Industrial Engineering Concentration Form  
Northwestern University, McCormick School of Engineering and Applied Science  

To be Used by Students Following Catalog Year 2012-13 Requirements  
Select the courses you wish to count towards the concentration, and obtain your advisor’s signature. Return to Professor Wilson in C120 upon completion of concentration courses, but no later than advising week of your final quarter.

Name _______________________________________________________ EMPLID ___________________________  
Date___________ Expected Grad Date (Month/Yr) ____________ E-Mail ___________________________________  

Four courses of one section must be completed to fulfill that optional concentration’s requirements.

**Economics and Finance**  
*Requires IEMS faculty approval **Petition required  
*IMES 373 Financial Engineering I  
Econ 308 Money and Banking  
Econ 309 Elements of Public Finance  
Econ 337 Economics of State and Local Governments  
Econ 349 Industrial Economics  
Econ 361 International Trade  
Econ 362 International Finance  
Econ 380-1,2 Intro to Mathematical Economics  
Econ 381-1,2 Advanced Econometrics  
Econ 383 Economic Forecasting  
Math 366-1,2 Mathematical Models in Finance  
Math 364 Game Theory  
*IMES 399  

**General Business Management**  
*IMES 399  

**Industrial Behavioral Sciences**  
*IMES 399  
CFS Chicago Field Studies (1 credit, petition req)  
Econ 339 Labor Economics  
Econ 350 Monopoly, Competition, and Public Policy  
IMES 340 Field Project Methods  
IMES 341 Social Networks Analysis  
IMES 342 Organizational Behavior  
LOC 211 Intro. To Organization Theory and Practice  
LOC 306 Studies in Organizational Change  
LOC 310 Organizations for Complex Environments  
Social 302 Sociology of Organizations  
*IMES 399  

**Production and Logistics**  
*IMES 399  
Civ Eng 371 Intro to Transportation Plan & Analysis  
Civ Eng 372 Transportation System Design & Analysis  
Civ Eng 376 Transportation System Operations  
Econ 355 Transportation Economics and Public Policy  
IDEA 344 Manufacturing Engineering Design  
IMES 381 Supply Chain Modeling and Analysis  
IMES 382 Production Planning and Scheduling  
IMES 383 Service Operations Management  
*IMES 399  

**Statistics and Quality Control**  
*IMES 399  
Econ 281 Intro to Applied Econometrics  
IMES 304 Statistical Methods for Data Mining  
IMES 305 Statistical Methods of Quality Improvement  
IMES 307 Quality Improvement by Experimental Design  
Mat Sci 391 Process Design  
Mech Eng 359 Reliability Engineering  
Stats 325 Survey Sampling  
Stats 350 Regression Analysis  
*Stats 351 Design and Analysis of Experiments  
*IMES 399  

**Mathematical Sciences/Graduate Research**  
*IMES 399  
EECS 311 Data Structures and Data Management  
ES APPM 346 Modeling and Comput in Sci & Engg  
EECS 328 Numerical Methods for Engineers  
Math 300-0 Foundations of Higher Mathematics  
Math 320-1,2,3 Real Analysis  
Math 330-1,2,3 Abstract Algebra  
Math 364 Game Theory  
*IMES 399  

**Mathematical Sciences/Graduate Research**  
*IMES 399  
EECS 311 Data Structures and Data Management  
ES APPM 346 Modeling and Comput in Sci & Engg  
EECS 328 Numerical Methods for Engineers  
Math 300-0 Foundations of Higher Mathematics  
Math 320-1,2,3 Real Analysis  
Math 330-1,2,3 Abstract Algebra  
Math 364 Game Theory  
*IMES 399  

**Statistics and Quality Control**  
*IMES 399  
Econ 281 Intro to Applied Econometrics  
IMES 304 Statistical Methods for Data Mining  
IMES 305 Statistical Methods of Quality Improvement  
IMES 307 Quality Improvement by Experimental Design  
Mat Sci 391 Process Design  
Mech Eng 359 Reliability Engineering  
Stats 325 Survey Sampling  
Stats 350 Regression Analysis  
*Stats 351 Design and Analysis of Experiments  
*IMES 399  

*Requires IEMS faculty approval **Petition required  

Student’s Signature __________________________ Date _______________  
Advisor’s Signature __________________________ Date _______________  
Program Chair’s Signature __________________________ Date _______________