

ISyE MS - HFHSE Program Course Suggestions

Below are some typical course option suggestions for those pursuing a MS Course degree in Human Factors and Health Systems Engineering. (For other IE and Non IE course options (such as in OTM, Pop Health etc...), please consult with your ISyE faculty advisor for approval of course selection prior to enrollment to ensure coursework taken meets the expectation of the degree requirements for HFHSE program planning).

Please note: These are suggested course options and are not guaranteed to be offered at the time of enrollment, please refer to [UW Madison Course Guide](#) for further course information.

- At least **18** credits of ISyE Course Credits must be taken during the graduate program is required. (ISyE / UW Madison seniors can count up to 6 credits of prior ISyE undergraduate or department approved coursework toward meeting this requirement).
- [50% Graduate School Policy](#) – Graduate school requires 50% (**15** credits) of courses be taken at the graduate level (See Course Description in UW Course Guide - Look for Graduate 50%: Y). (Note: Students cannot count prior UW undergraduate course work toward this requirement).
- [MS HFHSE Program Plan Form](#)

FALL POTENTIAL COURSE SUGGESTIONS: ([UW Course guide](#) will be published mid-March to confirm scheduled course options)

- ISyE 313: Engineering Economic Analysis
- ISyE / Psych 349: Introduction to Human Factors
- ISyE 417: Health Systems Engineering
- ISyE 512: Inspection, Quality Control and Reliability
- ISyE 515: Engineering Management of Continuous Process Improvement
- ISyE 517 Decision Making in Health Care
- ISyE 521 ML in Action for IEs
- ISyE 549: Human Computers Engineering
- ISyE 555 Human Performance & Accident Care
- ISyE 557 Human Factors Engineering for Healthcare
- ISyE 601: Special topics TBD (if offered and advisor approval needed)
- ISyE 608: Safety & Quality in Medication Use System
- ISyE 618 Quality Engineering & Quality Management
- ISyE / Psych 653: Organization and Job Design
- ISyE 699: Independent Study
- ISyE 729 Bhv Analy-Mgmt Decision Making

ISyE Course Enrollment Information:

If you are unable to enroll or get on a waitlist for an ISyE lecture/lab class due to a prerequisite course error message in the system, please contact the instructor directly for enrollment options. (For ISyE lecture/lab course permissions and logistical issues, please contact enrollment@ie.wisc.edu). Please remember to **include your Campus ID #, Course #, and Section #** (if applicable) in your email when emailing instructors and staff about any enrollment.

For enrollment in **ISyE 699 – Independent Study**, please consult first with your ISyE faculty advisor/ instructor that you wish to do an ind study with; then please send an email prpeters@engr.wisc.edu with your campus ID# and faculty advisor/ instructor name for the permission to enroll.

SPRING ISyE POTENTIAL COURSE SUGGESTIONS: ([UW course guide](#) will be published mid-October)

- ISyE 313: Engineering Economic Analysis
- ISyE / Psych 349: Introduction to Human Factors
- ISyE 417: Health Systems Engineering
- ISyE 512: Inspection, Quality Control and Reliability
- ISyE 552: Human Factors Engineering Design and Evaluation
- ISyE 555: Human Performance and Accident Causation
- ISyE / Med Phys 559: Patient Safety and Error Reduction in Healthcare
- ISyE / BME 564: Occupational Ergonomics and Biomechanics
- ISyE 601: Special topics TBD (if offered and advisor approval needed)
- ISyE/ Pharm 608: Safety and Quality in the Medication Use System
- ISyE 662: Design & Human Disability & Aging
- ISyE 617: Health Information Systems

SUMMER ISyE POTENTIAL COURSE SUGGESTIONS: ([UW course guide](#) will be published mid-January)

- ISyE 313: Engineering Economic Analysis
- ISyE / Psych 349: Introduction to Human Factors
- ISyE 516: Introduction to Decision Analysis
- ISyE 575: Introduction to Quality Engineering
- ISyE 601: Special topics TBD (if offered and advisor approval needed)
- ISyE 699: Independent Studies or ISyE 790 MS Research (up to 6 credits towards program requirements allowed – contact faculty advisor/ instructor directly for permission)
- ISyE 702: Grad Cooperative Educ Program (thru ECS)

Other Department Potential Course Option Suggestions (Non ISyE):

Please note: Enrollment and offering of non ISyE courses availability not guaranteed pending primary department demand and schedule; Semester typically offered listed below. (Please refer to [UW Course Guide](#) for scheduling information).

- BMI / CS 576: Introduction to Bioinformatics – Fall
- BMI 773: Clinical Research Informatics – Spring
- BMI / CS 776: Advanced Bioinformatics – Spring
- CS 770: Human-Computer Interaction - Fall
- EMA 601: Special Topics in Engineering Mechanics - Fall
- MHR 412: Management Consulting – Spring
- Nurs 761: Health Program Planning, Evaluation & Quality Improvement – Spring
- OTM 451: Service Operations Management - Fall
- OTM 753: Healthcare Operations Management – Spring
- OTM 770: Sustainable Approaches to System Improvement - Fall
- Pop Health 785: Health Systems, Management, and Policy - Spring
- Pop Health/ Soc 797: Introduction to Epidemiology - Fall
- Pop Health 875: Assessment of Medical Technologies – Spring
- Pop Health 876: Measuring Health Outcomes – Spring