

ISYE MS REQUIREMENTS: Human Factors Research Area

NAME: _____ CAMPUS ID# _____ DATE: _____

ADVISOR: _____ Advisor Signature _____

Cont. on For PHD Yes No Graduation Requirements Confirmed: _____

Total: Min of 24 cr distributed in the following four categories -Must have 9 cr in one of the first 3 categories		Term Taken	Grade
1. Sociotech Systems & Macro ergonomics (3-9 cr)*			
IE 650	Labor-Management Relations for Engineers		
IE 652	Sociotechnical Systems		
IE 653	Organization & Job Design		
IE 663	Occupational Stress		
IE 691	Topic: Engineering Management		
IE 692	Topic: Sociotechnical Systems		
IE 699	Advanced Independent Study		
IE 753	Sem in Org & Job Design		
IE 756	Seminar in Technology & Society		
Auth Substitution			
2. Ergonomics (3-9 cr)*			
IE 549	Human Factors Engineering		
IE 564	Occupational Ergonomics and Biomechanics		
IE 565	Ergonomics in Service		
IE 662	Design for Human Disability & Aging		
IE 692	Special Topics in Human Factors		
IE 699	Advanced Independent Study		
IE 764	Occupational Biomechanics		
Auth Substitution			
3. Safety (3-9 cr) *			
IE 555	Human Performance & Accident Causation		
IE 556	Occupational Safety & Health Engineering		
IE 574	Methods for Probabilistic Risk Analysis of Nuclear Power Plants		
IE 618	Societal Risk Management of Tech Hazard		
IE 692	Topic: Safety		
IE 699	Advanced Independent Study		
IE 816	Topic: Product Liability		
IE 816	Topic: Risk Perception		
Auth Substitution			
4. Tools And Methods – 05-'03 (6 cr req'd) *			
a. Research Methods			
IE 610	Design of Program Evaluation Systems		
IE 854	Field Research Methods		
PH 796	Health Services Research		
PH 797	Introduction to Epidemiology		
SOC 357	Methods of Sociological Inquiry		
SOC 750	Research Methods		
SOC 752	Methods of Survey Research: Applications		
Auth Substitution			

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4. Tools And Methods – 05-'03 (6 cr req'd) * – cont.			
b. Statistics			
STAT 333	Applied Regression Analysis		
STAT/ME 424	Statistical Experimental Design for Engineers		
STAT 351	Intro—Nonparametric Statistics		
STAT/BUS 756	Applied Multivariate Analysis		
Psych 610	Statistical Analysis of Psychological Experiments		
Psych 615	Quantitative Methods in Psychology		
Psych 710	Multiple Regression		
Psych 711	Multivariate Statistics (MANOVA, meta-analysis, factor analysis)		
Psych711	SEM		
IE 575	Introduction to Quality Engineering		
BUS 706	Statistics—Anova, Regression		
GEN BUS 806	Panel data analysis		
SOC 952	Path Analysis and Structural Equation Models		
SOC 952	Models for survival and event history data		
PH 798	Introduction to Epidemiological Statistics		
PH 800	Epidemiological Statistics		
EdPsych 711	SEM		
EdPsych 711	HLM		
EdPsych 773	Factor Analysis, Multidimensional Scaling and Cluster Analysis		
EdPsych 861	Non-parametric Statistics		
EdPsych 862	Multivariate Statistics (MANOVA, discriminate analysis, canonical correlations)		
Auth Substitution			
c. Qualitative Research			
SOC 755	Methods in Qualitative Research		
Curric 717	Introduction to Qualitative Research		
EdAdmin 824	Field Research Designs and Methodologies in Educ Admin		
Auth Substitution			
d. Biomechanics Methods			
BME 315	Biomechanics		
BME310	Bioinstrumentation		
BME 462	Biomedical Instrumentation		
ECE 463	Computers in Medicine		
Physiol 335	Human Physiology		
Auth Substitution			
<p>* You may count multiple ISYE 816, 854, 859 and 961 graduate seminars toward satisfying the MS degree requirements. Your advisor will determine whether a seminar course counts toward credit in Sociotechnical Systems, Ergonomics, Safety or Tools/Methods</p>			
Master's Project Requirement (3-6 cr)			
IE 699	Advanced Independent Study		
IE 790	Research & Thesis for MS degree		
Elective (3 cr max)			

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**Please complete & return form to Student Services, 3182 ME Bldg your final semester.

MASTER'S PROJECT REQUIREMENT

All human factors graduate students are required to satisfactorily complete at least three credit hours devoted to directed research, design, development, or application, and prepare a written report covering this work. Students expecting to continue for the Ph.D. degree are encouraged to write a Master's Thesis. The choice of writing a formal thesis or a research report is made between each student and their advisor.

EXIT REQUIREMENT

A GPA of 3.20 or above in graduate level courses and 15 credits in the Industrial engineering department with at least 30 credits.

DOCTORAL REQUIREMENTS

- 32 graduate credits taken as a graduate student; at least one year of academic residence
- Successful completion of Qualifying Exam in two areas within ISyE department with at least one area in Human Factors and Ergonomics
- Minor concentration of at least 10 credits
- Successful completion of Preliminary Exam
- At least 6 seminar/special topics courses at the 700 level or above totaling a minimum of 12 credits; at least 3 totaling at least 6 credits of these must be in the Human Factors and Ergonomics area.

SEMINAR/SPECIAL TOPICS COURSES

ISyE 753	Seminar in Organization & Job Design
ISyE 756	Seminar in Technology & Society
ISyE 816	Special Topics in Systems Design
ISyE 854	Special Topics in Organizational Design
ISyE 859	Special Topics in Human Factors
ISyE 874	Special Topics in Ergonomics
ISyE 961	Graduate Seminar in Industrial Engineering

JOB PLACEMENT

Contact:

Engineering Career Services Office
1550 Engineering Drive, Room M1002
Madison, WI 53706
Tel: (608) 262-3471
FAX: (608) 262-7262
<http://www.engr.wisc.edu/services>

FURTHER INFORMATION

Contact:

University of Wisconsin-Madison
Industrial Engineering Department
1513 University Avenue, Room 3270
Madison, WI 53706-1572
Tel: (608) 262-2686
FAX: (608) 262-8454
Email: ie-admission@engr.wisc.edu
<http://www.engr.wisc.edu/ie>