Book Adoptions for SP 2019-20
Prepared Monday, March 23, 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.

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Ay 126. Interstellar and Intergalactic Medium.

Instructor: Shrinivas Kulkarni

Required textbooks:

Notes for students:

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/CNS/NB/Psy 150. Introduction to Neuroscience.
**Instructors:** Ralph Adolphs, Henry Lester

**Required textbooks:**
Kandel, Eric; *Principles of neural science (5)*, ISBN: 9780071390118

**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: https://clsproxy.library.caltech.edu/login?url=http://site.ebrary.com/lib/caltech/docDetail.action?docID=10397652

CONTROL & DYNAMICAL SYSTEMS

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

**Required textbooks:**

En 134. The Career of Herman Melville.

**Instructor:** Cindy Weinstein

**Required textbooks:**
Herman Melville; *Moby-Dick, or the Whale*, Northwestern-Newberry, 1988. ISBN: 0810102692
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

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ENVIRONMENTAL SCIENCE & ENGINEERING

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:**

### HISTORY


Instructor: Maura Dykstra

**Required textbooks:**

H 192. The Crusades.

Instructor: Warren Brown

**Required textbooks:**
Gabrieli, Francesco; *Arab Historians of the Crusades*, University of California Press, 1969. ISBN: 0520052242

### HISTORY AND PHILOSOPHY OF SCIENCE


Instructor: Mario Georg Hubert

**Required textbooks:**


**Notes for students:**

The primary textbook is Maudlin (2019), which will be supplemented by chapters from Norsen (2017).

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**HUMANITIES**

**Hum/En 024. The Scientific Imagination in English Literature.**

**Instructor:** Dehn Gilmore

**Required textbooks:**

- Shakespeare, William; *Tempest*, , ISBN: 9780393978193
- Marlowe, Christopher; *Doctor Faustus*, , ISBN: 9780393977547
- Stevenson, Robert Louis; *Jekyll and Hyde*, , ISBN: 978-1505552188

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

**Instructor:** Jed Buchwald

**Required textbooks:**


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

**Instructor:** Philip Hoffman

**Required textbooks:**


**Hum/H 010. Medieval Europe: The Problem of Violence.**

**Instructor:** Warren Brown

**Required textbooks:**

**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:**
- Ritsuko Hirai; *First Year Japanese (6)*, Pearson, . ISBN: 9781323419014
- Ritsuko Hirai; *First Year Japanese Workbook (7)*, Pearson, . ISBN: 9781323587829
L 106C (Section 2). Elementary Japanese.

Instructor: Megumi Fujio

**Required textbooks:**
- Ritsuko Hirai; *First Year Japanese Workbook (7)*, Pearson, . ISBN: 9781323587829
- Ritsuko Hirai; *First Year Japanese (6)*, Pearson, . ISBN: 9781323419014

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 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:**


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MATERIALS SCIENCE

MATHEMATICS

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](https://clsproxy.library.caltech.edu/login?url=http://dx.doi.org/10.1007/978-3-642-59281-2)

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**Ma 108C. Classical Analysis.**

**Instructor:** Nikolai Makarov

**Required textbooks:**

Marshall, Donald; *Complex Analysis*, ISBN: 9781107134829

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**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*, Picador, ISBN: 978-0312427719


**Notes for students:**

Frisch is available in various formats including Kindle from Sherman-Fairchild. Ross is an inexpensive paperback. You may be order 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.

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**PHYSICS**

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

**Instructor:** David Hsieh

**Required textbooks:**

Purcell, EM, Morin, DJ; *Electricity and Magnetism (3)*, ISBN: 978-1107014022
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:

POLITICAL SCIENCE
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.