Advances in the field of hypersonics—travel in the atmosphere at speeds exceeding Mach 5 (five times the speed of sound)—are accelerating rapidly with the potential to transform the aerospace and defense industries. The University of Maryland and the A. James Clark School of Engineering's Department of Aerospace Engineering have a rich history of collaborating with industry, agencies, and academia to bring novel solutions to pressing challenges, such as hypersonic technology. With close proximity to several federally funded institutions and labs that have a critical interest in hypersonic technology—the Naval Air and Surface Warfare Centers, the Applied Physics Laboratory, the Naval Research Laboratory, Aberdeen Proving Ground, and AEDC Hypervelocity Tunnel 9—the university is perfectly positioned to offer the only graduate certificate in engineering in hypersonics in the area. As organizations struggle to hire trained hypersonics engineers, this program directly addresses the current shortfalls of those engineers in today's highly competitive market.

GRADUATE CERTIFICATE IN ENGINEERING IN HYPERSONICS

Offered in partnership with the Department of Aerospace Engineering, one of the nation's leading aerospace programs, this Graduate Certificate in Engineering provides students with a deep understanding of the key principles relevant to the flight of high-speed vehicles and projectiles in the atmosphere. Students are introduced to crucial concepts in areas such as hypersonic aerodynamics, high-speed airbreathing propulsion, high-temperature structures and materials, and high-speed guidance, navigation and control. More specialized courses will be offered in important areas such as high-temperature gas dynamics, transition, turbulence, experimental and computational methods, and vehicle design. Students will be introduced to the general concepts of hypersonic flight and gain more specialized knowledge in key areas within the broader hypersonics discipline. This certificate prepares students for careers in hypersonics-related fields in both the commercial and government sectors.

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We welcome your interest. For complete information, including course descriptions, deadlines, and schedules please contact us.

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