

# M.S. in Occupational Safety and Health Engineering

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## Degree Requirements

A minimum of 36 credits is required.

Students who lack an appropriate background may be admitted and required to make up deficiencies by taking a program of bridge courses that is designed in consultation with graduate advisors. These courses are taken in addition to the degree requirements and may include undergraduate courses.

*Seminar:* In addition to the minimum 36 degree credits required, all students who receive departmental or research-based awards must enroll each semester in IE 791 Graduate Seminar.

## M.S. in Occupational Safety and Health (courses only)

Code	Title	Credits
<b>Required Courses</b>		
EM 633	Legal Aspects of Health and Safety	3
IE 604	Advanced Engineering Statistics	3
IE 614	Safety Engineering Methods	3
IE 615	Industrial Hygiene and Occupational Health	3
IE 665	Applied Industrial Ergonomics	3
IE 685	Systems Safety	3
<b>Elective Courses</b>		
Select six of the following:		18
BME 670	Introduction to Biomechanical Engineering	
BME 671	Biomechanics of Human Structure and Motion	
EVSC 603	Hazardous Waste Operations and Emergency Response	
EVSC 614	Quantitative Environmental Risk Assessment	
EVSC 616	Toxicology	
IE 608	Product Liability Control	
IE 661	Man-Machine Systems	
IE 662	Cognitive Engineering	
IE 664	Advanced Ergonomics	
IE 669	Human Design Factors in Engineering	
IE 675	Safety in Facility and Product Design	
IE 681	Interdisciplinary Seminar in Occupational Safety and Health	
IE 682	Industrial Safety and Health Evaluation	
HRM 601	Managing Organizational Behavior in Technology-Based Organizations	
IE 700B	Master's Project (Remove IE 700 from the list)	
IE 725	Independent Research	
ME 660	Noise Control	
<b>Total Credits</b>		<b>36</b>

## M.S. in Occupational Safety and Health (Master's thesis)

Code	Title	Credits
<b>Required Courses</b>		
EM 633	Legal Aspects of Health and Safety	3
IE 604	Advanced Engineering Statistics	3
IE 614	Safety Engineering Methods	3
IE 615	Industrial Hygiene and Occupational Health	3
IE 665	Applied Industrial Ergonomics	3
IE 685	Systems Safety	3

<b>Thesis <sup>1</sup></b>		
IE 701C	Master's Thesis	6
OR		
IE 701B	Master's Thesis	3
IE 701B	Master's Thesis	3
<b>Elective Courses</b>		
Select four of the following:		12
BME 670	Introduction to Biomechanical Engineering	
BME 671	Biomechanics of Human Structure and Motion	
EVSC 603	Hazardous Waste Operations and Emergency Response	
EVSC 614	Quantitative Environmental Risk Assessment	
EVSC 616	Toxicology	
IE 608	Product Liability Control	
IE 661	Man-Machine Systems	
IE 662	Cognitive Engineering	
IE 664	Advanced Ergonomics	
IE 669	Human Design Factors in Engineering	
IE 675	Safety in Facility and Product Design	
IE 681	Interdisciplinary Seminar in Occupational Safety and Health	
IE 682	Industrial Safety and Health Evaluation	
HRM 601	Managing Organizational Behavior in Technology-Based Organizations	
IE 725	Independent Research	
ME 660	Noise Control	
<b>Total Credits</b>		<b>42</b>

<sup>1</sup> Required for NIOSH; trainees; optional for all others.