New Options of the Course in Chemistry.

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A new and systematic series of optional studies has been recently introduced into the Course in Chemistry by the Faculty, with the purpose of enabling students to prepare themselves more thoroughly than has been hitherto possible, for the important special lines of chemical work in which a considerable demand for the services of Institute graduates has been shown by experience to exist. These studies have, however, been so chosen, as not to interfere with the acquisition of a thorough training in all important branches of chemistry, and the time required for the various options has been gained, not by eliminating any of the general instruction in analytical, theoretical, industrial, or organic chemistry, but by transferring certain specialized courses, formerly taken by all students, from the list of required subjects to the appropriate options.

Option I. includes a considerable amount of instruction in mechanical engineering and drawing, and is strongly recommended to students wishing ultimately to occupy positions involving the superintendence of the running of machinery, or other mechanical operations in connection with chemical manufactures. It is essential, however, that the student should have sufficient aptitude for mathematics and drawing to make it probable that he will complete these optional studies successfully. The instruction in engineering subjects includes courses in mechanism and valve gears, with drawing, and in engines and machines, specially adapted to give students of the Course in Chemistry such knowledge of fundamental principles as will enable them to understand the simpler forms of machinery, to interpret mechanical drawings, and to furnish an adequate foundation for further study.

The training of the students taking this option, differs from that in the Course in Chemical Engineering, in that the former devote by far the larger proportion of their time to chemical subjects, while the latter are essentially students of mechanical engineering, to which some training in chemistry is added, taking the place of a portion of the drawing and shop work. A large number of the graduates from the Course in Chemistry are now occupying positions for which this option would have offered a desirable preparation.

Option II. comprises the laboratory courses on all the special branches of technical analysis, and also courses in biology, microscopy, and geology. It is designed for those who desire to occupy purely chemical positions, as in the general practice of analytical chemistry, or as chemists in technical laboratories. It affords a general training in chemistry for students who do not care to take the drawing and mathematics of the preceding option, but is less satisfactory as a preparation for manufacturing chemistry than Option I.

Option III. allows specialization in chemical work bearing upon the purification of water and sewage, the examination of food supplies, or upon various industries in which bacterial action plays an important part. The closely related biological subjects are also included.

Option IV. is intended for those who desire to become chemists, or ultimately superintendents of metallurgical works, and includes almost all the metallurgical subjects of the Course in Mining Engineering and Metallurgy.

Option V. forms a complement to the Course in Physics, but with by far the larger proportion of the work on the chemical side. It includes additional mathematics, as well as a number of courses in physics having a chemical bearing, and is intended to meet the needs of those who desire to become teachers, especially in higher institutions, or to fit themselves for scientific research.

This arrangement of optional studies goes into effect this year, as far as the subjects of the first and second year are concerned.