Book Adoptions for WI 2017-18

Prepared Monday, December 04, 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

En 127
En 140
Ma 003
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
Required textbooks:

BUSINESS, ECONOMICS, AND MANAGEMENT

Instructor: Richard Roll

Suggested textbooks:

CHEMICAL ENGINEERING

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

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: Peter Westwick

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:**
ISBN: 978-0226482057

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/Pl 041 (Section 1). Knowledge and Reality.
Instructor: Christopher Hitchcock

**Required textbooks:**
Hum/PI 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:**

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 003. Introduction to Probability and Statistics.
Instructor: Kim Border

Required textbooks:
Pitman, Jim; *Probability*, , . ISBN: 0387979743

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.
Ma 108B. Classical Analysis.

Instructor: Polona Durcik

Required textbooks:
Wheeden, RL, Zygmund, A; Measure and Integral: An Introduction to Real Analysis (2), ISBN: 978-1498702898

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

Suggested textbooks:

Ma 157A. Riemannian Geometry.
Instructor: Qiongling Li

Required textbooks:
Do Carmo, Manfredo; Riemannian Geometry, ISBN: 978-0817634902
Lee, John M; Riemannian Manifolds, ISBN: 978-0387983226

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:*

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**PHYSICS**

**Ph 001B (Analytical). Classical Mechanics and Electromagnetism.**
Instructor: David Hsieh

*Required textbooks:*
- 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:

SOCIAL SCIENCE

**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