

# Plan of Work Requirement Guidelines

ST 507, ST 511, ST 513 and ST 515 can NOT be on the plan of work under ISE website application pre-requisites.

MIE Degree Requirements	MSIE Degree Requirements	Ph.D. Degree Requirements
Minimum 33 credits	Minimum 30 credits	Minimum 72 credits
One course from four of the five Breadth Requirement Course Listing (12 credit hours): A. Economic Analysis and Decision Making B. Human Factors and Ergonomics C. Manufacturing Systems D. Production Systems E. Systems Analysis and Optimization  One course from group F (Computer Science, Mathematics and Statistics) in the Breadth Requirement Course Listing  <i>* Advanced courses may be substituted with approval</i>  <i>** Other graduate level CSC, Math, or Statistics courses may be substituted with approval</i>	One course from four of the five Breadth Requirement Course Listing (9 credit hours): A. Economic Analysis and Decision Making B. Human Factors and Ergonomics C. Manufacturing Systems D. Production Systems E. Systems Analysis and Optimization  One course from group F (Computer Science, Mathematics and Statistics) in the Breadth Requirement Course Listing  <i>* Advanced courses may be substituted with approval</i>  <i>** Other graduate level CSC, Math, or Statistics courses may be substituted with approval</i>	One course each from B, C, E and one from A or D of the following groups in the Breadth Requirement Course Listing (12 credit hours): A. Economic Analysis and Decision Making B. Human Factors and Ergonomics C. Manufacturing Systems D. Production Systems E. Systems Analysis and Optimization F. Depends on your Committee  <i>* Advanced courses may be substituted with approval</i>  <i>** Other graduate level CSC, Math, or Statistics courses may be substituted with approval</i>
No minor	9 credits from minor (okay if cross listed with ISE)	15 credits from minor
Option B master's degree programs can't carry an officially designated minor	One committee member must represent the minor discipline. This can be a faculty member in the minor discipline or an ISE faculty member with affiliation with the minor discipline	One committee member must represent the minor discipline. This can be a faculty member in the minor discipline or an ISE faculty member with affiliation with the minor discipline
At least 1 course from 700 or 800 level ISE course	At least 1 course from 700 or 800 level ISE course	At least 2 courses from 700 level ISE courses
Total ISE courses =>21 credits		
27 credits from 33 have to be at 500 level or above	At least 24 credit hours of coursework	
ISE 677 <= 6 credits (Optional)	ISE 695 = 3 credits or <= 6 credits	ISE 893 or ISE 895 => 6 credits
ISE 601, ISE 688, ISE 689 and ISE 695 can't count on the plan of work	ISE 601 and ISE 699 can't count on the plan of work	ISE 801 and ISE 899 can't count on the plan of work
12 credits (graduate school courses) can be transferred from PBS or other universities	12 credits (graduate school courses) can be transferred from PBS or other universities	18 credits (graduate school courses) can be transferred from other universities
		36 credits can be transferred from NC State MS degree (if no break)
ABM student (12 credits from undergrad + 6 credit hours from graduate courses not counted in the undergrad degree)	ABM student (12 credits from undergrad + 6 credit hours from graduate courses not counted in the undergrad degree)	
400 level course <= 6 credits (not ISE courses)	400 level courses <= 6 credits (not ISE courses)	No 400 level courses in Ph.D. degree
	400 level courses can only count for minor	
	PBS courses can transfer to Master degree <=12 credits (see handbook 3.1 transfer PBS)	
18 Credits hours must be letter-graded courses	18 Credits hours must be letter-graded courses	
ISE 601 is required	ISE 601 is required	ISE 601 is required

## Breadth Requirement Courses

**A \*:** ISE 510, ISE 519 and ISE 711  
MA 547

**B \*:** ISE/PSY 540, ISE 541, ISE 544, ISE 741 and ISE 744

**C \*:** ISE 515, ISE 545, ISE 714, ISE 716 and ISE 718

**D \*:** ISE 552, ISE 553, ISE 748 and ISE 754

**E \*:** ISE/OR 501, ISE/OR 505, ISE 560 and ISE/OR 562  
OR 504

**F \*\*:** CSC 513, CSC 520, CSC 570 and CSC 742  
MA 520 and MA 580  
ST 516 and ST 711

*\* Advanced Courses may be substituted with approval.*

*\*\* Other graduate-level CSC, Math or Statistics courses may be substituted with approval.*

**Note:** Be sure Ph.D. students do not put more than 36 credits on their NCSU ISE master plan of work. If there is no break during their academic year, the maximum credits they can transfer to PhD degree is 36 credits