cell 6E - The Problems Book (6), ISBN: 9780815344537
Bi 009. Cell Biology.

Instructors: David Chan, David Prober

Required textbooks:

Bi/BE 024. Scientific Communication for Biological Scientists and Engineers.

Instructor: Sarah MacLean

Suggested textbooks:
Alley, Michael; The craft of scientific writing (4), ISBN: 9781441982872

Bi/CNS/NB/Psy 150. Introduction to Neuroscience.

Instructors: Ralph Adolphs, Henry Lester

Required textbooks:

BUSINESS, ECONOMICS, AND MANAGEMENT

BEM102. Introduction to Accounting.

Instructor: Michael Ewens

Required textbooks:

BEM104. Investments.

Instructor: Richard Roll

Required textbooks:
CHEMICAL ENGINEERING

ChE103C. Transport Phenomena.

Instructors: Richard Flagan, Mikhail Shapiro

Required textbooks:

CHEMISTRY

Ch 102. Introduction to Inorganic Chemistry.

Instructors: Ryan Hadt, Kimberly See

Required textbooks:

COMPUTER SCIENCE

CS 038. Algorithms.

Instructor: Leonard Schulman

Suggested textbooks:

Notes for students:
Recommended but not required. 1 copy of "Introduction to Algorithms" is available online: https://clsproxy.library.caltech.edu/login?url=http://site.ebrary.com/lib/caltech/docDetail.action?docID=10397652


Instructor: Leonard Schulman

Suggested textbooks:
Notes for students:

Recommended but not required. 1 copy available online:

CONTROL & DYNAMICAL SYSTEMS


Instructor: Eugene Lavretskey

Required textbooks:

ECONOMICS

Ec 117. Matching Markets.

Instructor: Luciano Pomatto

Required textbooks:

Ec 140. Economic Progress.

Instructor: Philip Hoffman

Required textbooks:

ELECTRICAL ENGINEERING

ENGLISH

En 114. Shakespeare's Career: Tragedies and Tragicomedies.

Instructor: George Pigman
**En 134. The Career of Herman Melville.**

*Instructor:* Cindy Weinstein

**Required textbooks:**

- Herman Melville; *Billy Budd, Bartleby, and Other Stories*, Penguin Classics, 2016. ISBN: 0143107607

**En 186. The Novel of Education.**

*Instructor:* Dehn Gilmore

**Required textbooks:**

- Dorothy Sayers; *Gaudy Night*, . ISBN: 9780062196538
- Larkin, Philip; *Jill*, . ISBN: 0879519614
- Amis, Kingsley; *Lucky Jim*, . ISBN: 9780141182599
- Lodge, David; *Nice Work*, . ISBN: 9780140133967
- Smith, Zadie; *On Beauty*, . ISBN: 0143037749
- Schumacher, Julie; *Dear Committee Members*, . ISBN: 9780385538138

**ENVIRONMENTAL SCIENCE & ENGINEERING FRESHMAN SEMINARS**

**FS/Ph 009. Freshman Seminar: The Science of Music.**

*Instructor:* Hugh Politzer

**Required textbooks:**

- Levitin, Daniel; *This Is Your Brain on Music*, . ISBN: 978-0452288522
- Deutsch, Diana; *Musical Illusions and Phantom Words:...*, . ISBN: 978-0190206833
Notes for students:
The Caltech library has a digital edition of This Is Your Brain... that you can read on-line or download with your Caltech log-in. Also, any edition is OK. A digital copy of Musical Illusions... is on order and should likewise be available through the Caltech library. Perfecting Sound... is only needed in the second half of the term. It is for sale as a paperback and a Kindle, but, depending on course enrollment, the Caltech library might have a scanned version by then.

GEOLOGY

Ge 001. Earth and Environment.
Instructor: Paul Asimow

Required textbooks:

Notes for students:
Please ensure that you get a copy of this book that has revisions made between the third and fourth printing of the 2nd edition.

Ge 121C. Advanced Field Geology.
Instructor:

Suggested textbooks:
Compton, Robert; Geology in the Field (paperback), Earthspun books, 2017. ISBN: 9781547118779

Notes for students:
Students can use the older version of Compton's book; there are plenty of copies in the GPS library.

Instructor: Zachary Ross

Suggested textbooks:
Goodfellow, Ian, Bengio, Yoshua, Courville, Aaron; Deep Learning, . ISBN: 978-0262035613
HISTORY

Instructor: Maura Dykstra

Required textbooks:
Harold David Roth; *Original Tao: inward training (nei-yeh) and the foundations of Taoist mysticism.*, Columbia University Press, 2004. ISBN: 0231115652

H 192. The Crusades.
Instructor: Warren Brown

Required textbooks:
Gabrieli, Francesco; *Arab Historians of the Crusades*, University of California Press, 1969. ISBN: 0520052242
Allen, S. J.; Amt, Emilie; *The Crusades: A Reader (Second)*, University of Toronto, 2014. ISBN: 9781442606234

HISTORY AND PHILOSOPHY OF SCIENCE

HPS/Pl 125. Philosophical Issues in Quantum Physics.
Instructor: Mario Georg Hubert

Required textbooks:

HUMANITIES

Hum/En 024. The Scientific Imagination in English Literature.
Instructor: Dehn Gilmore

**Required textbooks:**

More, Thomas; *Three Modern Utopias*, ISBN: 9780199537990
Shakespeare, William; *Tempest*, ISBN: 9780393978193
Marlowe, Christopher; *Doctor Faustus*, ISBN: 9780393977547
Stevenson, Robert Louis; *Jekyll and Hyde*, ISBN: 978-1505552188

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Hum/H 008B. Civilization, Science, and Archaeology: The Development of Science from Babylon though the Renaissance.

Instructor: Jed Buchwald

**Required textbooks:**


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Hum/H 009B. European Civilization: Early Modern Europe.

Instructor: Philip Hoffman

**Required textbooks:**

Locke, John; *Two Treatises of Government (3)*, Cambridge University Press, ISBN: 978-0521357302

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Instructor: Warren Brown

**Required textbooks:**

Sheingorn, Pamela; *The Book of Sainte Foy*, University of Pennsylvania, ISBN: 0812215125
Hum114C. Spanish and Latin American Literature.

Instructor: Gloria Arjona

Required textbooks:

CHANG-RODRIGUEZ, RAQUEL; Voces de Hispanoamérica (5th), CENGAGE LEARNING, 2016. ISBN: 9781305584488

LANGUAGES

L 102C. Elementary French.

Instructor: Christiane Orcel

Required textbooks:


Notes for students:

e-version also acceptable

L 106C (Section 1). Elementary Japanese.

Instructor: Megumi Fujio

Required textbooks:


Hirai, Ritsuko; First Year Japanese Workbook (7th), Pearson, 2017. ISBN: 9781323587829

L 106C (Section 2). Elementary Japanese.

Instructor: Megumi Fujio

Required textbooks:
L 110C (Section 1). Elementary Spanish.

Instructor: Daniel Garcia

Required textbooks:

Notes for students:
We will use one textbook [JUNTOS] during the whole academic year. You have several purchase and rental options. Please make sure to select the proper one according to the number of terms you're planning to take elementary Spanish. The option listed at the Caltech Bookstore is for those students who plan to take three terms and want a printed copy of the textbook. For all the options, visit: https://www.cengage.com/c/mindtap-for-juntos-student-edition-1e-rubio/

L 110C (Section 2). Elementary Spanish.

Instructor: Gloria Arjona

Required textbooks:

Notes for students:
We will use one textbook [JUNTOS] during the whole academic year. You have several purchase and rental options. Please make sure to select the proper one according to the number of terms you're planning to take elementary Spanish. The option listed at the Caltech Bookstore is for those students who plan to take three terms and want a printed copy of the textbook. For all the options, visit: https://www.cengage.com/c/mindtap-for-juntos-student-edition-1e-rubio/

L 112C. Intermediate Spanish.

Instructor: Daniel Garcia

Required textbooks:

Notes for students:
We will use one textbook [Rutas] during the whole academic year. You have several purchase and rental options. Please make sure to select the proper one according to the number of terms you're planning to take. For all the options, visit: https://www.cengage.com/c/rutas-intermediate-spanish-1e-velardi/
L 170C. Introduction to Chinese.
Instructor: Xiangyun Wang

Required textbooks:

L 172C. Intermediate Chinese.
Instructor: Xiangyun Wang

Required textbooks:

L/Hum 150A. Japanese Literature in Translation.
Instructor: Ritsuko Toner

Required textbooks:
Toner, Ritsuko; Course Reader, , . ISBN: 0000000000

Instructor: Trevor Merrill

Required textbooks:
Molière, Jean Baptiste Poquelin de,Wilbur, Richard; The misanthrope ; and Tartuffe (Reprint), Mariner Books, 1965. ISBN: 9780156605175
Ma 001C (Practical). Calculus of One and Several Variables and Linear Algebra.
Instructor: Matthias Flach

Required textbooks:
Jerrold E. Marsden, Anthony Tromba; *Vector Calculus* (6), W.H.Freeman, . ISBN: 978-1429215084

Ma 001C (Analytical). Calculus of One and Several Variables and Linear Algebra.
Instructor: Yi Ni

Required textbooks:

Notes for students:
1st edition (1965) ebook -

Ma 104. Introduction to Mathematical Chaos.
Instructor: Sarthak Parikh

Required textbooks:

Suggested textbooks:

Notes for students:
Both course textbooks (Alligood, Sauer, Yorke; Chaos : An Introduction to Dynamical Systems and Pesin, Climenhaga; Lectures on fractal geometry and dynamical systems) are available online via the Caltech library. Some copies will also be available at the Library Course Reserves. "Chaos: an introduction to dynamical systems" is available online: https://clsproxy.library.caltech.edu/login?url=http://dx.doi.org/10.1007/978-3-642-59281-2
Ma 108C. Classical Analysis.

Instructor: Nikolai Makarov

Required textbooks:
Marshall, Donald; Complex Analysis, ISBN: 9781107134829

MECHANICAL ENGINEERING

Music

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

Instructor: Thomas Neenan

Required textbooks:
Ross, Alex; The Rest Is Noise, ISBN: 978-0312427719
Frisch, Walter; Music In The Nineteenth Century, ISBN: 978-0393929195

Notes for students:
Frisch is available in various formats including Kindle from Sherman-Fairchild. Ross is an inexpensive paperback. You may be ordered to borrow used copies from other students who have taken Mu139 in the past. You must have access to both books in order to complete the work.

Philosophy

Pl 098. Reading in Philosophy.

Instructor: Christopher Hitchcock

Required textbooks:
Marcus, Russell, McEvoy, Mark; An Historical Introduction to the Philosophy of Mathematics: A Reader (1st), Bloomsbury Academic, 2016. ISBN: 9781472525673

Physics

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

Instructor: David Hsieh

Required textbooks:
Ph 001C (Practical). Classical Mechanics and Electromagnetism.

Instructor: Jason Alicea

Required textbooks:
Serway, Raymond A., Jewett, John W.; Physics for Scientists and Engineers (9th Edition), ISBN: 978-1133947271

Ph 002C. Waves, Quantum Mechanics, and Statistical Physics.

Instructor: Bradley Filippone

Required textbooks:
Kittel, Charles, Kroemer, Herbert; Thermal Physics (2nd), ISBN: 0716710889

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

Instructor: David Simmons-Duffin

Required textbooks:

Ph 106C. Topics in Classical Physics.

Instructors: Sunil Golwala, Nicholas Hutzler

Required textbooks:

Suggested textbooks:
PS 141B. A History of Budgetary Politics in the United States.

Instructor: D Kiewiet

Required textbooks:
Studenski, Paul,Krooss, Herman; Financial history of the United States, ISBN: 9781587981753

PS/SS 139. Comparative Politics.

Instructor: Gabriel Lopez-Moctezuma Jassan

Required textbooks:

SOCIAL SCIENCE

SS 222C. Econometrics.

Instructor: Robert Sherman

Required textbooks:

VISUAL CULTURE

VC 169. The Arts of Dynastic China.

Instructor: Juliann Wolfgram

Required textbooks:
Sullivan, Michael; The Three Perfections (revised), George Braziller, 1999. ISBN: 9780807614549

Suggested textbooks:
Notes for students:

These five texts are recommended for purchase. The course is actually a Zero Textbook Cost course.