



WESTERN
ILLINOIS
UNIVERSITY

INTEGRATED BACCALAUREATE AND MASTER'S DEGREE IN CHEMISTRY

Higher Values in Higher Education

Academic Excellence • Educational Opportunity
Personal Growth • Social Responsibility

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.

19 K 39.0983	20 Ca 40.08	21 Sc 44.9559	22 Ti 47.88 [†]	23 V 50.9415	24 Cr 51.996	25 Mn 54.9380	26 Fe 55.847 [†]	27 Co 58.9332
37 Rb 85.4678 [†]	38 Sr 87.62	39 Y 88.9059	40 Zr 91.22	41 Nb 92.9064	42 Mo 95.94	43 Tc (98)	44 Ru 101.07 [†]	45 Rh 102.9055
55 Cs 132.9054	56 Ba 137.33	57 *La 138.9055 [†]	72 Hf 178.49 [†]	73 Ta 180.9479	74 W 183.85	75 Re 186.207	76 Os 190.2	77 Ir 192.22 [†]
87 Fr (223)	88 Ra 226.0254	89 ↓Ac 227.0278	104 Unq§ (261)	105 Unp§ (262)	106 Unh§ (263)			

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.





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).

Contact Information

For admissions process and general program information, contact the School of Graduate Studies, Western Illinois University, 1 University Circle, Macomb, IL 61455, (309) 298-1806, (877) WIU GRAD toll-free, Grad-Office@wiu.edu, wiu.edu/grad.

For specific program questions, contact Department of Chemistry Chair Rose McConnell, Western Illinois University, 1 University Circle, Macomb, IL 61455, (309) 298-1538, chemistry@wiu.edu, wiu.edu/chemistry.