Book Adoptions for WI 2017-18

Prepared Wednesday, December 06, 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

BMB/Bi/Ch 173

En 127

H 144

H 145

ME 012B
ANTHROPOLOGY

An 014. Introduction to Sociocultural Anthropology.

Instructor: Jean Ensminger

Required textbooks:

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:

BIOCHEMISTRY MOLECULAR BIOPHYSICS BIOENGINEERING


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:**


En 086. Fiction and Creative Nonfiction Writing.

Instructor: Merrill Gerber

Required textbooks:

En 127. Jane Austen.

Instructor: Kevin Gilmartin

Required textbooks:
Jane Austen; Northanger Abbey, Penguin, . ISBN: 9780141439792
Jane Austen; Sense and Sensibility, Oxford, . ISBN: 9780199535576
Jane Austen; Pride and Prejudice, Oxford, . ISBN: 9780199535569
Jane Austen; Mansfield Park, Penguin, . ISBN: 9780141439808
Jane Austen; Emma, Oxford, . ISBN: 9780199535521
Jane Austen; Persuasion, Oxford, . ISBN: 9780199535552

En 140. African American Expatriate Culture in Postwar Europe.

Instructor: Melanie Masterton Sherazi

Required textbooks:

En 190. Chaucer.

Instructor: Jennifer Jahner

Required textbooks:
ENVIRONMENTAL 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:
H 144. The History of Women and Art.

Instructor: Amanda Vickery

Required textbooks:


Garb; Women Impressionists, Rizzoli, 1986. ISBN: 978-0847807574


Parker, Pollock; Old Mistresses: Women, Art and Ideology, Pandora, 2013. ISBN: 978-1780764047

H 145. Women in Modern America Britain.

Instructor: Amanda Vickery

Required textbooks:


Hall; Sex, Gender and Social Change in Britain since 1880 (2nd), Palgrave Macmillan, 2012. ISBN: 978-0230297814


HISTORY AND PHILOSOPHY OF SCIENCE

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

Instructor: Peter Westwick

Required textbooks:
HUMANITIES

Hum/En 020. Greek Epic and Drama.

Instructor: George Pigman

Required textbooks:

- 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:


Instructor: Warren Brown

Required textbooks:

Hum/Pl 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:**


---

**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:
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:**

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

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

MECHANICAL ENGINEERING

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