

HYPERSONICS (Z165)

Graduate Certificate Program
College: Engineering

ABSTRACT

This certificate will provide participants with a deep understanding of the key principles relevant to the flight of high-speed vehicles and projectiles in the atmosphere. Students will be introduced to crucial concepts in areas such as hypersonic aerodynamics, high-speed airbreathing propulsion, high-temperature structures and materials, and high-speed guidance, navigation & control. More specialized courses will also be offered in important areas such as high-temperature gas dynamics, transition, turbulence, experimental and computational methods, and vehicle design. The certificate will prepare students for a career in hypersonics-related fields in both the commercial and defense sectors.

FINANCIAL ASSISTANCE

Students in this program pay a special tuition rate, which does not differ between residents and non-residents of Maryland. This rate is not fully covered by graduate assistantships, fellowships or the tuition remission. Additional graduate student fees are charged. **Tuition and fees are subject to change.**

This program does not provide departmental assistantships or fellowships. Loans, work-study and need-based grants for citizens and permanent residents with demonstrated financial need may submit a Free Application for Federal Student Aid (FAFSA) by appropriate FAFSA deadlines. For more information on this process, visit: <https://fafsa.ed.gov/deadlines.htm>.

CONTACT

Visit the **MAGE Website for Additional Information:** www.mage.umd.edu (<https://mage.umd.edu/>)

Maryland Applied Graduate Engineering

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Courses: ENCH (<https://umd-curr.courseleaf.com/graduate/courses/ench/>) ENPM (<https://umd-curr.courseleaf.com/graduate/courses/enpm/>)

ADMISSIONS

GENERAL REQUIREMENTS

- Statement of Purpose (<https://advancedengineering.umd.edu/application-process/>)
- Transcript(s)
- TOEFL/IELTS/PTE (international graduate students (<https://gradschool.umd.edu/admissions/english-language-proficiency-requirements/>))

PROGRAM-SPECIFIC REQUIREMENTS

- See department for details

APPLICATION DEADLINES

Type of Applicant	Fall Deadline	Spring Deadline
Domestic Applicants		
US Citizens and Permanent Residents		
International Applicants		
F (student) or J (exchange visitor) visas; A,E,G,H,I and L visas and immigrants		

RESOURCES AND LINKS:

Program Website: mage.umd.edu (<https://mage.umd.edu/>)

Application Process: gradschool.umd.edu/admissions (<https://gradschool.umd.edu/admissions/>)

REQUIREMENTS

- Hypersonics, Post-Baccalaureate Certificate (P.B.C.) (<https://academiccatalog.umd.edu/graduate/programs/hypersonics-z165/hypersonics-pbc/>)