

# **ISYE MS REQUIREMENTS: Human Factors Research Area (Effective Fall '10)**

STUDENT NAME: \_\_\_\_\_ CAMPUS ID#: \_\_\_\_\_ DATE: \_\_\_\_\_

ADVISOR NAME: \_\_\_\_\_ ADVISOR SIGNATURE: \_\_\_\_\_

Cont. on For PHD: Yes No Degree Requirements Confirmed (Office use only): \_\_\_\_\_

<b>TOTAL: 30 credits required</b>			
<b>1. Physical Ergonomics (3cr min)</b>		<b>Term Taken</b>	<b>Grade</b>
ISyE 552	Human Factors Design		
ISyE 555	Human Performance & Accident Causation		
ISyE/BME 564	Occupational Ergonomics and Biomechanics		
ISyE 565	Ergonomics in Service		
ISyE 662	Design for Human Disability & Aging		
ISyE 764	Occupational Biomechanics		
ISyE 691/692/699*			
ISyE 854/859/961*			
<b>2. Cognitive Ergonomics (3cr min)</b>		<b>Term Taken</b>	<b>Grade</b>
ISyE 552	Human Factors Design		
ISyE 555	Human Performance & Accident Causation		
ISyE 556	Occupational Safety & Health Engineering		
ISyE/Med Phys 559	Patient Safety & Error Reduction		
IE 691/692/699*			
IE 854/859/961*			
<b>3. Macroergonomics (3cr min)</b>		<b>Term Taken</b>	<b>Grade</b>
ISyE 552	Human Factors Design and Evaluation		
ISyE 555	Human Performance & Accident Causation		
ISyE 556	Occupational Safety & Health Engineering		
ISyE/Med Phys 559	Patient Safety & Error Reduction		
ISyE 610	Design of Program Evaluation Systems		
ISyE/Psych 652	Sociotechnical Systems		
ISyE/Psych 653	Organization & Job Design		
ISyE 753	Seminar in Organization & Job Design		
ISyE 756	Seminar in Technology & Society		
IE 691/692/699*			
IE 854/859/961*			
<b>4. Tools And Methods, see back (6cr min)</b>		<b>Term Taken</b>	<b>Grade</b>
<b>5. Master's Project Requirement (3-6cr min)</b>		<b>Term Taken</b>	<b>Grade</b>
<b>6. Elective (3 cr max)</b>		<b>Term Taken</b>	<b>Grade</b>

For a list of Tools and Methods courses, see: <http://www.engr.wisc.edu/ie/current/grad/programs/Toolsandmethods.htm>

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\* You may count multiple ISYE 691, 692, 699, 854, 859 and 961 graduate seminars toward satisfying the MS degree requirements, but they must be approved by your advisor. Your advisor will determine whether a seminar course counts toward credit in Physical Ergonomics, Macroergonomics, Cognitive Ergonomics or Tools & Methods.

### **TOTAL: 30 Credits Required**

- ISYE 349 Introduction to Human Factors or equivalent is required. It is a prerequisite for all other Human Factors courses (required, but does not count toward the 30 credits).
- 9 credits of foundation courses. Take 1 course in physical ergonomics (P), cognitive ergonomics (C), and macroergonomics (M). Courses are listed under multiple areas can be counted toward only one area.
- 9-12 credits of human factors and ergonomic electives beyond those taken as foundation courses.
- 6 credits of Tools and Methods.
- 3-6 credits of MS Project or Thesis.
- At least 15 of the 30 credits must be within the Industrial & Systems Engineering Department.
- You may count multiple IE 816, 854, 859 and 961 graduate seminars toward satisfying the MS Degree Requirements. Your advisor will determine if a seminar counts toward a human factors/ergonomic elective or Tools/Methods.

### **TOOLS AND METHODS (6 cr)**

On a yearly basis, the HFE faculty group will update the list of Tools and Methods courses, which can be found at <http://www.engr.wisc.edu/ie/current/grad/programs/Toolsandmethods.htm>. Advisors will decide which set of Tools and Methods courses is appropriate for the students. Following are categories of Tools and Methods courses.

- *Research Methods*      -*Statistics*      -*Qualitative Research*      -*Biomechanics Methods*

### **MS PROJECT or THESIS (3-6 cr)**

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 REQUIREMENTS**

In order to be eligible for graduation, an MS student must:

- Have a GPA of 3.0 or higher
- Meet all MS degree requirements
- Have all grades entered, except for the current semester. No Is or NRs can show on the student's transcript.
- Be enrolled in at least 2cr the semester in which they graduate.
- Have their MS degree warrant signed and dated by the degree deadline.

## **JOB PLACEMENT**

For assistance in your job search, please contact:

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