**Dr. Waters** is an Associate professor in the Mechanical Engineering and her work has been centered around metallurgy and now the role of the powder metals in the 3D processes that build parts through additive manufacturing. Her education began in Material Science from Virginia Tech. Her lab, the Additive Metallic Materials and Porous Structures Research Lab (AMMPS), focuses on research for developing new techniques to manufacture metallic porous structures with desired structure, and properties; and to understand the physical phenomena that controls this synthesis metals for the future of applications ranging from space exploration to biomedical implants. She is a part of a team awarded a $1.6 Million grant titled “Advancing the Science and Practice of Metal-Based Additive Manufacturing” and another team working with NNSA DOE labs on a Consortium for Advanced Manufacturing (CAM). In these projects, she is highly engaged in various facets of metal-based additive characterization. Dr. Waters is also known nationwide for her engineering education research efforts. These include studies of gender issues in the education pipeline, faculty resistance to pedagogical change and best methods to increase learning in the Material Science classroom. She has NSF funding with several facets of engineering education and these include: Assessment studies of classroom material science pedagogical implementations specifically POGIL activities; Just in Time Teaching with Web-based Tools of Material Science; Case Studies in Material Science and Various Engineering Disciplines and; Engineering Faculty Barriers to Adopt Evidence-Based (or nontraditional) Teaching Methods. She has been invited to speak at conferences (MRS, MS&T, and ASEE) worldwide on the topic of Material Science education and more recently has several invitations to speak locally on “Working Toward Gender and Racial Equity in Engineering” and “Why things break”. She is author of many peer-reviewed conference proceeding and journal papers in the areas of both powder metals applications and engineering education.