



Introduction to Computational Science: Modeling and Simulation for the Sciences, Second Edition

By Angela B. Shiflet, George W. Shiflet

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Computational science is an exciting new field at the intersection of the sciences, computer science, and mathematics because much scientific investigation now involves computing as well as theory and experiment. This textbook provides students with a versatile and accessible introduction to the subject. It assumes only a background in high school algebra, enables instructors to follow tailored pathways through the material, and is the only textbook of its kind designed specifically for an introductory course in the computational science and engineering curriculum. While the text itself is generic, an accompanying website offers tutorials and files in a variety of software packages.

This fully updated and expanded edition features two new chapters on agent-based simulations and modeling with matrices, ten new project modules, and an additional module on diffusion. Besides increased treatment of high-performance computing and its applications, the book also includes additional quick review questions with answers, exercises, and individual and team projects.

- The only introductory textbook of its kind--now fully updated and expanded
- Features two new chapters on agent-based simulations and modeling with matrices
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About the Author

Angela B. Shiflet is the Larry Hearn McCalla Professor of Mathematics and Computer Science and director of computational science at Wofford College. **George W. Shiflet** is the Larry Hearn McCalla Professor of Biology at Wofford College.

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