

# CHEMICAL AND LIFE SCIENCES (CLFS)

Graduate Degree Program  
College: Computer, Mathematical, and Natural Sciences

## Abstract

The Master of Chemical and Life Sciences is an online content-based masters program for high school science teachers that provides in-depth knowledge of current research areas in the biological, biochemical and biomedical sciences. The courses cover subject matter as diverse as genetic engineering and gene therapy to chemistry, ecology and the concepts of biocomplexity. University faculty who are experts in the field will lead discussion sessions on topics of current interest with significant social impact. Topic examples include the positive and negative aspects of genetically engineered foods and their safety, the development of new energy sources and the ethical and moral issues involved in cloning and the handling of genetic information. The program also provides a set of laboratory experiences that facilitates the presentation of many of these concepts in the classroom. Aside from the laboratory experiences, all courses will be offered exclusively through distance education as online courses. Our infrastructure provides a web-based asynchronous program. Teachers who desire to update and advance their knowledge or who must complete an advanced degree or graduate courses, will find that this program meets their needs. In addition to our general program we offer focused Areas of Concentration in Biology and in Chemistry. During the course of studies towards a degree students may earn Credentials by taking a series of focused courses.

## Contact

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**Website:** <http://mclfs.umd.edu/>

**Courses:** CLFS (<https://academiccatalog.umd.edu/graduate/courses/clfs/>)

## ADMISSIONS

### GENERAL REQUIREMENTS

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

### PROGRAM-SPECIFIC REQUIREMENTS

- Letters of Recommendation (none)
- CV/Resume
- Description of Research/Work Experience

- Science Undergraduate Degree: The undergraduate degree must be in biological science, chemistry, biochemistry or science education.
- Teaching Experience: The applicant must demonstrate one year minimum teaching experience.

Admission Information for the Master of Chemical and Life Sciences can be found here: <https://oes.umd.edu/graduates-post-baccalaureates-professionals/professional-graduate-programs/master-chemical-life-sciences-mclfs/apply> (<https://oes.umd.edu/graduates-post-baccalaureates-professionals/professional-graduate-programs/master-chemical-life-sciences-mclfs/apply/>). UMD cannot issue the immigration documents necessary for international students to study (F1 or J1 student visas) in this program. International students who currently reside in the U.S. on existing visas may apply. Eligible international students have additional requirements per the Office of International Student & Scholar Services (ISSS). Additional requirements can be found here: <https://oes.umd.edu/graduates-post-baccalaureates-professionals/professional-graduate-programs/master-chemical-life-sciences-mclfs/apply#International> (<https://oes.umd.edu/graduates-post-baccalaureates-professionals/professional-graduate-programs/master-chemical-life-sciences-mclfs/apply/#International>)

For more admissions information or to apply to the program, please visit our Graduate School website: [www.gradschool.umd.edu/admissions](http://www.gradschool.umd.edu/admissions) (<http://www.gradschool.umd.edu/admissions/>)

## APPLICATION DEADLINES

Type of Applicant	Fall Deadline	Spring Deadline
<b>Domestic Applicants</b>		
US Citizens and Permanent Residents	August 15, 2025	January 17, 2025
<b>International Applicants</b>		
F (student) or J (exchange visitor) visas; A,E,G,H,I and L visas and immigrants	N/A	N/A

### RESOURCES AND LINKS:

**Program Website:** [mclfs.umd.edu](http://mclfs.umd.edu/) (<http://mclfs.umd.edu/>)

**Application Process:** [gradschool.umd.edu/admissions/application-process/step-step-guide-applying](https://gradschool.umd.edu/admissions/application-process/step-step-guide-applying) (<https://gradschool.umd.edu/admissions/application-process/step-step-guide-applying/>)

## REQUIREMENTS

- Chemical and Life Sciences, Master of Chemical and Life Sciences (M.Clfs.) (<https://academiccatalog.umd.edu/graduate/programs/chemical-life-sciences-clfs/chemical-life-sciences-mclfs/>)