SCIENTIFIC COMPUTING (MINOR)

This 15-credit minor will provide students with:

1. a solid programming background for running computer simulations,
2. a computing and modeling course for learning how to develop mathematical models,
3. a foundational methods course for learning how to analyze the stability and accuracy of computer simulations, and
4. an elective course to explore additional topics or applications of scientific computing.

The required courses for this minor are as follows:

Code	Title	Hours
First Course in Scientific Computing		*3*
ACMS 20210 & ACMS 21210	Scientific Computing and Scientific Computing Lab [1]	
ACMS 20220 & ACMS 21220	Scientific Computing with Python and Scientific Computing with Python Lab [1]	
CBE 20258	Numerical and Statistical Analysis	
CSE 20311 & CSE 21311	Fundamentals of Computing and Fundamentals of Computing Lab [1]	
PHYS 20420	Computational Methods in Physics	
Second Course in Scientific Computing [2]		*3*
ACMS 40210	Scientific Programming	
ACMS 40212	Advanced Scientific Computing	
Foundational Methods [2]		*3*
Computing and Modeling [2]		*3*
Additional Elective (chosen from either Second Course in Scientific Computing, Foundational Methods, Computing and Modeling, or Additional Electives lists) [2]		*3*
Total Hours		**15**

[1] The course lab component must be taken concurrently.

[2] The acceptable courses for Foundational Methods, Computing and Modeling, and Additional Electives are found here: https://acms.nd.edu/undergraduate/degrees/minor-in-scientific-computing/