

EMBEDDED SYSTEMS (Z161)

Graduate Certificate Program
College: Engineering

ABSTRACT

The Graduate Certificate in Embedded Systems is designed to assist engineers and technical professionals in the development of their careers and to provide the expertise needed in the rapidly changing business, government, and industrial environments.

The Embedded Systems program will cover both the technical and management aspects of embedded systems design. It will feature courses on design and optimization of embedded software, embedded hardware, networking and distributed systems, and a hands-on hacking lab. Students will also have the choice to learn about emerging topics in embedded systems including security and privacy, low power and energy efficient design, project management, data science and machine learning, as well as specific embedded systems in smart grid, smart home, medical devices, and vehicular systems.

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 assistance. 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.

CONTACT

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

Maryland Applied Graduate Engineering

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Website: <https://mage.umd.edu/>

Courses: 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

- Graduate Record Examination (GRE) (optional)
- CV/Resume (optional)
- Letter of Recommendation (optional)

***Visa Eligibility:** This program is not eligible for I-20 or DS-2019 issuance by the University of Maryland.

APPLICATION DEADLINES

Type of Applicant	Fall Deadline	Spring Deadline	Summer Deadline
Domestic Applicants			
US Citizens and Permanent Residents	July 31, 2027	December 15, 2026	May 15, 2027
International Applicants			
F (student) or J (exchange visitor) visas; A,E,G,H,I and L visas and immigrants	N/A	N/A	N/A

RESOURCES AND LINKS:

Other Deadlines: mage.umd.edu/admissions (<https://mage.umd.edu/admissions/>)

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

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

REQUIREMENTS

- Embedded Systems, Post-Baccalaureate Certificate (P.B.C.) (<https://academiccatalog.umd.edu/graduate/programs/embedded-systems-z161/embedded-systems-pbc/>)

FACILITIES AND SPECIAL RESOURCES

This program is currently offered in-person at the College Park Campus. In addition to in-person courses, you may have the option to take some course requirements in an online format. Course format offerings are subject to change.

This program is also offered 100% online. Please see Embedded Systems (Z162) for more information.