Chapter 2
Survey of the College's Academic Catalogs, 1911-1940

The history of the Chemistry Department is best presented in the context of the College and its full complement of academic offerings and student life. The College catalogs in the early days presented a fairly complete description of the College, its faculty, students, educational philosophy, curricular structure and courses offered. In this chapter, catalog descriptions are quoted verbatim.

College Catalog 1911-12

This catalog presents a good description and rational for the core curriculum at that time.

> **System of Education**
>
> "The object of this institution is to afford Catholic young men of Buffalo and its vicinity the facility for a thorough liberal education, fully equivalent to that offered by the best classical High Schools and Colleges, but based on the unerring principles of religion.
>
> The educational system followed is substantially that of all the Colleges conducted by the Society of Jesus in every part of the world. Based on the famous "*Ratio Studiorum Societatis Juse*," a system outlined by the most prominent Jesuit educators in 1599, revised in 1832, and attended up to the present day with unfailing success, it secures on the one hand that stability so essential to educational thoroughness, while on the other it makes liberal allowance for the varying circumstances of time and country.
>
> Education being the full and harmonious development of all faculties of man, its aim is not mere instruction or the imparting of knowledge, but the mental and moral training. With this object in view, such studies are chosen as will most effectively further that end, not branches that are beyond the capacity of the immature minds of young students, nor a multiplicity of subjects that merely impart useful information, nor such studies as will directly fit the student for some special employment or profession, but such as will give him a general and well-rounded development of all the mental faculties and will train the youthful mind to habits of accurate and logical thinking, thus enabling him to follow successfully any professional or business career in which he may choose.
>
> With such a system of mental training the unrestricted electivism advocated by some modern educators is incompatible, because students usually follow the lines of least resistance and choose in consequence an ill-arranged, unsymmetrical course. After some rather unsatisfactory

experiments in electivism many are coming to realize more fully than ever before that the so-called classical course affords the most efficient means for obtaining the best culture which school training can give.

Literature and History bring the young minds into closest contact with the greatest minds and characters that ever lived. The study of language especially promotes exactness of thought and delicacy of perception by the constant and keen exercise of taste as well as of the reasoning powers; the languages of ancient Rome and Greece offer greater facilities in this regard that any other language, ancient or modern. Besides, they are most helpful to the knowledge of our own mother tongue; their structure and idiom so remote from the language of the student, lay bare before him the laws of thought and logic and require attention, reflection and analysis of the fundamental relations between thought and expression; they exercise him in exactness of conception in grasping the foreign thought, and in delicacy of expression in clothing that thought in the very dissimilar garb of his own native tongue.

Mathematics and the Natural Sciences disclose to the student the material aspects of nature and exercise the inductive and deductive powers of reasoning.

The value of Drawing, Modeling, Vocal and Instrumental Music in training the eye and ear, and in refining the artistic perception and appreciation, in affording elevation recreation is fully recognized, although these studies must always be subordinate to the study of language, literature, science, philosophy and history.

Physical Training by athletic exercises and games, if kept within proper bounds, is likewise requisite for an all-around development, and is heartily encouraged.

But as necessary as mental development, and even more so, is the forming of a young man's character, the guiding of his moral faculties. Morality must be the solid basis upon which the whole education is to be built; and the vital force supporting and animating the whole organic structure of education. Therefore, morality must be taught continuously and systematically; it must be the atmosphere which the student breathes; it must furnish the principles that will guide his entire conduct, his thoughts and actions.

But it is vain to pretend to give moral training without religion; therefore, Canisius College, as every Catholic institution, insists on Religious Training as the only possible means of obtaining this moral development. Accordingly the spirit of religion pervades the entire system of education; religions principles are inculcated, religious knowledge is

imparted, beginning with the easier method of catechetical instruction and gradually developing into a thorough study of the evidences of religion."

At this time, academic offerings in chemistry were minimal. There was only one course offered as described in the 1911-12 catalog, reproduced here.

> "Organic Chemistry- This course is arranged chiefly for those who intend to take up the study of medicine after they have finished their College course. In it the student is given an opportunity of reviewing his inorganic chemistry and of acquiring such a knowledge of elementary organic chemistry as is now required for admission by several medical schools. Characteristics of chemical changes. Gravimetric and chemical equivalents. Atomic weights and molecular weights. Solutions. Ionic theory. Chemical equilibrium. Periodic law. Photo-chemistry.
>
> Laboratory Work- Experimental determination of chemical equivalents, employing both the volumetric and gravimetric methods. Determination of vapor densities according to the methods of Dumas and Victor Meyer. Determination of formulas of simple salts. Experiments acidimetry and alkalimetry."

College Catalog 1913-14

This catalog presented a description of the chemistry laboratory with a list of equipment. It would be an interesting exercise for today's chemistry students to outline the academic content of the chemistry courses based on the presence of a hydrogen sulfide generator and the list of laboratory equipment.

Equipment of the Science Department Chemistry

> "The equipment of the Department of Chemistry consists of a lecture-room, capable of seating comfortably eighty students, a private laboratory for the instructors and advanced students, and a large, well-lighted students' laboratory with desks for forty-eight students working at one time.
>
> In the lecture-room, the professor's table is of the most approved construction, being supplied with alternating and direct current for electrical work, a fume vent, gas, hot and cold water, exhaust and compressed air valves. There is a large tank at one end of the table with glass panels on three sides. The room is also equipped for stereopticon projection.

Immediately adjoining the lecture-room is the instructor's private laboratory, which serves also a preparation room. A well supplied store-room for apparatus and chemicals is situated on the floor above the laboratory. The precision balances for quantitative experiments are attached to the wall of the preparation room.

The students' laboratory adjoins the preparation room. The students' desks are arranged so that each may be used successively by two or more students, thus increasing the capacity of the laboratory to over one hundred positions. Each desk is supplied with cold water, exhaust, compressed air, a fume vent and direct current for electro-chemical experiments. Alternation current is also available, if needed. There is besides a large hood in the laboratory with hydrogen sulphide supply. This hood is ventilated by a motor-driven exhaust fan. The laboratory is abundantly well lighted and ventilated.

During the year the following instruments were added to the equipment of the Department of Chemistry:

Richard's Nephelometer.
Eimer & Amend Refractometer.
Schiff's Azotometer.
Carius' hot-air furnace.
Twenty-four burner combustion furnace.
Beckmann freezing-point apparatus.
Beckmann boiling-point apparatus.
Eight pieces Hofmann's electrolytic lecture apparatus.
Parr calorimeter, made by Max Kohl, Chemnitz.
Complete equipment for quantitative work in organic chemistry."

College Catalog 1914-15

The full four year curriculum for a science major was presented in the 1914-15 college catalog. It is presented in sufficient detail to present a good outline of academic offerings during this period.

Outline of the Course

"FRESHMAN CLASS.

1. Mathematics: (Four hours a week.)

I Term. Plane Trigonometry; Surveying, theoretical and practical.

II Term. Spherical Trigonometry, with applications to Navigation, etc.

2. Chemistry: General Chemistry (Eight hours a week; three lectures, and five periods laboratory practice.)

3. Physics: Mechanics-(Four hours a week, two lecture and two laboratory periods.)
4. English: (Three hours a week.)
5. History: (Two hours a week.)
6. Modern Languages: (Two hours a week.)
7. Evidences of Religion: (Two hours a week.)
8. Elocution (included in English): (One-half hour a week.)

Special students may substitute Biology or other electives from the Junior and Senior Years for equivalent obligatory studies mentioned here. Mechanical Drawing and Descriptive Geometry may be taken by engineering students as additional studies.

SOPHOMORE.

1. Physics: (Nine hours a week; five lectures and four laboratory periods.)
2. Chemistry-Qualitative Analysis: (Five hours a week; one lecture and four laboratory periods.)
3. Mathematics:(Four hours a week.)
   I Term: Analytical Geometry
   II Term: Elementary Calculus.
4. English: (Three hours a week.)
5. History: (Two hours a week.)
6. Evidences of Religion: (Two hours a week.)
7. Elocution (included in English. One-half hour a week.)

JUNIOR.

1. Philosophy: (Five hours a week.)
2. English: (Three hours a week.)
3. Geology-I Term: (Two and one-half hours a week.)
4. Astronomy-II Term: (Two and one-half hours a week.)
5. History: (Two hours a week.)
6. Evidences of Religion: (Two hours a week.)
7. Elocution: (One-half hour a week.)
8. Electives: (Eight hours a week.) To be chosen from the following subjects: Quantitative Analytical Chemistry, Organic Chemistry, Physical Chemistry, Biology , Advanced Physics, Advanced Calculus, Descriptive Geometry, Mechanical Drawing.

SENIOR

1. Philosophy: (Five hours a week.)
2. Evidences of Religion: (Two hours a week.)
3. Elocution: (One-half hour a week.)

4. Electives: (Twelve and one-half hours a week.) Continuation of the electives begun in Junior Year, or assumption of other subjects from same list. A selection may be made also from these additional subjects: Pedagogy, Economics, Elementary Law, Constitutional History, Organic Analysis, Technical Analysis.

In all cases the number of laboratory hours given is a minimum. By suitable choice of electives in Junior and Senior years a student may specialize in Physics, Chemistry or Biology, thereby gaining his degree of B.S., with Physics, Chemistry or Biology as his major study. Ample facilities are afforded those who wish to qualify themselves for the profession Analytical Chemist, in either general or industrial fields.

WEEKLY SUMMARY-SCIENCE COURSE

Freshman	Hours
Mathematics(Trigonometry, Plane/Spherical Surveying and Navigation).....	4
Chemistry.....	8
Physics……..	4
English (incl. Elocution)……...	3
History……..	2
Modern Languages……...	2
Evidences…….	2
	25

Sophomore	Hours
Mathematics (Anal. Geometry and Calculus)…….	4
Physics……..……..	9
Chemistry……..	5
English (incl. Elocution)……..……...	3
History…….……...	2
Evidences……...	2
	25

Junior	Hours
Philosophy…….	6
English……....	3
Geology or Astronomy……..	3
History…….	2
Evidences…….....	2
Electives…….….	8
	24

Senior	Hours
Philosophy……...……..	6
Evidences……...……	2
Electives…….	13
	21*

*Every alternate Monday one afternoon period is devoted to Elocution"

College Catalog 1917-18

The catalog presented an expanded account of course offerings and indicates growth in the curriculum. There is mention of an independent research option for senior students and the opportunity for post graduate courses leading to a Master's Degree. Notice should also be made on the heavy emphasis of analytical chemistry courses.

> "Instruction in general Inorganic Chemistry is given to all students in regular courses. For students of the Science and Premedical courses this instruction is of obligation in their Freshman year, for students of the Arts course in their Sophomore year. The course is designed not merely to familiarize the student with the principles of the science and the descriptive chemistry of the non-metallic and metallic elements, but to constitute an introduction to scientific methods of experimentation, observation and reasoning. Every attempt is, therefore, made to impress upon the student the importance of neatness, accuracy and thoughtfulness in connection with his laboratory practice and to point out rigidly the line of demarcation between the functions of the senses and the intellect in all fields of science.
>
> The instruction in chemical subjects is continued throughout the four years of the Science course, the two years of the Pre-medical course, and as an elective through two years of the Arts course, and includes Theoretical Analytical

and Organic Chemistry as well as opportunity for elective courses in specialized post-graduate work. Students in the Science course devote, as a rule, more time to these subjects than students in other courses and their work is accordingly somewhat more advanced.

The opportunity for individual research work in the various branches enumerated above is unusually extensive and a private laboratory is well equipped for advanced work of this character.

The aim throughout all the courses of chemical instruction is to teach the student self-reliance, to inculcate habits of accurate thought and work and to afford such training as will fit him to cope successfully with scientific and technical problems.

Senior Optional Studies

Students in classes later than the class of 1918 will be allowed to select optional subjects in both terms of their senior year from the following Post-graduate courses: Quantitative Analysis II, a course in technical Metallurgical Analysis; Physical Chemistry, including the Chemistry of the Colloids.

The selection of optional subjects must be made with the approval of the head of the Department and other subjects than those enumerated above may be proposed for acceptance when the student has had the necessary preparation and his schedule of hours permits.

Post-Graduate Courses

In general the requirement for admission to post-graduate courses leading to degree of M.S. is a recognized degree, either B.A. or B.S. These same courses not leading to a degree may be followed by students not having degrees but possessed of the necessary preliminary instruction as noted under “preparation” in the description of each course.

Courses of Instruction

Undergraduate Courses:

1. Inorganic Chemistry I.
2. Inorganic Chemistry II.
3. Qualitative Analysis I.
4. Qualitative Analysis II.
5. Quantitative Analysis I.
6. Organic Chemistry I.

Graduate Courses:

7. Quantitative Analysis II.
8. Organic Chemistry II.
9. Physical Chemistry.
10. History of Chemistry.
11. Chemistry Seminar."

College Catalog 1930-31

The period of 1912 (opening of Old Main) to 1930 was a time of prosperity in the nation and a period of growth for the college. Excerpts from the 1930-31 catalog present a short historical note indication that the core curriculum remained essentially unchanged and that a chemistry major was one of three offered by the college. A pre-med "major" was designated as two years of a pre-med track and the last two years as a chemistry or physics major. Medical schools also accepted students with three years of study. Descriptions reproduced from the 1930-31 catalog present a good prolife of the College. Masters Programs were regular offerings at this time.

> "Canisius College was opened in September, 1870, by the Fathers of the Society of Jesus. On April 27, 1872, the feast of St. Peter Canisius, patron of the new institution, the cornerstone of a larger brick building on Washington Street was laid by the Rt. Rev. Bishop Stephen V. Ryan, D. D., and in November of the same year the central portion of it was completed; the north and south wings, with the Chapel and Hall and the Infirmary, were added in later years. In the year 1908 an important change occurred, in the discontinuance of the boarding department. In 1911 began the erection of the present college building, on the former Villa ground, at the corner of Main Street and Jefferson Avenue. This structure was dedicated with appropriate ceremonies, by the Rt. Rev. Charles H. Colton, Bishop of Buffalo, on December 30th, 1912. On January fifth, 1913, the four College classes were transferred to the new building, leaving the students of the four High School years at the former location on Washington Street. This local separation of the College from the High School has resulted in marked benefit to both. In 1925 Canisius College was improved and enlarged by the addition of two magnificent wings. The new wings include an auditorium capable of seating seven to eight hundred students ; a cafeteria, with the latest improvements ; splendid class-rooms for two hundred and fifty additional students; a Biology department consisting of three laboratories besides the lecture room ; new rooms for the Mechanical Drawing courses ; lounging rooms, shower bath, etc. The educational system followed is substantially that of all the Colleges conducted by the Society of Jesus in every part of the world. Based on the famous Ratio Studiorum Societatis Jesu, a system outlined by

the most prominent Jesuit educators in 1599, revised in 1832, and attended up to the present day with unfailing success, it secures on the one hand that stability so essential to educational thoroughness, while on the other it is elastic and makes liberal allowance for the varying circumstances of time and country. While retaining, as far as possible, all that is valuable in the older learning, it adopts and incorporates the results of modern progress.

EQUIPMENT Libraries.--The Students' Library which is being constantly improved, is equipped with shelf room for twenty thousand volumes. At present the actual number of books is about twelve thousand. The Reading Room attached to the Library contains more than fifty of the leading periodicals and has accommodations for eighty students at any one time. Science Departments.—The equipment of each department, Chemistry, Physics, Biology, consists of an amphitheater, capable of seating comfortably eighty students, a private laboratory for the instructors and advanced students, and large, well-lighted students' laboratories. A large supply of chemical apparatus of recent type affords facilities for experiments and systematic work in all the departments of general, analytical, organic and industrial chemistry. The stock of instruments is abundantly sufficient for all the courses offered in physics, and is being constantly added to. The Bischoff collection of lantern-slides, numbering twelve thousand and covering most natural science subjects, as well as subjects of history, travel, etc., is kept in the instrument room. One thousand lantern-slides, constituting ten lectures on strictly technical subjects, have recently been added to the Bischoff collection.

GENERAL STATEMENT- Canisius College has a limited Graduate Department, to which specially qualified students according to need may be admitted to work leading to the degree of Master of Arts.

ADMISSION TO GRADUATE COURSES -The applicant for admission to graduate courses must be a duly registered student of this college, and must present upon his application certification that he has received a Bachelor's degree from an approved college. At the same time he must present a certified transcript of his undergraduate record in the fields he has selected for his major and minor work. In no case will the applicant be admitted to graduate work in any department if he fails to present evidence of sufficient undergraduate preparation in the same department. This preparation is usually understood to be represented by a grade not lower than

C, and by courses totaling in the aggregate sixteen semester hours.

REQUIREMENTS FOR A MASTER'S DEGREE

1. LANGUAGE REQUIREMENT—The candidate for the degree of Master of Arts must give evidence by an examination, to be held not later than the beginning of the semester in which he expects to receive his degree, that he has a reading knowledge of one modern foreign language to be used in his research studies. French or German is preferred, but in some departments Spanish or Italian may be allowed. Those majoring in Philosophy will be required to have a reading knowledge of Latin.

2. COURSE REQUIREMENT—Although it is recognized that the mere accumulation of credits is not a guarantee of proficiency in graduate work, the candidate for the degree of Master of Arts will be required to pursue courses equivalent in quantity to thirty semester hours, eighteen of which shall be in his major field, and twelve in one or six in each of two minor fields. At least three-quarters of his major work shall be done in courses open only to graduates. If the remaining work is done in courses open also to undergraduates, the graduate student shall in addition to the work of that course, also be required to do research work in that field under the direction of the head of the department. On or before October 1st 27 of the year in which he takes up work at this college, the candidate must submit to the Faculty for its approval his full program of study. The program of study should not be dis-integrated or fragmentary but must represent a unified and well-organized body of knowledge.

3. RESIDENCE REQUIREMENT—All the work for the Master's degree must be done in residence except the research necessary for the thesis. By residence is understood work done in regular course. Transfer graduate students must complete at least three-quarters of their entire graduate work at this college. The normal time taken for this work is two academic years, although in certain special cases, where the student shows exceptional ability, the total work may be completed in one year. In no case, however, will the Master's degree be conferred upon a student until a full year has elapsed from the conferring of his Bachelor's degree.

4. EXAMINATION REQUIREMENT—In addition to the regular examination to be held at the completion of each course, a comprehensive written examination not to exceed three hours in time and covering the entire work of his major will be required.

5. THESIS REQUIREMENT—On or before November 29th of the year in which the student expects to receive his degree, he shall hand in to the Dean or to the head of the department in which he pursued his major study, a detailed out-line of the thesis or problem he is to develop as the result of his research work. When this has been approved, the completed thesis must be submitted to the Dean for his acceptance before it is ready for its final form. This must be done before May 1st of the academic year in which the degree is to be conferred. When the thesis has been finally approved, each candidate shall furnish one bound, typewritten copy for the use of the College Library. This copy becomes the permanent property of the college. This typewritten copy should be of a uniform size of eight inches by ten and a half inches. The title-page besides containing the full title of the thesis and the author's name, must bear the words: "Submitted in partial fulfillment of the requirements for the degree of Master of Arts in the Graduate Department of Canisius College." No thesis will receive final acceptance which does not give evidence of a certain literary merit as well as originality in the treatment of the general subject matter.

FEES AND OTHER EXPENSES-

Tuition in all departments, per annum		$200.00
Registration fee-new students	5.00	
Student Activity Fee	20.00	
Breakage Fee (returnable)	10.00	
Biology Laboratory Fee		15.00
Chemistry Laboratory Fee	10.00	
Physics Laboratory Fee	10.00	
Graduation Fee	15.00	

REQUIREMENTS FOR THE BACHELOR DEGREES

1. In order to receive the bachelor's degree, a student is required to complete successfully an amount of work

equivalent to 130 credits. A credit represents one hour per week for one semester, except when the class period is conducted in the style of a conference or seminar, in which case fewer credits are allowed. In laboratory work two hours are estimated as the equivalent of one lecture period.

2. Toward the end of the sophomore year every candidate for the degree must select, with the advice of his Faculty Advisor, one major study to be followed during the la fit two years of his course.

3. A major study comprises: (1) not less than 18 semester hours of instruction either in the same subject or in subjects so closely related as to form a well unified field of study; (2) assigned reading or investigation in the designated subject; (3) before the end of the senior year candidates will be obliged to write a thesis of not less than three thousand words on some portion of his major approved by the head of the department.

4. If the major is a subject which has been pursued in freshman and sophomore years, two semester credits will be allowed for this earlier work.

5. After the prescribed courses for junior and senior have been provided for and the major has been selected, the remaining number of hours may be made up from other subjects at the discretion of the Faculty Advisor.

A. BACHELOR OF ARTS- The most effective means for acquiring a broad and thorough cultivation of the mental faculties which is the aim of all true education and the best foundation for special and professional training, is recognized to be the full and accurate study of the Latin and Greek classics. In connection with these, a thorough training in the arts of composition and rhetoric and in general literature, together with a comparative study of the English language and literature is essential. The analytical study of language and letters promotes exactness of thought, delicacy of perception and facility of expression, by the constant and keen exercise of judgment and taste, as well as of the reasoning powers. In this regard, the languages of ancient Rome and Greece, when intelligently and seriously studied, offer greater advantages than any other. They are also most helpful to the knowledge of our mother tongue. Their structure and idiom, so remote from the language of the student, reveal to him the laws of thought and logic and demand reflection and analysis of the fundamental relations between ideas and expression; they exercise him in exactness of conception in grasping the author's meaning and in clearness and delicacy of expression

in clothing that thought in the very dissimilar garb of his own native tongue. One modern language, usually French or German, is required, in addition to English. History, which has been rightly described as Philosophy taught by examples, brings the student in close contact with the great minds and characters of all ages and familiarizes him with the development and vicissitudes of civilization. The Higher Mathematics, besides providing the scholar the instruments of progress in the natural sciences, imparts to the mental faculties a special kind of training that can-not be ignored. The sciences should be known, at least in their outlines and with exact appreciation of their principles, if one wishes to be abreast of modern thought. They are, therefore, made obligatory features of the course. But, above all, Mental Philosophy is considered of the highest importance. It gives the key to all true knowledge of nature, of man, and God, and lays the only solid foundation for all other sciences, while revealing their interdependence and method. Hence in the last two years of the course a thorough study is made of Scholastic Philosophy in its various branches, such as Logic, Metaphysics, Psychology, Natural Theology, Ethics and Political Economy. The successful completion of the curriculum in Arts and Sciences, which extends through four years, leads to the degree of B. A.

B. BACHELOR OF SCIENCE- The curriculum in General Science is intended for those students who wish to obtain a more specific training for later work in technological, medical or industrial science than the Arts Course affords. While it is not strictly a technical course, the subjects included represent more than half of those required in engineering courses in our leading technical schools. A student may thus make the first two years of an engineering course in connection with the liberal studies. The curriculum in General Science differs from the Arts Curriculum in that it substitutes for the requirements in Latin and Greek of the Arts Curriculum, subjects in the Natural Sciences. Other subjects, viz.: English, History, Modern Language, Apologetics, Elocution, Philosophy and Electives of a non-scientific character, are common to both courses. The electives in science in the Junior and Senior years will naturally be of a more advanced character in the Scientific Curriculum than the similar electives in science offered in the Arts Curriculum. The successful completion of this course is rewarded with the degree of Bachelor of Science. Note: After the Freshman year, which has a common curriculum for all students of Science, each one is required to choose a major

subject, according to the nature of his future work. Chemistry, Physics and Philosophy are offered as majors. Those who wish to specialize in Biology will follow the Premedical course for their Freshman and Sophomore years, and elect Chemistry and Biology in the Junior and Senior years.

Freshman

Subject	Semester Hours	Credits
Chemistry	10	10
Mechanics	6	6
Mathematics	6	6
English	6	6
Modern Language	6	6
Apologetics	4	2
	38	36

Sophomore

Subject	Semester Hours	Credits
Chemistry	6	6
Physics	10	10
Mathematics	8	8
English	6	6
History or Modern Language	6	6
Apologetics	4	2
	40	38

Junior

Subject	Semester Hours	Credits
Philosophy Courses	18	16
Apologetics	4	2
Major Elective	6	6
Free Electives	8	6
	36	30

Senior

Subject	Semester Hours	Credits
Ethics	10	8
Psychology	6	5
Natural Theology	4	3
Apologetics	4	2
Major Electives	10	10
Free Electives	8	6
	42	34

C. BACHELOR OF PHILOSOPHY- Many high school graduates who are unable to meet the requirements of the Arts or Science curriculum, still wish to secure the advantages of a liberal college education in preparation for a business or professional career. For these the curriculum leading to the degree of Bachelor of Philosophy has been designed. This curriculum has two main divisions, one of commerce, the other introductory to the work of the Law School.

PREMEDICAL AND PREDENTAL- These courses are intended for students preparing to enter upon the study of medicine or dentistry, who are unable to devote to college studies the period of four years necessary for the attainment of a degree in Arts and Sciences. The requirements for a Medical Student Certificate consist of the satisfactory completion of not less than two years of work in an approved college of liberal arts and science after the completion of an approved four-year high school course or its equivalent, which college work must include six semester hours in English, six semester hours in Biology, six semester hours in Physics, and twelve semester hours in Chemistry of which not less than four semester hours must have been de-voted to Organic Chemistry. The requirements for a Dental Student Certificate are now the same as the requirements for a Medical Student Certificate. These courses represent the minimum requirements for admission to medical and dental schools. It is highly recommended that, if possible, the college work includes three, instead of two years, so as to allow a more thorough preparation in Physics, Chemistry and Biology.

The Pre-medical and Pre-dental Courses of Canisius College besides the usual training in Science and Languages already noted, include a solid training in general philosophy. It is felt that the prevalence in our time of false speculations and mistaken theories, and the general ignorance or neglect of the fundamental principles of morality, render such a course in the more important questions of Logic, Psychology and especially of Ethics, not only helpful to the students preparing for medical and dental schools, but even necessary to fit them for their future studies and practice."

College Catalog 1939-40

The catalog reflects maturation and changes in the chemistry program. The Horan-O'Donnell Science Building was ready for occupancy, the four sub-disciplines of chemistry were recognized in the curriculum, a language requirement was included and a thesis requirement initiated.

"THE SCIENCE DEPARTMENTS include in their general equipment amphitheater lecture halls, large well-lighted laboratories, and smaller private laboratories for instructors and advanced students. The completion of the Horan-O'Donnell Science Hall, which houses the Chemistry and Physics departments, provides the most modern accommodations, including separate libraries, a museum, and increased classroom and laboratory space. A large collection of lantern slides, including the Bischoff collection of twelve thousand slides, is available for travel, industrial and technical subjects. A special collection of five thousand lantern slides and an excellent 3 ½-inch equatorial are in possession of the Astronomy department.

A major in Chemistry shall compromise the four principal undergraduate courses, viz., Inorganic, Organic, Analytical and Physical Chemistry, Chemistry 1-2, 11-12, 13-14, and 15-16, or their equivalents. Beginning with the Fall Semester of 1939, students majoring in Chemistry will be further required to pass an examination in Chemical or Scientific German; and to present a thesis in conjunction with Chemistry 50, a seminar of introduction to chemical research.