APPLIED MATHEMATICS AND **STATISTICS, MINOR**

The minor in applied mathematics and statistics should be attractive to students majoring in a variety of disciplines, in both the School of Engineering and the School of Arts and Sciences. The minor provides formal recognition of the depth and strength of a student's quantitative knowledge beyond the minimal requirements of their major.

The information below describes the academic requirements for students entering JHU as degree-seeking students in Fall 2025. Students who entered JHU as degree-seeking students prior to Fall 2025 should view the appropriate archived catalogue (https://e-catalogue.jhu.edu/archive/).

MINOR PREREQUISITES

Code	Title C	Credits
Choose one of the requirement.	e following to fulfill the Calculus I and II	4-8
AS.110.106 & AS.110.107	Calculus I (Biology and Social Sciences) and Calculus II (For Biological and Social Science	8 e)
AS.110.108 & AS.110.109	Calculus I (Physical Sciences & Engineering) and Calculus II (For Physical Sciences and Engineering)	8
AS.110.113	Honors Single Variable Calculus	4
Total Credits		4-8

MINOR REQUIREMENTS

Grades of C- or higher are required. No Satisfactory/Unsatisfactory (S/U) grade will be accepted. Courses must be either 3 or 4 credits. The minor in AMS requires 18 Quantitative credits. Details of these requirements are listed below.

Credits

18

Code	Title
18 Quantitat	ive credits:

Among the 18 Q credits, at least 4 courses from the AMS department (EN.533.XXX) Among the 18 Q credits, at least 3 upper-level courses (at 300-level or higher) with at least 2 of these from the AMS department ¹

Among the 18 Q credits, at least one course in Scientific Computing from the list below ²

Total Credits ³

- 1 Students may count the combination of AS.110.201 Linear Algebra/AS.110.212 Honors Linear Algebra and AS.110.302 Differential Equations and Applications in place of ONE of the required 300-level courses within the AMS Department.
- 2 Students may take one of the courses approved to meet the AMS Master's/PhD Computing Requirement.
- 3 Students may not count all three of the following courses TOGETHER towards the AMS minor requirements: EN.553.311 Intermediate Probability and Statistics, EN.553.420 Probability/EN.553.620 Probability, and EN.553.430 Mathematical Statistics/EN.553.630 Mathematical Statistics. (Any two of these three are permitted; indeed, coursework in probability and statistics is highly recommended.)

SCIENTIFIC COMPUTING COURSES

Code	Title	Credits
AS.110.445	Mathematical and Computational Foundations Data Science	of 3
EN.553.385	Introduction to Computational Mathematics	4
EN.553.400	Mathematical Modeling and Consulting	4
EN.553.413	Applied Statistics & Data Analysis I	4
EN.553.432	Bayesian Statistics	3
EN.553.436	Introduction to Data Science	4
EN.553.450	Computational Molecular Medicine	4
EN.553.463	Network Models in Operations Research	4
EN.553.481	Numerical Analysis	4
EN.553.488	Computing for Applied Mathematics	3
EN.553.493	Mathematical Image Analysis	4
EN.553.494		3
EN.601.433	Intro Algorithms	3
EN.601.475	Machine Learning	3
EN.601.482	Machine Learning: Deep Learning	4

1