THE ST. JOHN'S PROGRAM

ON COLLEGE CATALOGUES

It seems wise to begin with an observation on college catalogues in general and a bit of advice to the reader of this catalogue in particular.

When liberal colleges were started in this country everybody knew that education at the college level should be liberal. It was generally admitted that every free citizen should be able to read, write, and reckon, and that every professional man should have a mind free enough and disciplined enough to recognize his professional ends and to understand the means which must be used to achieve them. Academies and liberal colleges were established to assure intellectual freedom and discipline to the professions and their respective schools. It was therefore necessary merely to use a few familiar phrases to identify and describe an institution that was teaching the "liberal arts and sciences."

The multiplication of such institutions, the increase in number of students, and the confusion of professional and trade schools have robbed the familiar phrases of their meanings. To a far greater degree than we realize, the liberal arts and sciences have themselves disappeared and what remains of them has been confused in the minds of administrators and teachers as well as in the minds of the people, all of whom now need the education that the liberal college should provide.

It would be convenient and truthful to describe the New Program at St. John's College as the re-establishment * of the original college with its original function of intellectual freedom and discipline, but unfortunately that needs explanation at some length. Let this be an apology to the reader and a warning that he is reading an unusual college catalogue, which attempts to define and expound the ends and means of liberal education as well as to describe St. John's College in Annapolis.

WHY A COLLEGE EDUCATION SHOULD BE LIBERAL

The College Charter says in effect that the wisest and best regulated States have promoted and encouraged institutions for the liberal education of youth in the principles of virtue,

* Cf. Appendix A.

knowledge, and useful literature because such institutions are of the highest benefit to society. In an aristocratic society this statement might suggest an invidious distinction between the rulers who alone would exercise the highest functions and the ruled who alone would subserve the higher ends by exercising the lower functions. In a democratic republic there is no such division of labor. It is an integral part of the American dream that each man in our society may and must perform the highest functions. These functions consist in the intelligent free choice of the ends and means of both our common and individual life. This is a most glorious and most difficult proposition to which we are dedicated. Among other things it means that each man must have his measure of liberal education, since choices can be neither free nor intelligent without relevant training and understanding.

These trainings and understandings are parts of the liberal arts and sciences. Each profession and vocation is partly liberal; therefore professional and vocational schools study their respective minimal amounts of theoretical science. But in addition there are basic trainings and understandings common to all vocations and therefore common necessities of all free men. Thomas Jefferson persuaded the early revolutionary colonies of the need for the universal literacy of the citizenry. The major success in that minimal democratic education has made abundantly clear the need in addition for the universal distribution of critical intelligence, a minimal intellectuality which can distinguish between fact and fiction, between principle and case, between opinion and insight, between propaganda and instruction, between truth and falsity. This degree of intellectual training is absolutely necessary for the highest activities of men in democratic society, namely for both individual and common deliberation and decision in practical affairs. That which fulfills this basic common necessity is of the "highest benefit" to democratic society.

A good economic, social, and political life will maintain these instruments of liberty, but one of its chief concerns will be to pass on to youth the germinal insights and habits the cultivation of which will make them free. These insights and habits are available in the traditional liberal arts, and they can be transmitted and communicated if teachers have them and are

allowed to exercise students in their practice on the best materials.

Institutions should be set up and maintained which shall devote themselves to this end in a single-minded fashion, and they should distinguish themselves from the schools of vocational training which minister directly to the special utilities. The liberal colleges, together with the public schools, are the spiritual strongholds of the liberal state which watches and insures that men shall be able to do what they ought to do.

THE CRISIS IN LIBERAL EDUCATION

By a series of historical accidents following the establishment of the elective system by Eliot of Harvard in the late nineteenth century, such single-minded institutions are no longer available for the training of youth. Eliot introduced the device of free election of studies in order to absorb and assimilate the natural sciences to the liberal arts tradition. It was a minor tactic to meet a larger problem than the liberal college had ever faced before. Far from accomplishing its major end, it allowed the free and irresponsible invasion of all branches of the liberal arts by the research specialist. The research teacher became the competitive salesman of a subject matter. Later by a system of majors and prerequisites each successful salesman was able to eliminate competition with other subject matters after the first choice by the student. Thus the elective system became an unorganized array of special required courses, and each of these in turn was sanctioned by its connection with professional and vocational graduate work as the pre-medical, pre-legal, pre-commercial, pre-educational, or pre-earning-a-living course. Needless to say, the liberal college forgot its function, redoubled its efforts and its courses, and became timidly and fanatically preparatory. In acceding to the professional and vocational pressures it transmitted their destructive energy to the whole public school system. The result is that the student now must make a vocational choice at some point in his secondary education and changes it later only at great educational risk. One thing he cannot choose because it does not exist in our educational system: that is a balanced liberal education.

This situation, as soon as it is recognized, constitutes a crisis, a point where judgment and decision can be made. We can choose to restore the liberal arts, not necessarily the old curriculum, but a modern equivalent. That is what St. John's College decided to do in 1937. Its financial condition drew attention to its educational bankruptcy; the authorities decided to reinvest the liberal arts.

THE LIBERAL ARTS

The front cover of this catalogue carries the official seal of the College. The Latin proverb on it says, No Way is Impassable to Courage. The College has courageously undertaken the larger task which the elective system failed to accomplish, namely to see that the liberal arts assimilate, transform, and pass on the modern subject matter on which they should be at work. The seal on the back cover of the catalogue points to the tradition from which we derive our courage. The Latin inscription says that we are making free men out of children by means of books and balances. The figures on the seal represent the seven liberal arts as they were traditionally conceived for about two thousand years, up to the beginning of the nineteenth century. In ancient style they are grammar, rhetoric, dialectic, which form the trivium; and arithmetic, geometry, music, and astronomy, making the quadrivium. In the center and foreground stands a pair of chemical balances which represents the instruments of the modern scientific laboratory, where the liberal arts are being practiced at their best and fullest in the modern world.

A great deal is said these days about the teaching of methods, but the professional and specialist's bias has left its mark here as elsewhere. It is obvious to any teacher that there are different methods for different subject matters, but where experts and specialists disagree then free men must decide. Free minds must be able to view concrete situations, deliberate by formulating clear dilemmas, and arrive at a deciding choice. This involves a combination and organizing of all methods, and education should provide a training which would bring precision, facility, and independence in this most human of all human actions. The formulation of alternatives for such choice is the highest art of freedom toward which all the liberal arts should be ordered. Considerations of various kinds of truth and falsity

must be introduced, and even subtler distinctions involving the use of symbols in imagination as well as reasoning must be made. Memory, manual dexterity, calculation and measurement must be cultivated as arts, if we are to make minds free.

The child is potentially a free man, and this means that he has the capacities which these arts require. The realization of these capacities comes about by their exercise under controlled conditions in which ordinary learning by trial and error becomes discipline under the guidance of teachers. By children then we mean men who are capable of liberal learning.

THE CLASSICS AS TEACHERS

Although we have no new fads in teaching methods, but rather use all available methods and devices, still we have a special interpretation of the teacher's function. This can best be stated by saying that the real original and ultimate teachers at St. John's are the authors of some hundred of the greatest books of European and American thought. The list of the great books and their authors who are now teaching at St. John's, subject to continual revision and criticism, will be found on page 40. These are the real teachers, but we also have a secondary faculty of tutors and fellows who act as auxiliary intermediaries between the books and the students.

These books were chosen over a period of nearly twenty years by auxiliary teachers in various places, notably Columbia University, the University of Chicago, the University of Virginia, and St. John's College. The list was under criticism and testing by teaching and learning experience during that period, and the process has continued under conditions set by the single all-required curriculum which all students at St. John's take.

This experience of co-operative teaching with the authors of the great books has led us to a new understanding of the classics and classical education. The pre-elective liberal arts colleges understood and defined the classics in terms of the symbolic mediums of transmission and communication; they taught Greek, Latin, and mathematics as an extension of primary education in reading, writing, and arithmetic. We are also emphasizing language and mathematics for reasons that will appear on later pages. On the other hand we are reading the classics in English. As we do that, certain criteria

emerge and provide a new understanding of the original motives in classical liberal arts education. The criteria divide themselves into two kinds, those that are exemplified in single books and make them great, and those that appear in the effects that one book has on another and on the reader and teacher.

The first criterion is that a classic must be a masterpiece in the liberal arts. Its author must be a master of the liberal arts of his time, and his work must exemplify the direction of those arts of thought and imagination to their proper ends, the understanding and exposition of the truth as he sees it.

The second criterion follows from the first, namely that a classical book must be a work of fine art. It must have that clarity and beauty on its surface which provides an immediate intelligibility and leads the mind of the reader to its interior depths of illumination and understanding. This is of first importance in teaching, and its principle is almost universally violated in the textbooks that have developed in the ordinary elective system. The great books were written for the ordinary intelligent public, and they therefore have the seductive charm of works in the fine arts. They are intrinsically interesting and impose their disciplines with pleasure.

The third criterion concerns the internal structure of a classic. A great book has many possible interpretations. This does not mean that it is simply ambiguous and thus leads to confusion. On the contrary it is possible to discover in a great work such as Dante's *Divine Comedy* or Newton's *Principia* several distinct, complete, and independent meanings, each allowing the others to stand by its side and each supporting and complementing the others. It is the business of a liberal artist to construct such works and also to analyze and understand them.

The fourth criterion demands that a great book shall raise the persistent and humanly unanswerable questions about the great themes in human experience. On the one hand this means that a great book shall be honest about the limits of its powers of exposition, admitting the paradoxes and mysteries that surround the practice of the liberal arts. On the other hand it means that a liberal artist should not allow a false modesty or scepticism to excuse him from pushing reason and imagination to ultimate questions. The entertainment and exploration of ultimate questions concerning number and measurement, form

and matter, substance, tragedy, and God extend, moderate, and balance the use of our intellectual capacities.

All of these criteria apply as much to books on mathematics as to books of poetry, to books on practical individual and social problems as much as to books on metaphysics and theology.

The extrinsic criteria concern the relations of the books to each other and their teaching powers in relation to students and readers. It is generally true that these books have had the greatest numbers of readers throughout European history. Plato, Euclid, the Bible, and Shakespeare are all European best-sellers; there are a few exceptions but it would be almost safe to take this criterion as a working rule for the selection of books for any list of classics, particularly if the numbers were estimated in proportion to the time the book has endured.

Although each book must tell its own independent story, it is an important fact, which we regularly exploit, that one great book talks about the others, both those that came before, and, by anticipation of doctrine, those that come after. Each book in a list of classics is introduced, supported, and criticized by all the other books in the list. It thus gains pedagogical power and critical correction from its context. Background and preparation are thus efficiently supplied by the chronological ordering of the classics, and difficult books surprise us by their intelligibility and eloquence as they come in their providential order. Thus Newton's *Principia* and Maxwell's *Electricity and Magnetism* as gracefully submit themselves to the learning processes of the student of the liberal arts who has read Euclid, Apollonius, and Ptolemy as Kant's *Critique of Pure Reason* and Dante's *Divine Comedy* do for one who has read Plato and Aristotle. It is this unguessed but abundantly confirmed collaborative teaching by the masters of the liberal arts that makes it possible and imperative to bring back to each modern youth his lost heritage of classical education.

The fact is that such a collection of the great books has in it the shining thread of the great liberal tradition in the Western World. It is this thread that the elective system has lost, and the lack of which we are feeling in the uncertainties and fears of contemporary daily life. Its loss has made it necessary to construct synthetic cultures, and it is its ghost that frightens decadent liberals who would have us get along without

traditions. They would have us as persons detach ourselves from the tradition without knowing what it is or has been. Like current textbooks which similarly detach themselves from tradition we would be saluting the tradition in our spiritual deaths.

SCIENCE AND THE MODERN WORLD

The tradition moves on into the modern world, and it is transforming itself in most lively and important ways. This is happening in two ways primarily, one in mathematics, another in the laboratory. St. John's College has more required mathematics than any other liberal college in the country; it also has more required laboratory work than any other liberal college in the country. Together mathematics and natural science constitute more than one-half of the required work.

Three hundred years ago algebra and the arts of analytic mathematics were introduced into European thought by René Descartes. This is perhaps the greatest intellectual revolution in recorded history, paralleling the other great revolutions in religion, morals, politics, and industry. No liberal, and therefore no citizen of a democratic country, can afford to be ignorant of this change and its issues. It has redefined and transformed our whole natural and cultural world. Although it is not the only focal point around which the St. John's curriculum may be organized, it is one which we take special care to emphasize. There is scarcely an item in the course which does not bear upon it. The last two years of the course exhibit completely the changes in the liberal arts that flow from it, and these could not be appreciated without the first two years which cover the historical period from the Greeks to Descartes.

Descartes, by using and reinterpreting the knowledge of the Greeks, made modern mathematics and the laboratory possible, so that now if we would follow the classical thread into the modern world we must know the constructions of the mathematicians and find our classical loci in the instruments of the laboratory as well as in the great books.

For this purpose we have set up a four-year laboratory in mathematics and the natural sciences with four main themes woven together to catch the understandings and insights that we need. There is the theme of mathematical constructions taught and exemplified in a great variety of exercises with the

drawing board. There is the theme of measurement which involves the analytical study of the instruments of observation and measurement, the chemical balances, the meter stick, the thermometer, the barometer, the miscroscope, telescope, spectrometer, and interferometer, the use of scales, gauges, and graphic methods of recording observation. There is the study of concrete materials and situations in biology and medicine which demand the combination of scientific findings, both in theory and in fact; and this in turn demands practice in crucial experiments in the history of science. All this is backed by a solid training in the mathematical techniques and symbolisms as far as differential equations.

This provides the material and intellectual background for the modern study of humanistic and social science. Without this it is empty and romantic. With it one may hope for a generation of competent economists, political scientists, and even sociologists. Social studies at present do not provide an intelligible set of organizing principles; until they do we shall aim the mathematical and scientific work at the point where the medical and humanistic traditions cross; they agree that the proper study of mankind is man.

THE CURRICULUM

The proper subject matter for the study of the liberal arts is man and the world, with all that these imply; the medium we have chosen to convey this knowledge and appreciation is the classical books arranged in both a chronological and pedagogical order; the methods of learning and teaching are the liberal arts; the end of the teaching and learning is insight, understanding, and good intellectual and moral habits which provide the basis for human freedom. The following paragraphs will be a description of the scheduled arrangements for doing this in four thirty-week sessions of the college course.

Such arrangements call for two kinds of distribution of the materials and methods of instruction, one according to allotted times and the other according to teaching functions. On pages 40 to 43 the reader will find three listings of the books. The first shows the chronological order for books and authors, beginning with Homer and ending with Russell, Freud, and James. This represents the required readings for the four years and implies further readings in secondary books as well

as teaching in methods of reading and writing. The second list shows the division of books into four groups according to the four sessions of the college course. This list also divides the books into three columns according to the classification of the primary symbolic medium in which they are presented, languages and literature, mathematics and science, and those books fewer in number which deal explicitly with the liberal arts and sciences. The third list shows how these books distribute themselves over the conventional array of subject matters as they are studied in the contemporary colleges which follow the elective system. This third list is presented for those who wish to compare and contrast the St. John's program with the ordinary college; they should be warned to assure themselves of a real comparison by using only the selections from the subject matters which a normal student would make in the elective system.

It should also be noted that many books actually fall in several divisions according to subject matter, as on the other hand many books in an elective system are read in almost complete isolation, therefore without background and aid from other books. There is also a general warning that such lists are only diagrams for emphasizing this or that special aspect of the curriculum; for instance there is nothing in any of these diagrams to show the weightings of time or emphasis on special books, nothing to show the weightings that individual students are encouraged to put upon them for their own individual benefit or interests. With these qualifications, which should suggest still others, the lists give a fairly accurate general impression of the curriculum.

The division into four years has an interesting significance. Something over two thousand years of intellectual history is covered in the first two years; about three hundred years of history is studied in an equal or slightly greater number of books in the last two years. The first year is devoted mostly to the Greeks and their special understanding of the liberal arts; the second year contains books most of which were originally written in Latin, and covers the Roman and medieval periods; the third year has books originally written in Romance languages for the most part although English has a large share; the fourth year introduces German works and concentrates on the nineteenth and the twentieth centuries. This four-year schedule was not made because of any underlying theory

about recapitulations of history, but it happens to catch any genuine values that such a theory may point out in practice.

There are certain critical questions raised by the use of a selected book list. A great many of these questions turn out to be questions of private taste and sentiment. Among the objective questions the most urgent concern the omission of the Oriental classics and the classics of the pure fine arts.

Two reasons may be given for omitting the Oriental classics. They are culturally and linguistically unavailable to us of the Occidental world; they are therefore subject to almost inevitable corruption and misuse as educational mediums. We moderns may be able to exploit them when our own intellectual disciplines have been recovered.

The fine arts contain the most imposing set of disciplines that have established themselves and survived in the modern world by claiming independence from the liberal arts. It is one of our aims to recover and reintegrate them with the liberal arts. We are therefore providing for them outside the curriculum and planning to reassimilate them by stages, first by including music in the curriculum, reading musical scores in the seminars, and studying harmony in the laboratory. We hope that by this and other stages to follow, intellectual light will be transmitted to the fine arts and that they may make their reflected light available to all the classics.

The main emphasis in teaching is on the writing, reading, and experimental disciplines, but the actual teaching falls into five sharply distinguished kinds of teaching techniques. None of these is newly discovered or invented, but some of them have been in disrepute for fairly long periods. We call them severally Seminar, Formal Lecture, Language Tutorial, Mathematics Tutorial, and Laboratory. The seminar comes perhaps nearest to the immediate educational end which we are aiming at, while the tutorials, laboratories, and lectures make secondary contributions.

The Tutorials

Every good student knows that his learning must be double. He must be acquiring the skills that go with the subject matter, but he must also get to know his teacher. The converse of this

is even more important for good teaching: the good teacher knows that he must be in the learning process himself and he must also know his pupil. The tutorial class, which is composed of not more than ten students meeting five times a week, provides the ideal conditions for collaborative study and for the manifold teaching and learning relations that hold in a company of good friends. The tutor makes daily diagnostic observations of each student as he works and gives the proper prescriptive directions as they are needed. There is also an opportunity for each student to contribute his measure of instruction to his fellows.

The Language Tutorial

The aim here is to use some external device that will induce the strengthening and disciplining of the imagination. Foreign languages have often been praised for their mental discipline, but the vagueness of the statement mirrors the decay of a pedagogical technique. The imagination is the place where the intellect touches human experience, but it cannot do its work if the imagination is not prepared to receive intellectual light. It must be polished and adjusted. Normally it is our mother tongue that brings about such preparation as we have. Unfortunately American habits with the mother tongue are for various reasons abnormal and we have babbling minds as a consequence. Special attention must be given to our linguistic habits if we are to improve matters. Liberal artists have always known the powerful effects of foreign language in getting this kind of attention. We therefore require the study of four foreign languages, one a year for the four years, Greek, Latin, French and German.

It is obvious that we do not expect to have these languages mastered in the time allotted, even though it is five hours a week. For each year the schedule is as follows. During the first term paradigms of declensions and conjugations, and passages of good prose and poetry from the books are committed to memory by rote. During the period of elective and progressive education, rote memory has been abhorred because it has its dangers. In our system these dangers are avoided by devices that force memory to carry its proper load of imagination and

thought. The second term is concerned with various kinds of translation from important texts in which important things are being said and the grammar of the language is being used for purposes of full expression. These translations range from technical grammatical translation, through various stylistic variations to abstract and concise formulation of logical content. The last term in each year is devoted to the writing of grammatical, rhetorical, and logical commentaries on the texts with a final emphasis on original writing on the topics suggested by the text.

Language is man's most intimate external possession. The trained language sense extends man's imaginative powers. We therefore move on it with an organized strategy. The effects are in sustained powers of imagination and therefore in increased attention and powers of analytic thought.

These tutorials meet in small classes, not over ten in a class, so that individual observation and instruction are the rule. Not a small part of the advantage of such instruction comes from the opportunity for tutors to diagnose individual difficulties.

The Mathematics Tutorial

Next to the mother tongue the language of numbers and figures is the most important symbolic possession of men. In fact it is a language within the mother tongue providing a most powerful practical and theoretical extension. In view of our present scientific and industrial conditions of life, the decay and elimination of mathematics in education is most disturbing. This default has become so common now that many persons believe that they natively lack mathematical ability. Nothing could be more crippling to the individual nor more discouraging for the future of democratic societies, if it were true. The apparent disability is due to a decay in the techniques for teaching mathematics and this in turn is due to misunderstandings of the fundamental nature and intention of mathematics. Wide variation in individual training and performance is evidence of this state of affairs.

Therefore we begin with almost a complete year spent in a thorough study of Euclid's *Elements* in its entirety. This is the book that made European mathematics possible, and it can still be used to remedy our deficiencies. Given this year

of study the other books in mathematics and natural science, now so formidable to both teacher and student, can be approached and conquered.

For this purpose the tutorial classes in mathematics meet five times a week throughout the four years. The teaching is conventional and familiar for the most part, exposition, recitation, drill in calculation and proof. On the other hand intelligibility must be added to operational skills, and this is brought to light by discussion of the incidence of mathematics, not only on the sciences, but also on logic and metaphysics, and through this on the entire subject matter of the program. Mathematics belongs to the liberal arts and its development through symbolic procedures throws a great deal of light not only on speculation but upon the literary and scientific imagination. As in the case of the language tutorials, the small class of not over ten students allows individual diagnosis and instruction, and the student who has difficulties on the operational level may have special remedial laboratory exercises prescribed for him. Thus hand-minded boys may discover the liberal dimensions of their skills.

The Seminar

A book is one-half of a conversation, and good conversation, whether practical or theoretical in intention, is one of the highest performances in the liberal arts. Seminars of from ten to twenty students with at least two instructors or leaders, answer back the other half of the conversations that great books demand. Plato's *Dialogues,* most of which are read in the first year, set the models for seminar discussion, and first lessons in discussion are learned in reading Plato. Books of various kinds are discussed in various ways. Some books such as Aristotle's *Organon* are read in the seminar with the French method of *explication de texte* to insure understanding. It is assumed that other books have presented a subject, and discussion starts where they leave off, following the argument where it leads. Literary works demand literary criticism; scientific books demand a philosophy of nature.

Versatility in question and answer allows the exploitation of the work done in other parts of the program. Training in language facilitates formulation of opinion; mathematical imagination and insight open up new depths and subtleties

in both literature and science. Dialectic starts on the levels of language and mathematics and with their aids reaches the fundamentals and ultimates, and in the process the book under discussion may be torn to pieces.

One immediate result is the improvement in actual reading. To accompany the reading of the books, the seminars meet twice a week for two hours. Recovery from confusion and misunderstanding may result from the first meeting; on the other hand it may be only at the last meeting or later meetings that the text delivers up its meaning. The seminars are the substantial core of the whole program and the intellectual process prepared for by reading and writing is brought to realization most often under seminar conditions.

The Formal Lecture

Formal lectures are delivered to the entire student body at least once a week. Lecturing by instructors is discouraged elsewhere in the curriculum and concentrated in the formal lecture. These lectures are given in the Great Hall in the evening with audience and platform set as for an outside lecturer. All the formal arts of the platform are used for the purpose of a sustained and artistic exposition of a subject matter that may have been studied in fragments in other ways. About half of the lectures are given by guest lecturers, notably Mortimer Adler of the University of Chicago, Mark Van Doren of Columbia, and Edward Kasner of Columbia. Members of the resident College faculty give the rest, no single member giving more than three during the year.

Lecturing except on the popular platform is almost a lost art in this country. It is a very high art demanding artistic skill and sensitivity which are dulled and killed by the forced practice of the ordinary university classroom. Long preparation is needed to free it from sophistry and empty personal rhetoric. Our lectures are not always successful, but when they are successful they might be given and understood on any occasion. Students learn to listen to good talk, to talk that is often over their heads, but talk that is remembered and absorbed long after the immediate hearing. Each lecture is followed by a period of informal query and discussion, in which the students learn to talk back.

Formal Lectures

1943-44

The Liberal Arts and the Common Good ..... Scott Buchanan
Grammar ..... Stringfellow Barr
Arithmetic ..... George A. Bingley
Law ..... Richard F. Cleveland
Rhetoric ..... Mark Van Doren
Geometry ..... Jacob Klein
Dramatic Presentation: *The Tempest* ..... King William Players
Music ..... Nicolas Nabokov
Astronomy ..... Peter C. Wolff
Dialectic ..... William Gorman
The Liberal Arts ..... Scott Buchanan
Man's Essence ..... Mortimer J. Adler
St. Augustine ..... Mark Van Doren
Looking-Glass Molecules ..... Anthony Standen
The Golden Section ..... Edward Kasner
Columbia University
Proposition and Judgment ..... Leonard J. Eslick
The Reduction of God to Theology ..... J. Winfree Smith
Materialism ..... Mortimer J. Adler
Violin Recital ..... Szigeti
Vesalius ..... Owsei Temkin
Institute in the History of Medicine, The Johns Hopkins University
Montaigne ..... Mark Van Doren
Socrates and Civil Liberty ..... Alexander Meiklejohn
Maps and Map-Making ..... Edward Kasner
Columbia University
Evolution ..... Mortimer J. Adler
Godwin's Social Justice ..... Ford K. Brown
Stravinsky ..... Nicolas Nabokov
History Is A Wheel ..... Stringfellow Barr
Pascal ..... Mark Van Doren
Gerard Manley Hopkins ..... John Pick
Groton School
Semantics ..... Richard P. McKeon
University of Chicago
Concert ..... Budapest
String Quartet
Plato on the Arts ..... John Wild
Harvard University

The Laboratory

The scientific laboratory is perhaps the most characteristic institution of the modern world. It should be recalled that it was for the purpose of introducing and assimilating the laboratory that Eliot of Harvard opened the liberal college to the elective system. The hope was that the college would provide the conditions and the techniques for the liberalizing and humanizing of science. The present disorganization of our colleges is evidence that the problem is not yet solved. It is of utmost importance that it be solved. St. John's College is making the attempt.

The strategy is to recruit specialists in the sciences as teachers, to re-educate them in the liberal arts, and to reorganize the laboratory as an instrument of liberal rather than pre-professional training. This is the research problem that is set for the faculty, and it will continue to attack the problem step by step.

The laboratory staff contains an engineer and a medical man, scientists whose interests can range beyond the special boundaries of each science. They co-operate with the mathematicians, the physicists, the chemists, and the biologists in planning and teaching the four-year course. Their field is the history of science including the present, and the context is the rest of the liberal arts and the classics in the program.

The present tactics are to take the best current pattern in ordering the sciences as it is found in the pre-medical course, to anchor it in the scientific classical books and experiments, and to find the liberal arts in current practices and insights. In general the main themes are mathematical constructions, the instruments and techniques of measurement, repetition of crucial experiments, and the combination of scientific findings in concrete problems.

The laboratory classes meet once a week for three hours during the first two years. Laboratory time is increased in the last two years. This is more than is required by any other liberal college at present.

THE SCHEDULE

Perhaps the most obvious distinctive mark of St. John's College is the easily observable fact that all the students of the same year are reading the same books at the same time with

the same immediate preparation. This may be the week when that "all Greek to me" look is on all freshman faces because they are learning the Greek alphabet; or it may be the two weeks that they are meeting Greek algebra in the fifth book of Euclid's *Elements;* or it may be the first assignment in Thucydides when the seminar leaders are wondering if the students will get the implications of liberty in Pericles' funeral oration. These are the educational realities that a common schedule marks and emphasizes.

Each morning for five days of the week each student spends one hour in a language tutorial and one hour in a mathematics tutorial. One afternoon a week each student spends three hours in the laboratory during the first two years; in the last two years, two afternoons a week. Two evenings from eight to ten each student attends a seminar in organized conversation and discussion of the scheduled readings. On one or two evenings there are formal lectures. Nineteen or twenty hours per week are spent in regular classes. The rest of the time is spent in studying, eating, sleeping, talking, athletics, and other activities such as music and dramatics. The week is the elementary unit of the schedule and shows one complete rotation through the varieties of work and play.

The three terms of the College year average ten weeks in length and mark pieces of work projected and accomplished. In recognition of this there are oral examinations at the end of each term. These are conducted by seminar leaders with the help of the tutors. Each student sits with his examiners for a half hour during which he is questioned freely and informally on the texts he has read, on his critical or interpretative opinions, and encouraged to consider parts of his study in relation to each other and in relation to fresh problems that may not have been treated in his classes.

A few days after the examination before the end of the term the student again sits with his instructors for fifteen minutes during which his tutors and laboratory instructor report to the seminar leader on his work for the term. These so-called "don rags" are brief and recurrent consultations between teachers and student for the purpose of diagnosis and prescription rather than for report of marks. They are followed by vacations in which a fresh start is possible and new directions in study may be explored. Grades are not reported in

these don rags, and they are not the center of interest, as is shown by the fact that the student is invited to report on himself and to judge his own work.

The end of each year is marked by a long essay written by each student on some theme which he has chosen in the books. These are due the first of May. The annual written and oral examinations are given in the following September after the long vacation period during which the salutary processes of

A Student's Class Schedule for the Week

Hour	*Mon.*	*Tues.*	*Wed.*	*Thurs.*	*Fri.*	*Sat.*
9	Language Tutorial	Language Tutorial	Language Tutorial	Language Tutorial	Language Tutorial	
10						
11	Mathematics Tutorial	Mathematics Tutorial	Mathematics Tutorial	Mathematics Tutorial	Mathematics Tutorial	
12						
2 to 5	Laboratory for Juniors, Seniors		Laboratory for Freshmen, Sophomores		Laboratory for Juniors, Seniors	
8 to 10	Seminar		(Lecture)	Seminar	Formal Lecture	

forgetting, assimilation, and the maturing of insights have taken place. The close organization of subject matter and the intensive teaching which results make vacations and unscheduled ruminations functionally important. As one learns to skate in summer and swim in winter, so one acquires wisdom in vacation. The annual examinations are aimed at detecting and encouraging this process. There are plans for reading parties in the summer vacation in which students may arrange the proper conditions for the maturing of knowledge gained during the session.

THE FACULTY

Part of the intention of the elective system since the time of its introduction at Harvard has been to encourage the combination of teaching and research in each member of the faculty. The principle is that the teaching mind must be a learning mind, and therefore good teaching demands continued learning. This has come to mean in academic practice that the good teacher must be making original contributions to knowledge and that he must publish if he wishes to be promoted.

The faculty at St. John's is again going back to first principles and making another application of them. Learning is a co-operative enterprise and it is best carried out when persons at different stages of comprehension work together. The typical learning situation at St. John's involves ten or twelve learners. First in the learning line come the author-teachers, the writers of the great books, who are talking in most cases at the high point of their own learning. Next comes the reading and talking teacher who is a member of the faculty: his stage of learning is somewhere between the author and the best student. There then follow the other students at distances proportional to their degree of understanding. The old-fashioned ranking of classes in the little red schoolhouse is the image that we have in mind. At the head of the class is the author-teacher, at the foot of the class the worst student in relation to the subject matter. All the others are both teachers and pupils, each learning from those above and teaching those below.

The aim in all the classes is to exploit the differences in knowledge, character, and skill as they are distributed among the students and the tutors. Since it is not our policy to select only the best students for admission, but rather to aim at the normal distribution of ability that is found in the average American community, we count heavily on the normal social processes of mutual understanding to catch and amplify the teaching. Our classes exemplify in their various styles all the types of collaborative study, allowing even the dull or slow student on occasion to hold the class to the main learning purpose. Socrates and the slave-boy is not an unfamiliar spectacle in the St. John's classroom; we count on it to keep our teaching fresh and genuine.

The faculty member is then researching in the subject matter of the book with the guide and help of the author and any other special professional aids that he may be able to use. He may have beside him a colleague whose special knowledge complements his own. This is the situation in a seminar, where

there are at least two auxiliary teachers, but it is best exemplified in the editorial work that is being carried on by many members of the faculty. The majority of the great books are already in cheap and easily available English translations, but there are a considerable number of them that need new editions, and a smaller number which have not been translated or are badly translated. So far the following books have been reprinted:

Plato: *Phaedrus,* in Greek and Latin
Gospel according to St. John, in Greek and Latin
Descartes: *Discourse on Method,* in French and Latin
Hippocrates: *Selected Works*
Archimedes: *Selected Works*
Lucian: *True History*
Aristarchus: *Distances of Sun and Moon*
Nicomachus: *Introduction to Arithmetic*
Spinoza: *Theological-Political Treatise*
Gilbert: *On the Magnet*
Harvey: *The Works of*
Rousseau: *Du Contrat Social*
Lavoisier: *Elements of Chemistry*
Hegel: *Philosophy of History*
Dalton: *Chemical Philosophy*
Bernard: *Experimental Medicine*
Fourier: *Theory of Heat*
Virchow: *Cellular Pathology*

The following books have been translated for the first time into English by members of the faculty:

Apollonius: *Conics*
Ptolemy: *Mathematical Composition (Almagest)*
Augustine: *On Music*
Scotus Erigena: *The Division of Nature*
Grosseteste: *On Light*
Oresme: *On the Breadths of Forms*
Copernicus: *On the Revolution of the Spheres*
Kepler: *Epitome of Astronomy*
Pico: *On the Dignity of Man*

The following books have been retranslated by members of the faculty:

Plato: *Meno*
Plotinus: *Fifth Ennead*
Aristotle: *Physics,* Books I-IV
Bonaventure: *Reduction of Arts to Theology*
Cantor: *Transfinite Numbers*

This represents the first line of research.

The second line of research consists in the constant reinterpretation of the book list which occurs as an immediate by-product of teaching the books in tutorial, in seminar, and in the laboratory. Criticism of the books takes place in two directions primarily, first their historical order and background which continually change and enrich themselves by connections with other books; secondly in the bearing these books have on the immediate teaching problem and the progress of current thought in general.

Making the actual reading schedule for the seminars for each year is a result of much faculty and student deliberation, and the reading schedule registers teaching and learning experiences from year to year.

The products of this kind of research go first into teaching directly. Production for publication and learned societies is and should be a secondary result. The students thus have direct and contributing parts in research, and research has a direct and contributing rôle in instruction.

The present faculty has been selected by two criteria. For members of the previous faculty at St. John's, experience in teaching the elective system and capacities which promise well for becoming re-educated in all the subject matter of the new program have guided the policy of reappointment. New members of the faculty have been chosen for their varying degrees of understanding of the general subject matter and the work they have done to educate themselves in it.

The faculty now represents a well-balanced distribution of special knowledge. Eventually the graduates from the four-year course itself will be the best teachers, and some of them have already been taken on as teaching assistants.

ACADEMIC STANDING

The system of instruction allows for a close and varied acquaintance of instructors and students; therefore the student's academic standing is known in detail from day to day. This knowledge is pooled at the end of each term on the occasion of the don rag and the combined judgments of the staff are based on more than recorded grades. Since this is the case academic standing is not determined by numerical or literal grades, and judgments are made and reported for the purpose of advice and planning both for the teachers and the

student. As soon as the performance of the student or other evidence of capacity persuades the staff that the learning process has stopped and cannot be revived, the student is warned that he will be dropped after a stated period of confirmation of the judgment.

Ideally there is no reason for dropping any normal student from this course of study. It is varied and rich enough for great diversities of interest, performance, and achievement, and there is ample room within it for a wide range of ability and for individual choice and guidance. This fact permits and demands a longer period of adjustment and tentative judgment than in the regular elective system. It is assumed that each student has the required capacities until evidence to the contrary is overwhelming. All disciplinary action is governed by the assumption that bad habits can be changed.

Attendance on all regular scheduled College exercises is required. A record of absences is kept and posted. This record is taken into consideration whenever there is occasion to determine academic standing.

Written and signed excuses from the following sources may be submitted for filing with the student's record:

1) Parent, guardian, or other responsible person outside the College;
2) Practising physicians consulted by the student;
3) Instructor in charge of class in which absence occurs;
4) The College Physician.

THE DEGREE OF BACHELOR OF ARTS *

The original title of Bachelor of Arts signified the first officially recognized stage of competence in the seven liberal arts and sciences: grammar, rhetoric, logic, arithmetic, geometry, music, and astronomy. The St. John's degree of Bachelor of Arts signifies the modern equivalent of these arts and sciences. Specifically this implies:

Knowledge of the contents of the required books in the list;
Competence in the laboratory arts;
Competence in mathematics through the elementary calculus;
A reading knowledge of at least two foreign languages.

In semester hours as recorded in the regular elective system this amounts to:

* Cf. Appendix B, pg. 71.

	Semester Hours		
	One Year		*Four Years*
Language and Literature	10		40
Mathematics and Science	10		40
Lectures on the Liberal Arts	4		16
Laboratory	3	(½ actual time)	12
Seminars	8		32
Total	35		140

A more detailed analysis of the content of these degree requirements will be gladly given by the Registrar on request.

The "rights and privileges appertaining" to the Bachelor of Arts degree have undergone serious scrutiny during the last part of the period in which the colleges have been under the domination of the elective system. There have been concerted attempts to maintain common standards under the rapidly changing conditions of expansion in student bodies, in subject matters, and in methods of instruction. Throughout the country there are regional boards which inspect the colleges in each region and rate their degrees. The Middle States Association of Colleges and Secondary Schools operates in this region. These Boards cannot put a college on the approved list until its educational product can be judged. Since there were no graduates of the new administration and program before June, 1941, there will be an interim in which a rated B. A. degree cannot be guaranteed.

This means that the St. John's Bachelor of Arts degree is certified only by the charter of the College and the Maryland State Board of Education.

On the other hand there is no serious doubt that the curriculum which is now offered and the instruction that is now being given more than fulfill the common standards and that they will prepare students adequately for any graduate work which they wish to pursue.

The graduate and professional schools increasingly make their final decisions on candidates on the basis of individual records and merits and ignore the bare minimum certification of the ordinary degree. The rated B. A. is no guarantee of admission to a graduate or professional school. Where inquiry has been made these schools have given assurance of full consideration to St. John's graduates. The great variety of teaching methods, the common subject matter, and the intimate and continuous acquaintance between student and teacher that this

program provides allow detailed and comprehensive recommendations of individual candidates both for graduate schools and for business positions. Such individual recommendations will always be our most effective communication with the academic and practical worlds into which our students graduate; we deal with other institutions on the basis of a common recognition of the realities of the learning process and the exigencies of the war and revolution through which the world is passing.

There is no question about the fitness of this program of studies to meet the explicit requirements of law schools, theological schools, business schools, schools of politics, and economics, and schools of education. There may be some doubt in the minds of the small business man and the craftsman about the utility of a liberal education for earning a living. One who shares these doubts should read the early American State Papers and follow the current discussions of the fundamental conditions and principles of American society to get free of the prejudices which we inherit from societies that base themselves on invidious class distinctions. The worker and the tradesman in this country belong to a liberal society that demands a liberal education of all its members.

The professions that base themselves on specialization in the natural sciences have set up graduate departments that actually need more liberal education in their preparatory stages than is at present available in the elective system. In failing to get students who have that minimal general education, they have been forced to turn to a second best, a more intensive specialized preparatory training. In some cases they take the student into the graduate school before he has graduated from college, and give the extra specialization that is required. In other cases, as in some engineering schools, graduate physics, chemistry, biology, and medicine, they have imposed heavy pre-professional requirements on the liberal college. In effect, they ask the liberal college to anticipate professional work. We refuse to accept this imposition wherever it would force us to sacrifice understanding to professional rote and rule of thumb. In place of these we emphasize basic concepts, basic techniques of measurement and experimentation, and general skills of the laboratory, in short those starting-points which make the rapid acquisition and revision of scientific knowledge a matter of

habit and second nature. In terms of this fundamental training, our work in natural science more than meets the genuine requirements of pre-professional education.

The medical schools, the sources of the heaviest pre-professional requirements, have expressed willingness, in some cases enthusiasm, to consider our graduates as candidates. Their faculties realize the importance of the liberal education of the physician, see that we require more hours in the laboratory than they ask for, and believe that this basic instruction will lay a good foundation for professional training. On the other hand, a warning should be given that the St. John's student is running the risk that radical innovation entails. The medical schools are subject to many increasing demands, which they are finding difficult to meet: rapidly growing knowledge relevant to medical uses, the public need for more medical services, and the large number of applicants for admission. These pressures may force arbitrary consideration of candidates, and the literal application of rules of admission. In view of this problematic situation, students who come to St. John's with the intention of going on to medicine are advised to make special arrangements for fulfilling the literal requirements for admission to medical schools. Arrangements for extra work for this purpose can be made at St. John's or at other institutions. In view of the great scientific and social problems facing the medical profession it may be wise to plan a year of graduate work in mathematics and physics between graduation and entrance into medical school. Medical schools are not asking for such additional preparation, but the needs of medical wisdom are great beyond the power of liberal education alone to meet.

I. A LIST OF GREAT BOOKS
In Chronological Order

Homer: *Iliad* and *Odyssey*
Æschylus: *Oresteia*
Herodotus: *History*
Sophocles: *Œdipus Rex*
Hippocrates: *Ancient Medicine* and *Airs, Waters, and Places*
Euripides: *Medea*
Thucydides: *History of the Peloponnesian War*
Aristophanes: *Frogs, Clouds, Birds*
Aristarchus: *On the Sizes and Distances of the Sun and Moon*
Plato: *Dialogues*
Aristotle: *Organon, Poetics, Physics, Politics*
Archimedes: Selected Works
Euclid: *Elements*
Apollonius: *Conics*
Cicero: *On Duties*
Lucretius: *On the Nature of Things*
Virgil: *Æneid*
The Bible
Epictetus: *Moral Discourses*
Nicomachus: *Introduction to Arithmetic*
Plutarch: *Lives*
Tacitus: *The History, The Annals*
Ptolemy: *Mathematical Composition* (*Almagest*)
Lucian: *True History*
Galen: *On the Natural Faculties*
Plotinus: *Enneads*
Augustine: *Confessions, On Music, Concerning the Teacher*
Justinian: *Institutes*
Song of Roland
Saga of Burnt Njal
Grosseteste: *On Light*
Bonaventure: *On the Reduction of the Arts to Theology*
Aquinas: *On Being and Essence, Treatise on God, Treatise on Man*
Dante: *Divine Comedy*
Chaucer: *Canterbury Tales*
Oresme: *On the Breadths of Forms*
Pico della Mirandola: *On the Dignity of Man*
Leonardo: Note Books
Machiavelli: *The Prince*
Erasmus: *In Praise of Folly*
Rabelais: *Gargantua*
Copernicus: *On the Revolutions of the Spheres*
Calvin: *Institutes*
Montaigne: *Essays*
Gilbert: *On the Loadstone*
Cervantes: *Don Quixote*
Shakespeare: *Henry IV, Hamlet, King Lear, Macbeth, Tempest*
Francis Bacon: *Novum Organum*
Kepler: *Epitome of Astronomy*
Harvey: *On the Motion of the Heart*
Corneille: *Le Cid*
Galileo: *Two New Sciences*
Descartes: *Geometry, Discourse on Method, Meditations*
Hobbes: *Leviathan*

Boyle: *Sceptical Chymist*
Molière: *Tartuffe*
Pascal: *Pensées*
Milton: *Paradise Lost*
Racine: *Phèdre*
Grotius: *Law of War and Peace*
Spinoza: *Ethics, Theological-Political Treatise*
Newton: *Principia Mathematica*
Locke: *Second Treatise on Civil Government*
Huygens: *Treatise on Light*
Berkeley: *Dialogues between Hylas and Philonous*
Leibniz: *Discourse on Metaphysics, Monadology*
Vico: *Scienza Nuova*
Swift: *Gulliver's Travels*
Hume: *Treatise of Human Nature*
Montesquieu: *Spirit of Laws*
Fielding: *Tom Jones*
Voltaire: *Candide, Micromegas*
Rousseau: *Social Contract*
Gibbon: *Decline and Fall of the Roman Empire*
Smith: *Wealth of Nations*
Kant: *Critique of Pure Reason*
Constitution of the United States
Federalist Papers
Bentham: *Principles of Morals and Legislation*
Lavoisier: *Treatise on Chemistry*
Malthus: *Principles of Population*
Dalton: *A New System of Chemical Philosophy*
Hegel: *Philosophy of History*
Fourier: *Analytical Theory of Heat*
Goethe: *Faust*
Lobachevski: *Theory of Parallels*
Faraday: *Experimental Researches in Electricity*
Peacock: *Treatise on Algebra*
Boole: *Laws of Thought*
Virchow: *Cellular Pathology*
Mill: *On Liberty*
Darwin: *Origin of Species*
Bernard: *Introduction to Experimental Medicine*
Mendel: *Experiments in Plant Hybridization*
Riemann: *Hypotheses of Geometry*
Dostoevski: *The Brothers Karamazov*
Marx: *Capital*
Tolstoi: *War and Peace*
Dedekind: *Essays on Numbers*
Maxwell: *Electricity and Magnetism*
Flaubert: *Bouvard and Pécuchet*
Ibsen: *Ghosts, Rosmersholm*
Joule: Scientific Papers
James: *Principles of Psychology*
Freud: *Studies in Hysteria, The Interpretation of Dreams*
Cantor: *Transfinite Numbers*
Hilbert: *Foundations of Geometry*
Poincaré: *Science and Hypothesis*
Russell: *Principles of Mathematics*