Dear _____:

I understand from our Admissions Office that you have expressed an interest in the Pre-Health Program at St. Lawrence.

The following pages are intended to give you some idea of the range of opportunities for premedical students at the University. They are not intended to frighten you or to suggest that as a premedical student you will be spending all your time in the classroom. Indeed, in the recent past, successful premedical students have been active in a number of theater productions, competed on athletic teams, participated in many of our abroad programs, been active in music groups, and have been members of Circle K, one of our service organizations. However, in order to take advantage of these opportunities, you need to be informed early about course selections and program choices, so you can plan appropriately. You are encouraged to seek advisement from a member of the Health Careers Committee during your FYP orientation.

Preparation for the study of medicine requires careful course choices beginning in the first year. Although there is no fixed "premedical program" each medical school specifies course requirements and makes additional course recommendations. Unfortunately these requirements and recommendations vary from school to school and from year to year. Therefore, medical requirements are somewhat difficult to generalize.

The course requirements for United States medical schools are summarized by the Association of American Medical Colleges (AAMC) in their annual publication *Medical School Admission Requirements*. Briefly the present course requirements of almost all medical schools include the following:

General Biology (BIOL 101,102)

General Chemistry (CHEM 103,104)

Organic Chemistry (CHEM 221, 222)

English (any two 200 level courses)

Physics (PHYS 103,104)

In addition, a significant number of medical schools require or strongly recommend one or more of the following: one semester of biochemistry, a year of mathematics (a few schools require one semester of calculus) and general psychology (Psych. 101).

You will probably not be sure of your choice of medical schools until the latter part of your junior year. Therefore, in planning your individual premedical program the requirements of all medical schools must be considered.

In these competitive times it is strongly recommended that grades in all of the courses required for admission be on a candidate's transcript at the time of application. As well, it is important to elect general biology, general chemistry, organic chemistry and physics before taking the Medical College Admission Test (MCAT) in May of your junior year. Thus, the planning of the first year is of special importance. There is, moreover, no pattern of course election which is applicable to all students. The following factors, however, should be taken into consideration:

1. Your interest in potential majors should be considered. While it is possible to major in many departments without a course in the first year, it is much more satisfactory to include two semesters of possible major subjects in the first year, especially in mathematics and the sciences.

2. Course choices should not overemphasize premedical study. It is important to have each year as balanced as possible. First year students should ordinarily elect no more than two courses in the sciences and/or mathematics during their first semester. Many successful applicants have taken only one science/mathematics course during their first semester.

3. Among the factors to be considered in narrowing the course choices in sciences and/or mathematics down to one or two in the first year are the following:

A. Since medical schools require at most two semesters of physics and two semesters of mathematics, there is no problem in deferring courses in these areas until after the first year. On the other hand, you may wish to major in these areas, or you may prefer to study them while your secondary school background is fresh in your mind.

B. Most medical schools require a sequence of four semesters of chemistry and some schools have the additional requirement of a semester of biochemistry. If all of these are to be taken during the first six semesters in order for them to be on the record at the time of application (a recommended procedure), it is a very good idea to include chemistry in the first year.

C. Many premedical students enter with the intention of majoring in biology, biochemisitry, or neuroscience, and for them two semesters of biology in the first year becomes a desirable recommendation.

4. In general, medical school personnel do not look with favor on candidates taking required courses in summer school. They are suspicious that in many instances the standards of these courses are not equivalent to courses offered in regular semesters.

5. If you are considering one of the St. Lawrence international study programs, and many premedical students do, then you must do some careful planning. Application to medical school for matriculation in the September following graduation is usually made during the summer between the junior and senior years. Also, medical schools will invite applicants for interviews during the senior year. Keeping these traffic rules in mind, there are a number of strategies that make a semester or year abroad possible.

One possibility is to take General Biology, General Chemistry, Organic Chemistry and General Physics in the first and second years, and then participate in the abroad program during the junior year.

Another possibility is to spend the sophomore year abroad, and then take the required science courses during the first, third and fourth years. Both of the above strategies involve taking at least two science courses during the first year. This usually results in a first year schedule that includes general chemistry (since you will need 4 semesters of chemistry) and either general biology or general physics.

I have not meant to make these traffic rules seem impossible. A large number of our premed students describe their participation in the abroad programs as one of the most worthwhile aspects of the undergraduate experience. What I hope to convey in the above paragraphs is that the St. Lawrence abroad programs and a premedical program are compatible.

Many of our premed students who participate in our abroad programs spend a semester in Kenya. We have some very exciting medical internships in this program. In the past students have worked at rural health clinics, been involved with delivering babies at the Nairobi Women's Hospital and worked on malaria and AIDS research projects with the World Health Organization. The program in Denmark also has some exciting possibilities for prehealth students including marine biology and introduction to medicine courses.

Much of what has been discussed regarding the preparation for medical school applies also to the preparation for dental school. Opportunities abound in the dental profession, not only in everyday dental health but in fields such as oral surgery and dental public health. The American Association of Dental Schools publishes an annual bulletin, *Admission Requirements of American Dental Schools*, containing much useful information, not only about the specific requirements of each dental school but also about planning for a dental career.

All of the previous information also pertains to students considering a career in the veterinarian sciences.

Another possibility of which you should be aware is the Early Assurance Program that St. Lawrence has with the Health Science Center in Syracuse. Sophomores who have completed at least two of the science courses required for medical school are eligible to apply, with the successful applicant guaranteed an acceptance into the medical school at Syracuse two years later. Applicants are required to demonstrate how a guaranteed medical school acceptance will provide them with a unique perspective that they can then bring to the study of medicine. If you are interested in a career in dentistry, St. Lawrence has a similar early assurance program with the dental school at SUNY Buffalo.

There are also many rewarding career opportunities in patient care and public health in addition to a career as a physician or a dentist. The increased appreciation of the importance of preventive medicine and the growing problems of the expanding population have placed new emphasis on the important role of the planning, organization and administration of health care. Several universities have special programs in public health administration and hospital administration.

Many other interesting opportunities are to be found in the fields of medical social work, veterinary medicine, optometry, pharmacy and medical technology. During the coming year, the Health Careers Committee will be preparing additional information on opportunities in the allied medical professions.

You will find that the Biology Department web site contains useful and helpful information. The address is: http://www.stlawu.edu/academics/programs/biology. If you have any further questions, please feel free to contact me.

Sincerely yours,

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