REQUIREMENTS FOR THE MASTER OF SCIENCE
GALLOGLY COLLEGE OF ENGINEERING
THE UNIVERSITY OF OKLAHOMA

Academic Year	General Requirements		Program
For Students Entering the Oklahoma State System for Higher Education **Summer 2024 through Spring 2025**	Minimum Total Hours (Thesis) .... 30 Minimum Total Hours (Non-Thesis) 30		**Industrial and Systems Engineering** **M524 (Online M527)** Master of Science

Thesis Option

Code	Title	Credit Hours
Required Courses		
Statistics: Choose one of the following		3
ISE 5013	Fundamentals of Engineering Statistical Analysis [1]	
ISE 5553	Data-Driven Decision Making I	
ISE 5853	Data-Driven Decision Making II	
ISE 5103	Intelligent Data Analytics	
Modeling: Choose one of the following		3
ISE 5023	Systems Optimization [2]	
ISE 5663	Systems Analysis Using Simulation	
ISE 5113	Advanced Analytics and Metaheuristics	
Systems Engineering: Choose one of the following		3
ISE 5033	Systems Engineering [3]	
ISE 5813	Advanced Human Factors and Ergonomics	
ISE 5543	Decision Analysis	
Electives		
Choose 15 hours from a list maintained by the academic unit and approved by the Graduate College [4]		15
Thesis		
ISE 5980	Research for Master's Thesis	6
Total Credit Hours		**30**

[1] Students with an equivalent undergraduate statistics course: ISE 5103, ISE 5553 or ISE 5853 or alternative advanced statistics course approved by the Industrial and Systems Engineering Graduate Committee.

[2] Students with an equivalent undergraduate course in optimization: ISE 5663 or alternative advanced operations course approved by the Industrial and Systems Engineering Graduate Committee.

[3] Students with an equivalent undergraduate course in systems engineering: ISE 5813 or another advanced course approved by the Industrial and Systems Engineering Graduate Committee.

[4] The thesis option requires 15 hours of electives, from a list maintained by the department and approved by the Graduate College. At least 6 hours must be in Industrial and Systems Engineering. Up to 9 hours may be non-ISE courses.

- **NOTE: No more than 6 credit hours of 4000-level graduate courses may be applied to the degree. These courses must be outside ISE and approved for graduate credit. No 3000-level or lower courses may be applied to the degree.**

NON-THESIS OPTION

Code	Title	Credit Hours
Required Courses		
Statistics: Choose one of the following		3
ISE 5013	Fundamentals of Engineering Statistical Analysis [1]	
ISE 5553	Data-Driven Decision Making I	
ISE 5853	Data-Driven Decision Making II	
ISE 5103	Intelligent Data Analytics	
Modeling: Choose one of the following		3
ISE 5023	Systems Optimization [2]	
ISE 5663	Systems Analysis Using Simulation	
ISE 5113	Advanced Analytics and Metaheuristics	
Systems Engineering: Choose one of the following		3
ISE 5033	Systems Engineering [3]	
ISE 5813	Advanced Human Factors and Ergonomics	
ISE 5543	Decision Analysis	
Electives		
Choose 21 hours from a list maintained by the academic unit and approved by the Graduate College [4]		21
Total Credit Hours		**30**

[1] Students with an equivalent undergraduate statistics course: ISE 5103, ISE 5553 or ISE 5853 or alternative advanced statistics course approved by the Industrial and Systems Engineering Graduate Committee.

[2] Students with an equivalent undergraduate course in optimization: ISE 5663 or alternative advanced operations course approved by the Industrial and Systems Engineering Graduate Committee.

[3] Students with an equivalent undergraduate course in systems engineering: ISE 5813 or another advanced course approved by the Industrial and Systems Engineering Graduate Committee.

[4] The non-thesis option requires 21 hours of electives from a list maintained by the department and approved by the Graduate College. At least 12 hours must be in Industrial and Systems Engineering. Up to 9 hours may be non-ISE courses.

- **NOTE: No more than 6 credit hours of 4000-level graduate courses may be applied to the degree. These courses must be outside ISE and approved for graduate credit. No 3000-level or lower courses may be applied to the degree.**

GENERAL REQUIREMENTS FOR ALL MASTER'S DEGREES

The master's degree requires the equivalent of *at least* two semesters of satisfactory graduate work and additional work as may be prescribed for the degree.

All coursework applied to the master's degree must carry graduate credit.

Master's degree programs which require a thesis consist of *at least* 30 credit hours. All non-thesis master's degree programs require *at least* 30 credit hours.

Credit transferred from other institutions must meet specific criteria and is subject to certain limitations.

Courses completed through correspondence study may *not* be applied to the master's degree.

To qualify for a graduate degree, students must achieve an overall grade point average of 3.0 or higher in the degree program coursework and in all resident graduate coursework attempted. A student must also have at least a 3.0 in all coursework (including undergraduate coursework if any).

Additional information for master's degree students may be found in the Graduate College Bulletin.

More information in the catalog: (http://ou-public.courseleaf.com/gallogly-engineering/industrial-systems-engineering/industrial-systems-engineering-master-science/).