CHEMICAL ENGINEERING

ChE 121  Reaction Engineering – Stock
         Chemical Reaction Engineering, Levenspiel, (Wiley, latest)

ChE 151  Process Simulation and Math Techniques for ChE – Davis
         Numerical Methods, Burden, et. al., (Brooks/Cole, latest ed.)

ChE 161.2 Process Evaluation and Chemical Systems Design II– All Sections
         A & B  Plant Design & Economics for Chemical Engineers,
                 Peters, et. al., (McGraw-Hill, 5th ed.)

ChE 441  Advanced Heat and Mass Transfer – Lepek
         Transport Phenomena, Bird, et. al., (Wiley & Sons, 2nd ed.)

ChE 445  Particle Technology – Lepek
         Introduction to Particle Technology, Rhodes, (Wiley, 2nd ed.-paperback)

ChE 447  Sustainability and Pollution Prevention – Davis
         Fuzzy Measurement of Sustainability, Phillis, et. al., (Nova, latest ed.)

ChE 460  Chemical Engineering Equipment Design – Okorafor
         Principles of Reactor Analysis and Design,
         Mann, (Wiley & Sons, 2nd or latest ed.)
CHEMISTRY

Ch 160 Physical Principles of Chemistry – A/Topper; B/Newmark
D/Savizky; E/Sharafeddin
Section D: Physical Chemistry, Atkins, (Freeman, 8th ed.)

Ch 233 Organic Chemistry Laboratory – All Sections
Organic Experiments, Williamson, (Houghton Mifflin, latest ed.)
The Systemic Identification of Organic Compounds,
Shrima, et. al., (Wiley, latest)

Ch 340 Biochemistry – Savizky
Biochemistry, Berg, et. al., (Freeman, 6th ed.)

CIVIL ENGINEERING

CE 131 Introduction To Geotechnical Engineering – All Sections
Principles of Geotechnical Engineering, Das, (Cengage Learning, 7th ed.)

CE 142 Water Resources Engineering - Cataldo

CE 341 Design of Steel Structures – Tzavelis
Structural Steel Design, Aghayere, et. al., (Pearson, latest)

CE 431 Advanced Foundation Engineering – Chang
Principles of Foundation Engineering, Das, (Cengage Learning, 7th ed.)

ELECTRICAL AND ELECTRICAL COMPUTER ENGINEERING

ECE 110 MATLAB Seminar: Signals and Systems – All Sections
Mastering MATLAB 7, Hanselman, et. al., (Prentice Hall, 2004)

ECE 111 Signal Processing and System Analysis – Fontaine

ECE 131  Solid State Materials – A/H.Ahmad; B/Jackman
Section A  Fundamentals of Microelectronics, Razavi, (Wiley, latest ed.)

ECE 416  Adaptive Filters – Fontaine
Adaptive Filter Theory, Haykin, (Prentice Hall, 4th ed.)

ECE 421  Control Systems Design – Shinner
Advanced Modern Control System Theory and Design, Shinners, (Wiley & Sons, 1st ed.)

ECE 425  Digital Control Systems – H.Ahmad
Digital Control System Analysis and Design, Phillips, et. al., (Prentice-Hall, 2nd ed. or latest)

INTERDISCIPLINARY ENGINEERING

EID 103  Principles of Design – Lima

EID 125  Biomechanics – Orishimo

EID 170  Engineering Economy - Barrett
Fundamentals of Engineering Economics, Park, (Pearson, 2nd ed.)
Management, Pearce, et. al., (McGraw-Hill) *Out of print-buy used

EID 376  Economics of Alternative Engineering – Synnott
Lights Out, Makansi, (Wiley, 2007)
Hot, Flat and Crowded, Friedman, (Picador, 2.0 Release)

ENGINEERING SCIENCES
ESC 101  Mechanics of Materials – C/Tzavelis; M/Wootton; SP/Dodhia


ESC 110.1 Materials Science for Chemical Engineers – Okorafor
Foundations of Materials Science and Engineering, Smith, et. al., (McGraw-Hill, 4th or latest)

ESC 120/121 Principles of Electrical Engineering – All Sections
Intro. to Electrical Engineering, Paul, et. al. (McGraw-Hill, 2nd ed.)

ESC 130.1 Chemical Engineering Thermodynamics – Brazinsky

ESC 161 Systems Engineering – Baglione
Systems Engineering, Ogata, (Pearson, 4th ed.)
*Reference Only-Not Required: On Reserve in Library
*Modeling and Analysis of Dynamic Systems, Close, et. al.,

MATHEMATICS

MA 113 Calculus II – All Sections
Calculus with Analytic Geometry,
Stein & Barcellos, (McGraw-Hill, latest)

MA 224 Probability – Bailyn
Probability and Statistical Inference,
Hogg, et. al. (Prentice Hall, latest ed.)

MA 240 Ordinary and Partial Differential Equations – All Sections
Differential Equations and Boundary Value Problems,
Zill & Cullen, (Brooks/Cole, 7th ed.)

MA 345 Functions of a Complex Variable – Smyth
Complex Variables and Applications,
Brown, et. al.,(McGraw-Hill, 8th ed.)

MA 347 Modern Algebra – Vulakh
Contemporary Abstract Algebra, Gallian, (Brooks/Cole, 7th ed.)
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<tr>
<td>MA351</td>
<td>Advanced Calculus II – Agrawal</td>
<td>Foundations of Modern Analysis, Freidman, (Dover, latest ed.)</td>
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<td>MA 401</td>
<td>Boundary Value Problems – Agrawal</td>
<td>Applied Partial Differential Equations, Haberman, (Prentice Hall, latest ed.)</td>
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<td>Fourier Analysis and It’s Applications, Folland, (American Mathematical Society, latest ed.)</td>
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**MECHANICAL ENGINEERING**

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<tr>
<td>ME 101</td>
<td>Mechanical Vibrations – Baglione</td>
<td>Engineering Vibration, Inman, (Pearson/Prentice Hall, 3rd ed.)</td>
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<td>ME 142</td>
<td>Fundamentals and Design Applications – Sidebotham</td>
<td>Heat Transfer, Holman, (McGraw-Hill, 10th ed.)</td>
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<td>ME 160</td>
<td>Engineering Experimentation – All Sections</td>
<td>Introduction to Engineering Experimentation, Wheeler, et. al., (Pearsons/Prentice Hall, 3rd ed.)</td>
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<td>ME 300</td>
<td>Space Dynamics – Kutt</td>
<td>Introduction to Space Dynamics, Thomson, (Dover, 1986)</td>
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<td>ME 401</td>
<td>Advanced Mechanical Vibrations – Baglione</td>
<td>*Recommended not required-copy on reserve in Cooper Library: Modal Analysis Theory and Testing, Heylen, et. al., (Ku Leuven)</td>
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<tr>
<td>ME 407</td>
<td>Introduction to Computational Fluid Dynamics – Bondi</td>
<td>An Introduction to Computational Fluid Dynamics, Versteeg, et. al., (Pearson/Prentice Hall, 2nd ed.)</td>
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<td>ME 432</td>
<td>Intro. To Nuclear Power Plant Technology – Speyer</td>
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No Book

ME 458  Industrial Robots - Wei  
*Introduction to Robotics: Mechanics and Control,*  
Craig, (Pearson/Prentice Hall, 3rd or latest ed.)

**PHYSICS**

Ph 112  Mechanics - All Sections  
*Fundamentals of Physics,*  
Halliday, et. al., (Wiley, 6th, 7th, 8th or 9th ed.)  
**(Purchase on-line)**

Ph 166  Concepts of Physics II – Kreis  
*College Physics,* Serway, et. al., (Thomson Learning, 6th ed.)

Ph 214  Physics III: Optics and Modern Physics – All Sections  
*Special Relativity,* Helliwell,  
*Quantum Physics: A Fundamental Approach to Modern Physics,*  

Ph 370  Astrophysics – Uglesich  
*Introduction to Modern Astrophysics,*  
Carroll, et. al., (Cummings, 2nd ed.)