

B.S. – Chemistry/Pre-Medical Track

Chemistry is a field that has historically enjoyed very strong career possibilities. Many students are employed directly after their undergraduate education by the chemical, pharmaceutical or related industries, in jobs that have excellent career prospects. Graduate school in chemistry or biochemistry usually includes very generous financial support, and can lead to outstanding career paths in industry, government or academic areas. These opportunities are available to students completing any of the degree programs offered by the IUP Department of Chemistry, and graduates of these programs have gone on to industrial leadership positions, and some of the most prestigious graduate programs in the country.

Program-Level Student Learning Outcomes: B.S. – Chemistry/Pre-Medical Track

- You will be prepared for employment in the chemical industry, in government, or entry into graduate or professional school.
- You will take the courses necessary for application to a medical (M.D. or D.O.) program, and be well prepared for the courses you will take in medical school.
- You will be able to analyze data and make scientific arguments to apply, analyze and synthesize information from multiple sub-disciplines within chemistry.
- You will be able to solve complex, multi-step problems, using problem-solving strategies learned in the classroom and in the lab.
- You will have acquired effective and safe chemistry laboratory skills, and be able to use the methods and instrumentation of modern chemistry.
- By the time you graduate, you will be able to evaluate novel results, self-direct your activities and apply your knowledge and skills in or out of the laboratory.

The Pre-medical track of the BS degree allows students to take all courses required for entrance into physician training programs, and gives them the flexibility to tailor their program to meet their individual needs. Students in these tracks retain the option of: a) attending medical school; b) attending graduate school in chemistry, biochemistry, pharmacology, or a variety of medically-related Ph.D. programs; c) employment in the chemistry or pharmaceutical industry. Additionally, the flexibility of these tracks allows students to change the focus of their degree program during their undergraduate experience. An important feature of this undergraduate program is that chemical or biochemical research is a requirement. Laboratory research will be done under the direct supervision of a faculty member, and the student will report on the results of the research in both written and oral formats.