COMPUTATION AND MATHEMATICS FOR BIOLOGICAL NETWORKS (Z132)

Graduate Certificate Program
College: Computer, Mathematical, and Natural Sciences

abstract

COMBINE: Computation and Mathematics for Biological Networks, is a University of Maryland graduate program in Network Biology. COMBINE immerses graduate students in interdisciplinary education, research and training that integrates quantitative modeling methods from physics and mathematics with data processing, analysis, and visualization tools from computer science to gain deeper insights into the structural and dynamical principles governing living systems. Participants will utilize a network-based, data-driven approach, focusing on how interaction patterns can give insights into complex biological phenomena. COMBINE prepares students to become experts in the process of transforming raw biological data into useful information from which new biological insights can be inferred, positioning them to pursue a range of Science, Technology, Engineering, and Mathematics (STEM) careers at the nexus of the computer, physical, and life sciences.

CONTACT

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Admissions

The COMBINE certificate will be open to students who have already been admitted to a doctoral program on campus. Students who express an interest in the certificate program would be reviewed to ensure they have the necessary background to successfully complete the required coursework. Please contact Michelle Girvan for more information: girvan@umd.edu

Requirements

- Computation and Mathematics for Biological Networks, Post-Baccalaureate Certificate (P.B.C.) (https://academiccatalog.umd.edu/graduate/programs/computation-mathematics-biological-networks-z132/computation-mathematics-biological-networks-pbc/)