

# Book Adoptions for WI 2017-18

Prepared Wednesday, January 03, 2018

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

APh023

Ch 006A

Ch 041B

Ec/SS 124

Mu 138

# 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:**

Fisman, Ray and Golden, Miriam A.; *Corruption: What Everyone Needs to Know (1st)*, Knopf Doubleday, 2017. ISBN: 9780190463984

# APPLIED COMPUTATIONAL MATH

## ACM101B. Methods of Applied Mathematics I.

Instructor: Oscar Bruno

### **Suggested textbooks:**

Weinberger, H. F.; *A First Course in Partial Differential Equations: with Complex Variables and Transform Methods*, . ISBN: 978-0486686400

Guenther, Ronald B., Lee, John W.; *Partial Differential Equations of Mathematical Physics and Integral Equations*, . ISBN: 0486688895

LeVeque, Randall J.; *Finite Difference Methods for Ordinary and Partial Differential Equations*, Society for Industrial and Applied Mathematics, 2007. ISBN: 978-0-89871-629-0

# APPLIED PHYSICS

## APh023. Demonstration Lectures in Optics.

Instructor: Andrei Faraon

### **Required textbooks:**

Hecht, Eugene; *Optics (5th edition)*, Pearson, 2016. ISBN: 9780133977226

# ASTROPHYSICS

## **Ay 101. Physics of Stars.**

**Instructor:** Evan Kirby

### ***Required textbooks:***

A. C. Phillips; *The Physics of Stars (2nd)*, Wiley, 1999. ISBN: 978-0471987987

Hansen, Carl J., Kawaler, Steven D., Trimble, Virginia; *Stellar Interiors: Physical Principles, Structure, and Evolution (2nd)*, Springer, 2004. ISBN: 978-0387200897

## **Ay 124. Structure and Dynamics of Galaxies.**

**Instructor:** Philip Hopkins

### ***Required textbooks:***

Mo, Houjun, van den Bosch, Frank, White, Simon; *Galaxy Formation and Evolution*, Cambridge University Press, 2011. ISBN: 978-0521857932

## **Ay 127. Cosmology and Galaxy Formation.**

**Instructors:** E Phinney, Charles Steidel

### ***Required textbooks:***

Mo, Houjun, van den Bosch, Frank, White, Simon; *Galaxy Formation and Evolution*, Cambridge U Press, 2011. ISBN: 978-0521857932

# **BIOCHEMISTRY MOLECULAR BIOPHYSICS BIOENGINEERING**

## **BE/APh 161. Physical Biology of the Cell.**

**Instructor:** Justin Bois

### ***Required textbooks:***

Phillips, Rob; *Physical Biology of the Cell (2nd)*, Garland Science, 2013. ISBN: 9780815344506

# **BIOLOGY**

## **Bi 114. Immunology.**

**Instructors:** Pamela Bjorkman, Sarkis Mazmanian

**Required textbooks:**

Murphy, Kenneth; *Immunobiology: The Immune System (Janeway) (8th)*, Garland Science, 2012. ISBN: 9780815342434

**Bi/Ch 111. Biochemistry of Gene Expression.**

Instructor: Carl Parker

**Required textbooks:**

Weaver, R. F.; *Molecular Biology (5th)*, McGraw Hill Publishing Co., . ISBN: 978-0073525327

## **BUSINESS, ECONOMICS, AND MANAGEMENT**

**BEM112. International Financial Markets.**

Instructor: Richard Roll

**Suggested textbooks:**

Solnik, Bruno, McLeavey, Dennis; *Global Investments (6th)*, Pearson, 2009. ISBN: 978-0321527707

## **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

Adams, James L.; *Conceptual Blockbusting (4th edition)*, . ISBN: 978-0-7382-0537-3

**Suggested textbooks:**

Russo, J. Edward ; *Winning Decisions*, . ISBN: 0385502257

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

Instructor: Zhen-Gang Wang

**Required textbooks:**

Chandler, David; *Introduction to Modern Statistical Mechanics (1st)*, Oxford University Press, 1987. ISBN: 9780195042771

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

## **ChE101. Chemical Reaction Engineering.**

**Instructor:** Frances Arnold

### ***Required textbooks:***

Schmidt, Larry D; *The Engineering of Chemical Reactions (2nd)*, Oxford University Press, . ISBN: 978-0-19-516925-6

## **CHEMISTRY COMPUTER SCIENCE**

## **CS 021. Decidability and Tractability.**

**Instructor:** Christopher Umans

### ***Required textbooks:***

Michael Sipser; *Introduction to the Theory of Computation (Third)*, Cengage Learning, 2012. ISBN: 978-1133187790

## **ECONOMICS ELECTRICAL ENGINEERING**

## **EE 045. Electronics Laboratory.**

**Instructor:** Azita Emami

### ***Required textbooks:***

Sedra, Adel,Smith, Kenneth; *Microelectronic Circuits (6th Edition)*, Oxford University Press, . ISBN: 978-0195323030

Tsividis, Yannis; *A First Lab in Circuits and Electronics*, Wiley, . ISBN: 978-0471386957

## **EE 112. Introduction to Digital Signal Processing.**

**Instructor:** Palghat Vaidyanathan

**Required textbooks:**

Oppenheim, Alan V., Schafer, Ronald W.; *Discrete-Time Signal Processing (3rd)*, Prentice Hall Signal Processing, 2009. ISBN: 0131988425

Vaidyanathan, Palghat P.; *Multirate Systems And Filter Banks ( 1st Edition)*, Prentice Hall, 1993. ISBN: 0136057187

## ENGINEERING

### E 110. Principles of University Teaching and Learning in STEM.

**Instructor:** Jennifer Weaver

**Required textbooks:**

Ambrose, Susan, Bridges, Michael, DiPietro, Michele, Lovett, Marsha, Norman, Marie.; *How Learning Works: 7 Research-Based Principles for Smart Teaching (Any)*, Jossey-Bass, 2010. ISBN: 978-0470484104

Kober, Nancy; *Reaching Students: What Research Says About Effective Instruction in Undergraduate Science and Engineering*, National Academies Press, 2015. ISBN: 978-0309300438

Lang, James M.; *Small Teaching: Everyday Lessons from the Science of Learning (Any)*, John Wiley Sons, 2016. ISBN: 9781118944493

## ENGLISH

### En 086. Fiction and Creative Nonfiction Writing.

**Instructor:** Merrill Gerber

**Required textbooks:**

Wolitzer, Meg, editor; *The Best American Short Stories 2017 (paperback)*, Mariner, 2017. ISBN: 978-0-544-58290-3

Jamison, Leslie , editor; *The Best American Essays 2017 (paperback)*, Mariner, 2017. ISBN: 978-0-544-81733-3

### 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:**

Baldwin, James; *Nobody Knows My Name (Reissue)*, Vintage, 1992. ISBN: 0679744738

Baldwin, James; *Giovanni's Room*, Vintage, 2013. ISBN: 0345806565

Demby, William; *King Comus (1st)*, Ishmael Reed, 2017. ISBN: 978-0918408259

## En 190. Chaucer.

Instructor: Jennifer Jahner

### **Required textbooks:**

Chaucer, Geoffrey; *Troilus and Criseyde*, Norton, 2006. ISBN: 978-0-393-92755-9

Chaucer, Geoffrey; *The Canterbury Tales: The First Fragment*, Penguin Classics, 1996. ISBN: 978-0-140-43409-5

Chaucer, Geoffrey; *Dream Visions and Other Poems*, . ISBN: 978-0393925883

# 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:

### **Suggested textbooks:**

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

Coe, Angela L.; *Geological Field Techniques*, Wiley/Blackwell, 2010. ISBN: 978-1-4443-3062-5

Carpenter, Mark B., Keane, Christopher M.; *Geoscience Handbook 2016: AGI Data Sheets, Fifth Edition (5th)*, American Geosciences Institute, 2016. ISBN: 9780913312476

## **Ge/Ay 117. Bayesian Statistics and Data Analysis.**

**Instructor:** Heather Knutson

### ***Required textbooks:***

Sivia, D. S.; *Data Analysis: A Bayesian Tutorial (2nd)*, Oxford Science Publications, 2006. ISBN: 978-0-19-856832-2

## **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

### **H 144. The History of Women and Art.**

**Instructor:** Amanda Vickery

### ***Required textbooks:***

Chadwick; *Women, Art and Society (5th)*, Thames Hudson, 2012. ISBN: 978-0500204054

Fortune; *Invisible Women, Forgotten Artists of Florence (3rd)*, Florentine, 2009. ISBN: 978-8890243455

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

Greer; *The Obstacle Race: The Fortunes of Women Painters and their Work*, Farrar, Straus, Giroux, 1979. ISBN: 978-0374224127

Heller; *Women Artists: An Illustrated History (4th)*, Abbeville, 2004. ISBN: 978-0789207685

Harris, Nochlin; *Women artists, 1550-1950 (1st)*, Random House, 1976. ISBN: 978-0875870731

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:***

Ruiz,Dubois; *Unequal Sisters: A Multicultural Reader in U.S. Women's History (4th)*, Routledge, 2007. ISBN: 978-0415958417

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

Hewitt; *A Companion to American Women's History (1st)*, Wiley, 2005. ISBN: 978-1405126854

Kerber; *Women's America: Refocusing the Past (8th)*, Oxford, 2015. ISBN: 978-0199349340

Meyerowitz; *Women and Gender in Postwar America, 1945-1960 (1st)*, Temple, 1994. ISBN: 978-1566391719

Zweiniger-Bargielowska; *Women in the Twentieth Century (1st)*, Routledge, 2001. ISBN: 978-0582404809

## 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

John Markoff; *What the Dormouse Said: How the Sixties Counterculture Shaped the Personal Computer Industry (Reprint edition)*, Penguin Books, Febr. ISBN: 978-0143036760

## 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:**

ed. Anthony Bale,; *The Book of Marvels and Travels*, Oxford World Classics, 2012. ISBN: 978-0199600601  
Sarah Roche-Mahdi, translator; *Silence: A Thirteenth-Century French Romance (Roman de Silence)*, Michigan State University Press, 1992. ISBN: 9780870135439  
ed. Tim Mackintosh-Smith; *The Travels of Ibn Battutah*, Pan Macmillan, 2003. ISBN: 978-0330418799

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

**Instructor:** Jed Buchwald

### ***Required textbooks:***

Lindberg, David C.; *The Beginnings of Western Science (2nd ed. edition)*, University Of Chicago Press, (Ap. 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

Machiavelli, N.; *The Prince*, Cambridge University Press, . ISBN: 9780521349932

Georges Lefebvre; *The Coming of the French Revolution (Revised ed. edition (October 6, 2015))*, Princeton University Press, 2015. ISBN: 978-0691168463

Rousseau, Jean-Jacques; *The Social Contract and Discourses, Everyman*, Everyman's Library , . ISBN: 978-0679423027

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

**Instructor:** Warren Brown

### ***Required textbooks:***

Sheingorn, Pamela; *The Book of Sainte Foy* , University of Pennsylvania, 1995. ISBN: 0812215125

Gregory of Tours,Thorpe, Lewis; *The History of the Franks*, Penguin Classics, 1976. ISBN: 978-0140442953

Warner, David A.; *Ottoman Germany: The Chronicon of Thietmar of Merseburg* , Manchester University Press, 2001. ISBN: 0719049253

Galbert of Bruges,Ross, James Bruce; *The Murder of Charles the Good, Count of Flanders* , Columbia University Press, 2005. ISBN: 0-231-13671-4

Frossart, Jean,Brereton, Geoffrey; *Chronicles*, Penguin, 1978. ISBN: 9780140442007

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

**Instructor:** Christopher Hitchcock

### ***Required textbooks:***

Cahn, Steven M.; *Classics of Western Philosophy (8th edition) (8th)*, Hackett, 2012. ISBN: 978-1-60384-743-8

## **Hum/PI 041 (Section 2). Knowledge and Reality.**

**Instructor:** Christopher Hitchcock

### ***Required textbooks:***

Cahn, Steven M.; *Classics of Western Philosophy (8th edition) (8th)*, Hackett, 2012. ISBN: 978-1-60384-743-8

## **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

Vercors; *Le Silence de la Mer / The Silence of the Sea*, Berg Publishers, 1991. ISBN: 978-0854963782

Wiesel, Elie; *La Nuit*, Les Editions de Minuit, 2007. ISBN: 978-2707319920

## **Hum119. Selected Topics in Humanities: Metamorphosis.**

**Instructor:** Jocelyn Holland

### ***Required textbooks:***

Ovid; *Metamorphoses*, Oxford, . ISBN: 0199537372

Gotthelf, Jeremias; *The Black Spider*, New York Review, . ISBN: 1590176685

Kafka, Franz; *The Metamorphosis*, , . ISBN: 0393967972

Ransmayr, Christoph; *The Last World*, , . ISBN: 0802134580

# LANGUAGES

## L 102B. Elementary French.

Instructor: Christiane Orcel

### **Required textbooks:**

Jansma, Kimberly and Kassen, Margaret Ann; *Motifs: An Introduction to French (6th)*, Heinle Cengage Learning, 2014. ISBN: 978-1-133-937456

Jansma, Kimberly and Kassen, Margaret Ann; *Student Activities Manual. Motifs: An Introduction to French (6th)*, Heinle Cengage Learning, 2014. ISBN: 979-1-133-61180-6

## L 105A. Topics in French Culture and Literature.

Instructor: Christiane Orcel

### **Required textbooks:**

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

Vercors; *Le Silence de la Mer / The Silence of the Sea*, Berg Publishers, 1991. ISBN: 978-0854963782

Wiesel, Elie; *La Nuit*, Les Editions de Minuit, 2007. ISBN: 978-2707319920

## L 106B. Elementary Japanese.

Instructor: Megumi Fujio

### **Required textbooks:**

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

Hirata Ritsuko; *First Year Japanese Workbook (7)*, Pearson, 2017. ISBN: 978-1-323-58782-9

## L 110B (Section 1). Elementary Spanish.

Instructor: Daniel Garcia

### **Required textbooks:**

Debbie Rusch, Marcela Domínguez, Lucía Caycedo Garner; *Imágenes: An Introduction to Spanish Language and Cultures (3rd)*, Cengage Learning, 2014. ISBN: 9781285927145

## L 112B. Intermediate Spanish.

Instructor: Daniel Garcia

### **Required textbooks:**

Samaniego, Fabian et al.; *Mundo 21. Espanol para el siglo 21 4th + iLrn™ Heinle Learning Center Printed Access Card 4th Edition (4th)*, Cengage / Heinle, 2012. ISBN: 978-1-111-70719-4

## L 170B. Introduction to Chinese.

Instructor: Xiangyun Wang

### **Required textbooks:**

Liu, Yuehua, et al; *Integrated Chinese textbook level 1 Part 1 (3rd)*, Cheng Tsui, . ISBN: 9780887276385

Liu, Yuehua, et al; *Integrated Chinese workbook level 1 part 1 (3rd)*, Cheng Tsui, . ISBN: 9780887276408

Liu, Yuehua, et al; *Integrated Chinese textbook level 1 part 2 (3rd)*, Cheng Tsui, . ISBN: 9780887276705

Liu, Yuehua, et al; *Integrated Chinese workbook level 1 part 2 (3rd)*, Cheng Tsui, . ISBN: 9780887276743

## L 172B. Intermediate Chinese.

Instructor: Xiangyun Wang

### **Required textbooks:**

Liu, Yuehua, et al; *Integrated Chinese textbook Level 2 part 1 (3rd)*, Cheng Tsui, . ISBN: 9780887276798

Liu, Yuehua, et al; *Integrated Chinese workbook level 2 part 1 (3rd)*, Cheng Tsui, . ISBN: 9780887276835

Liu, Yuehua, et al; *Integrated Chinese textbook level 2 part 2 (3rd)*, Cheng Tsui, . ISBN: 9780887276880

Liu, Yuehua, et al; *Integrated Chinese workbook level 2 part 2 (3rd)*, Cheng Tsui, . ISBN: 9780887276927

# LAW

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

Instructor: J. Kousser

### **Required textbooks:**

O'Brien, David M.; *Constitutional Law and Politics: Struggles for Power and Accountability (Tenth Edition)*, Norton, 2017. ISBN: 978-0-393-60331-6

O'Brien, David M.; *Constitutional Law and Politics: Civil Rights and Civil Liberties (Tenth Edition) (Vol. 2) (Tenth Edition)*, Norton, Marc. ISBN: 978-0-393-60352-1

# 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:**

Richard J. Larsen, Morris L. Marx; *Introduction to Mathematical Statistics and Its Applications*, , . ISBN: 0321693949

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.**

**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:***

Do Carmo, Manfredo; *Differential Geometry of Curves and Surfaces*, , . ISBN: 978-0-1321-2589-7

## **Ma 110B. Analysis.**

**Instructor:** Eric Rains

### ***Required textbooks:***

Basic Complex Analysis - A Comprehensive Course in Analysis, Part 2A; *Simon, Barry*, , . ISBN: 978-1470411008

## **Ma 120B. Abstract Algebra.**

**Instructor:** Xinwen Zhu

### ***Required textbooks:***

Lang, Serge; *Algebra*, , . ISBN: 038795385X

## Ma 121B. Combinatorial Analysis.

Instructor: David Conlon

### **Required textbooks:**

Alon, N, Spencer, J; *The Probabilistic Method (4)*, , . ISBN: 978-1119061953

## Ma 151B. Algebraic and Differential Topology.

Instructor: You Qi

### **Required textbooks:**

Allen Hatcher; *Algebraic Topology*, , . ISBN: 0521795400

### **Suggested textbooks:**

Roger A. Fenn; *Techniques of Geometric Topology*, , . ISBN: 0521284724

## 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

**MECHANICAL ENGINEERING**  
**MUSIC**

## **Mu 056. Jazz History.**

**Instructor:** Thomas Neenan

### ***Required textbooks:***

DeVeaux and Giddens; *Jazz (Second Edition) (2nd)*, Norton, 2015. ISBN: 978-0393937060

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

**Instructor:** Thomas Neenan

### ***Required textbooks:***

Walter Frisch; , *Music in the Nineteenth Century*, , W.W. Norton, 2012, . ISBN: 978-0393929195

John A. Rice and Walter Frisch; *Music in the Eighteenth Century*, WW Norton, . ISBN: 978-0393929188

# **PHYSICS**

## **Ph 001B (Analytical). Classical Mechanics and Electromagnetism.**

**Instructor:** David Hsieh

### ***Required textbooks:***

Helliwell, 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:***

Griffiths, David; *Introduction to Quantum Mechanics (2nd)*, Pearson Prentice Hall, 2005. ISBN: 0-13-111892-7

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

**Instructor:** Bradley Filippone

### ***Required textbooks:***

Griffiths, David; *Introduction to Quantum Mechanics (2nd)*, Pearson Prentice Hall, 2005. ISBN: 0-13-111892-7

## Ph 106B. Topics in Classical Physics.

Instructors: Sunil Golwala, Alan Weinstein

### **Required textbooks:**

Griffiths, David J.; *Introduction to Electrodynamics (4)*, Addison-Wesley, 2012. ISBN: 978-0321856562

Hand, Louis N, Finch, Janet D; *Analytical Mechanics*, , . ISBN: 0521575729

Taylor, John R.; *Classical Mechanics*, , . ISBN: 189138922X

Goldstein, H.; Poole, Charles P.; Safko, John L.; *Classical Mechanics (3rd Edition)*, , . ISBN: 0201657023

### **Suggested textbooks:**

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

Jackson, J. D.; *Classical Electrodynamics (3)*, Wiley, 1998. ISBN: 978-0471309321

Taylor, Edwin F.; *Spacetime physics : introduction to special relativity (2nd) (2nd)*, W. H. Freeman, 1991. ISBN: 0716723271

## SOCIAL SCIENCE

## SS 205B. Foundations of Economics.

Instructor: Federico Echenique

### **Required textbooks:**

Mas-Colell, Andreu, Michael Dennis Whinston, and Jerry R. Green.; *Microeconomic theory*. , Oxford, . ISBN: 0195073401

Bewley, Truman F.; *General equilibrium, overlapping generations models, and optimal growth theory*. , Harvard University Press, . ISBN: 0674022882

## SS/Ma 214. Mathematical Finance.

Instructor: Jaksa Cvitanic

### **Required textbooks:**

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