Book Adoptions for SP 2018-19
Prepared Tuesday, March 26, 2019

This document lists the required and optional textbooks for Caltech courses offered during the SP 2018-19 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

- ACM/EE/IDS 217
- ACM095B
- APh/Ph/Ae 116
- Ae/AM/ME 223
- Bi 010
- Bi 189
- CDS244
- Ch 003A
- Ch 003X
- Ch 041C
- Ch/ChE 009
- EE 151
- EE/CS/MedE 125
- ESE/Ch 176
- ESE/Ge 142
- ESE/Ge/Ch 171
- ESE001
AEROSPACE
APPLIED & COMPUTATIONAL MATH
APPLIED PHYSICS

APh/MS 105C. States of Matter.
Instructor: Brent Fultz

Required textbooks:
Brent Fultz; *Phase Transitions in Materials (1)*, Cambridge Univ. Press, 2014. ISBN: 978-1-107-06724-0

ART HISTORY

Instructor: Juliann Wolfgram

Required textbooks:

ASTROPHYSICS

Ay 102. Physics of the Interstellar Medium.
Instructor: Lynne Hillenbrand

Required textbooks:

Suggested textbooks:

Ay 126. Interstellar and Intergalactic Medium.
Instructor: Lynne Hillenbrand
**Required textbooks:**


**Suggested textbooks:**


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**BIOENGINEERING**

**BE 150. Design Principles of Genetic Circuits.**

**Instructors:** Justin Bois, Michael Elowitz

**Required textbooks:**


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**BIOLOGY**

**Bi 009. Cell Biology.**

**Instructors:** David Chan, David Prober

**Required textbooks:**


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**Bi 250B. Topics in Systems Biology.**

**Instructors:** Justin Bois, Michael Elowitz

**Required textbooks:**

BUSINESS, ECONOMICS, AND MANAGEMENT

BEM102. Introduction to Accounting.
Instructor: Michael Ewens

Required textbooks:

BEM104. Investments.
Instructor: Richard Roll

Required textbooks:

CHEMICAL ENGINEERING

ChE/Ch 148. Polymer Physics.
Instructor: Zhen-Gang Wang

Required textbooks:

ChE103C. Transport Phenomena.
Instructor: Richard Flagan

Required textbooks:

ChE105. Dynamics and Control of Chemical Systems.
Instructor: John Seinfeld

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:


Instructor: Leonard Schulman

Suggested textbooks:

CONTROL & DYNAMICAL SYSTEMS
ECONOMICS
ELECTRICAL ENGINEERING
ENGLISH

En 110. Sinners, Saints, and Sexuality in Premodern Literature.

Instructor: Jennifer Jahner

Required textbooks:
En 118. Classical Mythology.

Instructor:

**Required textbooks:**


Aeschylus; *Aeschylus II: The Oresteia (The Complete Greek Tragedies), tr. David Grene et al. (3rd),* University of Chicago Press, 2013. ISBN: 978-0226311470


En 121. Literature and Its Readers.

Instructor:

**Required textbooks:**


Macpherson, James; *Fingal, an ancient epic poem, in six books: together with several other poems, composed by Ossian the son of Fingal,* Gale, 2010. ISBN: 978-1170043462


En 135. Dicken's London.

Instructor: Dehn Gilmore

**Required textbooks:**
En 180. Special Topics in English: Fabricating LA.

Instructor: Stefanie Sobelle

Required textbooks:
- Joan Didion; *Play it As it Lays (2nd edition)*, FSG Classics, 2005. ISBN: 0374529949

Suggested textbooks:
- Mike Davis; *City of Quartz*, Verso, 2006. ISBN: 1844675688

ENVIRONMENTAL SCIENCE & ENGINEERING

ESE135. Topics in Atmosphere and Ocean Dynamics.

Instructor: Joern Callies

Required textbooks:
- Archer, David (Editor), Pierrehumbert, Raymond (Editor); *The Warming Papers: The Scientific Foundation for the Climate Change Forecast*, , . ISBN: 978-1-405-19616-1

GEOLOGY

Ge 001. Earth and Environment.

Instructor: Paul Asimow
**HISTORY**

**H 132. Humanistic Ecology.**

**Instructor:** Daniel Lewis

**Required textbooks:**


**H 135. War, Conquest, and Empires.**

**Instructor:** Philip Hoffman

**Required textbooks:**


**H 151. The Long(er) Civil Rights Movement: From Emancipation to Black Lives Matter.**

**Instructor:** Michael Savage

**Required textbooks:**

Moody, Anne; *Coming of Age in Mississippi*, Delta Trade Paperbacks, ISBN: 978-0385337816

**HISTORY AND PHILOSOPHY OF SCIENCE**

**HPS/H 160. Einstein and His Generation: The History of Modern Physical Sciences.**
Instructor: Diana Kormos-Buchwald

**Required textbooks:**


Instructor: Jed Buchwald

**Required textbooks:**


HPS/Pl 125. Philosophical Issues in Quantum Physics.

Instructor: Charles Sebens

**Required textbooks:**


**HUMANITIES**

Hum/En 021. The Marvelous and the Monstrous: Literature at the Boundaries of the Real.

Instructor: Jennifer Jahner

**Required textbooks:**

Harvey, Michael; *The Nuts and Bolts of College Writing*, Hackett, . ISBN: 978-1-60384-898-5
Hum/En 023. Literature and Medicine.

Instructor: Dehn Gilmore

Required textbooks:

Forney, Ellen; Marbles, ISBN: 9781592407323
Williams, Ian; Bad Doctor, ISBN: 9780271067544
Mancuso, Sarah; Two Kinds of Decay, ISBN: 0312428448
ishiguro, Kazuo; never let me go, ISBN: 9781400078776
Stone, John; On Doctoring, ISBN: 9781451624120
sontag, susan; illness as metaphor, ISBN: 0312420137
Dunlap-Shohl, Peter; My Degeneration, ISBN: 9780271071022

Hum/H 003. The United States in the Twentieth Century.

Instructor: Michael Savage

Required textbooks:

Sinclair, Upton; The Jungle, Bantam Classics, ISBN: 978-0553212457
Howard-Pitney, David; Martin Luther King Jr., Malcolm X, and the Civil Rights Struggle of the 1950s and 1960s: A Brief History with Documents, Bedford/St. Martin's, 2004. ISBN: 978-0312395056


Instructor: Jed Buchwald

Required textbooks:


Hum/H 009C. European Civilization: Modern Europe.

Instructor: Diana Kormos-Buchwald

Required textbooks:
Hum075 (Section 2). Selected Topics in Humanities: Racing the Future: Multi-Ethnic Science and Speculative Fiction.

Instructor: Stefanie Sobelle

Required textbooks:
- Ted Chiang; Stories of Your Life and Others, Vintage, 2016. ISBN: 1101972122

LANGUAGES

L 102C. Elementary French.

Instructor: Christiane Orcel

Required textbooks:

L 103C. Intermediate French.

Instructor: Christiane Orcel

Required textbooks:

L 106C. Elementary Japanese.

Instructor: Megumi Fujio

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

Required textbooks:

L 132C. Intermediate German.
Instructor: Andreas Aebi

Required textbooks:

L 167A. Latin Literature.
Instructor: George Pigman

Required textbooks:
Carlon, Jacqueline; , , . ISBN: 9780199340613

L 170C. Introduction to Chinese.
Instructor: Xiangyun Wang

Required textbooks:

L 172C. Intermediate Chinese.
Instructor: Xiangyun Wang
**MATERIALS SCIENCE**

**MATHEMATICS**

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

**Instructor:** Nets Katz

**Required textbooks:**


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

**Instructor:** Matthias Flach

**Required textbooks:**

Marsden, Jerry, Tromba, Anthony; *Vector Calculus*, W.H. Freeman, . ISBN: 978-1-4292-1508-4

Ma 005C. Introduction to Abstract Algebra.

**Instructor:** Daxin Xu

**Suggested textbooks:**


Ma 105C. Introduction to Abstract Algebra.

**Instructor:** Daxin Xu

**Suggested textbooks:**

Ma 108C. Classical Analysis.
Instructor: Oleg Ivrii

*Suggested textbooks:*

Ma 110C. Analysis, I.
Instructor: Polona Durcik

*Required textbooks:*

Ma 111B. Topics in Analysis.
Instructor: Kirill Lazebnik

*Required textbooks:*
Ransford, T; *Potential Theory in the Complex Plane*, , ISBN: 9780511623776

Ma 191C (Section 6). Selected Topics in Mathematics.
Instructor: Christopher Campbell

*Required textbooks:*
Gaitsgory, Dennis, Rozenblyum, Nick; *A Study in Derived Algebraic Geometry*, , ISBN: 978-1470435691

Instructor: Philip Isett

*Suggested textbooks:*
Evans, Lawrence; *Partial Differential Equations*, , ISBN: 978-0821849743
ME 012C. Mechanics.

Instructor: Chiara Daraio

Suggested textbooks:

MEDICAL 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
Frisch, Walter; Music In The Nineteenth Century, Norton, . ISBN: 978-0393929195

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), . 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 003. Introductory Physics Laboratory.

Instructors: Eric Black, Kenneth Libbrecht

**Required textbooks:**

Taylor, John R.; *An Introduction to Error Analysis (2)*, . ISBN: 978-0-935702-75-0

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

Instructor: David Simmons-Duffin

**Required textbooks:**


Ph 106C. Topics in Classical Physics.

Instructor: Sunil Golwala

**Required textbooks:**


**Suggested textbooks:**

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


Ph 125C. Quantum Mechanics.

Instructor: Clifford Cheung

**Required textbooks:**

Shankar, R; *Principles of Quantum Mechanics (2)*, . ISBN: 0-306-44790-8

Ph 136C. Applications of Classical Physics.

Instructor: Saul Teukolsky
SOCIAL SCIENCE

SS 222C. Econometrics.

Instructor: Robert Sherman

Required textbooks: