COOPER UNION SCHOOL OF ENGINEERING
FALL 2010 BOOKLIST

www.cooper.edu/~lent

ALL BOOKS CAN BE PURCHASED AT:

SHAKESPEARE & CO.
716 BROADWAY (btwn. Astor Place & West 4th Street) AND ARE ON RESERVE IN THE COOPER UNION LIBRARY

CHEMISTRY

Ch 110 General Chemistry - All Sections
General Chemistry,
Hill, Petrucci, et. al., (Pearson Prentice Hall, 4th or latest ed.)

Ch 160 C Physical Principles of Chemistry – Topper
Physical Chemistry, Atkins, (Freeman, 8th ed.)

Ch 231 Organic Chemistry I – Bove
Organic Chemistry, Solomons, et. al, (Wiley, 9th or latest ed.)

Ch 261 Physical Chemistry I – Topper
Physical Chemistry: A Molecular Approach,
McQuarrie, et. al., (University Science Books, NYC)

Ch 370 Inorganic Chemistry – Topper
Inorganic Chemistry,
Miessler, et. al., (Pearson Prentice Hall, 4th ed.)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Textbook Title and Authors</th>
<th>Publishers and Editions</th>
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<tr>
<td>ChE 488</td>
<td>Convex Optimization – Davis</td>
<td><em>An Introduction to Optimization,</em> Chong, et. al., (Wiley, latest ed.)</td>
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CIVIL ENGINEERING

CE 121  Structural Engineering I - Tzavelis  
Structural Analysis, Hibbeler,  
(Pearson, Prentice Hall, 7th or latest ed.)

CE 141  Environmental Systems Engineering – Tsiamis  
Water & Wastewater Technology, Hammer, et. al., (Pearson/Prentice Hall, latest ed.)

CE 331  Foundation Engineering - Guido  
Principles of Foundation Engineering,  
Braja Das, (Cengage Learning, 7th ed.)

CE 351  Urban Transportation Planning – Selinger  
Transportation Engineering & Planning,  
C. S. Papacostas & Prevedouros, (Prentice Hall, 3rd ed.)

CE 363  Civil Engineering Design I – A/J.Ahmad; B/Cataldo; C/Guido  
Section A: No Book

CE 442  Open Channel Hydraulics – Cataldo  
Open Channel Hydraulics, French, (McGraw-Hill, 1985)

CE 449  Hazardous Waste Management –Tsiamis  
Hazardous Wastes: Sources, Pathways, Receptors,  
Watts, (Wiley, latest ed.)

CE470  Urban Security – J. Ahmad  
EID  Structural Design for Physical Security,  
(American Soc. of Civil Engineers, latest ed.)

ELECTRICAL ENGINEERING

ECE 101  Communications Theory – All Sections
**ECE 121**  
Control Systems I – A/Ahmad; B/Shinners  
Sections  
Modern Control System Theory and Design,  
A & B  
Shinners, (Wiley & Sons, 2nd ed.)

**ECE 132**  
Electromechanical Energy Conversion - Shinners  
Circuits, Devices and Systems, Smith & Dorf, (Wiley, 5th ed.)

**ECE 142**  
Circuits & Electronics II –A/Cumberbatch; B/Chatterjee  
Section B  
Fundamentals of Microelectronics, Razavi, (Wiley, 1st ed.)

**ECE 195**  
Electrical & Computer Engineering Projects III-B/Chatterjee  
No Book

**ECE 406**  
Applied Monte Carlo Methods – Chatterjee  
Monte Carlo Methods for Electromagnetics,  
Sadiku, (CRC Press, 1st ed.)

**ECE 431**  
Microwave Engineering –Hausman  
Microwave Engineering, Pozar, (Wiley, 3rd ed.)

**INTERDISCIPLINARY ENGINEERING**

**EID 170**  
Engineering Economy - Barrett  
Fundamentals of Engineering Economics,  
Park, (Pearson/Prentice Hall, 2nd ed.)

**EID 370**  
Engineering Management - Barrett  
*Both books available on-line used*  
In Search of Excellence, Peters, Waterman, (Warner)-paperback  
Management, Pearce, et. al.,  
(McGraw Hill, 1st ed., used-out of print)

**EID 374**  
Business Economics – Synnott  
How the Economy Works, Mennis, (Prentice Hall, 2nd ed.)

**EID 470**  
(See CE 470)
ENGINEERING SCIENCE

ESC 100 Engineering Mechanics – C/Hapji; M/Baglione; SP/TBA
Sections Vector Mechanics for Engineers: Statics and Dynamics,
C & SP Beer & Johnston, (McGraw-Hill, 9th ed.)
Section M Vector Mechanics for Engineers: Statics and Dynamics,
Beer & Johnston, (McGraw-Hill, 8th or other ed.)

ESC 130 Engineering Thermodynamics – M/Delagrammatikas
Section M Thermodynamics: An Engineering Approach,
Cengel & Boles, (McGraw-Hill, 7th ed.)

ESC 140 Fluid Mechanics & Flow Systems – C/Cataldo; K/Brazinsky; M/ Wootton
Section C Mechanics of Fluids, Shames, (McGraw-Hill, 4th ed.)
*Purchase only at Shakespeare-they have Primis versions

Sections Introduction to Fluid Mechanics,
K & M Fox, et. al., (Wiley, 7th ed.)

ESC 170 Material & Energy Balances- Okorafor
Elementary Principles of Chemical Processes,
Felder, et. al., (Wiley, latest ed.)

MATHEMATICS

MA 110 Introduction to Linear Algebra - All Sections
Elementary Linear Algebra, Anton, (Wiley, 10th ed.)

MA 111 Calculus I - All Sections
Calculus and Analytic Geometry,
Stein & Barcellos, (McGraw-Hill, latest ed.)

MA 113C Calculus II - Vulakh
Calculus and Analytic Geometry,
Stein & Barcellos, (McGraw-Hill, latest ed.)
MA 163  Calculus & Analytic Geometry I – Ginsburg
        Schaum’s Outline: Beginning Calculus,
        Mendelson, (McGraw Hill, latest ed.)

MA 223  Vector Calculus – All Sections
        Calculus and Analytic Geometry,
        Stein & Barcellos, (McGraw Hill, latest ed.)

MA 224  Probability - All Sections
        Probability and Statistical Inference,
        Hogg & Tanis, (Pearson Prentice Hall, 8th ed.)

MA 240  Ordinary & Partial Differential Equations – All Sections
        Differential Equations with Boundary Value Problems,
        Zill & Cullen, (Thompson, latest ed.)

MA 326  Linear Algebra – Agrawal
        Linear Algebra,
        Friedberg, et. al., (Pearson Prentice Hall, latest ed.)
        Lectures on Linear Algebra, I.M. Gelfand, (Dover Pub., latest ed.)

MA 350  Advanced Calculus I – Agrawal
        Elementary Classical Analysis,
        Marsden & Hoffman, (W.H. Freeman, latest ed.)
        Analysis on Euclidean Space, Hoffman, (Dover Pub., latest ed.)

MA 370  Selected Topics in Math – Smyth
        A Primer on the Calculus of Variations and Optimal Control

MECHANICAL ENGINEERING

ME 151  Feedback Control Systems – Baglione
        Systems Dynamics, Ogata, (Pearson Prentice Hall, 4th ed.)

ME 312  Manufacturing Engineering - Wei
        Manufacturing Engineering and Technology,
        Kalpakjian & Schmid, (Pearson Prentice Hall, 6th ed.)
ME 405  Automotive Engineering Fundamentals – Delagrammatikas
Fundamentals of Vehicle Dynamics,
Gillespie, (SAE International, 1st ed.)

ME 408  Introduction to CAE – Bondi
Finite Element Analysis: Theory and Applications with Ansys,
Saeed Moaven, (Pearson/Prentice Hall, 3rd ed.)

ME 493  Selected Advanced Topics in ME – Speyer
No Book

PHYSICS

Ph 165  Concepts of Physics I – Kreis (for Architects)
College Physics, Serway, et. al, (Thomson, Brooks, Cole, 6th ed.)

Ph 213  Electromagnetics Phenomena –All Sections
Same book as PH112 -Fundamentals of Physics,
Halliday, et. al., (Wiley 8/E)

Ph 291  Introductory Physics Laboratory – Uglesich
An Introduction to Error Analysis,
Taylor, (University Science Books, 2nd ed.)

Ph 330  Introduction to Neural Physics – Uglesich
/EID
An Introduction to Nervous Systems, Greenspan,
(Cold Spring Harbor Laboratory Press, 1st ed., paperback)
Theoretical Neuroscience, Dayan, Abbott,
(MIT Press, paperback)