

## Transfer Entrance Examination Suggested Readings

The following is a list of first- and second-year Caltech math and physics courses and textbooks they have used. These textbooks serve as a guide to studying for the Caltech Transfer Entrance Examinations.

### Math

#### Ma 1abc: Calculus of One and Several Variables and Linear Algebra

Apostol, Tom M. *Calculus*. New York: J. Wiley, 1967. ISBN 0-471-00005-1

Apostol, Tom M. *Calculus*. Waltham, Mass: Blaisdell Pub. Co, 1967. ISBN: 0-471-00007-8.

Marsden, Jerrold E., and Anthony Tromba. *Vector calculus*. New York: W.H. Freeman, 2012. ISBN: 1429215089

*Treil, Serge. Linear Algebra Done Wrong.*

<http://www.math.brown.edu/~treil/papers/LADW/LADW.html>

Nan, Michael, and Herbert B. Enderton. *Linear algebra*. San Diego: Harcourt Brace Jovanovich, 1990. ISBN 0155510088

#### Ma 2/102: Differential Equations

Robinson, James C. *An introduction to ordinary differential equations*. Cambridge, UK New York: Cambridge University Press, 2004. ISBN: 0521533910

Boyce, William E., and Richard C. DiPrima. *Elementary differential equations and boundary value problems*. Hoboken, NJ: Wiley, 2009. ISBN: 0470383348

#### Ma 3/103: Introduction to Probability and Statistics

Pitman, Jim. *Probability*. New York: Springer, 1993. ISBN 978-1-4612-4374-8

Larsen, Richard J., and Morris L. Marx. *An introduction to mathematical statistics and its applications*. Boston: Prentice Hall, 2012. ISBN: 0321693949.

## Physics

### Ph 1a: Classical Mechanics and Electromagnetism.

Frautschi, Steven C. *The mechanical universe : mechanics and heat*. Cambridge Cambridgeshire New York: Cambridge University Press, 2007. ISBN: 0521715903

### Ph 1b: Classical Mechanics and Electromagnetism.

Helliwell, T. M. *Special relativity*. Mill Valley, California: University Science Books, 2010. ISBN: 978-1-891389-61-0

Serway, Raymond A., John W. Jewett, and Vahé Perroomian. *Physics for scientists and engineers with modern physics*. Boston, MA: Brooks/Cole, Cengage Learning, 2014. ISBN 1133954146

Helliwell, T. M. *Special relativity*. Mill Valley, California: University Science Books, 2010. ISBN 1891389610

Purcell, Edward M. *Electricity and magnetism*. Cambridge: Cambridge University Press, 2013. ISBN 9781107014022

### Ph 1c: Classical Mechanics and Electromagnetism.

Purcell, Edward M. *Electricity and magnetism*. New York: McGraw-Hill Book Company, 1985. ISBN: 0070049084

Serway, Raymond A., John W. Jewett, and Vahé Perroomian. *Physics for scientists and engineers*. Belmont, CA: Brooks/Cole, Cengage Learning, 2010. ISBN: 978-1-4390-4839-9

### Ph 2abc. Waves, Quantum Mechanics, and Statistical Physics.

French, A. P. *Vibrations and waves*. New York: Norton, 1971. ISBN: 0393099369

Phillips, A. C. *Introduction to quantum mechanics*. Chichester New York: Wiley, 2003. ISBN: 0470853247

Kittel, Charles, and Herbert Kroemer. *Thermal physics*. San Francisco: W.H. Freeman, 1980. ISBN: 0716710889

Griffiths, David J. *Introduction to quantum mechanics*. Upper Saddle River, NJ: Pearson Prentice Hall, 2005. ISBN: 9780131118928

Kittel, Charles, and Herbert Kroemer. *Thermal physics*. San Francisco: W.H. Freeman, 1980. ISBN: 0716710889