A PROGRAM OF EDUCATION FOR PROSTHETISTS AND ORTHOTISTS

By LEROY WM. NATTRESS, JR., M. A.

Special Assistant, Orthopedic Appliance and Limb Manufacturers Association, Washington, D. C.

Over the past ten years great strides have been taken in the development of prosthetic and orthopedic appliances and in the application of new materials and techniques in prosthetics and orthotics. Accompanying these developments has been a more intense interest in educational programs that would train prosthetists and orthotists in the use and application of these developments.

Some educational programs were developed. Quite correctly, they began by presenting concentrated courses to men who had already established themselves in the practice of these art-sciences. The two- to six-week courses which these men attended when added upon their previous experience in prosthetics and orthotics have made a striking difference not only in the practice of these fields, but also in the recognition of these fields as paramedical, professional specialties.

Meanwhile, however, there developed an ever enlarging gulf over which the new person entering these fields had to hurdle before he could gain the necessary experience to benefit from the existing educational program. The fact that there is no basic educational curriculum available to those who desire to become prosthetists and orthotists is deterring likely men from entering these fields and, as a result, impedes further progress in these fields.

The recent professed interest in degree granting programs to be presented by certain of our large universities to train men in these fields adds a further complication. These will create an even greater disparity between the experienced man and the university trained man, not perhaps from a technical standpoint, but certainly from a theoretical and professional standpoint.

For some time now the Orthopedic Appliance and Limb Manufacturers Association (OALMA) has been observing this relationship as it has unfolded and has attempted to discern its responsibility to these art-sciences today. The responsibility was clear. The Association must do all in its power, first to offer to the men entering these fields a means for obtaining the basic education necessary to take advantage of the formal education now offered and, second, to offer further training to the men who are experienced in prosthetics and orthotics so that the university graduate will be accepted in these fields without the development of schisms which would be harmful to both and especially to the art-sciences we represent. In other words the Association has accepted the responsibility of presenting the means for successfully integrating and thereby upgrading the fields of prosthetics and orthotics.

As a result, the Association has as a first step taken upon itself the ambitious task of making available the means for obtaining basic learning in the art-sciences of prosthetics and orthotics. Three programs toward this end will eventually be offered. The remainder of this article will serve to introduce one of these programs: Correspondence Education.

JUNE, 1959

The art-sciences of prosthetics and orthotics are presently learned by what is loosely termed an apprenticeship program requiring a minimum of four years actual experience in these fields. What this means is that a person wishing to become a prosthetist or orthotist becomes employed by a facility in order to learn the techniques of fabrication and of fitting artificial limbs or braces. He may enter into this relationship within a facility directly upon graduation from high school. Since no standards of training exist, his learning will be governed by two things: his own initiative and the interest of those with whom he works. The former is the governing factor in all learning — formal or informal; the latter leads to all sorts of difficulties including prejudice, over-specialization and exploitation.

In devising a correspondence curriculum we must assume the initiative of the trainee. Therefore our object is to offer a well-rounded program which the trainee may augment by his daily work in a facility. By its very intent, this program will include the basic requirements or prerequisites for further learning.

In order to enroll in any correspondence curriculum the student must contact the institution offering the courses he desires to take. To enroll in courses in prosthetics or orthotics a person in addition must be employed in a prosthetic or orthotic facility. Upon being contacted the institution will send one of their representatives to talk to the prospective sudent. The representative will explain the educational services of his institution in relation to the Association's approved course of study and give the student a chance to ask questions about the courses in which he is interested.

The student will be asked to supply the representative with his formal educational background. With this the representative will be able to determine what prerequisites the student must take to be able to enter the approved course of study. Fees also will be determined on this basis. On agreeing to take the necessary prerequisites and to pay the required fees the student may then enroll in the curriculum. The payment of fees may be made in full at that time or a plan of extended payments may be initiated.



Figure 1. The Representative of the Correspondence School meets with the prospective student.



Figure 2. After Enrollment the Student begins Studying.





Figure 3. A District Representative of the Association will be available to Counsel and Guide the Student as he progresses through the Curriculum.

Figure 4. The Instructor gives his individual attention to each item of Work submitted by the Student.

As the student progresses through the curriculum the school's representative is available to answer some of his questions and to guide him. In addition, a district representative of the Association will be alerted to the fact that a person is enrolled in the approved curriculum of the Association. He will be available for consultation with the student about questions that may arise in prosthetics or orthotics or about problems that may occur as the student progresses in the curriculum. In addition, regional meetings are planned which will be designed to augment the curriculum being studied.

When the enrollment has been completed and processed the school mails the student his first units of instruction. These are accompanied by instructions in techniques for studying. The student then begins studying at home as time allows. There are no classes for him to attend and no deadlines to meet. He, himself, determines how fast or how slow he learns.

When each lesson is completed the student submits a written examination or a sample of his work to the school. At the school the instructor for the particular course being taken by the student reads the examination and carefully goes over every item of work submitted. He evaluates the student's work and assigns a grade to it in the same way a classroom instructor would. The instructor will note any errors and either write clarifications on the examination paper, refer the student to a portion of the text for further study, or both. Then a clerk records the student's work and returns the examination or work sample to the student.

Correspondence school instruction is not an impersonal marking of papers as might be thought. The instructors are as interested in the student and his progress as any good instructor would be. In addition, correspondence school instructors have more time for their students than do most classroom instructors. The reason for this is that they do not have to take the time to prepare lessons. This has been done in advance by experts. The student's lessons and letters get individual attention and each student is, in effect, individually tutored. In the meantime, after the student has sent his first examination to the school, he begins to study the next lesson and to prepare the next examination. When his previous examination is returned to him the student is able to review the comments made by his instructor and restudy the portions of the lesson in which he was weak. By this time he should be ready to submit the next examination, and the process is started over again.

Upon successfully completing the entire course of study approved by the Association the student will be awarded a Certificate. Some students may not wish to enter into or complete the entire course that is recommended. These students may enroll in a "Selected Units" curriculum which may emphasize the particular subject areas in which they feel that training would be of most value to them.

Education in many forms is available all about us, but to obtain it we must pay the price. This price is very real. It involves time, effort and money. From the money standpoint to enter this curriculum described above a matriculation or admissions fee of \$50.00 will be charged. Then for each unit taken the student will pay a fee of \$5.25. Each student must decide for himself if the curriculum offered is worth the cost to him.

The Association has reviewed a number of the courses presently available through accredited correspondence schools. In the Fall it will publish the recommended curriculum drawn from the offerings of one of these schools. This curriculum will include courses in plastics, materials, mechanical principles, business practices, health and psychology. If the interest in those courses is great enough, the Association will eventually augment this curriculum with courses more specifically related to prosthetics and orthotics.

One impression must not be drawn from this article. That is that only men who are just entering the fields of prosthetics and orthotics are eligible for these courses. On the contrary, almost everyone who is engaged in the practice of prosthetics or orthotics at any level will find some, if not all, of these courses valuable. This is why the curriculum of "Selected Units" has been made available. Through this the manager of a facility may find the course in accounting he needs to augment his previous experience, or the prosthetist who has specialized in upper extremity work may find the course in plastics he needs to widen his experience or the orthotist may find the course in physics he needs to better serve the special needs of his problem patients.







Figure 6. A Certificate of Completion will be awarded to Students who successfully finish the entire Curriculum approved by the Association.

ORTHOPEDIC & PROSTHETIC APPLIANCE JOURNAL

The need for a basic curriculum in prosthetics and orthotics is becoming more and more obvious in order to help the men entering these fields to keep abreast of the developments being made both technically and educationally. The correspondence curriculum introduced in this article is one of three programs to be offered through your Association. The major advantage of a correspondence curriculum is that the student sets his own rate of educational progress and completes this progress in his own home while he is gainfully employed in the fields for which he is obtaining more knowledge and understanding.

For the present, any inquires concerning Correspondence Education in Prosthetics and Orthotics should be directed to:

Orthopedic Appliance and Limb Manufacturers Ass'n.

Suite 130

919-18th Street. N. W.

Washington 6, D. C.

SUPPLIER'S INDEX—June 1959

Accurate Knitting Mills, Inc.	108
American Rawhide Mfg. Co.	108
American Chair & Cable Co. Automotive & Aircraft Division	130
D. B. Becker Company	112
Becker Orthopedic Appliance Co.	5
Bennington Stump Sock Co.	17
Otto Bock Orthopedic Industry	13
S. H. Camp & Company	6-7
G. W. Chesbrough, Inc.	14
Chesterman-Leeland Co.	11
C. D. Denison Orthopaedic Appliance Corp.	114
D. W. Dorrance	122
Feiner Bros.	106
Fillauer Surgical Supplies	10
Florida Brace Corp.	124
Florida Manufacturing Corp.	110
Freeman Manufacturing Company	102
Guardian Products Co.	93
Hersco Arch Products Corp.	15
Wm. H. Horn & Bros., Inc.	120
A. J. Hosmer Corp.	122
PAGE 64	

Joseph Jones Co
James R. Kendrick Co
Kingsley Mfg. Co. 16
Knit-Rite Company
K. & K. Prosthetics 19
L. Laufer & Co
Levy & Rappel, Inc 18
John J. McCann Company 12
M. J. Markell Shoe Company 132
Miller Brace Co. 106
Minneapolis Artificial Limb Co
R. J. Potvin Shoe Co 20
Prosthetic Services of San Francisco 66-67
1. Sabel, Inc 20
Schueler & Co
Sierra Engineering Co. 22-23
Southern Prosthetic Supply Co
Tenenbaum, Prosthetics Back Cover
Trautman Specialties, Inc. 104
Truform Anatomical Supports 116
Ohio Willow Wood Co. 9
Tru-Eze Mfg. Co., Inc. 21