Book Adoptions for WI 2017-18
Prepared Monday, November 27, 2017

This document lists the required and optional textbooks for Caltech courses offered during the WI 2017-18 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

ChE103B
En 140
En 190
Ge/Ay 117
H 108A
HPS/H 169
Hum/En 026
Hum/H 010
Hum/Pl 041
Hum/Pl 041
Hum105A
L 105A
L 106B
ANTHROPOLOGY

An 014. Introduction to Sociocultural Anthropology.
Instructor: Jean Ensminger

Required textbooks:
Bowen, Elenore Smith; Return to Laughter (1st), Knopf Doubleday, 1964. ISBN: 9780385053129

An/PS 127. Corruption.
Instructor: Jean Ensminger

Required textbooks:

APPLIED COMPUTATIONAL MATH

ACM101B. Methods of Applied Mathematics I.
Instructor: Oscar Bruno

Suggested textbooks:

ASTROPHYSICS

Instructor: Evan Kirby

Required textbooks:
Ay 124. Structure and Dynamics of Galaxies.
Instructor: Philip Hopkins

Required textbooks:

Ay 127. Cosmology and Galaxy Formation.
Instructors: E Phinney, Charles Steidel

Required textbooks:

BIOENGINEERING

BE/APh 161. Physical Biology of the Cell.
Instructor: Justin Bois

Required textbooks:

BIOLOGY

Bi 114. Immunology.
Instructors: Pamela Bjorkman, Sarkis Mazmanian

Required textbooks:

Bi/Ch 111. Biochemistry of Gene Expression.
Instructor: Carl Parker
**BUSINESS, ECONOMICS, AND MANAGEMENT**

**BEM112. International Financial Markets.**

**Instructor:** Richard Roll

**Suggested textbooks:**

**CHEMICAL ENGINEERING**

**ChE/BE/MedE 112. Design, Invention, and Fundamentals of Microfluidic Systems.**

**Instructor:** Rustem Ismagilov

**Required textbooks:**
Folch, Albert; *Introduction to BioMEMs*, ISBN: 1439818398

**Suggested textbooks:**

**ChE/Ch 164. Introduction to Statistical Thermodynamics.**

**Instructor:** Zhen-Gang Wang

**Required textbooks:**
Hill, Terrell L.; *An Introduction to Statistical Thermodynamics (Dover Reprint)*, Dover, 1986. ISBN: 9780486652429

**ChE101. Chemical Reaction Engineering.**

**Instructor:** Frances Arnold
Required textbooks:

COMPUTER SCIENCE

CS 021. Decidability and Tractability.
Instructor: Christopher Umans

Required textbooks:

ELECTRICAL ENGINEERING

EE 112. Introduction to Digital Signal Processing.
Instructor: Palghat Vaidyanathan

Required textbooks:

ENGINEERING

E 110. Principles of University Teaching and Learning in STEM.
Instructor: Jennifer Weaver

Required textbooks:

ENGLISH
En 086. Fiction and Creative Nonfiction Writing.

Instructor: Merrill Gerber

Required textbooks:

En 127. Jane Austen.

Instructor: Kevin Gilmartin

Required textbooks:

En 140. African American Expatriate Culture in Postwar Europe.

Instructor: Melanie Masterton Sherazi

Required textbooks:

En 190. Chaucer.

Instructor: Jennifer Jahner

Required textbooks:
- Chaucer, Geoffrey; *Dream Visions and Other Poems*, ISBN: 978-0393925883
ENVIROMENTAL SCIENCE ENGINEERING

ESE130. Atmosphere Dynamics.
Instructor: Simona Bordoni

Required textbooks:
Vallis, Geoffrey; Atmospheric and Oceanic Fluid Dynamics (1), Cambridge, 2006. ISBN: 9780511345906

GEOLOGY

Ge 121B. Advanced Field Geology.
Instructor: Joann Stock

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

Ge/Ay 117. Bayesian Statistics and Data Analysis.
Instructor: Heather Knutson

Required textbooks:

HISTORY

H 108A. The Early Middle Ages.
Instructor: Warren Brown

Required textbooks:
Geary, Patrick J.; Readings in Medieval History. Vol. 1: The Early Middle Ages (5th), University of Toronto Press, 2015. ISBN: 9781442634336
HISTORY AND PHILOSOPHY OF SCIENCE

HPS/H 169. Selected Topics in the History of Science and Technology: Engineering California.
Instructor:

Required textbooks:
David Beers; Blue Sky Dream: A Memoir of America's Fall from Grace (1 edition), Mariner Books, Sept. ISBN: 978-0156005319

HUMANITIES

Hum/En 020. Greek Epic and Drama.
Instructor: George Pigman

Required textbooks:
Aeschylus; Oresteia, trans. David Grene, Richmond Lattimore, , ISBN: 978-0226311470
Aristophanes; Frogs and Other Plays, , ISBN: 978-0192824097
Euripides; Medea and Other Plays, , ISBN: 9780199537969
Euripides; Orestes and Other Plays, , ISBN: 9780199552436
Homer; The Iliad, , ISBN: 9780140275360
Sophocles; Antigone, Oedipus the King, and Electra, , ISBN: 9780199537174

Hum/En 026. Encountering Difference in Medieval Literature.
Instructor: Leah Klement

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

**Instructor:** Jed Buchwald

**Required textbooks:**

Hum/H 009B (Section 1). European Civilization: Early Modern Europe.

**Instructor:** Philip Hoffman

**Required textbooks:**
Locke, John; *Two Treatises of Government*, Cambridge University Press, . ISBN: 978-0521357302


**Instructor:** Warren Brown

**Required textbooks:**

Hum/PI 041 (Section 1). Knowledge and Reality.

**Instructor:** Christopher Hitchcock

**Required textbooks:**
Hum/Pl 041 (Section 2). Knowledge and Reality.

Instructor: Christopher Hitchcock

Required textbooks:

Hum075. Selected Topics in Humanities: The Human Animal.

Instructor: Jocelyn Holland

Required textbooks:
Calderon de la Barca, Pedro; Life is a Dream, Penguin Classics, . ISBN: 0143104829

Hum105A. Topics in French Culture and Literature.

Instructor: Christiane Orcel

Required textbooks:
Duras, Marguerite; La Douleur, Gallimard (Collection Folio), 1993. ISBN: 978-2070387045

Hum119. Selected Topics in Humanities: Metamorphosis.

Instructor: Jocelyn Holland

Required textbooks:
Ovid; Metamorphoses, Oxford, . ISBN: 0199537372
Kafka, Franz; The Metamorphosis, , . ISBN: 0393967972
Ransmayr, Christoph; The Last World, , . ISBN: 0802134580

LANGUAGES
L 102B. Elementary French.

Instructor: Christiane Orcel

Required textbooks:

L 105A. Topics in French Culture and Literature.

Instructor: Christiane Orcel

Required textbooks:
Duras, Marguerite; La Douleur, Gallimard (Collection Folio), 1993. ISBN: 978-2070387045

L 106B. Elementary Japanese.

Instructor: Megumi Fujio

Required textbooks:
Hirata Ritsuko; First Year Japanese (6), Pearson, 2016. ISBN: 978-1-323-41901-4

L 110B (Section 1). Elementary Spanish.

Instructor: Daniel Garcia

Required textbooks:

L 112B. Intermediate Spanish.

Instructor: Daniel Garcia

Required textbooks:
L 170B. Introduction to Chinese.

Instructor: Xiangyun Wang

Required textbooks:


L 172B. Intermediate Chinese.

Instructor: Xiangyun Wang

Required textbooks:


LAW

Law/PS/H 148A. The Supreme Court in U.S. History.

Instructor: J. Kousser

Required textbooks:


MATHEMATICS

Ma 001D. Series.
Instructor: Elena Mantovan

Required textbooks:
Apostol, T; Calculus Volume I, ISBN: 0-471-10005-1

Ma 005B. Introduction to Abstract Algebra.
Instructor: Elena Mantovan

Required textbooks:
Dummit, D, Foote, R; Abstract Algebra (3), ISBN: 978-0471433347

Ma 013. Problem Solving in Vector Calculus.
Instructor: Elena Mantovan

Required textbooks:
Schey, HM; Div, Grad, Curl and All That, ISBN: 978-0393925166

Ma 105B. Introduction to Abstract Algebra.
Instructor: Elena Mantovan

Required textbooks:
Dummit, D, Foote, R; Abstract Algebra (3), ISBN: 978-0471433347

Ma 106. Elliptic Curves.
Instructor: Eric Rains

Required textbooks:
Silverman, J, Tate, J; Rational Points on Elliptic Curves, ISBN: 978-3319185873

Ma 108B. Classical Analysis.
Instructor: Polona Durcik

Required textbooks:
Ma 109B. Introduction to Geometry and Topology.
Instructor: Qiongling Li

Required textbooks:

Ma 110B. Analysis.
Instructor: Eric Rains

Required textbooks:

Ma 120B. Abstract Algebra.
Instructor: Xinwen Zhu

Required textbooks:
Lang, Serge; Algebra, ISBN: 038795385X

Ma 121B. Combinatorial Analysis.
Instructor:

Required textbooks:

Ma 151B. Algebraic and Differential Topology.
Instructor: You Qi

Required textbooks:
Allen Hatcher; Algebraic Topology, ISBN: 0521795400
**Ma 157A. Riemannian Geometry.**

**Instructor:** Qiongling Li

**Required textbooks:**
- Do Carmo, Manfredo; *Riemannian Geometry*, ISBN: 978-0817634902

**Ma/CS 006B. Introduction to Discrete Mathematics.**

**Instructor:** Polona Durcik

**Required textbooks:**
- Diestel, R; *Graph Theory*, ISBN: 978-3642142789
- West, D; *Introduction to Graph Theory*, ISBN: 978-0130144003

**MUSIC**

**Mu 056. Jazz History.**

**Instructor:** Thomas Neenan

**Required textbooks:**

**Mu 138. History II: Music History from 1750 to 1850.**

**Instructor:** Thomas Neenan

**Required textbooks:**

**PHYSICS**

Instructor: David Hsieh

**Required textbooks:**
- Hellwell, T.M.; *Special Relativity*, . ISBN: 978-1891389610
- Purcell, EM; Morin, DJ; *Electricity and Magnetism (3)*, . ISBN: 978-1107014022

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

Instructor: Christopher Martin

**Required textbooks:**

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

Instructor: Bradley Filippone

**Required textbooks:**

Ph 106B. Topics in Classical Physics.

Instructors: Sunil Golwala, Alan Weinstein

**Required textbooks:**

**Suggested textbooks:**
SS 205B. Foundations of Economics.

Instructor: Federico Echenique

Required textbooks:

SS/Ma 214. Mathematical Finance.

Instructor: Jaksa Cvitanic

Required textbooks:
- Steven E. Shreve; *Stochastic Calculus for Finance II: Continuous-Time Models,* ISBN: 978-0387401010