



## Health and Sciences Division

# Chemistry

Mount Mary College's Bachelor of Science degree in chemistry is designed to prepare students for entry-level employment or graduate studies in the life sciences. The program combines a broad background in chemistry with a solid foundation in the liberal arts. Program graduates are well prepared for entry into graduate chemistry programs and professional schools (medical, dental, osteopathic medicine and veterinary science).

The Chemistry program emphasizes data analysis and problem solving, along with broad scientific literacy, basic biological laboratory techniques and relevant computer applications. The program offers courses in the five main branches of science: inorganic, organic, analytical, biochemical and physical.

## One Major, Three Options

A chemistry degree from Mount Mary College offers a broad choice of career paths. Three distinct course sequences help direct students toward their future career goals. Each sequence has recommended courses, designed to meet a student's individual career aspirations.

### General sequence

Students interested in graduate school are encouraged to follow this sequence.

### Health Sciences sequence

Students planning to attend medical, dental, veterinary or other professional school are encouraged to follow this sequence.

### Education sequence

Students wishing to teach chemistry at the middle or secondary level must major in a subject area and complete the courses required for teacher certification.

## Why Mount Mary?

Mount Mary College's Chemistry major provides a strong undergraduate science foundation. As part of their coursework students:

- complete undergraduate research projects
- work side-by-side with faculty members
- learn laboratory techniques
- experience small class sizes, similar to the feel of professional schools
- develop creative and critical thinking skills
- develop strong leadership skills



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### Sample Chemistry courses

- Essentials of Organic and Biological Chemistry
- Environmental Science
- Molecular Techniques
- Organic Chemistry
- Inorganic Chemistry
- Physical Chemistry
- Instrumental Quantitative Analysis

### Did you know?

Mount Mary also offers minors in:

- Chemistry
- Biology
- Environmental Studies

[www.mtmary.edu](http://www.mtmary.edu) 800-321-6265

# Chemistry

## Student-centered learning

The Health and Sciences Division uses student-centered active learning strategies to help students make real-world connections and master scientific content. These strategies allow students to learn more about relevant topics, as well as practice their oral and written communication skills. Students are provided opportunities to learn using the following strategies:

- **Case studies:** This type of learning allows students to study real-life scenarios relevant to course content so students can understand how to apply concepts they learn in class to real-world situations. It also allows students to discuss ethical issues that might arise from a case.
- **Guided inquiry exercises:** This learning strategy allows students to study and answer a series of questions that build upon one another to understand complex problems and explore controversial issues that arise from course content.
- **Undergraduate research:** Upper-level courses provide students the opportunity to engage in undergraduate research. All students majoring in Chemistry also conduct an independent research project. At Mount Mary, students may work with a faculty member to design a course in research or to explore independent study to meet the students' specific interests. This research experience prepares graduates for post-baccalaureate professions or pursuing a graduate degree.

## State-of-the-art Facilities

In 2004, Mount Mary College opened the state-of-the-art Gerhardinger Center to house all science-related fields. The new facilities create a perfect environment for active learning in the natural sciences. Each classroom is designed so professors can combine lecture and laboratory components, creating a smooth transition from learning about a topic to hands-on experimentation.



## Faculty

Mount Mary's student-centered science faculty brings real-world experience to the classroom and is energized by the success of their students. With personal attention from such a caring faculty, Mount Mary students are academically prepared for successful careers and personally inspired with "can do" attitudes.

- Patricia B. Ahrens, Ph.D.  
Professor of Biology  
Chair of the Health and Sciences Division
- Colleen Conway, Ph.D.  
Assistant Professor of Chemistry
- Lynn M. Diener, Ph.D.  
Assistant Professor of Biology  
Chair of the Sciences Department
- Steven Levsen, Ph.D.  
Associate Professor of Chemistry
- Maureen Leonard, Ph.D.  
Assistant Professor of Biology
- S. Patricia Ann Obremski, SSND, M.S.  
Associate Professor of Physics

## Employment Outlook

According to the U.S. Department of Labor, Bureau of Labor Statistics, average job growth is expected in the field of chemistry. Graduates with a master's degree or a Ph.D., will enjoy better opportunities, especially at larger pharmaceutical and biotechnology firms.

Employment of chemists and materials scientists is expected to grow 9 percent over the 2006-16 decade, or about as fast as the average for all occupations.

Chemists should experience employment growth in pharmaceutical and biotechnology research, as recent advances in genetics open new avenues of treatment for diseases. Employment of materials scientists should continue to grow as manufacturers of diverse products seek to improve their quality by using new materials and manufacturing processes.

Within the chemical manufacturing industries, job growth for chemists is expected to be strongest in pharmaceutical and biotechnology firms. Biotechnological research, including studies of human genes, continues to offer possibilities for the development of new drugs and products to combat illnesses and diseases.

# Chemistry

## Entrance Exams for Post-graduate Education

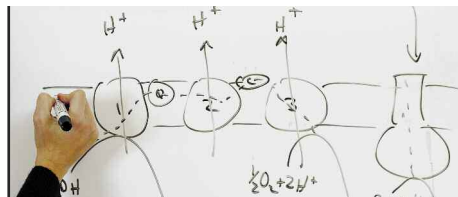
Through rigorous coursework, hands-on learning opportunities and test preparation, Mount Mary Chemistry graduates are well prepared for the following pre-professional exams:

- Medical school (for both MD and DO programs): Medical College Admission Test (MCAT)
- Dental school: Dental Admission Test (DAT)
- Veterinary school: Graduate Record Exam (GRE) or another exam designated by the school of choice

## Scholarship assistance

In addition to regular financial aid offerings, Chemistry majors are eligible for the Anthony S. Woo Chemistry Achievement Award. This scholarship honors the father of two Mount Mary chemistry alumnae. The scholarship is awarded to a student who demonstrates outstanding achievement in the field of chemistry.

Details about this departmental scholarship are available by contacting the Division Chair.



### More on the Web

Please visit [www.mtmary.edu/dept\\_chemistry.htm](http://www.mtmary.edu/dept_chemistry.htm) for additional information about Mount Mary's Chemistry major and other Health Sciences offerings, including:

- Biology
- Environmental Studies
- Radiologic Technology
- Occupational Therapy
- Nursing

### About Mount Mary College

Discover what the more than 1,900 current Mount Mary graduate and undergraduate students already know. Mount Mary offers an engaging and transformational education. Here students explore and expand their hopes and dreams. We invite you to be one of them.

Mount Mary's residential campus is home to a diverse student body. Be a part of our gorgeous suburban campus, just 20 minutes from downtown Milwaukee.

For over 90 years Mount Mary College has been educating women in the Catholic tradition – we are committed to your success. Nearly 100% of our full-time undergraduate students receive a scholarship. Mount Mary is dedicated to making a college education affordable for you.

See how Mount Mary's strong academics, small class sizes, safe and vibrant campus, and student organizations and leadership opportunities will help you achieve your personal and career goals. Contact the Admission Office at 800-321-6265 or [mmc-admiss@mtmary.edu](mailto:mmc-admiss@mtmary.edu).

