Chapter 10

Overview and Timeline – 100 years

An overview of the Chemistry Department over 100 years was printed in the introduction at the beginning of the history. Five periods were listed based on the major influences exerted by and on the Chemistry Department during some approximately defined time lines. As a summary to this story, it seems appropriate that this overview could be revisited in more detail using information introduced in the intervening chapters with a focus on faculty, administrators and the curriculum at the College.

In the Beginning 1870-1912

Forty-two years is a long time and the early days were very different from the College we know today. Canisius began as a mission school of German Jesuits, controlled by authorities in Germany. It was more a high school than a college and staffed mostly by Jesuits. Many of the Jesuits spoke English poorly as a second language and lack of financial resources were two major problems in the beginning. Building construction afforded a new school in 1874 on Washington Street. The curriculum grew every year and Canisius was granted a charter as a college in 1883. Academic offerings were mostly liberal arts courses along with some starts and stops in commercial (business) courses. Very little emphasis were given to science courses. The predominant Jesuit faculty placed great emphasis on the "Ratio Studiorum Societatis Juse" that consisted primarily of language, history, philosophy, and religion courses.

Chemistry: The Early Years 1913-1929

The premise is put forth that economic developments in Western New York had a major influence on the introduction of chemistry into the academic offerings at the College. Buffalo was the eighth largest city in the United States in 1900 and the population was growing rapidly. Electricity was first generated at Niagara Falls in 1896 and large electrochemical and electrothermic industries developed in Niagara Falls and Buffalo. These industries employed thousands of workers and created a large demand for men with knowledge of chemistry.

The College physically relocated from Washington Street to Main and Jefferson with construction of a new building completed in 1913. A Chemistry Department was formed in this new facility, now called Old Main, and a curriculum of the old (liberal arts) and the new (chemistry and ancillary math and science courses) was implemented. An emphasis was placed on analytical chemistry, prompted by the needs in the chemistry industry. There were minimum full-time faculty who were generalists without special areas of expertise.

Years of Austerity and War 1929-1955

By 1928, the faculty expanded to four full-time faculty: Rev. Joseph Brown, S.J., Dr. James Crowdle, Mr. Austin Signeur and Mr. Walter Stahrr. The local chemical industry provided a steady demand for chemists in the late 1920's but the stock market crash and resulting depression caused decreased enrollment at the College and resulting financial hardships. The faculty of four accepted salary cuts and carried the department through the 1930's. World War II caused additional hardships. The need for chemists increased but most men of college age entered the armed forces. Enrollment dropped and courses of instruction that supported the war effort kept the College in business. After the war ended, enrollment exploded due to returning veterans and the G.I. Bill. By the mid 1950's, the College had recovered financially and changes were made in the faculty and mission of the Department.

The Beginning of a New Era 1955-1965

This ten-year period was an important transition period for the College. As enrollment began to slowly grow and stabilize, a new College president, Rev. Phillip Dobson S.J., took office and began to make significant changes in the faculty. Many of the senior faculty who saw the College through lean years were replaced by new faculty who held PhD degrees and more professional credentials. The transition was very apparent in the Chemistry Department.

Dr. Herman A. Szymanski, PhD from Notre Dame, was hired as chairman of the department and replaced Dr. James Crowdle who was relieved of his administrative duties to teach in both day and evening courses. Mr. Austin Signeur and Mr. Walter Stahrr were retained to teach entry level chemistry courses but new faculty were hired and gradually added to staff the day and evening undergraduate programs and the graduate program that offered a Masters Degree. Dr. Robert T. Conley, PhD Princeton in 1956, and Dr. Richard E. Stanton, PhD Notre Dame in 1957, were added. Dr. Raymond Amino, PhD Oklahoma State, and Fr. Paul McCarthy S.J., PhD Clark University, joined the faculty in the next few years and by 1960, the Chemistry Department was staffed with highly qualified faculty in all the sub-disciplines of chemistry.

The student body and the need for additional faculty continued to grow in the early 1960's. Dr. Ronald Erickson and Dr. James Van Verth joined the faculty as Conley departed for Seton Hall.

Stability, Professional, Growth and Innovation 1965-1999

This period experienced stability in faculty, growth in numbers, innovation in curriculum and impressive student outcomes.

Faculty memers were added, as both replacements and additions. Frank Dinan (1965), Joseph Bieron (1966), Phillip Heffley (1967), James Leone (1967), William Zapisek (1968) all joined the faculty while Crowdle (passed away), Signeur and Stahrr retired and Szymanski moved to Alliance College as president.

For the next 25-30 years, the faculty of ten was a stable group of professional, creative and productive contributors.. Bieron, Dinan, Heffley, Leone, McCarthy, Stanton, Van Verth, Zapisek, Annino, and Schaber were the core with Mariusz Kozik joining in 1990.

Major changes occurred during this period.

For almost 100 years, Canisius was a men's college. In 1966 women were admitted to the day division and the Chemistry Department experienced larger enrollment going forward.

In 1968, a biochemistry major was introduced. A biochemist (Zapisek) was hired and new laboratories were constructed. The chemistry curriculum was previously approved by the American Chemical Society and fully implemented in this time period. A new core curriculum was introduced to the College in 1971. As a result the total curriculum for both chemistry and biochemistry majors were defined and dictated course offerings for the next 35 years.

External grant support provided resources that allowed curriculum innovations. The biochemistry program was supported by a major grant from the National Science Foundation. Annual Title VI grants allowed purchase of instruments for undergraduate laboratories. Title III AIDP federal grants supported a Chemistry and Industry program which enlarged the Evening Division program. A grant from the Pfizer Foundation funded development of teaching styles using team learning and case studies. Support from Occidental Chemical Corporation and the National Science Foundation provided for implementation of a nationally recognized cooperative venture, LEAP, Laboratory Equipment Assistance Program. The Chemistry Department purchased, maintained, and distributed laboratory equipment to approximately 100 high schools in WNY and trained teachers on their use in the classroom. Major pieces of laboratory instrumentation were purchased with support from NSF, including IR, NMR, GC-MS (see appendix for details). Last but certainly not least, all the faculty conducted research projects that involved students and a number of the faculty (McCarthy, Annino, Dinan, Stanton) were very productive resulting in publications in quality, peer-reviewed journals.

Stability in Times of Change 2000-present

By the year 2000, most of the long serving faculty began to slowly retire and by the year 2015, only Kozik and Schaber remained on the faculty from the 1990's. Student enrollment increased because of the biochemistry major. The name of the department changed to Department of Chemistry and Biochemistry to reflect this growth. Faculty provided expertise in all the sub-disciplines of chemistry: physical, organic, analytical, inorganic, and biochemistry, as well as material science and chemical education. New

instruments were added to the laboratories, summer research was expanded and funded by generous alumni support. A large percentage of graduates continue to matriculate in graduate chemistry programs and health related professional schools. There are approximately 850 living graduates of the chemistry and biochemistry programs who help provide support to the faculty and students.