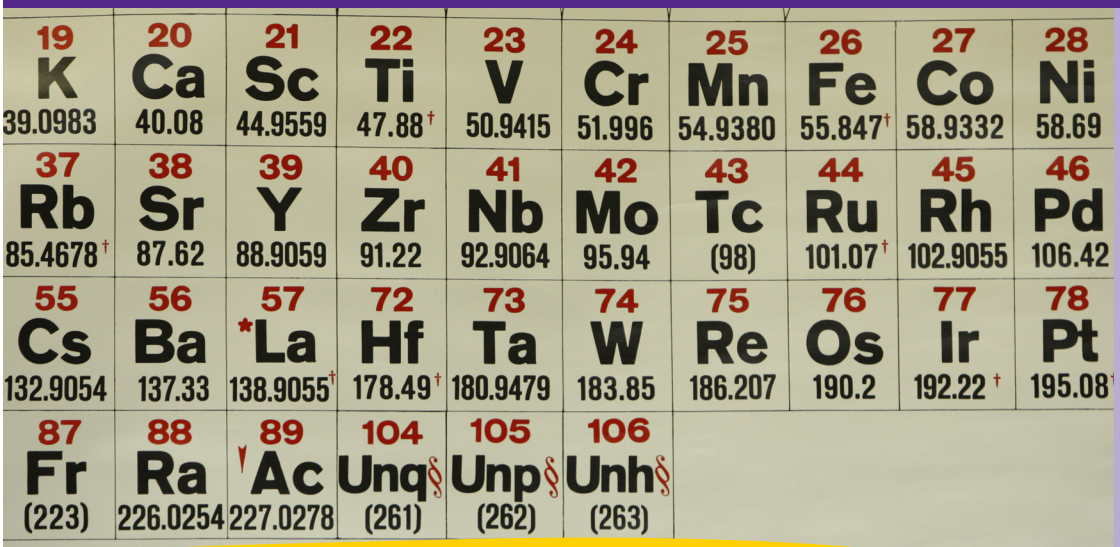
Integrated Baccalaureate and Master's Degree in Chemistry



The Integrated Baccalaureate and Master's degree program (IBMP) in Chemistry at Western Illinois University provides an opportunity for outstanding undergraduate Chemistry / Biochemistry / Forensic Chemistry majors to complete both a Bachelor of Science degree and a Master of Science degree in Chemistry in five years. In addition to earning both degrees a year early, the integrated programs may include additional opportunities to participate in a variety of experiential educational activities such as a master's project or thesis.

Admission Requirements

- The applicant should apply to the WIU School of Graduate Studies for admission to an integrated degree program in Chemistry.
- The applicant must have a cumulative grade point average of 3.25 or higher and a major GPA of 3.25 or higher.
- The applicant should request three letters of recommendation from faculty.
- The applicant should submit a statement of purpose and career goals.
- Official transcripts will be obtained from Sherman Hall by Graduate Office staff.

Degree Requirements

The Integrated Baccalaureate and Master's degree program (IBMP) in Chemistry offers students one of two plans: (1) the Thesis Plan, which emphasizes research, and (2) the Applied Chemistry Plan. The coursework of a given plan will be determined through careful advising of directed electives. All students will complete the necessary coursework to have a strong understanding in all the fundamental areas of chemistry. Both plans will require the minimum 120 semester hours (SH) of the regular Bachelor of Science (BS) degree program in Chemistry.

The Thesis Plan will include significant portions of research work to be carried out by the students under the guidance of Chemistry faculty mentors. This work will culminate in the completion of a master's thesis in the last semester of the program. The thesis should demonstrate the student's mastery of the basic areas of chemistry, as well as the completion of a significant research project. The Applied Chemistry Plan will require an internship where the student will spend a minimum of one semester at a cooperating industrial or government laboratory.

Students will be required to complete 120 SH for the BS degree. Nine of these hours may be taken as "bridge" courses, which will also count toward the 32 SH required for the master's degree. Courses taken for bridge credit will require students to complete extra projects and demonstrate a higher level of understanding of class materials. A student must be a senior and accepted into the IBMP in Chemistry before bridge courses may be taken.

Career Opportunities

There are many opportunities available, including jobs in academia and industry as well as opportunities in pursuing doctorate studies at various institutions nationwide.

Contact Information

Questions about the program:
Department of Chemistry
Rose McConnell, chair
(309) 298-1538
chemistry@wiu.edu
wiu.edu/chemistry

General admission questions:
School of Graduate Studies
(309) 298-1806 or (877) WIU GRAD
Grad-Office@wiu.edu
wiu.edu/grad

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WESTERN ILLINOIS UNIVERSITY

WIU.EDU/CHEMISTRY

Integrated Degree Course Requirements

Students must complete a minimum of 120 SH of credits to meet BS degree requirements, including the following:

University General Education Requirements ..... 55 SH

Core Courses ..... 22 SH
CHEM 201*, 202*, 241, 331, 332 and 341

Options of Study (select A, B, C or D)

A. Chemistry

Special Courses: CHEM 374, 375, 401 and 442 ..... 17 SH
Departmental electives ..... 3 SH
Open electives: Any minor ..... 16-20 SH
Other:
MATH 133*, 134* & 231 ..... 12 SH
PHYS 211*, 212*, or 124, 125 ..... 8-10 SH
CS 211 and 212 or higher ..... 3 SH

B. Biochemistry

Special courses: CHEM 370 or 374, 401, 421, 422 and 425 ..... 21 SH
Departmental electives ..... 3 SH
Biology minor ..... 17 SH
MATH 133*, 134* ..... 8 SH
PHYS 211*, 212*, or 124, 125 ..... 8-10 SH
CS 211 and 212 or higher ..... 3 SH

C. Science/Chemistry – Teacher Licensure

Special Courses: CHEM 370 or 374, 401, 442 and 482 ..... 16 SH
BIOL 100*, 101* and 481 ..... 11 SH
GEOL 110* and 112* ..... 8 SH
PHYS 101*, 211* and 212* ..... 11 SH

Directed Electives:
Departmental Electives ..... 3 SH
Other:
EDUC 439 ..... 3 SH
EIS 201, 301, 302, 303 (1), 304 (1) and 401 ..... 13 SH
SPED 310 & 390 or PSY 425 and SPED 383 ..... 4 SH
STCH 480 ..... 12 SH

D. Pharmacy

Special Courses: CHEM 263, 264, 370, 416, 421, 422, 452 and 492 ..... 24 SH
Microbiology, neuroscience or zoology minor ..... 17-21 SH
Either STAT 171 or 276
PHYS 124, 125

Students must complete 32 SH of graduate credits in one of the following plans:

Thesis Plan

CHEM 580 Seminar ..... 2 SH
CHEM 600 Research ..... 12 SH
CHEM 601 Thesis ..... 3 SH
Directed Electives (includes up to 9 SH of bridge courses) ..... 15 SH
Total program ..... 32 SH

Applied Chemistry Plan

CHEM 580 Seminar ..... 2 SH
CHEM 590 Internship ..... 10 SH
CHEM 591 Internship Report ..... 2 SH
Electives in Cognate Area ..... 3 SH
Directed Electives (includes up to 9 SH of bridge courses) ..... 15 SH
Total program ..... 32 SH

Up to 9 SH of the following bridge undergraduate/graduate courses can be counted toward the 32 SH requirements: CHEM 401G Inorganic Chemistry (4); one of the following biochemistry courses: CHEM 421G (4) or CHEM 422G (4); CHEM 442G Instrumental Analysis (5); CHEM 452G Forensic Toxicology (3); or CHEM 416G Chemical Literature (1).