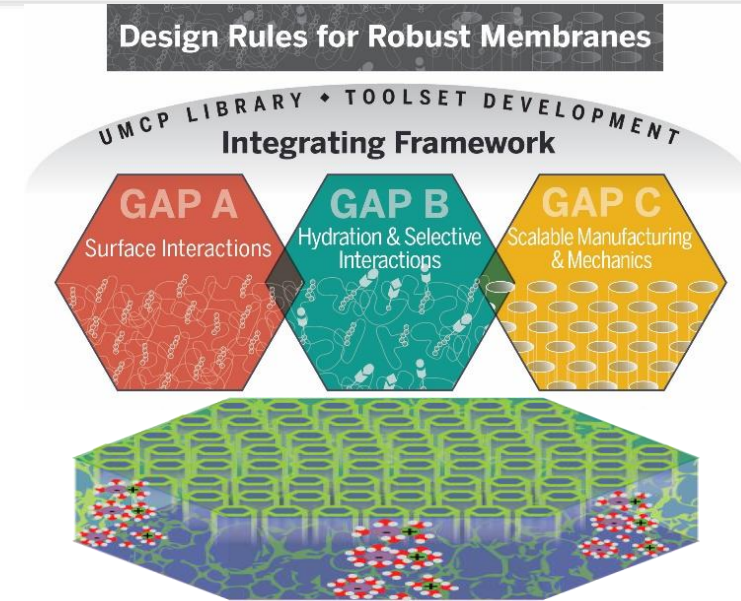


# The Center for Materials for Water and Energy Systems (M-WET)

Benny Freeman (The University of Texas at Austin); Class: 2018-2026

**MISSION:** To discover and understand the fundamental science necessary to design new membrane materials and develop tools and knowledge to predict new materials' interactions with targeted solutes to provide fit for purpose water from low quality water sources and recover valuable solutes with less energy.

<https://mwet.utexas.edu/>



## RESEARCH PLAN

M-WET's goals are to: design new interfaces with controlled topology and functionalities; precisely control mesoscopic material architecture to build novel, highly permeable, and selective membranes with rapid transport for resource recovery and producing fit-for-purpose water; develop novel imaging characterization tools for these systems; and model multicomponent materials, fluid mixtures, and mesoporous architectures to radically transform membrane/materials systems' energy demands, resiliency, and efficiency.