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
Dr. Bretton W. Kent
MCLFS Director
3142 Plant Science
4291 Fieldhouse Drive
University of Maryland
College Park, MD 20742
Telephone: 301.405.3125
Email: bkent@umd.edu
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

APPLICATION DEADLINES
<table>
<thead>
<tr>
<th>Type of Applicant</th>
<th>Fall Deadline</th>
<th>Spring Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic Applicants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>US Citizens and Permanent Residents</td>
<td>July 28, 2021</td>
<td>N/A</td>
</tr>
<tr>
<td>International Applicants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F (student) or J (exchange visitor) visas; A,E,G,H,I and L visas and immigrants</td>
<td>February 1, 2021</td>
<td>N/A</td>
</tr>
</tbody>
</table>

RESOURCES AND LINKS:
Program Website: mclfs.umd.edu (http://mclfs.umd.edu/)

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/)