

## Cognate List for Chemical Engineering

All graduate students (MSE and PhD) entering without a previous graduate degree must take at least three credits outside the ChE dept. Students typically take cognate courses within their research interests. These cognate courses must be in a technical area, and are usually satisfied at the graduate level, though 400 level courses can also satisfy cognate requirements. PhD students may be able to use a ChE course as a cognate course if it is cross-listed with another department. The list of cognate courses that were taken by our graduate students during the past two years are listed below.

BA 518 Business of Biology  
BIOINF 524 Found BIOINF  
BIOLCHEM 515 Intr Biochem  
BIOLCHEM 673 Kinetics&Mechanism  
BIOLOGY 172 Intro Biol - MCDB  
BIOMEDE 418 Quant Cell Biology  
BIOMEDE 500 Biomd Eng Sem  
BIOMEDE 504 Cell Biotech  
BIOMEDE 599 Spec Topics  
CDB 530 Cell Biology  
CEE 501 Special Topics CEE  
CEE 565 Sem Energy Tech Pol  
CHE 686 Env Sustainability  
CHEM 447 Phys Meth Analys  
CHEM 467 Biogeochem  
CHEM 507 Inorganic Chem  
CHEM 511 Materials Chem  
CHEM 538 Macromolecules  
CHEM 571 Quantum Chemistry  
CHEM 647 Mass Spectrometry  
CHEM 648 Anl Spectro&Imaging  
CHEM 649 Electrochemistry  
CMPLXSYS 511 Theory of CMPLXSYS  
EARTH 523 Micro Commun Omics  
EAS 523 Ecol Risk Assessment  
EECS 402 Prog for Sci&Eng  
EECS 514 Advanced MEMS  
EECS 520 Solid State Physics  
EECS 537 Classical Optics  
EECS 598 Special Topics  
ELI 521 Acad Writg I

ELI 601 Speak in Res  
ENGR 599 Spec Topics Engr  
ENTR 407 Entrepreneurship Hr  
ENTR 500 Intro to Innovation  
ENTR 520 Innov Bus Models  
ENTR 550 Interpersonal Skills  
ENTR 599 Spec Topics Entr  
ESENG 501 Sem Energy Tech Pol  
ESENG 505 Energy Gen & Storage  
ESENG 599 Energy Sys Spec Topc  
IMMUNO 540 Immunology  
IMMUNO 851 Special Topics  
IOE 440 Operations Anlys&Mgt  
IOE 466 Stat Quality Control  
IOE 614 Integer Prog  
ISD 520 Intr to Systems Engr  
MACROMOL 530 Adv Function Poly  
MATH 412 Intro Mod Algebra  
MATH 425 Intro Probability  
MATH 463 Math Model Biol  
MATH 471 Intr Num Meth  
MATH 540 Math of Bio Networks  
MATSCIE 512 Phys Polymer  
MATSCIE 517 Adv Function Poly  
MATSCIE 550 Fund Mat Sci  
MATSCIE 554 Comput Methods  
MATSCIE 555 Mat Energy Conv  
MATSCIE 593 MSE Special Topics  
MATSCIE 890 Colloq in Mat Sci  
MCDB 411 Protein Structure  
MECHENG 511 Solid Continua  
MECHENG 517 Mech of Polymers I  
MECHENG 523 Comp Fluid Dyn I  
MECHENG 599 Spec Topics in M E  
MFG 501 Topics Global Opns  
MICRBIOL 430 Microbial Symbiosis  
MICRBIOL 540 Immunology  
MICRBIOL 612 Microb Informatics  
NERS 578 Phys Proc in Plas

NERS 590 Special Topics II  
NRE 514 Env Imp Asmnt  
PHARMACY 597 Regulatory Issues  
PHARMSCI 508 Drug Deliv and Soln  
PHARMSCI 700 Biopharm-Drug Dispos  
PHARMSCI 700 Pharmacokinetics  
PHARMSCI 703 Mass Transport/ChemK  
PHARMSCI 705 Adv Drug Delivery  
PHARMSCI 706 Biopharm Drugs  
PHARMSCI 717 Biopharm Eng  
PHARMACOL 601 Quant Prin Pharm  
PHARMACOL 612 Antimicrobial&Cancer  
PHYSICS 411 Intro Comp Physic  
PHYSICS 520 Condensed Matter  
PHYSICS 629 Complex Fluids  
PIBS 550 Biomed Entrepre I  
PUBPOL 519 Sus Energy Sys  
STATS 425 Intro Probability  
STATS 426 Intro to Theo Stat